Preface

The sixth Asia-Pacific Association for Consumer Research (ACR) Conference was held at the Sheraton Walker Hill Hotel in Seoul, Korea, May 13-15, 2004. It was the first time that an ACR conference was held in Korea. The theme of the conference was Brand and Consumer Behavior. Over 200 individuals from 18 countries attended the conference. Given global attendance, we believe most attendees experienced a rich academic and non-academic cross-cultural event.

This volume of the Asia Pacific Advances in Consumer Research is comprised of the presentations made at the conference. The program of the conference reflects the diversity of the membership and their interests in both theoretical and applied research. There were 72 competitive papers presented in 19 sessions; each of these papers is contained in this volume. In addition, there were two presentations made in a plenary session and 20 presentations made in 5 special topic sessions. Abstracts or complete papers of these sessions are also contained.

Many people contributed to the success of the 2004 Asia-Pacific ACR Seoul Conference and to this volume of the Asia Pacific Advances in Consumer Research. The major contribution was made by the authors of the papers, the organizers of the special sessions, and the discussants. Our 19-member Program Committee provided valuable feedback concerning the Special Topics session proposals. 100 reviewers evaluated competitive paper submissions. Their names are listed in the program.

Also to be thanked are those individuals who provided us with administrative help. We thoroughly enjoyed working with Eun-Joo Yoon and Byeong-Uk Cheong at Sogang University and Moonkyung Cha at Seoul National University for many months. Graduate students from Sogang University and Seoul National University provided excellent assistance in the Conference registration booth. We are indebted to ACR Executive Director Jim Muncy, who assisted us resolving difficult problems that we faced preparing for the Conference. A word of thanks also goes to Carol Barnett for her help in the assembly and production of this volume.

Finally, we thank the former ACR President Steve Hoch for asking us to chair the conference. We would like to extend our deep gratitude to the company sponsors for their generous support: Samsung Electronics, Samsung Engineering and Construction, AmorePacific, TNS Asia Pacific, Brand Science Institute, Binggrae and Interbrand. Our special thanks go to Steve Hoch and Rick Bagozzi for making wonderful presentations at the plenary session of the conference. We would also like to thank ACR President Debbie MacInnis for her insightful keynote speech at the presidential luncheon.

Young-Won Ha, Sogang University
Youjae Yi, Seoul National University
2004 Asia-Pacific ACR Conference Co-Chairs/Proceedings Editors
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2004 ASIA PACIFIC CONFERENCE

May 13-15, 2004
Sheraton Walkerhill Hotel
Seoul, Korea

Thursday, May 13

ACR WELCOMING RECEPTION
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Friday, May 14

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Chair: Youjae Yi, Seoul National University, Korea

*Samsung Electronics*
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*TNS Korea*

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ACR LUNCHEON
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Best Competitive Paper Award

Post-Luncheon Event
Emile Choir

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**Saturday, May 15**

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James W. Gentry, University of Nebraska-Lincoln, U.S.A.
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ABSTRACT
Consumer research has made many advances over the years. Most of this work has contributed to our knowledge of information processing. In the vast majority of cases, focus has been placed on studying cognitive processes, with the dependent variable being either attitudes, beliefs, or some other internal mental state. Much less research has investigated consumer action, which will be the topic of this talk. My objective will be to describe a program of research that I and others have pursued to better understand consumer action.
Anchoring and Adjustment in Non-linear Pricing
Stephen J. Hoch, University of Pennsylvania, U.S.A.

ABSTRACT
Marketers frequently price services in a non-linear fashion such that the cost for each additional unit depends on total usage. This forces consumers to calculate a weighted average to determine their effective price per unit. Our research indicates that consumers exhibit predictable biases in price estimation and revealed preferences for different pricing plans. Consumers rely on two anchors when evaluating non-linear pricing plans. First, consumers frequently overly anchor on the rate associated with the last volume tier a consumer expects to reach. This causes consumers to underestimate the effective price for plans where the marginal rate decreases with usage (direction bias). Second, consumers overly anchor their estimates on the simple average of the rates across the different usage tiers. This produces an underestimation of the effective price for plans with a larger percentage of the volume at higher rates (simple average bias).
Why are a select few companies better at marketing and brand activities than their competitors? This is a question that has been raised by a number of marketing researchers and practitioners over the years. Although there may be many approaches to this issue, one way might be to observe closely what outstanding companies are actually doing. We can then gain insights into best practices and learn lessons from the role models in the field.

The objective of this session is thus to bring together companies that are well known for their excellence in marketing and brand strategies. Four leading companies are selected and featured in this session: Samsung Electronics, Samsung Engineering and Construction, AmorePacific, and TNS Asia Pacific. They range from electronics such as mobile phones, housing industry including apartments, cosmetics and household products, to marketing research firms. By providing in-depth case analyses as well as describing overall marketing and brand strategies, these companies present "what they do" as well as "how they do it" in order to achieve excellence. We are eternally grateful to these companies for their cooperation, their trust, and their willingness to share their own experiences.

This session will be particularly interesting to those who wish to understand key factors for successful brand strategies as well as marketing research processes. This session covers a number of issues that are important to consumer researchers, brand managers, and marketing managers. These issues include brand value, brand equity, product leadership, sports marketing, product placements, needs-based segmentation, differentiated marketing strategies, corporate brand management, consumer-brand bonds, brand personality, brand commitment, globalization strategy, motivational research, layers of brand image, etc.

Brief descriptions of the four presentations are given below.

"Brand Strategy Behind the Rising Samsung"

**Hyunsuk Chung, Vice President, Samsung Electronics**

Over the past several years Samsung Electronics’ brand value has increased dramatically, placing Samsung at #25 in Interbrand’s 2003 Brand Value Survey and registering Samsung as the fastest growing brand in the world among its peers. In the process, Samsung’s brand reputation has changed from a mass marketer of cheap TVs and VCRs to a leader in innovation and design commanding a premium price. In order to achieve such phenomenal growth in its brand equity, Samsung has used a number of key brand strategies and tactics, including product leadership, corporate brand management and differentiated marketing activities.

"Raemian’ Legend: Strengthening Consumer-Brand Bonds"

**Jung-Chae Suh, (On behalf of) Samsung Engineering & Construction**

“Raemian Legend” is the successful brand management story in the housing industry. It is also one of the fabulous examples of putting the textbook brand theory into best practice. The company started business in 1974. In 2000, it launched the brand, “Raemian.” Over the few years it has become the industry leader in the housing industry.

After the 1997 Asian Economic meltdown, the Korean housing market was deteriorating. Many housing businesses went bankrupt. To revive the housing market, the Korean government deregulated price control. This deregulation shifted market power from suppliers to buyers. Faced with the demand-oriented market, Raemian needed a brand for differentiation. With CEO, SangDa Lee’s strong support, Raemian successfully developed and implemented a brand strategy.

Raemian’s logo consists of three Chinese characters against three columns, gray and light green. The first Chinese letter, Rae means future. Mi means beauty, and Ahn means comfort. Great care has been taken to this logo. For example, originally developed by Interbrand, the logo’s color has been changed from three colors to two. Uniqueness, Pride, and Trend-setting are Raemian’ brand essence that are incorporated into Raemian’s marketing messages, such as advertisements.

Raemian’s target consumers are 30-40 years old, upper middle class women who live in the urban and metropolitan areas. The brand personality is set to be sophisticated, intelligent, and sincere. To strengthen brand commitment, Raemian implements its brand strategy. It has divided the market into two: Residents and Nonresidents. Ramian’s brand strategy for residents focuses on customer satisfaction from direct experience. Since 2000 when they first launched the brand, it has systematically constructed the database. Based upon the detailed information stored in the database, it works on marketing activities to increase brand commitment among residents. One of the examples is Raemian Festival. The programs of the festival are carefully choreographed to reflect Raemian’s brand concepts and image, along with the messages of the banners, “Raemian is your name.” “Be proud to be a Raemianse.”

Raemian also provides cultural experiences in “Raemian Academy.”

The brand strategy for nonresidents focuses on advertising and corporate image management. Another strategy for nonresidents is through “intelligent apartment”, a model house where potential consumers experience Raemian’s future offerings.

These splendid brand strategies and successful implementation brings us to terrific market performance. According to Park and Srivivasan’s survey method (Journal of Marketing Research 1994), Raemian Brand Value is 1.4 billion dollars. According to the K-SQI (The Korean Standard-Serve Quality Index), Raemian ranks highest. According to K-BPI (Korea Brand Power Index) and NCSI (National Customer Satisfaction Index), Raemian has marked highest for the four consecutive years. Faced with keen competition from burgeoning competitors, Remain continues its saga by providing upscale offerings, such as health, digital convergence, and environmental quality.

Raemian’s brand strategy of strengthening consumer-brand bonds has worked and will continue to maintain its position as the leader in the housing industry.

“AmorePacific: People Serving with Cosmetics”

**Jeff Luddington, AmorePacific**

AmorePacific is the name of the No. 1 cosmetic company in Korea, and the name of our brand (AmorePacific) in the global market. The purpose of AmorePacific is to develop a new engine of growth based on our competencies in order not only to satisfy with the present position of No. 1 in the domestic market, but also to be a constantly growing enterprise. In this presentation you will see the globalization strategy of AmorePacific in U.S. AmorePacific promotes Korean beauty and culture abroad through the brand of AmorePacific.
“Taking the Guru Mystique out of Motivational Research”
David Richardson, Regional Director, TNS Asia Pacific

Marketing is based on meeting consumer needs. Motivational research which began with great promise when Ernest Dichter introduced needs based research in the 1950’s and 60’s to the marketing community devolved into the more common prosaic form of research which became synonymous with the focus group it craze of the 1980’s. In the process motivational research became needlessly discredited.

Paul Heylen, a friend and disciple of Dichter, not only promoted the use of these models but was also visionary in his ability to link biological/neurological drivers to consumer behavior and by doing so created a framework for the various quantitative needs-based models. By structuring the research around this model the overwhelming importance of the moderator was reduced taking the “guru” mystique out of motivational research. To illustrate the structure and insights provided by the model we present a case example from the Korean market.
External Search, Content Credibility and Intrinsic Gratifiers Influencing Attitude Toward Wireless Ads
Shintaro Okazaki, Universidad Autónoma de Madrid, Spain

ABSTRACT

Wireless Internet is becoming increasingly important in consumer behavior research. This study explores factors affecting mobile users’ attitude toward wireless advertising platform. External search, content credibility, perceived infotainment, and perceived irritation are hypothesized as antecedents, while willingness to access is proposed as a consequence of attitude toward wireless text banner ads. The proposed constructs are operationalized through a structured questionnaire. An empirical survey conducted in the greater Tokyo area produced 590 usable responses. The findings support the basic propositions regarding the links between the constructs. The perceived infotainment was found to be the most significant factor influencing attitude toward wireless ads, which in turn determines users’ behavioral intention to click the ads. However, the external search shows no effects on attitudinal dimension.

INTRODUCTION

As the world rapidly approaches the landmark of one billion mobile users, mobile commerce (m-commerce) is attracting more and more attention from online marketers. This is especially true in Asian and Nordic countries, such as Japan, Korea, Finland and Sweden, where wireless Internet platforms which allow the use of the emerging set of applications and services are now firmly established (Sadah 2002). In 1999, the largest mobile operator in Japan, NTT DoCoMo, launched “i-mode,” which offers a broad range of Internet services, including email, transaction services such as ticket reservations, and banking, shopping, infotainment services and directory services (NTT DoCoMo 2003). By March 2003, “i-mode” subscribers had reached 38 million, and NTT DoCoMo had expanded their European user base through partnerships with key mobile operators.

The i-mode manages a critical mass of numerous “official” content providers, who create official i-mode sites. Subscribers to i-mode can access these official sites directly through the i-mode menu, and also subscribe to receive further optional information. Among these, “Tokusuru Menu” (“beneficial menu” in Japanese) is one of the most popular official sites. It provides text banner ads regarding promotional campaigns, discount coupons, presents, etc. It has been asserted that the Tokusuru Menu exemplifies an effective form of pull advertising, because the promotional messages are available to any i-mode subscribers looking for quick solutions and timely benefits. In fact, D2 Communication (2002) reported click-through and call-through rates ranging between 10 and 15%, notably higher than those of the regular wired Internet. However, as consumers’ initial curiosity has faded, wireless advertisers are facing a serious credibility issue (Computer Times 2002). Moreover, it is largely unknown which factors are most important in inducing consumers to “click” text banner ads in order to access wireless sites.

The purpose of this exploratory study is two-fold. First, the study attempts to introduce a research model in terms of the basic constructs affecting mobile users’ attitudinal and behavioral dimensions. Second, the study seeks to provide empirical insights into the links between these constructs by conducting a large-scale survey with non-student samples.

The remainder of the paper is organized as follows. Initially, the relevant literature is summarized and a basic research model is proposed by linking attitudinal and behavioral dimensions. Next, an overview of the research methodology is provided and followed by a presentation of the study’s findings. After primary implications are discussed, the paper is concluded with some suggestions for further work in the area.

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

So far, little attention has been given in the literature to consumers’ acceptance of wireless pull advertising. While the literature emphasizes strategic m-commerce issues, most of the studies have tended to focus on wireless push advertising or SMS-based marketing while there are excellent conceptualizations (e.g., see Balasubramanian, Peterson and Jarvenpaa 2002; Watson et al. 2002). Among them, one study attempted to empirically test theoretical propositions about WAP (Wireless Application Protocol) adoption on the basis of the theory of planned behavior and innovation diffusion theory (Hung, Ku and Chang 2003). However, research on wireless marketing communications is still in its infancy.

Given the almost non-existent research on consumers’ acceptance of wireless pull advertising, this study attempts to integrate past research relevant to major explanatory variables into a systematic conceptual framework. Figure 1 presents our proposed model, “wireless advertising acceptance model” to be verified in this study. “Willingness to access” is a dependent variable, while “ongoing external search”, “wireless content credibility”, “perceived infotainment”, “perceived irritation”, and “attitude toward wireless ads” are independent variables. In this model, consumers’ acceptance is examined by attitude toward wireless ads and willingness to access, but not by actual access, because wireless Internet is “still at an early stage, characterized by limited adoption and use” (Lu et al. 2003). In what follows, the associations among the six constructs are explained in detail, on which twelve hypotheses are formulated.

Ongoing external search

The reasons contributing to consumers’ acceptance of new information technology vary according to the type of device, target users, and context (Moon and Kim 2001). Since mobile handsets are seen as a relatively new device, consumers’ behavioral decision can be fundamentally based on the level of motivation to seek external information, before intrinsic and affective factors are taken into account. In our proposed model this motivational factor consists of the “ongoing external search,” which can be defined as “the strength of consumers’ effort to engage in a continuous search of outside information sources.”

The ongoing external search occurs on a regular and continual basis, even when problem recognition is not activated (Bloch, Sherrill and Ridgway 1986). According to Hawkins, Best and Coney (2001), consumers conduct ongoing external search to acquire information for possible later use, while enjoying the process of information seeking itself. In particular, there are a group of individuals called “market mavens,” who “appear to have information about many kinds of products, places to shop, and other aspects of markets” (Hawkins et al. 2001). Furthermore, the market mavens are thought to be extensive users of media who possess greater motivation, ability, and opportunity to process information (Hoyer and MacInnis 2001). We argue that the extent of ongoing external search can be a useful measure of consumer readiness to
accept wireless information, because the mobile device can be considered as the ultimate mode for searching for information regardless of time and location. For example, using third-generation mobile technology, JNAvi, “users (in Japan) enter a phone number, address, or landmark and then search the area within a 500-meter radius” (Watson et al. 2002). Such mobile users tend to expend the effort necessary to make an optimal, rather than a satisfactory, decision, in the attempt to “stay informed about the market because they enjoy this activity and the social rewards derived from sharing the results of their searches with others” (Hawkins et al. 2001).

H1: Attitude toward wireless ads is positively related to ongoing external search.

Wireless content credibility

Content creation has been asserted as one of the most important stages in m-commerce value chain (Barnes 2002). The concept of digital content creation and delivery is essentially the same in wireless internet advertising as wired internet advertising, while the specific format will be necessarily different because of the nature of mobile devices (Choi, Stahl and Whinston 1997). As a range of digital content should be tailored to the consumer needs and wants, acceptance of such information largely depends upon the trustworthiness it delivers (Computer Times 2002).

Batra et al. (1996) suggest that the credibility of a source should be recognized as consisting of two primary dimensions, a cognitive and an affective dimension. The former includes judgments about the power, prestige, and competence (expertise), while the latter concerns judgments about trustworthiness, attractiveness, and dynamism. MacKenzie and Lutz (1989) define ad credibility as “the extent to which the consumer perceives claims made about the brand in the ad to be truthful and believable.” They suggest that there is the ad credibility subsystem, consisting of perceived ad claim discrepancy, advertiser credibility, and advertising credibility. In this study, only the latter two are included in a single construct, “wireless content credibility.” Thus, this construct concerns advertiser credibility, which refers to “the perceived truthfulness or honesty of the sponsor of the ad”, as well as advertising credibility, which is defined as “consumers’ perceptions of the truthfulness and believability of advertising in general” (McKenzie and Lutz 1989). In the light of our first construct, if consumers actively exercise active ongoing search, there will be more chances to collect relevant resources associated with ad credibility. Therefore,

H2: Wireless content credibility is positively related to ongoing external search.

As seen in the preceding section, Tokusuru Menu is a pull advertising, which requires consumers’ judgment of the service to be believable prior to further access. Furthermore, as the menu continually delivers an abundant and diverse range of promotional information, consumers will “click” only what is thought to be useful and trustworthy for fulfilling their needs. Given the limited space in mobile screen, recognition of sponsor name with high reputation may lead to subsequent access of the content site. Therefore, the following hypotheses are formulated:

H3: Attitude toward wireless ads is positively related to wireless content credibility.

H4: Willingness to access is positively related to wireless content credibility.

Intrinsic gratifiers

The uses and gratifications theory examines audience decision making with regard to the psychological needs that motivate people to engage in media use behaviors. It assumes that these psychological needs “prompt the audience to purposefully select certain media and media contents for consumption in order to satisfy a set of psychological needs behind those motives” (Lin 1999). In the tradition of this theory, the media audience is assumed to consist of goal-oriented, active media users fully aware of their needs (Katz, Blumler and Gurevitch 1974). This basic assumption has encouraged researchers to apply the uses and gratifications theory to interactive media, because the Internet requires high consumer involvement. As a result, the theory has been applied to a wide range of consumer experiences associated with Web sites (Chen and
Wells 1999; Eighmey and McCord 1998; Korgaonkar and Wolin 1999; Lin 1999; Luo 2002). However, little empirical research has addressed the topic of mobile uses and gratifications.

It has been asserted that the most important dimensions of online uses and gratifications theory are informativeness, entertainment, and irritation (Chen and Wells 1999; Eighmey 1997; Eighmey and McCord 1998; Korgaonkar and Wolin 1999; Lin 1999; Luo 2002; Rubin 1994). Here, perceived informativeness refers to “the extent to which the web provides users with resourceful and helpful information” (Chen and Wells 1999; Ducoffe 1995). In a pioneering study of attitudes toward websites, Chen and Wells (1999) argue that informativeness is positively and directly related to attitude. Perceived entertainment is a consequence of fun and enjoyable experience proceeding from the media use (Eighmey and McCord 1998). Lou (2002) argues that “the value of media entertainment lies in its ability to fulfill users’ needs for escapism, hedonistic pleasure, aesthetic enjoyment, or emotional release.” This study proposes to combine informativeness and entertainment into a single construct, “perceived infotainment,” because the two concepts are inseparable in terms of mobile users’ motives. For example, a recent survey reveals that as many as 50% of all i-mode users visit entertainment sites, such as games, screen savers, and ring-tone downloads (Mizukoshi, Okuno and Tardy 2001). Furthermore, another recent survey finds that as many as 72% of i-mode subscribers use mobile games (Infoplant 2003). In this vein, Baldi and Thaung (2002) argue that mobile-delivered entertainment is a crucial factor in i-mode’s success in Japan. If pull-type wireless ads are posted by credible advertisers and contain “infotaining” content, consumers who are actively engaged in ongoing external search are more likely to encounter such information and display a positive attitude to it, which leads to a positive intention to “click” to the subsequent information sites.

H5: Perceived infotainment is positively related to ongoing external search.
H6: Perceived infotainment is positively related to wireless content credibility.
H7: Attitude toward wireless ads is positively related to perceived infotainment.
H8: Willingness to access is positively related to perceived infotainment.

Similarly, irritation has been defined as the extent to which consumers perceive the wired Internet as messy and irritating (Eighmey and McCord 1998). Similarly, “perceived irritation” refers to a negative emotion induced by annoying text banner ads sent to mobile device. Ducoffe (1999) contends that irritation negatively affects the ad value and attitude toward Web advertising. If pull-type wireless ads come from unknown or untrustworthy source, consumers may become irritated in that he or she is wasting airtime to catch the message which may not be trustworthy. As such, the following hypotheses associated with are offered:

H9: Perceived irritation is negatively related to wireless content credibility.
H10: Perceived infotainment is negatively related to perceived irritation.
H11: Attitude toward wireless ads is negatively related to perceived irritation.

Lastly, “attitude toward wireless ads” acts as an antecedent of “willingness to access.” Positive attitude toward wireless ads should lead to likely intention to access the subsequent information sites. Here, “intention to access” is meant to be the intention to “click” the hyperlinks of text banner ads sent to mobile device. Before clicking, consumers are likely to form affective responses to wireless ads. Thus, based on this assumption, it is hypothesized:

H12: Willingness to access is positively related to attitude toward wireless advertising.

METHODOLOGY
The present study was carried out during April through May, 2003, in Japan. The respondents were chosen by stratified random sampling on the basis of age and gender distribution, using the Citizens Registration Book as of March 31, 2003. Questionnaires were distributed by personal visit to 1,623 residents between 15 and 65 years old living within 30 km of the center of the Tokyo metropolitan area. Seven hundred and eighty-six questionnaires were collected, of which 738 were usable. The response rate was 48.4%. Given the nature of the study theme, only those who indicated that they habitually use mobile handsets were selected. Of the 738 surveys collected, 590 were used for the analyses in this research.

The questionnaire consisted of two main sections. The first section included questions on respondents’ demographic characteristics, such as age, gender, occupation, monthly disposable income, and monthly household income. In addition, data associated with the habitual usage of email-magazines and email via mobile devices was also collected, together with wired Internet connection frequency. The second section comprised measures of the major constructs, including ongoing external search, perceived infotainment, perceived irritation, wireless content credibility, attitude toward wireless ads, and willingness to click.

Our unit of analysis is the content of text banner ads in Tokusuru Menu on the official i-mode platform. Respondents were not asked to connect to Tokusuru Menu, but mobile screen pictures of its front page were provided on the questionnaire, to show respondents exactly what the questions were about, thereby enabling them to understand the questions better and to answer them more accurately (Figure 2).

All constructs proposed in this study were assessed using multiple item scales. Most of the construct measures, except ongoing external search, were adapted from prior research. Wireless content credibility was assessed on a five-item, seven-point semantic differential scale anchored “strongly disagree/agree.” This measure asked how reliable the wireless ads were in terms of their content and advertisers (Choi and Rifon 2002; Lafferty and Goldsmith 1999). Perceived infotainment was assessed on a six-item, seven-point semantic differential scale, by asking how helpful or useful respondents thought the wireless ads were. Perceived irritation was measured on how confusing or annoying the wireless ads were (Chen and Wells 1999; Korgaonkar and Wolin 1999; Luo 2002). Attitudes toward wireless ads were measured on a four-item, seven-point scale (“wireless ads are good/bad; favorable/unfavorable; advantageous/not advantageous; wise/foolish”), and willingness to click was examined on a two-item, seven-point scale (“If I receive an interesting promotion to my mobile, I will access the sites to check a further detail,” and, “If I see an interesting campaign on my mobile, I will access the sites to apply for it”). For each construct, items were summed and averaged to create an index.

MEASUREMENT ASSESSMENT
Table 1 summarizes the reliability and factorial validity for the proposed scales. For all the constructs, Cronbach’s alphas were computed in order to assess the internal consistency of the scales.
With one exception, all the constructs have a coefficient alpha superior to .80. Only “ongoing external search” has a coefficient alpha below .70, perhaps because this scale was newly developed for this study. Given the exploratory nature of the study, the reliability scores are deemed to be relevant and adequate for the purposes of our study (Hair et al. 1998).

To test construct validity, a principal component analysis of wireless content credibility, perceived infotainment, and perceived irritation was conducted by the maximum likelihood extraction method, with varimax rotation. In order to decide the number of factors to be extracted and rotated in the model, three methods were used: 1) a cut point of .60 and no significant cross loading criteria, 2) scree plot tests, and 3) Eigenvalues greater than 1 and consideration of discontinuity (Hair et al. 1998). The principal component analysis yielded a clean four-factor solution after five rotations, corresponding to the constructs of ongoing external search, wireless content credibility, perceived infotainment and perceived irritation proposed in this study. The total variance explained by the four factors is 80.27%. To validate the appropriateness of the principal component analysis, two measures examined the entire correlation mix. First, Bartlett’s test of sphericity (p<.001) indicates the statistical probability that the correlation matrix has significant correlations among at least some of the variables. Second, the Kaiser-Meyer-Olkin measure of sampling adequacy (.908) showed superb sampling adequacy. As Table 1 indicates, all item loadings exceed .60 for each construct, demonstrating adequate convergent validity.

**RESULTS**

A stepwise multiple regression analysis was conducted to test the hypothesized relationships between the constructs (Table 2). Entering all variables in a single block, each time a predictor is added to the equation, a removal test is made of the least useful predictor. Looking at the significance value of the t-test for that predictor assesses the contribution of each predictor. To draw conclusions based on the regression analysis, it was assured that the following assumptions have been met: (1) no perfect multicollinearity through the average VIF and tolerance statistics; (2) homoscedasticity through plots of ZRESID against ZPRED; and (3) independent errors through Durbin-Watson statistic.

The model (1) tests Hypotheses 1, 3, 7 and 11, which examine the relation between attitude toward wireless ads and its four antecedents, ongoing external search, wireless content credibility, perceived infotainment, and perceived irritation. The results suggest that attitude toward wireless ads is strongly related to all antecedents, except ongoing external search. A stepwise regression analysis found that 48.4 percent of the variance associated with attitude toward wireless is explained by perceived infotainment ($β=.413$, t-value=8.63, p<.001), perceived irritation ($β=.251$, t-value=7.50, p<.001), and wireless content credibility ($β=.156$, t-value=3.36, p<.001), but ongoing external search was excluded. A subsequent forced entry analysis, which included all four constructs, improved R-squared from .484 to .486. However, R-squared change for ongoing external search was statistically insignificant ($β=.045$, t-value=-1.50, p=.135). Therefore, Hypotheses 3, 7 and 11 were supported, while Hypothesis 1 was rejected.

Next, Hypotheses 4, 8, and 12 examine the relationship between willingness to access, and the three antecedents: attitude toward wireless ads, wireless content credibility, and perceived infotainment. As can be seen in Table 2, the model (2) was statistically significant at p<.001, indicating that our data strongly support the basic proposition of behavioral intention to “click” wireless ads. The R-squared (.449) is almost identical to the adjusted value (.446), which indicates a good cross-validity of this model. Willingness to access is significantly related to attitude toward wireless ads ($β=.333$, t-value=8.17, p<.001), perceived infotainment ($β=.282$, t-value=5.41, p<.001), and wireless content credibility ($β=.143$, t-value=2.95, p=.003). Therefore, Hypotheses 4, 8 and 12 were supported in this study, concluding that attitude toward wireless ads was found to be the most influencing predictor of willingness to access.

Hypotheses 5, 6 and 10 investigate the links among perceived infotainment, perceived irritation, and wireless content credibility. As can be seen in Table 2, the model (3) explains as much as 62 percent of the variance associated with perceived infotainment. Perceived infotainment is significantly and positively related to ongo-

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TABLE 1
Scale Reliability and Factorial Validity

<table>
<thead>
<tr>
<th>Scale items</th>
<th>Cronbach’s α</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wireless content credibility</strong></td>
<td>.95</td>
<td>.818</td>
<td>.827</td>
<td>.802</td>
<td>.810</td>
</tr>
<tr>
<td>The content of wireless ads can be believed.</td>
<td></td>
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<tr>
<td>Promotional information on wireless ads can be trusted.</td>
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<tr>
<td>The campaigns offered in wireless ads meet my expectations.</td>
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<tr>
<td>The company sponsoring wireless ads has a good reputation.</td>
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</tr>
<tr>
<td>Companies named in wireless ads keep their promises.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perceived infotainment</strong></td>
<td>.95</td>
<td>.691</td>
<td>.706</td>
<td>.724</td>
<td>.847</td>
</tr>
<tr>
<td>I think wireless ads are informative.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I usually learn a lot from wireless ads.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information I obtain from wireless ads is useful.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wireless ads really entertain me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think the content of wireless ads is fun.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel excited when receiving wireless ads.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perceived irritation</strong></td>
<td>.84</td>
<td>.849</td>
<td>.838</td>
<td>.807</td>
<td></td>
</tr>
<tr>
<td>I find wireless ads irritating.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wireless ads annoy me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find wireless ads confusing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ongoing external search</strong></td>
<td>.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fashion is always important to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am anxious to try new products before my friends do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advertising always attracts my attention.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I collect a lot of information before I buy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eigenvalues</td>
<td>8.557</td>
<td>1.968</td>
<td>1.692</td>
<td>1.065</td>
<td></td>
</tr>
<tr>
<td>Percentage of variance explained</td>
<td>47.537</td>
<td>10.932</td>
<td>9.402</td>
<td>5.918</td>
<td></td>
</tr>
<tr>
<td>Cumulative percentage</td>
<td>47.537</td>
<td>58.469</td>
<td>67.871</td>
<td>73.789</td>
<td></td>
</tr>
</tbody>
</table>

Note: Extraction method: Principal component analysis.  
Rotation method: Varimax normalization with Kaiser. Suppress absolute values < .60

ing external search (β=.081, t-value=3.18, p=.002) and wireless content credibility (β=.688, t-value=24.65, p<.001), but negatively associated with perceived irritation (β=-.177, t-value=-6.39, p<.001). Therefore, Hypotheses 5, 6 and 10 all gained support.

The model (4) investigates Hypothesis 9, which addresses the relation between perceived irritation and wireless content credibility. As seen in Table 2, the former was found to be a negative function of the latter (β=-.404, t-value=-10.69, p<.001). Thus, Hypothesis 9 was supported.

Finally, the model (5) relates to Hypothesis 2, which examines the effects of ongoing external search on wireless content credibility. The proposed model explains only a small portion of the variance associated with wireless content credibility, although ongoing external search significantly affects the construct (β=.109, t-value=2.67, p=.008). Thus, ongoing external search influences wireless content credibility, but perhaps there should be other factors which influence the formation of wireless content credibility.

Table 3 summarizes the results of hypotheses testing.

**DISCUSSION**

This study attempted to explore the influence of wireless content credibility, perceived infotainment, and perceived irritation on attitude toward wireless ads and willingness to access. Willingness to access was conceptualized as the consequences of wireless content credibility, perceived infotainment and attitude toward wireless ads, while wireless content credibility, perceived infotainment, and perceived irritation are the antecedents of attitude toward wireless ads. This proposed model was tested with a multiple regression approach. Overall, our proposed model was strongly supported by the empirical data obtained from non-student samples.

As far as the behavioral intention to access wireless ads, Japanese consumers are prone to heavily rely on “infotainment” nature of wireless advertising. In assessing the willingness to access, attitude toward wireless ads, wireless content credibility and perceived infotainment explain a moderate portion of the willingness to access ($R^2=.45$). Yet, the main effect comes from perceived infotainment ($R^2$ change=.37), while the other constructs seem to exhibit only a marginal effect on users’ behavioral intention. Similarly, attitude toward wireless ads was explained by perceived infotainment, perceived irritation and wireless content credibility, being perceived infotainment a principal effect ($R^2$ change=.42). These findings are consistent with prior research on wired Internet adoption (Cheng and Wells 1999; Lin 1999). As Choi et al. (1997) argue, the basic concept of digital content creation in wireless Internet seem similar to that in wired Internet. That is, the content of text banner ads for delivery via the wireless Internet,
TABLE 2
Results of Multiple Regression Analysis

<table>
<thead>
<tr>
<th>Proposed model</th>
<th>$R^2$</th>
<th>$R^2$ change</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Attitude toward wireless ads</td>
<td>.484a</td>
<td>-</td>
<td>-0.045</td>
</tr>
<tr>
<td>A = OES + PINF + WCC + PIRR + errors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OES</td>
<td>.420***</td>
<td>.413***</td>
<td></td>
</tr>
<tr>
<td>PINF</td>
<td>.054***</td>
<td>-.251***</td>
<td></td>
</tr>
<tr>
<td>PIRR</td>
<td>.010***</td>
<td>.156***</td>
<td></td>
</tr>
<tr>
<td>WCC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Willingness to access</td>
<td>.449***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W = A + INF + WCC + errors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>.072***</td>
<td>.333***</td>
<td></td>
</tr>
<tr>
<td>PINF</td>
<td>.369***</td>
<td>.282***</td>
<td></td>
</tr>
<tr>
<td>WCC</td>
<td>.008**</td>
<td>.143**</td>
<td></td>
</tr>
<tr>
<td>(3) Perceived infotainment</td>
<td>.622***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PINF = OES + PIRR + WCC + errors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WCC</td>
<td>.590***</td>
<td>.688***</td>
<td></td>
</tr>
<tr>
<td>PIRR</td>
<td>.026***</td>
<td>-.177***</td>
<td></td>
</tr>
<tr>
<td>OES</td>
<td>.007**</td>
<td>.081**</td>
<td></td>
</tr>
<tr>
<td>(4) Perceived irritation</td>
<td>.163***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIRR = WCC + errors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) Wireless content credibility</td>
<td>.012**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WCC = OES + errors</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: a $R^2$ value from a forced entry regression analysis, which was statistically significant at $p<.001$. OES: Ongoing external search, WCC=Wireless content credibility, PINF=Perceived infotainment, PIRR=Perceived irritation, A=Attitude toward wireless ads, W=Willingness to access.

** $p<.05$
*** $p<.001$

TABLE 3
Hypotheses Testing

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Attitude toward wireless ads is positively related to ongoing external search.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H2: Wireless content credibility is positively related to ongoing external search.</td>
<td>Supported</td>
</tr>
<tr>
<td>H3: Attitude toward wireless ads is positively related to wireless content credibility.</td>
<td>Supported</td>
</tr>
<tr>
<td>H4: Willingness to access is positively related to wireless content credibility.</td>
<td>Supported</td>
</tr>
<tr>
<td>H5: Perceived infotainment is positively related to ongoing external search.</td>
<td>Supported</td>
</tr>
<tr>
<td>H6: Perceived infotainment is positively related to wireless content credibility.</td>
<td>Supported</td>
</tr>
<tr>
<td>H7: Attitude toward wireless ads is positively related to perceived infotainment.</td>
<td>Supported</td>
</tr>
<tr>
<td>H8: Willingness to access is positively related to perceived infotainment.</td>
<td>Supported</td>
</tr>
<tr>
<td>H9: Perceived irritation is negatively related to wireless content credibility.</td>
<td>Supported</td>
</tr>
<tr>
<td>H10: Perceived infotainment is negatively related to perceived irritation.</td>
<td>Supported</td>
</tr>
<tr>
<td>H11: Attitude toward wireless ads is negatively related to perceived irritation.</td>
<td>Supported</td>
</tr>
<tr>
<td>H12: Willingness to access is positively related to attitude toward wireless ads.</td>
<td>Supported</td>
</tr>
</tbody>
</table>
such as the i-mode service, needs to combine two of the major constructs from uses and gratifications theory: informativeness and entertainment. On the other hand, it was somehow surprising that individuals’ effort in a continuous information search had no effect on attitude toward wireless ads. The reason for this being that mobile users may be more sensitive to subjective norms, rather than the individual level of information seeking, with regard to their adoption of the technology. Providing the Japanese cultural tendency toward collectivist conformity, normative beliefs from important friends, colleagues, or family members may be a strong basis for their information source (Barnes and Huff 2003).

One implication of this research is that marketing managers should look carefully at whether an “infotaining” content should be sought at the cost of timely and necessary information. Although aggressively linking up the wireless advertising platform with eye-catching, attention-getting games, coupons, ring-tone downloads, et cetera, may produce a higher click-through in the short term, this catching, attention-getting games, coupons, ring-tone downloads, et cetera, may produce a higher click-through in the short term, this could harm evaluations of the content, and by implication, the sponsors’ reputation in the long term. The obvious analogy is with the explosive emergence of the wired banner ads, which provided numerous lessons to be learnt from mistakes. This study urges marketing managers to heed those lessons, if they are to succeed in the wireless Internet.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Although this study provides significantly new insights, it is not without its limitations. One limitation of the current study is that only a limited number of question items were included in the survey. Future research should expand on the current findings by using more comprehensive sets of constructs to identify factors affecting the adoption of wireless advertising. Second, although inserting a photographic image of wireless advertising platform in the questionnaire provided a reasonable validity to the findings, the respondents’ answers may have been left to their imagination. In this vein, some experimental studies are needed to test their “true” intentions to access wireless advertising. Finally, this study adopted many measures from prior research on wired Internet. However, while it is important to extend existing theories to explain mobile innovation diffusion outcomes, more rigorous efforts should be made in focusing on important differences, rather than similarities, between wired and wireless advertising adoption.

ACKNOWLEDGEMENTS

The author thanks the Yoshida Hideo Memorial Foundation (Tokyo) for providing financial support for this project, as well as Dentsu Research (Tokyo) for their data collection.

REFERENCES


Habit as a Key Predictor of Internet Email Behavior
Desmond Lam, University of Western Australia, Australia
Dick Mizerski, University of Western Australia, Australia

ABSTRACT
Habit is an important component of consumer behavior and is often used interchangeably with the effect of past behavior. One of the simplest models that provides a good representation of consumer behavior for repetitive choices is the Negative Binomial Distribution (NBD) model. This exploratory study investigated the ability of the NBD model to explain reported Internet email behavior. It found that the model was able to provide a good fit to the online behavioral data. Moreover, the study found no differences in demographics, psychographics, Internet use and perceptions between light and heavy email user groups. The implications of these findings to marketing and Internet policies were discussed.

INTRODUCTION
The Internet is probably the fastest growing medium in the human history. It offers many benefits to the modern community and may be the most widely-used medium for communication. According to Nua Internet survey, there are now more than 600 million Internet users worldwide (Nua.com, 2003). The figure has been growing at an exponential rate since the last decade. This rapid adoption of the Internet has greatly increased the amount and diversity of information online (Levene and Poulouvasilis, 2001). According to eMarketer, the worldwide ecommerce revenues are expected to total US$ 2.7 trillion by 2004 (Nua.com 2003). While about 70 percent of companies in U.S. have experimented with purchasing online, only less than 10 percent of their total spending is currently being channeled via the Internet. Thus, it seems that faced with the explosive growth of the Internet and e-commerce, marketers and policymakers are still investigating the optimal ways to use and regulate this relatively new business and communication medium (Sheehan and Hoy 2000). To date, the majority of research on consumers’ behavior on the Internet have been from a psychological point of view, focusing on cognitive factors such as attitudes toward websites (Balabanis and Vassileiou 1999) and toward Internet advertising (Kwak, Fox, and Zinkhan 2002), shopping experiences and search (Ward and Lee 2000), influences of online information (Chatterjee 2001), website brand loyalty (Holland and Baker 2001), trust and reputation (Xu and Yadav 2003), and perceptions toward email (Gelfen and Straub 1997; Gattiker, Pedersen and Perlusz 2002; Marinova, Murphy and Massey 2002). However, there is no reported empirical-based research on the effect of habitual responses on users’ Internet behavior. This study will use a stochastic paradigm to explain online consumer behavior.

HABITUAL BEHAVIOR AND THE NBD MODEL
While habitual behavior has been studied for well over eighty years (i.e. Watson 1919, and Allport 1924) and is viewed as an important component of consumer behavior, the effect of habits is often overlooked in marketing. Triandis (1977) defines habitual behavior as equivalent to past behavior due to its repetitive nature. He included habit in his attitude-behavior model as a joint predictor of intention to future behavior. Allport (1985) also see habit as a basic driver of behavior, which can be defined by “choose what one chose last time” heuristic (Bettman, Johnson, and Payne 1991). Many recent researchers have now used habit interchangeably with past behavior and have recognized the importance of habits in humans’ everyday lives (East 1997; Ouellette and Wood 1998).

Habitual behaviors are now thought to be an important component of consumer brand loyalty (Olsen 1995; East 1997). When one considers consumers in aggregate, one will find that many consumer markets are relatively stable and appear to follow some simple empirical marketing laws (Ehrenberg 1971). This means it is common to find regularity in the behavior of consumers (East 1997) in their frequency of patronage and purchasing (Ehrenberg 1972, 1988). Consumers are said to have habits when they repeatedly produce the same behavior under similar contexts (East 1997). According to Ehrenberg (1988), consumers’ tendencies to produce such repeated behaviors can be modeled as a stochastic process without referring to any cognitive components. For example, Kanvil and Umek (2000)’s study on consumers’ motivation to smoke cigarettes found that past behavior explained most (70%) of the variation, and that health cognitions explained only a small proportion (3%) of that variation. In another example, Barwise and Ehrenberg (1988), in their study of television viewing, found the daily pattern of television viewing across large populations very steady over different days. According to them, there was a tendency for people who view television at one period to also view at the next period (Ehrenberg 1971).

Models that analyze patterns of human behavior are commonly known as stochastic preference models (Morrison and Schmittlein 1988; Wagner and Taudes 1987). These models are often very accurate in describing past usage and predicting future responses simply based on observed or reported behavior. One of the simplest and most widely-reported stochastic models that provides a reasonable representation of observed consumer buying patterns is the Negative Binomial Distribution (NBD) model. The NBD model, first examined by Greenwood and Yule (1920) in terms of the incidence of recurring diseases and accidents, was introduced to marketing by Andrew Ehrenberg in 1959. It is a simple mathematical model used to predict repeat purchases using information on the penetration, purchase frequency, and period (East 1997). The NBD model is also the basis of the Dirichlet model, which is used to predict brand shares in a product category (Uncles and Ehrenberg 1990). Both the NBD and the Dirichlet models have been applied to a wide range of goods and services (Uncles, Ehrenberg and Hammond 1995), and have demonstrated the existence of stable buying propensities of frequently-purchased products in stationary markets (Morrison and Schmittlein 1988). Despite the ability to explain and predict market phenomenon, the “plain-vanilla” NBD model does not require the inputs of any marketing (e.g. pricing or promotion expenditures) or attitudinal (e.g. perceptions, beliefs or intentions) variables. It provides a probability density function that is based solely on the penetration of the market (i.e. percent of the population purchasing), the average frequency of those that purchase, and the time period over which the purchase is reported.

Although each individual in a market may use a cognitive basis for their decision, the population of individuals can often be accurately described with a stochastic model using only past behavior (Ehrenberg 1972). The patterns of behavior predicted or derived by an NBD model can be used to gauge the impact of marketing activities by providing a baseline for buyers and their usage. This baseline forms the “benchmark” for comparing with data about that behavior under conditions of these marketing...
activities. In a sense, the NBD reflects the influence of past, hence habitual, repetitive behavior in a market. As noted earlier, past behavior or habit is seen as the major cause of future behavior (Ouellette and Wood 1998).

Like many consumer products and media use, Internet usage may have reached a relatively high frequency of repetitious behavior (Said and Mizerski 2002) since its mass adoption in the early 1990s. The markets for frequently-purchased products may reach maturity within a relatively short time frame. For example, a study by Mizerski and Mizerski (2001) found the U.S. Florida’s lotto market had reached maturity within the first three years of its introduction and a stochastic pattern of play was established within the first six months of Lotto introduction. Hence, one may also expect consumers’ Internet email usage to have reached a relatively stationary condition such that it may follow the same NBD pattern of behavior. This behavior, on an aggregate level, may reflect an underlying stochastic pattern often observed in many consumer and industrial markets involving frequent purchases of multiple brands (Ehrenberg 1972; East 1997). A strong habitual response may provide a better empirical explanation of Internet email behavior than demographics and/or the other more cognitive paradigms (Ehrenberg 1959; Ehrenberg et al. 1994; East 1997). Hence, this study will investigate whether the NBD fits reported email behavior and provide an alternative explanation of Internet behavior.

**HYPOTHESIS**

The objective of this study is to determine if there is evidence to support that Internet email behavior follows a habitual pattern and, hence, conforms to the NBD model. As mentioned earlier, the NBD model had been used in numerous occasions and, in most cases, the NBD model fitted the data very well and was able to forecast future behavioral patterns with high accuracy (Ehrenberg 1971; East 1997). If an NBD is applied to Internet email behavioral data, then one will expect no significant differences between the proportion of users derived from the NBD model and the reported or observed data. Hence,

\[ H1: \text{There will be no significant difference between the reported proportion of email use and the expected NBD.} \]

Moreover, one closely associated theme to the NBD patterns is that there are usually few or no demographic differences between the light and heavy users. For example, Barwise and Ehrenberg (1988) found that there was very little variation in the way different subgroups of the population allocate their viewing across the different program categories. The composition of the audience for most programs was similar in demographics or television-usage terms and these programs were positively liked by nearly all of their viewers except a few. Such observations of indifferences were in line with those reported by other behavioral researchers such as Hammond et al. (1996). One will find that in any stochastic or habit-driven processes where the effects of past behaviors are strong and predominated over other factors such as demographics. Hence,

\[ H2: \text{There will be no significant differences between light and heavy email users in their reported age, gender, and number of years on the Internet.} \]

Internet users’ perception towards online privacy may potentially affect their behavior on the Internet (Korgaonkar and Wolin 1999). About 69% of consumers in a recent survey did not use the Internet for commercial purposes because they were afraid that their personal information would not be kept private (NFO Interactive 1999). Moreover, some researchers had found that Internet users could differ in their Internet use according to their locus of control requirement (Hoffman, Novak and Schlosser 2003). While no research has been conducted that studied the differences between light and heavy email users in terms of their reported general Internet perception toward privacy and general usage pattern, one expects these factors to have no significant effects on email usage behavior in an NBD-or habit-driven environment. Thus,

\[ H3: \text{There will be no significant differences between the light and heavy email users in their reported Internet use and perceptions toward privacy.} \]

Internet users’ cultural and personal values may also affect their behavior on the Internet. For example, Chau et al. (2002) found significant behavioral differences between Internet users from Hong Kong and U.S.A. Similarly, Hoffman, Novak and Schlosser (2003) found that consumers on the Internet behaved differently according to their locus of control. However, in a habit-driven environment, the effect of past behavior is expected to predominate. If the Internet email environment is in fact driven by habits, the effects of cultural and personality values are expected to conform to the NBD-based expectations. Hence,

\[ H4: \text{There will be no significant differences between light and heavy email users in term of their cultural dimensions and locus of control.} \]

**METHODOLOGY**

The data used for this study \( (n=122) \) was collected from a convenience sample of undergraduates. A survey was used to measure their students’ perceptions and reported behavior when using the Internet. The respondents were business undergraduates at an Australian university. The age of the respondents ranged from 18 to 31 years old, with a median age of 21 years old. Approximately 62% of the respondents were female.

Each respondent was given a questionnaire with items on their cultural values, external locus of control, Internet perceptions, and their email behaviors. In order to obtain data on Internet email usage behavior, the respondents were asked to state the number of emails they have forwarded and sent in the last 24 hours. These two items formed the dependent variables in this study. Information on demographics was also collected, which included age, gender, number of years on the Internet, and number of years in Australia. The respondents also provided information on their cultural values, personal values in terms of external locus of control, and Internet perceptions and usage. These items were measured on a 1 (strongly disagree) to 5 (strongly agree) scale. The items on Internet privacy and usage were adapted from ninth’s GYU’s WWW survey (1998).

The items on cultural values were adapted from Dorfman and Howell (1988), which were based on Hofstede’s (1966)’s four main cultural dimensions, namely, Individualism, Uncertainty Avoidance, Masculinity, and Power Distance. The items on locus of control were selectively adopted from Levenson (1974)’s original scale and measured the extent of external locus of control. The locus of control construct is one of the most widely-studied personality concepts (Matsumoto 2000). People can differ in term of how much control they believe they have over their behavior and their environment. In locus of control concept, outcomes are seen either as dependent on one’s own actions or determined by fate, chance or powerful others (Rotter 1966).

A series of factor analysis and subsequent reliability tests were performed on these items with the results shown in table 1 below. The obtained alphas ranged from 0.540 to 0.862. According to Nunnally (1967), reliabilities in the range of 0.5 to 0.6 are satisfac-
tory in the early stages of research. Hence, the obtained coefficients were deemed sufficient given the exploratory nature of this study. The variables were obtained by taking simple averages of the constituted items.

**ANALYSIS AND FINDINGS**

The NBD analysis was conducted using software obtained from Wright (1999). Three variables are required in each NBD analysis, namely, the penetration, the frequency of use and the period of use. The penetration figures for the reported observed and the NBD expected Internet email use were obtained, along with the average number of emails forwarded and sent. For the case of Internet email forwarding, the penetration was 34.4% (out of 122 respondents) with an average frequency of 6.45 emails. Internet email sending had a much higher penetration of 76.9% (out of 122 respondents) and an average frequency of 5.85 emails. The fit of the each NBD model was tested with a regression analysis, comparing the observed distributions to the NBD-derived theoretical distributions (Morrison & Schmittlein 1988). The correlations were relatively high for both cases of Internet email forwarding and Internet email sending: $R=0.695$, $p<.001$ for email forwarded and $R=0.895$, $p<.01$ for email sent (see figure 1). The results showed that there were some deviations between the observed and NBD-derived distributions. These deviations may be largely the result of respondents simplifying their reporting by rounding up their answers, which is an apparent weakness of self-reporting survey on usage (Nisbett and Wilson 1977). Nonetheless, the results support the existence of potentially strong habitual effect of Internet email use.

The respondents were then median split into light and heavy users in terms of both Internet email forwarding (median=3 emails) and sending (median=4 emails). Chi-square statistics were used to test for the goodness-of-fit between the observed and theoretical/NBD-derived distributions. Table 2 summarizes the results of the tests. No significant differences were found in both cases ($p>.05$). The finding, hence, supports first hypothesis that there is a strong habitual element in Internet email use.

Given the close approximations of the NBD to reported email user distributions, one may suspect that the demographics, cultural and personality background of the light and heavy user groups to have strong effects on the results. Table 4 and 5 show the results of comparisons between the light and heavy user groups in terms of these variables using MANOVA. Prior to that, a multiple analysis of covariance (Table 3) was performed with the demographic variables age, number of years of online experience, and number of years in Australia treated as potential covariates and tested for potential effects over other variables. No significant effects were found ($p>.05$).

Given the insignificant effects of these possible covariates, a final MANOVA was conducted including all the variables so as to compare the differences between light and heavy user groups in both cases of Internet email forwarding and sending. The results of the MANOVA are shown in Table 4 and 5 below. A chi-square test was also performed to test for the gender differences between the groups in both cases. The results showed no significant differences in either cases ($p>.05$). For the case of email forwarded, 41% of light users were male as opposed to 35% among the heavy users ($X^2=0.155, df=1, p=0.694$); for the case of email sent, 40.4% of light users were male as opposed to 42% among the heavy users ($X^2=0.011, df=1, p=0.916$).

Interestingly, the comparison between the light and heavy user groups in both cases did not yield any significant differences ($p>.05$) in demographics (hypothesis 2), and cultural and personal values (hypothesis 4). However, Internet usage appeared to be different between light and heavy groups of email senders. Naturally, one would expect little differences between the groups because of the clear evidence of stochastic patterns. The lack of significant differences on all but one of these independent variables supports the second (hypothesis 2) and fourth (hypothesis 4) hypotheses. While the third hypothesis (hypothesis 3) was supported in the case of Internet email forwarding, it was not so in the case of Internet email sending. Nevertheless, the overall findings had provided sound evidence for a stochastic or habitual pattern in Internet email use.

**DISCUSSION AND CONCLUSION**

The results have shown that the NBD model fit the reported Internet email use. Moreover, except for a single case, there were no significant differences between the light and heavy users in terms of their demographics, cultural values, personal values, Internet usage and perceptions. In essence, the two user groups in each case appear to be very similar except for the number of emails that they forwarded or sent. These findings reinforce the proposition that online behavior such as forwarding and sending emails appears to reflect a stochastic process much like product purchases in matured markets (Ehrenberg 1959), television viewing (Gosshardt et al. 1975; 1987) and gambling behavior (Mizerski, Mizerski and Miller 2000).

While the Internet is a relatively new medium, past studies have shown that rapidly-evolving industries may show sign of maturity quickly within a few years of introduction (Mizerski and Mizerski 2001). The fact that online habitual effects were detected now meant that one would likely to see even stronger habitual effects on the Internet in future. That there is an NBD pattern of reported online behavior has important implications to marketers and Internet policy makers. The findings suggest that habit or past behavior is a strong driver of Internet email usage behavior. An earlier study by Jolly (2003) on the relative strength of habit and cognitive-based intentions in online gambling had shown that the habit construct had greater explanatory and predictive power then cognitions. A strong habitual response suggests that changing the patterns of Internet email use may be very difficult.

For government policy makers or corporations alike who want to encourage the adoption of the Internet email system as the major communication tool so as to achieve a paperless environment, these findings have several implications. To encourage a change in online habits, they will need to implement strategies to initiate the habit of using emails as a main source of communication. It is understandable that in a habitual environment, any cognitive-based strategies will not likely to be effective. This is based on extensive research on promotion efforts with NBD-type markets such as the consumer packages good (c.f. Ehrenberg et al. 1994) where few examples of success can be found. The success of traditional advertising or communication methods, by working through the buyers’ cognitive structure, has had little support for long-term brand building in NBD-type markets (Barwise & Ehrenberg 1988). The usual generalization in NBD markets is that one should increase penetration of the market and frequency of purchase will follow (East 1997). In order to promote email usage, regulators may have to provide incentives strong enough to switch behavior such as encourage quicker tax return if annual tax filing are done through the Internet email system or make departmental queries significantly faster through emails. Based on reinforcement theory, the purpose is to encourage email usage through incentives, stimulating a new habit or switching from an old one for a given period of time such that when incentives are retracted, new behavior still follows.

Very often, the desire of corporations as well as government Internet public policy makers is to stop the forwarding of nuisance emails on a massive scale such as spamming and deadly Internet...
### TABLE 1
**Variables along with their factor and reliability tests results**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Items</th>
<th>Factor Loading</th>
<th>Cronbach’s Alpha</th>
<th>Eigenvalue</th>
<th>% Variances</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Concern for Internet Privacy</td>
<td>I am concerned that someone could be reading my emails on the Internet.</td>
<td>0.937</td>
<td>0.862</td>
<td>1.757</td>
<td>87.843</td>
</tr>
<tr>
<td></td>
<td>I am concerned that someone could be monitoring what I do on the Internet.</td>
<td>0.937</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Internet Usage</strong></td>
<td>I use the Internet for research pertaining to studies.</td>
<td>0.640</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2A) Usage 1</td>
<td>I use the Internet to communicate with others.</td>
<td>0.811</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I use the Internet to gather product information.</td>
<td>0.747</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I use the Internet for educational purposes.</td>
<td>0.779</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I use the Internet for entertainment purposes.</td>
<td>0.729</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2B) Usage 2</td>
<td>I use the Internet to meet new people.</td>
<td>0.934</td>
<td>-</td>
<td>1.124</td>
<td>18.737</td>
</tr>
<tr>
<td><strong>Hofstede's Cultural Dimensions</strong></td>
<td>Group welfare is more important than individual rewards.</td>
<td>0.785</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3A) Collectivism</td>
<td>Group success is more important than individual success.</td>
<td>0.802</td>
<td>0.540</td>
<td>1.801</td>
<td>11.258</td>
</tr>
<tr>
<td></td>
<td>Individual may be expected to give up their goals in order to benefit group success.</td>
<td>0.529</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3B) Uncertainty Avoidance</td>
<td>It is important to have task requirements and instructions spelled out in detail so that those who are working on the tasks always know what they are expected to do.</td>
<td>0.600</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rules and regulations are important because they inform those who are working what the organization expects of them.</td>
<td>0.570</td>
<td>0.543</td>
<td>1.910</td>
<td>11.939</td>
</tr>
<tr>
<td></td>
<td>Standard operating procedures are helpful to those on the job.</td>
<td>0.409</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Instructions for operations are important for those on the job.</td>
<td>0.767</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3C) Masculinity</td>
<td>Meetings are usually run more effectively when they are chaired by a man.</td>
<td>0.823</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Solving difficult problems usually requires an active forcible approach which is typical of men.</td>
<td>0.733</td>
<td>0.700</td>
<td>2.276</td>
<td>14.227</td>
</tr>
<tr>
<td></td>
<td>It is important for men to have a professional career than it is for women.</td>
<td>0.707</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3D) Power Distance</td>
<td>Those in charge should make most decisions without consulting those who are not.</td>
<td>0.667</td>
<td>0.588</td>
<td>2.036</td>
<td>12.727</td>
</tr>
<tr>
<td></td>
<td>Those not in charge should not disagree with the decisions of those in charge.</td>
<td>0.673</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) External Locus of Control</td>
<td>To a great extent, my life is controlled by accidental happenings.</td>
<td>0.699</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>When I get what I want, it's usually because I'm lucky.</td>
<td>0.626</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad luck.</td>
<td>0.658</td>
<td>0.764</td>
<td>2.514</td>
<td>41.895</td>
</tr>
<tr>
<td></td>
<td>I feel like what happens in my life is mostly determined by powerful people.</td>
<td>0.778</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>My life is chiefly controlled by powerful others.</td>
<td>0.770</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
viruses. The current findings will help them to implement more effective policies. Generally, more heavy-handed behavioral-based methods such as fines will be needed to discourage or prevent the habits of forwarding such emails. Online advertising or warning messages are unlikely to have any significant effects. The discovery of a strong habitual behavior in email use would provide support for tougher legislations and more governmental control over the Internet as opposed to the self-regulatory frameworks adopted by many western countries such as Australia and USA. This is much similar to the governmental control on compulsive gambling and alcohol drinking.

Despite the conclusions, the results that were based on a relatively small sample size should also be read with caution. Extrapolation of the results must be made cautiously given that the current exploratory study was conducted on a single country and only represented by a sample of higher-education student population. While the NBD model was able to explain the proportion of email activities, these results were based on self-reports. These
TABLE 4
MANOVA results for the case of forwarding Internet email

<table>
<thead>
<tr>
<th>Variables</th>
<th>Light User</th>
<th>Heavy User</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>21.250</td>
<td>22.200</td>
<td>1.389</td>
<td>.246</td>
</tr>
<tr>
<td>No. of years in Australia</td>
<td>7.769</td>
<td>6.646</td>
<td>0.187</td>
<td>.668</td>
</tr>
<tr>
<td>No. of year online</td>
<td>6.150</td>
<td>7.246</td>
<td>2.264</td>
<td>.141</td>
</tr>
<tr>
<td>1) Concern for Internet Privacy</td>
<td>3.225</td>
<td>3.350</td>
<td>0.106</td>
<td>.746</td>
</tr>
<tr>
<td>Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2A) Usage 1</td>
<td>4.210</td>
<td>3.950</td>
<td>0.958</td>
<td>.334</td>
</tr>
<tr>
<td>2B) Usage 2</td>
<td>2.500</td>
<td>2.900</td>
<td>0.938</td>
<td>.339</td>
</tr>
<tr>
<td>Hofstede's Cultural Dimensions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3A) Collectivism</td>
<td>3.233</td>
<td>3.183</td>
<td>0.054</td>
<td>.818</td>
</tr>
<tr>
<td>3B) Uncertainty Avoidance</td>
<td>3.762</td>
<td>3.675</td>
<td>0.214</td>
<td>.646</td>
</tr>
<tr>
<td>3C) Masculinity</td>
<td>2.817</td>
<td>2.725</td>
<td>0.089</td>
<td>.767</td>
</tr>
<tr>
<td>3D) Power Distance</td>
<td>2.200</td>
<td>2.625</td>
<td>1.732</td>
<td>.196</td>
</tr>
<tr>
<td>4) External Locus of Control</td>
<td>2.500</td>
<td>2.640</td>
<td>0.329</td>
<td>.570</td>
</tr>
</tbody>
</table>

TABLE 5
MANOVA results for the case of sending Internet email

<table>
<thead>
<tr>
<th>Variables</th>
<th>Light User</th>
<th>Heavy User</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>21.000</td>
<td>21.707</td>
<td>1.996</td>
<td>.161</td>
</tr>
<tr>
<td>No. of years in Australia</td>
<td>11.379</td>
<td>9.459</td>
<td>1.087</td>
<td>.300</td>
</tr>
<tr>
<td>No. of year online</td>
<td>6.037</td>
<td>6.878</td>
<td>3.250</td>
<td>.075</td>
</tr>
<tr>
<td>1) Concern for Internet Privacy</td>
<td>2.820</td>
<td>3.232</td>
<td>2.709</td>
<td>.103</td>
</tr>
<tr>
<td>Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2A) Usage 1</td>
<td>4.180</td>
<td>4.102</td>
<td>0.248</td>
<td>.620</td>
</tr>
<tr>
<td>2B) Usage 2</td>
<td>2.040</td>
<td>2.683</td>
<td>6.976</td>
<td>.010</td>
</tr>
<tr>
<td>Hofstede's Cultural Dimensions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3A) Collectivism</td>
<td>3.247</td>
<td>3.073</td>
<td>1.514</td>
<td>.222</td>
</tr>
<tr>
<td>3B) Uncertainty Avoidance</td>
<td>3.775</td>
<td>3.671</td>
<td>0.998</td>
<td>.320</td>
</tr>
<tr>
<td>3C) Masculinity</td>
<td>2.327</td>
<td>2.679</td>
<td>2.854</td>
<td>.095</td>
</tr>
<tr>
<td>3D) Power Distance</td>
<td>2.090</td>
<td>2.329</td>
<td>1.672</td>
<td>.199</td>
</tr>
<tr>
<td>4) External Locus of Control</td>
<td>2.457</td>
<td>2.449</td>
<td>0.003</td>
<td>.957</td>
</tr>
</tbody>
</table>

Types of data have a tendency to produce “lazy survey responses” (Nisbett and Wilson 1977). Future research will attempt to measure “real-time” behavior of an enlarged number of participants in order to enhance internal and external validity. Furthermore, the support of the NBD does not rule out other explanations and theoretical paradigms (cf. East 1997) of Internet behavior. Situational or contextual effects and other personality constructs have not been examined in this study. Moreover, Internet users’ behaviors may change depending on the types of product or corporate emails that they received. Research into these areas will likely to provide further insights to current study. If Internet users’ email usage follows an NBD pattern of behavior, one may also suspect these users’ online purchasing behavior to conform to the stochastic theory. Since purchases of frequently-bought products in matured
markets have shown to follow the NBD pattern (Ehrenberg 1959), one may think that such patterns of purchasing will be found on the Internet too. This will be an interesting area for future research.

REFERENCES

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Asia Pacific Advances in Consumer Research (Volume 6) / 19


An Empirical Examination on External Consumer Information Search on the Internet
Byung-Kwan Lee, The University of Texas at Austin, U.S.A.
TaiWoong Yun, The University of Texas at Austin, U.S.A.
Wei-Na Lee, The University of Texas at Austin, U.S.A.

ABSTRACT
There is little doubt that the Internet contributes to, and will continue to affect, consumer information search. However, a comprehensive understanding of what motivates and mediates information search behavior on the Internet is relatively lacking. This study sought to identify antecedent factors affecting external search on the Internet in a multivariate setting. The study found that subjects with high situational involvement, low objective knowledge, and no purchase experience were likely to spend more time and consider a larger number of brands during search. The study also found that subjects with high objective knowledge examined a larger set of attributes than those with low objective knowledge.

INTRODUCTION
Information search is an integral part of consumer decision making process. The Internet contributes to this function by providing an efficient and convenient tool to search for vast amount of product or service related information (Haubl and Trifts, 2000). While the Internet is quickly becoming a major source of information, it is also evolving into a significant channel for business transaction and distribution (Peterson, Balasubramanian, and Bronnenberg, 1997). A recent report estimates that online retail revenue will grow from $95.7 billion in 2003 to $229.9 billion in 2008 which will account for 10% of total retail sales (Forrester Research, 2003).

With the increasing popularity of the Internet, more consumers are using the Internet for information search before buying. In a national survey with online consumers, Burke (2002) found that those consumers used the Internet mainly for information search (93%) and comparing and evaluating alternatives (83%). Most recently, Ratchford, Lee, and Talukdar (2003) showed that among those who recently purchased a new car, 39% used the Internet to obtain product information. As more and more consumers search for information online, marketers need to better understand this phenomenon in order to help aid consumers in their decision-making. Although several attempts have been made to provide a conceptual model for examining consumer online information search (Klein, 1998; Peterson and Merino, 2003; Rowley, 2000), empirical studies in this area are still lacking.

Hence, the purpose of the study is to empirically examine what factors affect consumer online information search. These factors include Internet specific variables (i.e., Internet skills, online purchase experience, Internet attitude) along with other personal, situational, and media-related variables.

LITERATURE REVIEW
Information Search Behavior
Consumers engage in both internal and external search for product information (Newman, 1977). Internal information search involves consumer retrieval of memory that stores product knowledge. External information search refers to activities other than memory, such as consulting with salespeople, friends, reading other sources, looking at ads, direct observation and so on. Consumers often employ both types of search in a sequential and iterative fashion when making purchases.

External information search encompasses both goal-directed, prepurchase activities and ongoing search activities (Peterson and Merino, 2003). Most research on information search has focused on prepurchase search which involves consumer’s cognitive effort to reduce uncertainty (Beatty and Smith, 1987; Punj and Staelin, 1983). Meanwhile, ongoing search is generally considered to be related to nonfunctional motives such as entertainment (Bellenger and Korgoankar, 1980; Holbrook and Hirschman, 1982) and product interests (Bloch, Sherrell, and Ridgway, 1986). For example, Bloch et al. (1986) found that the perceived enjoyment of shopping and enduring involvement are related to ongoing search and that heavy ongoing searchers tend to be heavy spenders within the product class.

However, few researchers have attempted to develop a causal model to delineate the relationships among these factors for information search behavior (Moore and Lehmann, 1980; Punj and Staelin, 1983; Schmidt and Spreng, 1996). Most of the empirical studies have examined direct effects of various antecedents on information search in bivariate situations (Guo, 2001; Lee and Hogarth, 2000). While the direct relationship between external search and its determinants is in and of itself important to understanding consumer information search behavior, the complex nature of information search behavior will require investigating the relationships between various factors and information search in a multivariate setting.

Information Search on the Internet
The Internet provides benefits to consumers by offering powerful search and screening tools (Haubl and Trifts, 2000), an abundance of product information (Dholakia and Bagozzi, 2001; Peterson and Merino, 2003), and a wide range of product selections and prices (Bakos, 1997). With the increasing popularity of the Internet as a viable information source and a transaction channel, researchers have begun to turn their attention to the nature of information search on the Web either by examining information search patterns on the Web (Hölscher and Strube, 2000) or by exploring factors affecting online information search (Klein and Ford, 2002; Liang and Huang, 1998). These two streams of research suggest that there are different patterns of information search on the Web and, more importantly, there seem to be several additional factors (e.g., shopping attitude, experience, perceived control and skills, Internet availability) that influence consumer information search activities on the Web. These researchers, however, have focused on a limited set of factors and therefore fall short of providing a comprehensive understanding of what motivates consumers to navigate the Web for shopping purposes.

Although the general models from traditional information search studies provide a good starting point for investigating information search behavior in an online environment, several factors of particular relevance to the Internet may need to be...
developed. These factors include characteristics of the Internet (e.g., accessibility, interactivity, flow, customization) and Internet skills and experience (Liang and Huang, 1998; Ratchford, Lee, and Talukdar, 2003).

As discussed, there are a number of factors that may affect online consumer information search including situational, individual, environmental, product-related, and media factors. This study attempts to empirically test the effects of a complete set of factors on online information search activity with a special focus on the effect of Internet-related factors. Figure 1 provides a proposed theoretical model examined in the study.

**HYPOTHESES**

**Internet Skills**

Novak, Hoffman, and Young (2000) assert that consumer online navigation and interaction are influenced by his/her online skills. They found that the higher the levels of online skills, the more positive the experience consumers achieve from the Internet. Based on the economic perspective on information search, Ratchford, Talukdar, and Lee (2001) posit that increases in Internet skills will reduce the marginal cost of acquiring a predetermined level of benefit of search, making external search more likely to increase. Schmidt and Spreng (1996) also suggest that skills are positively related to perceived ability which in turn is likely to increase external search. Therefore, the following hypothesis is proposed:

**H1:** Internet skills increase search time on the Internet.

**Objective and Subjective Knowledge**

Researchers suggest that objective knowledge and subjective knowledge will have different effects on information search (Park, Mothersbaugh, and Feick, 1994). Objective knowledge is related to specific product information and consumers with high objective knowledge have a well-organized information structure and rich product information which enable them to comprehend and process external information easier (Brucks, 1985). Experienced consumers have product knowledge about various alternatives and they do not need to search more information from external sources (Raju, Lonial, and Mangold, 1995). Two hypotheses are suggested to test these relationships:

**H2a:** Objective knowledge decreases search time on the Internet.

**H2b:** Objective knowledge decreases the number of brands examined.

It is likely that prior knowledge facilitates search in a more efficient way by making it easier to process new information in a pre-purchase situation (Brucks, 1985; Ozanne, Brucks, and Grewal, 1992). For example, Brucks (1985) found that objective knowledge is positively related to the number of attributes examined. Therefore, the following hypothesis is provided:

**H2c:** Objective knowledge increases the number of attributes examined.

Subjective knowledge is related to perception of and confidence in the ability to do product-related tasks and past product experience (Park et al., 1994). Consumers with high subjective knowledge will recognize heightened confidence in their ability when performing information search for product purchase (Duncan and Olshavsky, 1982). Consumers who are confident in product purchase are likely to engage in less external search because they feel less need for any...
more information (Johnson and Russo, 1984). Lee et al. (1999) found that high knowledge consumers examined less information than low knowledge consumers. Consequently, the following hypotheses are suggested:

**H3a:** Subjective knowledge decreases search time on the Internet.

**H3b:** Subjective knowledge decreases the number of brands examined.

**H3c:** Subjective knowledge decreases the number of attributes examined.

**Prior Purchase Experience**

Consumers with prior purchase experience tend to have procedures for simplifying the decision and reducing the amount of information (Newman and Staelin, 1972; Punj and Staelin, 1983; Srinivasan and Ratchford, 1991). For example, Newman and Staelin (1972) found that when purchasing a new car or appliances, consumers with prior purchase experience tended to spend less time to make a decision. It seems that previous purchase experience on the Internet will reduce perceived benefits of search, which will consequently decrease external search effort on the Internet for information source. Thus, it is suggested that:

**H4a:** Prior purchase experience decreases search time on the Internet.

Purchase experience also leads to less amount of information examined during search. Moore and Lehmann (1980) found that as the number of purchasing bread increases people tend to search for less information. In a recent study, experience seems to lead to a slight decrease in the number of Web sites visited for air travel (Johnson, Moe, Fader, Bellman, and Lohse, 2002). However, Moorthy et al. (1997) found that as purchase experience increases the number of attributes based on which consumers compare brands increases whereas the number of brands decreases. It seems that consumers become experts with experience who can make fine distinction based on a large set of attributes. It is therefore hypothesized that:

**H4b:** Prior purchase experience decreases the number of brands examined.

**H4c:** Prior purchase experience increases the number of attributes examined.

**Situational Involvement**

Many researchers agree on the important role of involvement in determining consumer prepurchase search for brand information and suggest that situational involvement will increase processing effort (Beatty and Smith, 1987). If the personal relevance of a specific purchase under consideration is increased, consumers tend to allocate more cognitive resources and are more motivated to process or search for relevant information extensively. Beatty and Smith (1987) suggest that consumers who perceive more relevancy and importance in decision-making tend to exert more search effort than those with low involvement. They found that across several product categories, consumers with high purchase involvement spent more time and examined more brands. Lee et al. (1999) found that consumers with high issue involvement searched for more product information than low involvement consumers. In their study, when asked to find information about laptop PCs, subjects in high situational involvement situation examined a larger number of brands and attributes than subjects in low involvement. Hence it is hypothesized that:

**H5a:** Situational involvement increases search time on the Internet.

**H5b:** Situational involvement increases the number of brands examined.

**H5c:** Situational involvement increases the number of attributes examined.

**Enduring Involvement**

Enduring involvement refers to the persistent interest in an object and its importance (Zaichkowsky, 1994). Prior research (Srinivasan and Ratchford, 1991) suggests a positive relationship between interest and search. With respect to the effect of involvement on search behavior, Beatty and Smith (1987) found that a higher level of ego involvement led to a greater amount of information search. Celsi and Olson (1988) also found that consumers spent more time attending to information as their involvement increased. Hence, enduring involvement might be positively related to external search for information from various sources. Thus, the following hypotheses are proposed:

**H6a:** Enduring involvement increases search time on the Internet.

**H6b:** Enduring involvement increases the number of brands examined.

**H6c:** Enduring involvement increases the number of attributes examined.

**Attitude toward the Internet**

Li, Kuo, and Russell (1999) found that frequent online shoppers tended to have more positive perception of channel attributes than non users. They assert that frequent online users perceive the Web to be significantly higher in the three aspects of channel attributes (communication, distribution, accessibility). One of the important attributes of the Internet is its easy access and ubiquitousness. The ease of gathering product information on the Internet is likely to increase consumer intention to search and process because the more available the information is to consumers, the lower the cost of search will be (Schmidt and Spreng, 1996). Similarly, in his interaction model of information search, Klein (1998) posits that characteristics of the Internet such as user control and interactivity, customizability, and accessibility will influence perceived benefits of search and external search activity. Hence, the following hypothesis is proposed:

**H7:** Positive attitude toward the Internet increases search time on the Internet.

**METHODOLOGY**

A convenient sample of 72 undergraduate students from a southwestern state university was recruited for this study. The students were given extra credit points as incentives for their participation in the study. Students participated in the study by completing an online information search task in small group sessions during a two-week period. The sessions were held in a laboratory. The laboratory room was equipped with desktop computers and Ethernet connection. Each session was run by an administrator.

Participants were randomly assigned to either high situational involvement (SI) or low SI conditions. SI was manipulated by varying the level of personal relevance and task importance through instruction. High SI group was told that their college would require all the students to purchase a laptop computer. They were told that their input was needed to have a better understanding of students’ preference for laptops. On the other hand, low SI group was told that...
they were being surveyed to provide helpful information for a distant university that is considering requiring its students to purchase a laptop computer soon.

**Measures**

In addition to the SI manipulation, there were six independent variables examined in this study: Internet skills (number of items; 4), objective knowledge (5), subjective knowledge (2), prior online purchase experience (1), enduring involvement (10), and perception of the Internet attributes (12). Items yielded a moderate to high level of reliability. The primary dependent variable was the amount of external search. Many studies have introduced different measures of information search activity (Srinivasan, 1990). However, most of the studies have relied on self-report (Li et al., 1999; Ratchford et al., 1997; Srinivasan and Ratchford, 1991) or search intention (Shim, Eastlick, Lotz, and Warrington, 2001), which seems to be subject to distortion and unreliability. To overcome this difficulty of measuring search and provide a more accurate and objective measure, this study utilizes a measure of accurate time spent for external search on the Internet using a software (WinWhatWhere Investigator) that captures real time search activity. In addition, the number of brands and attributes considered, satisfaction, and choice confidence were measured.

**Data Collection**

At the beginning of each session, participants were told that this was a study to collect information that would help the Dean of their college (high SI) or a distant university (low SI) to make a decision on which laptop to require students to purchase. A study administrator explained the procedures to make sure that all participants followed the instructions properly.

First, study participants were asked to fill out Part I of an online survey questionnaire that asked about their online experience (skills, objective and subjective knowledge, past online purchase experience, enduring involvement, perceived Internet attitude). Afterwards, participants were told that they could go online and shop for a full size laptop computer within a given price range. During this phase of the study, participants were given no specific direction for information search and they were free to visit any Web sites with no time limit. A software program that monitors computer activities and records the data in Excel-like file was turned on for each participant’s PC. Upon completion of their shopping task, participants filled out Part II of the online survey which asked for their recommended brand choice, number of brands and attributes during search, motivation to search, and demographic information. Upon completion of all sessions, subjects were briefed on the purpose of the study.

**RESULTS**

**Manipulation Check**

A seven-point Likert-type item checked the manipulation of situational involvement: “To what degree do you think information search on the Internet was interesting?” The ANOVA result shows that subjects in high SI condition were more interested in information search on the Internet than subjects in low SI condition (M_high SI=5.3 and M_low SI=4.4; F(1, 70)=6.46, p<.05).

**Time Spent on Search**

Multiple regression analysis was performed to assess the effect of various antecedents on time spent on search on the Internet. These antecedents include Internet skills, objective and subjective knowledge, prior purchase experience, situational and enduring involvement, and Internet attitude. The relative importance of each of the antecedents of external search was examined by regressing all the antecedents on time spent on search. As shown in Table 1, search time was influenced by the composite of the antecedents entered (F=2.90, df=(7, 64), p<.05). According to this model, the antecedents explain 24% of total variation in search time (R^2=24).

A closer examination of standardized coefficients of the antecedents shows that situational involvement, objective knowledge, and prior purchase experience were significantly related to search time. Situational involvement was most highly related to external search on the Internet (B=.401, p<.05). This indicates that consumers in high situational involvement condition spent more time on search on the Internet than those in low situational involvement condition. Therefore, H5a is supported. Objective knowledge was negatively related to search time (B=-.251, p<.10). Subjects with high objective knowledge about laptop PCs spent less time on search on the Internet, which supported H2a. Also as expected, purchase experience (B=-.240, p<.05) showed a negative relationship with external search time. Subjects who have purchased any laptop PC during the last 12 months tended to spend less time on information search than those who have no online purchase experience. H4a is therefore supported. However, the other variables such as Internet skills, subjective knowledge, enduring involvement, and Internet attitude were not significantly related to external search amount.

**Number of Brands Examined**

To test what determines the number of brands considered during search on the Internet, a multiple regression analysis was conducted with objective and subjective knowledge, prior purchase experience, situational and enduring involvement entered as independent variables. The regression result indicates that the antecedents significantly affect the number of brands considered during search (F=2.28, df=(5, 66), p<.05). An examination of standardized coefficients of the antecedents reveals that situational involvement, objective knowledge, and purchase experience are significant determinants of the number of brands considered. As shown in Table 1, situational involvement was the most important determinant of the number of brands considered (B=.282, p<.05), indicating that subjects in high situational involvement condition examined more brands than those in low situational involvement condition. Therefore, H5b is supported.

Objective knowledge and purchase experience were found to be marginally negatively related to the number of brands considered. Subjects with high objective knowledge tended to consider less number of brands during search than low objective knowledge subjects. Therefore H2b is supported. As expected, subjects with prior purchase experience were likely to consider less number of brands than those with no purchase experience, which supported H4b. However, the regression result found that subjective knowledge and enduring involvement were not significantly related to the number of brands, failing to support H3b and H6b, respectively.

**Number of Attributes Examined**

Similarly, objective and subjective knowledge, prior purchase experience, situational and enduring involvement were regressed on the number of attributes considered during search. Results in Table 1 reveal that there is a marginally significant relationship between the composite antecedents and the number of attributes considered (F=1.88, df=(5, 66), p=.10). The regression analysis also found that objective knowledge is the only variable which is significantly related to the number of attributes considered (B=.320, p<.05). Therefore, H2c is supported. This indicates that subjects with high objective knowledge considered more attributes than subjects with low objective knowledge.
SUMMARY AND DISCUSSION

This study sought to identify antecedent factors affecting external search on the Internet in a multivariate setting. It was postulated that various factors such as personal, situational, and Internet related variables would affect external search on the Internet in terms of search time, number of brands and attributes examined. Some of the relationships hypothesized were supported and they are provided in Figure 2.

Situational involvement, objective knowledge, and purchase experience were found to influence search time on the Internet. When subjects were highly involved in the search task, they spent more time searching for information. This result is consistent with prior research suggesting that if the personal relevance of the issue or task is increased, people are motivated to exert more effort and process information more thoroughly (Beatty and Smith, 1987; Petty, Cacioppo, and Schumann, 1983). Information search on the Internet, however, is negatively related to objective knowledge and prior purchase experience. That is, subjects with high objective knowledge and prior purchase experience spent less time on information search than those with low objective knowledge and purchase experience. This appears reasonable because increased product knowledge and prior purchase experience reduce perceived benefit of search resulting in less search effort (Newman and Staelin, 1972; Schmidt and Spreng, 1996).

Similarly, the number of brands considered during search was determined by situational involvement, objective knowledge, and purchase experience. Situational involvement has the strongest impact on the number of brands considered. It seems that high purchase concern increases benefits of search, which results in increased motivation to examine a larger set of brands (Lee et al., 1999). The number of brands seems related to the lack of objective knowledge and purchase experience. This suggests that subjects with high objective knowledge and purchase experience examined fewer brands than those with low knowledge and purchase experience. Consumers who are knowledgeable and have purchased a certain product tend to have rich information about various alternatives and feel less need for additional information.

This study found that objective knowledge was the only variable that determined the number of attributes examined during search. This result is consistent with Brucks’ (1985) finding that, in searching for information about sewing machines, high objective knowledge consumers examined a larger number of attributes than those with low objective knowledge. Given the result that high objective knowledge subjects consider a smaller number of alternatives but examine a larger set of product attributes, it seems that consumers become more expert-like as they gain more objective knowledge in that they feel more certain about individual brands (thus they feel less need for information about various alternatives) and the ability to consider a larger set of attributes (thus they tend to process product information deeply by considering more attributes).

The lack of effects of other variables such as subjective knowledge, enduring involvement, Internet skills, and Internet attitude on external search in this study needs further discussion. For instance, the null effect of subjective knowledge might be in part due to a relatively high correlation between objective and subjective knowledge. Or, a finer conceptualization of different types of knowledge should have been used in this study. As discussed, the role of knowledge on external search is equivocal and further elaboration on the effect of different types of knowledge seems necessary to resolve this. For example, rather than relying on objective and subjective knowledge distinction, Fiske, Luebbehusen, Miyazaki, and Urbany (1994) suggest a distinction between general product category knowledge and specific brand knowledge for explaining mixed results. They assert that general product category knowledge tends to increase external search whereas specific brand knowledge (purchase experience) decreases search effort. In a similar vein, additional work is required on conceptualizing and operationalizing enduring involvement, Internet skills, and Internet attitude.

In summary, this study found that people who were more involved in the purchase task, those who had lower objective knowledge and had not purchased a laptop PC were likely to spend more time and consider a larger number of brands during search.

### TABLE 1

<table>
<thead>
<tr>
<th>Antecedents</th>
<th>Search Time</th>
<th>Number of Brands</th>
<th>Number of Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Skills</td>
<td>-.011(H1)</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>Objective Knowledge</td>
<td>-.251(H2a)**</td>
<td>-.264(H2b)*</td>
<td>.320(H2c)**</td>
</tr>
<tr>
<td>Subjective Knowledge</td>
<td>-.001(H3a)</td>
<td>.219(H3b)</td>
<td>.076(H3c)</td>
</tr>
<tr>
<td>Purchase Experience</td>
<td>-.240(H4a)**</td>
<td>-.216(H4b)*</td>
<td>.008(H4c)</td>
</tr>
<tr>
<td>Situational Involvement</td>
<td>.401(H5a)**</td>
<td>.282(H5b)**</td>
<td>.023(H5c)</td>
</tr>
<tr>
<td>Enduring Involvement</td>
<td>-.014(H6a)</td>
<td>.072(H6b)</td>
<td>-.048(H6c)</td>
</tr>
<tr>
<td>Internet Attitude</td>
<td>-.005(H7)</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>F</td>
<td>2.90**</td>
<td>2.28**</td>
<td>1.88*</td>
</tr>
<tr>
<td>R²</td>
<td>.24</td>
<td>.15</td>
<td>.12</td>
</tr>
</tbody>
</table>

* p<.10,  ** p<.05
This study also found that people with higher objective knowledge examined a larger set of attributes than those with lower objective knowledge.

**LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH**

In an attempt to increase our understanding of what determines information search on the Internet, an experimental study was carried out. Although useful results have been presented, there are several limitations in this study. First, this study used laptop PCs as a target product category for which subjects searched for information. This limits the generalization of the findings. Future research needs to replicate this type of study using a more general population with different product categories.

Second, some of the variables used in this study did not show any significant influence on external search on the Internet. A finer conceptualization and operationalization of these variables needs to be explored in order to provide meaningful insights on external information search. Alternatively, qualitative indices of external search along with quantitative measures may prove to be better indicators of relationship with these variables. For example, people with high Internet skills are able to search the Internet by visiting more relevant Web sites and examining product information more efficiently than those with less Internet skills using the same amount of time. Further research will need to investigate how people with different Internet usage and skills navigate the Internet to search for product information.

**REFERENCES**


We refer the reader to the original sources for details on the methodologies and results of the studies mentioned. For example, in the study by Johnson and Russo (1984), they found that consumers who are familiar with the product are more likely to engage in pre-purchase search. In the study by Newman (1977), they found that consumer external search is influenced by the amount and determinants.

Overall, these studies highlight the importance of understanding consumer behavior in the context of the internet and digital age. As technology continues to evolve, it is likely that consumer behavior will continue to change and new research will be needed to understand these changes.

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Identifying Success Factors of Mobile Marketing
Parissa Haghirian, Kyushu Sangyo University, Japan
Astrid Dickinger, Vienna University of Economics and Business Administration, Austria

ABSTRACT

Mobile Marketing promises new opportunities for marketers to communicate with customers. Short Message Service is the first and easiest forms of mobile data transmission, enjoying popularity with users in all age groups. With mobile marketing activities still in an experimental phase and little scientific literatures, businesses need evidence on how in applying marketing measures using SMS. There is also little scientific research done on this subject so far. Based on literature review on the topic and an exploratory qualitative research design, the purpose of this paper is to present a definition of mobile marketing and to describe one of its most popular instruments, text messaging. Secondly, it introduces a model identifying success factors of mobile marketing and develops research propositions. Those deal with one key question: Which factors influence the customer’s attitude towards SMS based advertising?

BIBLIOGRAPHY


How Well does Brand Personality Predict Brand Choice? A Measurement Scale and Analysis using Binary Regression Models

Laure Ambroise, ESA Grenoble, France
Jean-Marc Ferrandi, CERMAB University of Dijon, France
Dwight Merunka, University of Aix en Provence and EUROMED Marseille, France
Pierre Vallette-Florence, ESA Grenoble, France
Virginie De Barnier, EDHEC, France

ABSTRACT

The research proposes a methodology allowing both the construction of a brand personality scale and the test of the ability of the scale to predict brand choice. A brand personality scale is developed and tested via exploratory and confirmatory analyses. A brand personality structure composed of 12 facets is uncovered and allows clearly differentiating brands belonging to the same market. Predictive power of the scale is then tested using binary regression models.

INTRODUCTION

Brands belong to the daily life of individuals who might be attached, committed or loyal to some of them. The concept and reality of brand relationship leads managers to develop positioning strategies and marketing tactics directed at reinforcing the strength of the relationships between brands and their consumers. Recent research in this area has been devoted to understand both the nature of the brand-consumer relationships and the influence these relationships could have on consumer behavior. The concept of brand personality revived by Aaker is interesting in that it might explain the strength of brand-consumer relationships and consumer buying behavior such as brand choice or brand loyalty. Aaker’s important contribution (1997) has been followed by other studies aiming at better defining or measuring the concept of brand personality (Caprara et al., 2001, Ferrandi and Valette-Florence, 2002).

Research on brand personality is recent and further work is still needed in terms of concept definition and measurement, particularly within different settings or cultures. One certainly needs to better understand the impact of brand personality on brand choice and buying behavior. This article is a contribution to that field of research. We develop a brand personality scale and test its validity. We apply the scale to two well-known international brands and show the differences of the two brands in terms of personality. We finally show the results of the application of the scale to two international competing cola brands (Coke and Pepsi) and present their brand personality profiles. We also test the explanatory power of the scale on brand choice with a binary regression model.

CONCEPTUAL FRAMEWORK

Human personality conceptualization and measurements have been developed for decades particularly in the domain of psychology. This will be rapidly reviewed, followed by the transposition of the personality concept to brands proposed recently (mainly by Aaker in 1997) and the problems linked to this transposition. We propose a definition of the brand personality concept and guidelines for the development of a measurement tool.

Human personality traits

The origin of personality traits research is ancient since it can be traced back to Théophraste (4th century B.C.) who described different types of human characters and associated behaviors. However, in spite of the long research tradition, no unique and universally accepted definition of human personality traits prevails. Generally, they are defined as “tendencies to show consistent patterns of thoughts, feelings and actions” (Costa and McCrae, 1998). They are understood as being psychological cues that determine human action and experiences. Following the work of Allport (1937), Cattell (1950) and Eysenck (1960) considered as the founders of the dominant approach, a number of psychologists believe that the best representation of personality trait structure is given by the five-factor model, factors generally named the “Big Five” (John, 1990). This dominant paradigm describes personality through five basic dimensions that summarize a great number of distinct and specific characteristics of human personality. The Big Five are usually labeled O.C.E.A.N.: Openness to experiences, Conscientiousness, Extraversion, Agreeableness and Neuroticism. These factors have been identified through two main approaches: the lexical approach and the hierarchical approach. In both approaches, the objective is to uncover the factorial structure of personality traits. The lexical approach (Goldberg, 1990) is based on the hypothesis that all important traits must have been encoded in natural language due to the centrality of these personality traits. A factor analysis of words used to describe personality traits must enable to uncover the structure and to identify fundamental dimensions of personality. This approach first applied in the English language is now sustained by emic studies conducted in numerous cultures. However, the lexical approach is difficult to implement because of the vast number of words to be analyzed.

The hierarchical approach considers that personality is structured around a limited number of factors, each factor being composed of characteristics. The personality factors are situated at the most abstract level of the hierarchy and can be divided into facets, themselves composed of basic personality traits. In spite of differences in terms of education, social structures, religion, age and language itself, it seems that all individuals can be described and differentiated along five basic personality dimensions (McCrae, 2000). However, this hierarchical conceptualization of human personality has been criticized (Block 1995). Problems such as the stability of the number of factors, their interpretation and meaning or the existence of culture-specific factors are yet to be solved.

Brand Personality

In spite of the impressive number of studies conducted in psychology aimed at conceptualizing and measuring the structure of human personality, no parallel research has been conducted in the field of consumer behavior before the seminal contribution of Aaker (1997). We review the bases for the brand personality metaphor and highlight underlying limitations.

Concept foundations

Theories on self-reinforcement (Grubb and Grathwohl, 1967) and on congruence between self-image and brand image (Sirgy, 1982) postulate that consumer behavior is determined by the interaction between the personality of the consumer and the perceptions of the products which he prefers or purchases. It is along these lines that the concept of brand personality has emerged. Individuals...
tend to behave in accordance with the image that they have from themselves or that they wish to convey to others. Brands can be thought as a means to communicate these images (Belk, 1988, Schutz-Kleine et al., 1995) and the connection between brands and personal identity has been conceptualized as a brand-consumer relationship (Fournier, 1998).

Animism theories consider that Humans need to anthropomorphize objects in order to facilitate their interaction with the world. Thus, consumers assign personalities to brands and may think of brands as possessing human personality traits. However, projecting personality traits on a brand is not enough to create a real consumer-brand relationship. Brands need to be active partners in the possible relationship. Marketing activities of the brands such as communications can create this partnership and may be perceived, analyzed and considered by consumers as being behaviors and personality traits as those of a Human being (Plummer, 1984, Blackston, 1993). Hence, just as individuals synthesize information on behaviors of others persons in terms of personality traits, consumers might project personality traits to brands (Caprara et al., 2001). Managers rely on the image of the typical brand user or the set of human characteristics that consumers associate with the typical user, on endorsement by celebrities, on product attributes, symbols, logos and slogans or any means of personification to develop the associations of brand personality (Batra et al., 1993; Levy, 1959; McCracken, 1989). Contrarily to product attributes which are mainly functional, brand personality tends to have a symbolic function and one of self-expression (Keller, 1993, Phau and Lau, 2001).

Problems linked to the concept of brand personality

These problems pertain to three domains: conceptualization, measurement and semantics.

Conceptualization. If brand personality is a convenient metaphor to describe stable characteristics associated to brands, the concept originally used by advertising agencies has not been defined properly before the work of Aaker (1997). Aaker defines brand personality as “the set of human characteristics associated with a brand”. However, this definition seems too general and may lead to the inclusion, within the brand personality concept, of items having no equivalent at the human level, as indeed revealed in the results of Aaker’s work (items such as provincial or aristocratic which can be considered as social judgments). Moreover, contrasting with the concept of brand image (a generic term corresponding to the whole set of representations the consumer has with respect to a brand -Dobni et Zinkhan, 1990-), brand personality should be more specific and should be defined through traits utilized to characterize an individual. It should offer the opportunity to transfer meaning from human personality of consumers to brand personality of the brands they prefer, purchase or reject. Therefore, we define brand personality as “the set of human personality traits associated with a brand”.

Measurements. Brand personality scales have been developed based on human personality measurements. Three types of methodologies have been applied:

1. A hierarchical approach used by Aaker (1997) or Costa and McCrae (1998). Aaker identifies 42 traits and five brand personality factors: sincerity, excitement, competence, sophistication and ruggedness. This model originally developed in the English language and with data collected on American respondents has allowed differentiating products, services and retail brands (Bauer et al., 2000, d’Astous et al. 2003, Siguaw et al., 1999). However, some studies question the applicability of the original scale in different contexts (Aaker et al., 2001, Ferrandi et al., 2000).

2. A lexical approach use by Caprara et al. (2001) who applied to brands the human personality scale they developed in Italy. Results lead the authors to question the transferability of a human personality scale to brands.

3. The direct application of a human personality scale to brands. Ferrandi and Valette-Florence (2002 a, b) have applied to brands the Mini-Markers human personality scale developed by Saucier (1994). After having purified the original scale and retained the items having a positive meaning, the authors show some congruence between human personality of individuals and brand personality of brands purchased.

Semantics. The question remains whether items retained to describe human personality and brand personality can be identical. Although the concepts of human and brand personalities might be similar, both constructs are different in their antecedents and in the roles they play. Human personality traits are created and communicated to others via attitudes, behaviors or physical characteristics (Park, 1986). They are thus inferred directly by others. By contrast, brands are inanimate objects which are associated with personality traits essentially through marketing communications (Plummer, 1984) and brand usage by oneself or by others. However, brand personality and human personality do exhibit similarities: both are durable and might, at least under given conditions, help explain and predict the actions of individuals belonging to the target (see Fournier, 1998 and Aaker et al., 2001 for brand personality and Park, 1986 for human personality). Therefore, there could be some semantic similarities between human and brand personality concepts. Ferrandi and Valette-Florence (2002a) have tested this hypothesis in applying the Saucier human personality scale to both brand users and brands. They uncovered a similar scale structure, although the original scale had to be purified and reduced.

Considering the remaining questions concerning the meaning and measurement issues linked to brand personality, the objective of this research is to develop and test a new brand personality scale. The methodology followed is to construct a scale based on published findings (items used in previous research) and to generate new brand personality items. Scale purification and validation are conducted. The capacity of the scale to clearly differentiate brands and to explain brand choice is then tested.

SCALE DEVELOPMENT AND TESTING

The classical steps (item generation, purification of the scale and validity tests) were followed.

Generation of items

Generation of items was performed through a two-step procedure:

- Selection of items from existing scales: we gathered 112 items from the scales developed by Aaker et al., 2001, Caprara et al., 2001, Ferrandi et al., 2000 and Ferrandi and Valette-Florence, 2002a). A convenience sample of 161 business students evaluated these items in terms of their ability to describe brands or perceptions about brands.

- Generation of new items by consumers and experts: we used the technique of nominal groups (Claxton at al.,
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1980) to induce consumers and experts to elicit words they would use to describe brand personalities. Three experiments were conducted with a group of six university experts and two groups of eight consumers. The mean number of items generated by each group was 130. Each group participant was asked to evaluate individually, on a 7-point scale, the semantic content of each item and their ability to describe a brand as a person (both items generated by the groups and items selected from existing scales).

Selection of items

Items purification was completed through two steps:

- Selection of items based on item evaluations. Items from existing scales were retained if the mean evaluation score was greater than 4 (on a 5 point scale). Items from the list generated by experts or consumers were selected if mean score was greater than 5.5 (on a 7 point scale). After this first purification phase, 88 items were kept for further analysis.

- Elimination of identical or redundant items. Experts eliminated items judged as identical and grouped items judged as very similar. Among group of items judged similar, only the item best evaluated was retained.

At the end of this phase was obtained a final list of 69 items best able to describe brand personality.

Scale Testing

The scale of 69 items was tested with four brands selected for their awareness and penetration levels so that virtually all respondents would have a reliable judgment of brand personalities. The 4 brands are composed of two pairs of brands, each pair competing on the same market (Coca-Cola and Pepsi-Cola on the one hand, Nike and Adidas on the other hand).

Data were collected on a sample of 387 business students from a French university who were asked to furnish their judgments of brand personality for the 4 brands on the list of items, using a 1 to 7 Likert scale.

The personality scale structure was then tested. Based on results obtained after performing principal component factor analysis with promax rotation, an iterative procedure allowed purification of the measurements through successive elimination of items ill-represented on the factors (communality inferior to 0.5). This led to an order 1 structure composed of 33 items loading on 12 dimensions (see Table 1).

Lastly, validity of scale structure was tested by means of trait validity performed through a confirmatory factor analysis, the results of which were validated via a systematic bootstrap procedure. Trait validity and discriminant validity were assessed (t tests associated to each factorial weight, mean extracted variance and the p internal coherence coefficient of Jöreskog). In table 2 appear the indicators of convergent validity and reliability. Results are satisfactory and show good trait validity for the uncovered personality scale. The scale contains some of the factors proposed by Aaker (1997) as well as new ones.
DESCRIPTION OF BRAND PERSONALITIES

The measurement of brand personality is managerially interesting if it allows description of the personality of the brands and differentiating competing brands. Managers may better understand major brand associations and identify target groups sensitive to some personality traits. The difference in brand personalities for brands Pepsi and Coke was tested through an analysis of variance. The analysis was conducted on the factor scores obtained for the two brands on the 12 personality dimensions. Results show that the two brands exhibit specific personality traits (see table 3 for results of analysis of variance). Figure 1 shows brand personality structure of the two brands. The two brands differ on 8 personality traits (out of 12). The four facets on which there is no difference between the brands (at \(p<0.05\)) are natural, mature, exciting and mischievous.

Typical of the French market on which Coke has a very dominant position (it has more buyers than Pepsi and Coke buyers purchase more), brand Coca-Cola is better perceived than Pepsi on the 8 personality facets on which there is a difference between the two brands.

EXPLANATION OF CHOICE BEHAVIOR

An important question is that of the power of brand personality to explain consumer behavior measurements such as brand consideration (presence or not in the consideration set), preference or choice. We collected choice data asking respondents to indicate the product they would choose on next purchase occasion. Choice data was analyzed using binary regression trees which were preferred to discriminant and logit analyses. These two analyses consider all variables at once whereas the binary classification model is a hierarchical and recursive approach with which variables are considered sequentially at each classification step. A same explanatory variable might be selected more than once at different stages of the analysis. At each stage, the variable allowing to best explain choice is selected. A measure of the relative importance of explanatory variables has been proposed by Breiman et al. (1984). Applying the binary regression model to the data allows correct classification of 76.9% of the cases for brand Coke and of 59.4% of the cases for brand Pepsi (see table 4). These results largely outperform those of the traditional discriminant and logit analysis (correct classification of cases is 58.5% and 34.2% for Coke and Pepsi with discriminant analysis and 95% and 15% with the logit).

Interpretation of data is based on the identification of explanatory variables selected in the hierarchical tree. Beyond this description which allows understanding of the choice process, results of the analysis should be interpreted following three main criteria: (1) stability of the solution, (2) parsimony of the classification tree and (3) relative importance of each predictive variable.

### TABLE 2
Reliability and Validity of the Scale

| Validity indexes |  
|------------------|-------------------|
| RMSEA            | 0.0765            |
| GFI              | 0.862             |
| AGFI             | 0.804             |

**Convergent validity \(\rho_{cv}\) (\(t>2\) for all \(\rho\)'s)**

| GLAMOROUS       | 0.56              |
| SECURE          | 0.33              |
| OUTGOING        | 0.48              |
| SWEET           | 0.62              |
| EXCITING        | 0.53              |
| ELEGANT         | 0.60              |
| MISCHIEVOUS     | 0.39              |
| CHEERFUL        | 0.55              |
| MATURE          | 0.35              |
| NATURAL         | 0.46              |
| RIGOROUS        | 0.48              |
| RELIABLE        | 0.51              |

**Reliability (Jöreskog's \(\rho\))**

| GLAMOROUS       | 0.79              |
| SECURE          | 0.50              |
| OUTGOING        | 0.74              |
| SWEET           | 0.83              |
| EXCITING        | 0.77              |
| ELEGANT         | 0.82              |
| MISCHIEVOUS     | 0.54              |
| CHEERFUL        | 0.78              |
| MATURE          | 0.62              |
| NATURAL         | 0.63              |
| RIGOROUS        | 0.73              |
| RELIABLE        | 0.76              |
Stability of the solution is assessed through a classical systematic cross-validation procedure so as to avoid the risk of capitalizing on chance (Breiman et al., 1984). In our case, the high rate of correct classification remains unchanged, which guarantees the reliability of the results. Breiman’s procedure was applied to compute the relative importance of each variable (see Figure 2).

Globally all personality traits contribute to explain the choice between the two brands. However, four personality facets appear to be more important than others (secure, mature, mischievous and exciting). The classification tree (Figure 3) is quite parsimonious since it is composed of 9 terminal nods. This allows having a clear understanding of the hierarchical process explaining choices between Coke and Pepsi. The tree also indicates that consumers do not have a unique choice process and allows identification of groups of consumer sharing the same process.

<table>
<thead>
<tr>
<th>Brand Personality Factors</th>
<th>F</th>
<th>Sign.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLAMOROUS</td>
<td>5.332</td>
<td>.021</td>
</tr>
<tr>
<td>SECURE</td>
<td>18.738</td>
<td>.000</td>
</tr>
<tr>
<td>OUTGOING</td>
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</tr>
<tr>
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<td>.004</td>
</tr>
<tr>
<td>EXCITING</td>
<td>3.188</td>
<td>.075</td>
</tr>
<tr>
<td>ELEGANT</td>
<td>4.110</td>
<td>.043</td>
</tr>
<tr>
<td>MISCHIEVOUS</td>
<td>2.310</td>
<td>.129</td>
</tr>
<tr>
<td>CHEERFUL</td>
<td>8.326</td>
<td>.004</td>
</tr>
<tr>
<td>MATURE</td>
<td>0.024</td>
<td>.877</td>
</tr>
<tr>
<td>NATURAL</td>
<td>0.121</td>
<td>.728</td>
</tr>
<tr>
<td>RIGOROUS</td>
<td>6.332</td>
<td>.012</td>
</tr>
<tr>
<td>RELIABLE</td>
<td>8.369</td>
<td>.004</td>
</tr>
</tbody>
</table>

**FIGURE 1**

Personality Profiles of Coke and Pepsi (total sample mean scores)
Interpretation of results

The tree should be interpreted by looking at the variable which best explains choice. For example, at the first level of the hierarchy, it is the variable “secure” that best distinguishes consumers choosing predominantly Coke from consumers choosing predominantly Pepsi. At each level is also indicated the number of cases. Total number of cases is twice the number of consumers since are associated two observations per consumer (the brand chosen and the brand not chosen). At the first level of the hierarchy, there are 568 cases where Coke is predominantly chosen and 206 cases where Pepsi is predominantly chosen. The value of the variable which allows separation of the groups is also indicated. This value is the factor score of individuals resulting from the factor analysis with which we identified the 12 personality facets. For predominantly Coke-chosen cases, the mean factor score value on dimension “secure” is greater than -.516 and is inferior or equal to that level for the predominantly Pepsi-chosen cases.

Interpretation of the choice processes is quite straightforward when beginning by the ending nodes of the tree. For example, on the left side of the tree, what best explains the choice of Coke or Pepsi is the personality trait “mischiefous”, where the scores of Coke are high compared to those of Pepsi. This choice process concerns 206

---

**TABLE 4**
Choice Confusion Matrix

<table>
<thead>
<tr>
<th></th>
<th>Coke (predicted)</th>
<th>Pepsi (predicted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coke</td>
<td>432 (76.2%)</td>
<td>84</td>
</tr>
<tr>
<td>Pepsi</td>
<td>135</td>
<td>123 (59.4%)</td>
</tr>
<tr>
<td>Total</td>
<td>567 (100%)</td>
<td>207 (100%)</td>
</tr>
</tbody>
</table>

**FIGURE 2**
Importance of Brand Personality Facets for Explanation of Brand Choice
cases out of 774 or 27%. For these cases the perceived level on personality trait “secure” is quite low for both products (inferior to -.52). Analysis of the right hand side of the tree indicates that for a big number of cases, brands are chosen based on the trait “secure”. For 270 cases (with a level on dimension “secure” greater than -.52 and a level on dimension “cheerful” smaller than .40), 26 are in favor of Pepsi because of a high perceived level on the personality trait “secure” (consumer group 5). Security also explains the choice between Coke and Pepsi for the remaining 298 cases. Coke (215 cases) is dominantly chosen for high levels of that dimension (> .29). For the 83 cases with a predominant choice for Pepsi (consumer group 6), Pepsi has satisfactory level on dimension “secure” (between -.52–first level of the hierarchy– and .29–third level). Pepsi is considered “cheerful” (greater than .40). The 215 Coke cases are then re-decomposed: 117 cases correspond to a choice of Coke (consumer group 7), the brand not being considered high “exciting” (scores<.79). The 98 cases for which Coke is considered very exciting, what distinguishes the choice between Coke (74 cases–consumer group 9) and Pepsi (24 cases–consumer group 8) is the level of perception on the “natural” personality trait.

The relative parsimony of the tree shows that among all personality traits, few have real explanatory power in terms of choice. Although the two brands have different personalities on 8 of the 12 personality facets of the proposed scale, only 4 of these traits really play an important role in explaining choice behavior (secure, exciting, mature and mischievous). The decomposition tree includes the facets that were previously identified as important (shown in Figure 2) but for the facet “mature”. The tree allows identification of the facets that best distinguish the Coke choices from the Pepsi ones. The facet “mature” does not clearly contrast the cases within the partitions obtained. It is however important at the aggregate level. Of course, one should also bear in mind that other variables not considered here and not linked to brand personality have an impact on choice. The experimental design allows controlling some of these variables such as availability, but it is clear that key variables such as taste have not been included in the model.

Description of consumer groups

Another interesting result is that the methodology leads to the identification of different choice patterns based on personality perceptions:

- Among the cases with low levels on dimension “secure”, the sole personality facet “mischievous” allows to explain choice. This process is quite simple.
- Among the cases with higher levels on security, the personality facet “cheerful” allows a further split (albeit no direct explanation of choice). For low levels of “cheerful”, it is again perceived security which explains choice. This process is also simple. For higher levels of cheerfulness, the personality facet “exciting” and “natural” explain choices. This choice process involving 4 personality facets is more complex.

CONCLUSIONS

This research proposes a brand personality measurement scale developed in France. Our goal was to try to answer some criticism on personality scales applying semantics originally developed for the measurement of Human personality. The structure uncovered here is composed of 12 personality facets and the scale shows good levels both of reliability and validity. However, the number of dimensions is well above the number of facets (five) proposed by Aaker (albeit quite close to the 15 facets she proposed) and above the 5 facets found in the “Big Five” Human measurement tools.
Brand personality measurements might depend on cultures and languages as has been already been found in previous research. It could also be that a higher order analysis conducts to a more limited number of personality facets. This was not the case with our data set but indeed other data sets should be used for re-testing of the scale structure. Also, we believe that the classical analysis used here in terms of scale development and testing could be further refined. A direction could be to verify whether the selected traits and items would apply to any brands (as Human personality scales apply to all Humans). Universality of brand personality scales is certainly an issue in terms of consumer types, usage occasions and brands. We strongly recommend further research in this direction.

From a more operational standpoint, we also believe that questions linked to the use and effects of brand personality are an important area of research. We have tested here the impact of brand personality measurements on choice in an experimental setting. This is an interesting first step. This test has raised an important methodological question which is that of the analytical method that could be used to measure how brand personality explains consumer behavior (choice in our case). Traditional methods such as discriminant analysis or logit models did not give good explanatory results which is certainly linked to the heterogeneity in the decision processes of the consumers. We applied a binary regression model which offered some insights concerning consumer heterogeneity and also results concerning what brand personality traits affect choice. Application of this method allowed correct classification of almost 72% of binary choices. Of course, our results are linked to the brands studied here (the Cola market, although the results for Nike and Adidas, not shown here in order to preserve space, were even better). But beyond the particular results of this study, what we found is that a limited number of personality facets do play a role in explaining choice. This is probably the case for other product categories although the explanatory brand personality facets will surely vary across categories. This again will raise the question of the universalism of the brand personality concept. What is important in terms of brand management is to identify the important facets for the particular category under study. It is on these brand personality facets that the managers should concentrate their attention. Other dependent variables could also be studied. Moreover, future research could also extend the present study by including attributes as predictors in the regression model. Choice was here measured but we believe important to try to link brand personality measurements to other constructs such as consideration, preference or repeat purchase behavior. Further research in these directions will allow a better understanding of the impact of brand personality on consumer behavior. Finally, we would suggest further studying the link between perceived brand personality and Human personality traits of the brand buyer or the brand loyal consumer. If brand consumption or possession is a means to express self-image or to communicate one’s desired image to others, brand personality should play a role in the process.

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Congruence between Brand Personality and Self-Image, and the Mediating Roles of Satisfaction and Consumer-Brand Relationship on Brand Loyalty
Seong-Yeon Park, Ewha Womans University, Korea
Eun Mi Lee, Ewha Womans University, Korea

ABSTRACT
This study examines how the congruence between brand personality and self-image influences brand loyalty through such mediating variables as consumer-brand relationship and consumer satisfaction. In addition, this study compares the proposed model under high/low involvement situations to examine the moderating influence of involvement.

According to the results, the congruence between brand personality and self-image increases not only consumer satisfaction but also the consumer-brand relationship. For high involvement products the consumer-brand relationship quality mediates the effect of satisfaction on consumers’ brand loyalties, but for low involvement products satisfaction directly influences brand loyalty.

I. INTRODUCTION
Brand loyalty has been one of the most important issues in marketing since consumers tend to make purchase decisions by brand images that have already been formed in their minds rather than from original attributes or characteristics of the product itself (Dick, Chakravarti, and Biehal 1990). Creating unique brand identity is a key issue for brand equity management (Aaker 1996). Because brand identity is represented by brand personality, it is a growing perception that brand personality can differentiate a focal brand from its competitors by creating unique brand associations. Brand personality thus influences consumers’ preference, usage, emotional attachment, trust, and loyalty (Biel 1993; Fournier 1998; Sirgy 1982).

According to previous studies (Birdwell 1968; Bellenger, Steinberg, and Stanton 1976; Dolich 1969; Hughes and Guerrero 1971; Munson 1973; Sirgy 1980; Stern, Bush, and Hair 1977), the congruence between self-image and brand image eventually plays an important role in improving brand loyalty. However, previous studies did not show how the congruence between brand-image and self-image influences brand loyalty.

Therefore, this study examines the processes by which congruence between brand personality and self-image influences brand loyalty through such mediating variables as consumer-brand relationship and consumer satisfaction. In addition, this study compares the proposed model under high/low involvement situations to examine the moderating influence of involvement.

II. THEORETICAL BACKGROUND & RESEARCH HYPOTHESES

2.1 The Congruence between Brand Personality and Self-Image

The studies on the congruence between consumers’ self-concept and brand image try to explain consumer choice such as brand preference, purchase intention or usage and loyalty (Birdwell 1968; Bellenger, Steinberg, and Stanton 1976; Dolich 1969; Health and Scott 1998; Hughes and Guerrero 1971; Munson 1973; Sirgy 1980; Stern, Bush, and Hair 1977).

Sirgy (1982) suggests congruity theory and he argues that product cues involving images usually activate a self-schema involving the same images. Also, Sirgy (1982, 1986) outlines the importance of self-concept theory in consumer behavior research by explaining that consumers who perceive the product image to be consistent with their actual self-concept are likely to feel motivated to purchase and consume that product. Therefore, congruence between self-image and product image may have a greater influence on consumers’ preference, purchase intention, ownership, usage and loyalty to products and brands.

Graeff (1996) analyzes the influence of the congruence between brand-image and self-image on brand evaluation relating to promotion message. It suggests that under the promotion message that reminds consumers of their own self-image, consumers give more positive evaluations of brands congruent with their own self-image. In one of his other studies that employed beer product brands, he suggests that positive brand attitude and purchase intention increase as the congruence between self-image and brand-image increases (Graeff 1997).

Recently, several studies have been conducted about the congruence between self-image and brand personality. Brand personality refers to human characteristics associated with a brand. Keller (1993) regards brand personality as the category of brand-image made by brand user and usage imagery attributes. Plummer (1985) asserts that one component of brand-image is the personality or character of the brand itself. He summarizes his research demonstrating that brands can be characterized by personality descriptions such as “youthful,” “colorful,” and “gentle.” Aaker (1991, 1996) connects brand-image to brand personality as a component of brand equity, and defines brand personality as the set of human characteristics associated with a brand. According to Aaker (1997), brand personality consists of five dimensions: competence, sincerity, excitement, sophistication, and ruggedness.

Consumers use products/brands as a symbol and they prefer brands with images or personalities that are congruent with their self-image or brand personality. Aaker (1999) suggests when self-schema is congruent with brand personality, the brand attitude of a low self-monitor is more favorable, and when the situation is congruent with self-schema, the brand attitude of a high self-monitor is more favorable. According to Chang, Park, and Choi (2001), consumers exhibit favorable feeling toward a brand when the brand personality is congruent with their own self-image. Especially, the congruence between brand personality and self-image increases positive attitude of consumers who have high hedonic attitude and emphasize symbolic values. Yi and La (2002) suggest that brand personality influences brand identification, and then brand identification has a direct impact on brand loyalty, as well as an indirect impact via brand relationship satisfaction.

Therefore, it can be inferred that the congruence between brand personality and self-image has a positive effect on consumer satisfaction, consumer-brand relationship, and brand loyalty.

H1: The congruence between brand personality and self-image increases consumer satisfaction.

H2: The congruence between brand personality and self-image increases consumer-brand relationship quality.

H3: The congruence between brand personality and self-image increases brand loyalty.

2.2 Consumer Satisfaction

In general, the brand offers opportunities to build relationships with consumers (Wester 2000). That is, consumers want to build a relationship with a certain brand when they regard the brand as...
beneficial or valuable to them. Thus, if consumers feel that they are getting a good value and are satisfied after initially using the brand, they want to build a relationship with it.

The attainment of consumer satisfaction is an antecedent to building strong brand equity. Kotler (2000) suggests that perceived consumer satisfaction has a positive effect on brand loyalty. Oliver and Bearden (1983) suggest that consumer satisfaction affects attitude after purchase and this attitude continuously influences the repurchase intention. Therefore, the following hypotheses are proposed:

H4: Consumer satisfaction increases consumer-brand relationship quality.

H5: Consumer satisfaction increases brand loyalty.

2.3 Consumer-Brand Relationship

Blackston (1991) suggests that consumer-brand relationship is a combination of cognitive, emotional, behavioral processes that occur between consumers and brands. Fournier (1998) suggests that consumers build an individual relationship with product/brand they purchase in much the same way that people initiate and nurture relationships with other people. Hence, consumer-brand relationship indicates that consumers and brands contribute to each other in a win-win partnership.

Consumers have a relationship with many brands in everyday life, and what makes for a strong consumer-brand relationship is brand relationship quality (BRQ). This relationship construct is multi-dimensional and encompasses cognitive, affective, and behavioral aspects. Fournier (1998) introduces six dimensions of brand relationship quality: love/passion, self-connection, interdependence, commitment, intimacy and brand partner quality. Table 2 shows the six dimensions of brand relationship quality suggested by Fournier (1998).

Aaker (1997) suggests that the ultimate objective of the brand identity system is the development of a strong brand relationship between consumers and brands, and consumer-brand relationship builds up brand loyalty.

However, the consumer-brand relationship has been tested with limited products, and it is not clear whether the consumer-brand relationship still influences brand loyalty in low involvement contextual circumstances. That is, contrary to high involvement situations such as purchasing cars, computers, etc., brand switching and impulsive buying are more frequent, and products are purchased habitually without much thought and cognitive processing in low involvement situations. Therefore, it is reasonable to infer that the consumer-brand relationship plays a more critical role in brand loyalty building under high involvement situation.

H6: Consumer-brand relationship quality increases brand loyalty more in high involvement situations than low involvement situations.

III. METHODOLOGY

3.1 Research Model

This study examines how the congruence between brand personality and self-image influences brand loyalty through the mediating variables of consumer-brand relationship and consumer satisfaction. Figure 1 shows the research model of this study.

<table>
<thead>
<tr>
<th>Name</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sincerity</td>
<td>Honest, sincere, dawn-to-earth</td>
</tr>
<tr>
<td>Excitement</td>
<td>Exciting, daring, unique, up-to-date</td>
</tr>
<tr>
<td>Competence</td>
<td>Intelligent, technical, confident, successful</td>
</tr>
<tr>
<td>Sophistication</td>
<td>High class, charming, glamorous</td>
</tr>
<tr>
<td>Ruggedness</td>
<td>Masculine, strong, outdoorsy, rugged</td>
</tr>
</tbody>
</table>

**TABLE 2**

<table>
<thead>
<tr>
<th>Affective &amp; Socioemotive Attachment</th>
<th>Love and Passion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self-connection</td>
</tr>
<tr>
<td>Behavioral Ties</td>
<td>Interdependence</td>
</tr>
<tr>
<td></td>
<td>Commitment</td>
</tr>
<tr>
<td>Supportive Cognitive Beliefs</td>
<td>Intimacy</td>
</tr>
<tr>
<td></td>
<td>Brand partner quality</td>
</tr>
</tbody>
</table>

**TABLE 1**

Dimensions of brand personality
3.2 Scale Developments and Measurement

Even though Aaker (1997) provides brand personality scales and Fournier (1994) provides the scales of consumer-brand relationship quality, some of the scales cannot be assimilated into the Korean culture and language. Therefore, a rigorous scale adjustment process is necessary.

The goal of Pretest 1 is to develop the scales of brand personality. Fifty undergraduate students participated in Pretest 1. The pretest used a principal component factor analysis, with varimax rotational procedures. Twenty-four items were discarded and only eighteen items were drawn from the forty-two items.

To assess the congruence of brand personality and self-image, the absolute-difference model suggested by Sirgy (1982) was used. The absolute-difference model calculates the absolute distance between consumer self-image and brand personality. According to previous research, the same scales as brand-image can measure self-image (Malhotra 1981). Therefore, the eighteen-items of brand personality were used to measure self-image. The absolute-difference model is shown as follows:

$$\sum_{i=1}^{n} |BP_{ij} - SI_{ij}|$$

$BP_{ij} =$ brand personality (i) of individual (j)

$SI_{ij} =$ actual self image (i) of individual (j)

The goal of Pretest 2 is to develop the scales of consumer-brand relationship quality. The forty-seven items, which were modified scales according to Korean situation, were tested. Fifty undergraduate students participated in Pretest 2 and a principal component factor analysis was used with varimax rotational procedures. Eighteen items of love & passion, self-connection, interdependence, commitment, intimacy, brand partner quality were finally selected.

To assess consumer satisfaction, overall satisfaction about buying the brand (Oliver 1980) and the degree of delight and excitement by using the brand were used. In addition, to assess brand loyalty, repurchase intention (Chaudhuri and Holbrook 2001) and recommendation intention (Zeithmal, Berry, and Parasuraman 1996) were used. This extensive set of pretests yielded scales for use in the overall study. The questionnaires employed 7-point Likert scales for all of the measures.

To test the moderating effect of involvement, a simple experimental design was used. The sample was evenly divided into two groups. A brand of a computer notebook was given to the people in high involvement situation, and a detergent brand was given to those in low involvement situation. The brands and product domains were also selected through pretesting.

IV. DATA ANALYSIS AND RESEARCH RESULTS

4.1 Data Collection and Analysis

This study had a convenience sample of 600 people aged from 20s to 30s in Seoul, Korea. A total of 565 usable responses were obtained, and the sample size of high vs. low involvement situation is 286: 279. SPSSWIN v. 11.0 was used for reliability and validity tests and a latent-variable structural equation modeling was employed to examine the research model. Amos 4.0 was used for this analysis.

4.1.1 Respondents' demographic profiles

The demographic profiles of the respondents are illustrated as follows:

The sample consisted of 62.1% female and 32.9% male. In age distribution, 20s (61.3 %) and early 30s (21.4 %) represent the majority of the sample. 45.5% of the respondents were undergraduate students and 50.3% had at least Bachelor’s degrees. The demographic profiles of high and low involvement group did not differ significantly.

4.1.2 Reliability and validity tests

a) Brand personality

In terms of Reliability testing, all of the four factors (sincerity, excitement, competence/sophistication, and ruggedness) have coefficient alphas larger than .7, which suggests a sufficient degree of internal consistency of the scales (Nunnally 1978).

To test construct validity, a principal component factor analysis was used with varimax rotational procedures, and four items were additionally discarded.

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To test construct validity, a principal component factor analysis was used with varimax rotational procedures, and four items were additionally discarded.
Although Aaker (1997) suggests five factors, four factors were found in this study: sincerity, excitement, competence/sophistication, and ruggedness. That is, Korean consumers perceive competence and sophistication as identical factors. To interpret the reason, in-depth interviews were conducted. As a result of the interviews, it was discovered that the informants perceived competence and sophistication as identical factors ("I feel that those who are competent and successful are generally high-class, sophisticated and elegant.").

People usually possess both sophistication and high-class characteristics together through developing their ability and achieving success. They consequently seem charming to others.

Finally, since Korean consumers perceive competence and sophistication as identical factors, therefore, competent people are often considered to be sophisticated, intelligent and elegant.

\textit{b) Consumer-brand relationship quality}

In consumer-brand relationship, all the factors show Cronbach’s alphas larger than .80, and a principal component factor analysis was run with varimax rotational procedures. Two items were additionally discarded.

In this research, consumer-brand relationship quality consists of three factors instead of the six suggested by Fournier (1998): ‘affective and socioemotive attachments’ such as love/passion and self-connection, ‘behavioral ties’ such as interdependency and commitment, ‘supportive/cognitive beliefs’ such as intimacy and brand partner quality. That is, Korean consumers perceive consumer-brand relationship in terms of affective, behavioral, and cognitive dimensions. Korean consumers integrate love/passion and self-connection as affective and socioemotive attachments, which implies that when consumers feel love/passion about a brand, they feel the brand and they are connected emotionally.

Interdependence and commitment can explain the behavioral ties also (Fournier 1998). Committed consumers have a tendency to purchase one brand continuously even though they have an alternative, and they feel interdependent with the brand after all.

Intimacy and brand partner quality represent supportive/cognitive beliefs (Fournier 1998). If consumers feel intimate and familiar with a brand, they highly evaluate the relationship quality with the brand.

The reliability of consumer satisfaction and brand loyalty was assessed, and the Cronbach’s entire alpha exceeded .80.

\section*{4.2 Research Results}

\subsection*{4.2.1 Model fit testing}

The results show low model fit according to $\chi^2$ values. But $\chi^2$ tests are not widely used any more because it has too strict assumptions and easily rejects the model. In addition, it is largely

\begin{table}[h]
\centering
\caption{Reliability and validity analysis of brand personality scales}
\begin{tabular}{|l|c|c|c|c|}
\hline
 & \textbf{Component} & & & \\
 & \textbf{Factor 1} & \textbf{Factor 2} & \textbf{Factor 3} & \textbf{Factor 4} & \textbf{Communalities} \\
\hline
\textbf{Honest} & .105 & .164 & \textbf{.870} & .179 & .826 \\
\textbf{Sincere} & .134 & .176 & \textbf{.884} & .168 & .860 \\
\textbf{Dawn-to-earth} & .190 & .225 & .714 & -1.152 & .619 \\
\textbf{Exciting} & -3.773E-02 & .302 & .235 & \textbf{.690} & .623 \\
\textbf{Daring} & .203 & 8.964E-02 & 3.543E-03 & \textbf{.872} & .809 \\
\textbf{Unique} & .107 & .217 & -3.601E-03 & \textbf{.859} & .796 \\
\textbf{Technical} & 7.590E-02 & \textbf{.785} & .243 & .142 & .702 \\
\textbf{Confident} & .112 & \textbf{.834} & .178 & .178 & .771 \\
\textbf{Successful} & .154 & \textbf{.767} & .164 & 5.063E-02 & .642 \\
\textbf{High class} & -.104 & \textbf{.701} & 4.345E-02 & .345 & .623 \\
\textbf{Masculine} & \textbf{.854} & 4.951E-02 & 2.157E-02 & 3.712E-02 & .734 \\
\textbf{Strong} & \textbf{.906} & 4.614E-02 & 7.425E-02 & 4.121E-02 & .830 \\
\textbf{Outdoorsy} & \textbf{.769} & 1.512E-02 & .120 & .223 & .655 \\
\textbf{Rugged} & \textbf{.700} & .145 & .290 & -4.108E-03 & .595 \\
\textbf{Eigenvalue} & 4.751 & 2.379 & 1.780 & 1.176 & \\
\textbf{Percent of Variance} & 33.937 & 16.990 & 12.716 & 8.398 & \\
\textbf{Cronbach's alpha} & \textbf{.8466} & \textbf{.8235} & \textbf{.8134} & \textbf{.8059} & \\
\hline
\end{tabular}
\end{table}
affected by the sample size. Alternative indexes of model fit are widely used these days (Hong 2000). The overall fit of the model is excellent.

4.2.2 Hypotheses testing

All the hypotheses except Hypothesis 3 were supported. This finding indicates that the congruence between brand personality and self-image does not influence brand loyalty directly, but via consumer-brand relationship or satisfaction. This result is consistent over the cases of both high and low involvement.

As Hypothesis 6 suggests, consumer-brand relationship quality significantly influences brand loyalty more in high involvement situations. The coefficient of the path in high involvement is much stronger than that of pooled data, where the influence of consumer-brand relationship quality is diluted because of low involvement samples.

Therefore, in the case of low involvement, the congruence between brand personality and self-image influences brand loyalty only through satisfaction. Because low involvement brands do not build consumer-brand relationship, satisfaction strongly influences loyalty (.897) in low involvement situation.

However, for high involvement brands, both consumer-brand relationship quality and satisfaction influence brand loyalty. The results show the influence of consumer-brand relationship (.591) is much stronger than that of satisfaction (.293) on loyalty. Therefore, it is clear that consumer-brand relationship building is very important for high involvement products.

V. CONCLUSIONS

According to the results, the congruence between brand personality and self-image increases not only consumer satisfaction but also consumer-brand relationship. That is, when consumers perceive brand personality is congruent with their self-image, their satisfaction increases and consumer-brand relationship quality develops.

For high involvement products, brand loyalty increases via consumer-brand relationship quality. Therefore, marketing efforts to build and strengthen the relationship with customers are required. Since consumer-brand relationship is also affected by satisfaction, satisfying consumers is important for marketers as well.

However, for low involvement products, marketers do not have to make much effort to build a strong relationship with customers. Rather, satisfying consumers with a variety of benefits

### TABLE 4

Reliability and validity analysis of consumer-brand relationship quality scale

<table>
<thead>
<tr>
<th>Component</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Love and passion 1</td>
<td>.239</td>
<td>.842</td>
<td>.152</td>
<td>.789</td>
</tr>
<tr>
<td>Love and passion 2</td>
<td>.259</td>
<td>.841</td>
<td>.123</td>
<td>.789</td>
</tr>
<tr>
<td>Love and passion 3</td>
<td>.369</td>
<td>.713</td>
<td>.150</td>
<td>.667</td>
</tr>
<tr>
<td>Love and passion 4</td>
<td>.311</td>
<td>.767</td>
<td>.199</td>
<td>.724</td>
</tr>
<tr>
<td>Self connection 1</td>
<td>.283</td>
<td>.742</td>
<td>.273</td>
<td>.705</td>
</tr>
<tr>
<td>Self connection 2</td>
<td>.247</td>
<td>.792</td>
<td>.211</td>
<td>.732</td>
</tr>
<tr>
<td>Interdependence 1</td>
<td></td>
<td>.804</td>
<td>.313</td>
<td>.763</td>
</tr>
<tr>
<td>Interdependence 2</td>
<td></td>
<td>.822</td>
<td>.292</td>
<td>.794</td>
</tr>
<tr>
<td>Commitment 1</td>
<td>.842</td>
<td>.283</td>
<td>.122</td>
<td>.805</td>
</tr>
<tr>
<td>Commitment 2</td>
<td>.799</td>
<td>.315</td>
<td>.168</td>
<td>.765</td>
</tr>
<tr>
<td>Commitment 3</td>
<td>.674</td>
<td>.318</td>
<td>.270</td>
<td>.628</td>
</tr>
<tr>
<td>Intimacy 1</td>
<td>.380</td>
<td>.277</td>
<td>.639</td>
<td>.630</td>
</tr>
<tr>
<td>Intimacy 2</td>
<td>.149</td>
<td>.143</td>
<td>.821</td>
<td>.717</td>
</tr>
<tr>
<td>Intimacy 3</td>
<td>8.704E-02</td>
<td>.172</td>
<td>.876</td>
<td>.805</td>
</tr>
<tr>
<td>Brand partner quality 1</td>
<td>.575</td>
<td>.292</td>
<td>.573</td>
<td>.743</td>
</tr>
<tr>
<td>Brand partner quality 2</td>
<td>.621</td>
<td>.232</td>
<td>.521</td>
<td>.710</td>
</tr>
<tr>
<td>Eigenvalue</td>
<td>8.762</td>
<td>1.629</td>
<td>1.378</td>
<td></td>
</tr>
<tr>
<td>Percent of variance</td>
<td>54.760</td>
<td>10.182</td>
<td>8.612</td>
<td></td>
</tr>
<tr>
<td>Cronbach’s alpha</td>
<td>.9195</td>
<td>.9250</td>
<td>.8689</td>
<td></td>
</tr>
</tbody>
</table>
such as product attributes, functional quality, price, etc. will be a more powerful strategy for low involvement products.

Even though this study proposed an integrated model of brand loyalty and suggests practical marketing implications, it has some limitations as well. According to multi-self-structure-theory, it consists of actual self-image, ideal self-image, and social self-image (Park and Mittal 1985). In this research, only actual self-image was considered. But various dimensions of self-image can be compared in the future research. Also, the hypotheses need to be tested with a variety of products and a larger sample.

Due to the differences in language and culture, it was necessary to modify Aaker’s (1997) and Fournier’s (1994) scales for use in Korea. Though the extensive pre-testing and validation efforts undertaken have resulted in reliable and valid measures for the constructs studied herein, future extensions of this work will require similar efforts for Korean scale development.

REFERENCES

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**TABLE 5**
Research model fit indexes

<table>
<thead>
<tr>
<th>Fix index</th>
<th>(X^2)</th>
<th>df</th>
<th>GFI</th>
<th>AGFI</th>
<th>CFI</th>
<th>NFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>164.65*</td>
<td>38</td>
<td>0.953</td>
<td>0.918</td>
<td>0.958</td>
<td>0.947</td>
</tr>
<tr>
<td>High involvement</td>
<td>117.138*</td>
<td>38</td>
<td>0.935</td>
<td>0.887</td>
<td>0.952</td>
<td>0.931</td>
</tr>
<tr>
<td>Low involvement</td>
<td>95.860*</td>
<td>38</td>
<td>0.943</td>
<td>0.901</td>
<td>0.959</td>
<td>0.943</td>
</tr>
</tbody>
</table>

* \(p<0.001\)

**TABLE 6**
Tests of hypotheses

<table>
<thead>
<tr>
<th>Path</th>
<th>Total</th>
<th>High involvement</th>
<th>Low involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Path coeff.</td>
<td>T</td>
<td>Path coeff.</td>
</tr>
<tr>
<td>Brand-Self congruity → Consumer satisfaction</td>
<td>-.281</td>
<td>-4.491*</td>
<td>-.336</td>
</tr>
<tr>
<td>Brand-Self congruity → Consumer-brand relationship</td>
<td>-.240</td>
<td>-5.210*</td>
<td>-.122</td>
</tr>
<tr>
<td>Consumer satisfaction → Consumer-brand relationship</td>
<td>.800</td>
<td>18.849*</td>
<td>.840</td>
</tr>
<tr>
<td>Brand-Self congruity → Brand loyalty</td>
<td>-.025</td>
<td>2.915</td>
<td>-.029</td>
</tr>
<tr>
<td>Consumer satisfaction → Brand loyalty</td>
<td>.566</td>
<td>5.754*</td>
<td>.293</td>
</tr>
<tr>
<td>Consumer-brand relationship → Brand loyalty</td>
<td>.318</td>
<td>-0.512*</td>
<td>.591</td>
</tr>
</tbody>
</table>

* \(p<0.05\)


Dick, Alan, Dipankar Chakravarti, and Gabriel Biehal (1990), “Memory-Based Inference During Consumer Choice,” Journal of Consumer Research, 17 (June), 82-93.


ABSTRACT

This study examines the antecedents of recycling and reducing household waste based on an integrated waste reduction model. The model was tested using Japanese household recycling and reducing waste data. The results suggest that this model fits the data well and confirms the hypothesized causal relationships. Especially, attitude toward waste reduction behavior has a strong effect on both recycling and reducing waste behavior. Attitude toward waste reduction is also determined by ecological involvement, perceived cost and benefit, accessibility of a recycling program, and subjective norm.

INTRODUCTION

Various laws promoting waste reduction and resource recycling have been enacted, and environmental and waste management systems have become a key concern of the government, the general public and industries. However, as waste disposal depends on the efficiency of the waste disposal facility operated by the local government in Japan, there are discrepancies in rules and disposal methods between local governments. Although it is largely anticipated that degree of reception of the consumer waste reduction behavior is strongly influenced by waste separation rules and waste collection methods determined by local governments, the effect is not sufficiently understood.

The purpose of the study proposes an integrated waste reduction model based on previous research, and analyzes the mechanism of consumer’s waste reduction behavior. Waste reduction behavior is roughly classified as waste that can be recycled into a resource (recycling), and the attempt to reduce waste generated in the home through packaging reduction and refusing wasteful purchases (reducing household waste). The object of this research is waste reduction behavior, which combines both of these classifications.

FACTORS OF CONSUMER WASTE REDUCTION BEHAVIOR

Ecological Involvement

Previous studies have reported that the sense of social responsibility that represents individual’s feeling of duty or obligation to help the environment has engaged in responsible environmental attitude and behavior (e.g. Kassarjian 1971, Antt 1984, Hines et al. 1986, Webster 1975). However, in this research, ecological involvement is given as the more strongly mediator for pro-environmental attitude and behavior. The reason why we choose ecological involvement as a substitute for social responsibility is because, with the increase of environmental problems in recent years, most consumers now feel a duty and obligation to environmental protection. In spite of this, pro-environmental attitude and behavior has not yet reached sufficient levels. In order to change the consumer’s lifestyle to one of environmental preservation, a feeling of obligation such as social responsibility will not be enough. Rather, we believe that ecological involvement has more powerful motivation to pro-environmental behavior, because it is possible to enjoy an environmentally friendly lifestyle through the creation of a strong relationship between individual values and pro-environmental behavior.

Perceived Consumer Effectiveness

Perceived consumer effectiveness (PCE) is defined as a domain-specific belief that the efforts of an individual can make a difference in the solution to an environmental problem. PCE is related to the concept of perceived behavioral control such as locus of control and self-efficacy. PCE was initially considered a measure or element of the attitude itself (e.g. Kinnear et al. 1974, Webster 1975, Antit 1984). However, most researchers today define an attitude as simply an evaluation of problems and issues, whereas PCE is as a belief of the extent to which individual ecological activities contribute to a solution to the environmental problem and moderates environmental attitude and behavior (e.g. Ellen et al. 1991, Berger & Corbin 1992). Berger & Corbin (1992) analyzed not only the influence of faith in the efficacy of individual behavior, but also the influence of faith in the efficacy of others (FIO) such as technology/scientific ability and the next generation. They also reported that the high FIO consumers show willingness to pay the environmental cost and support for the regulatory action. On the basis of these results, this research also picks up on PCE as the mediator of environmental attitude.

Perceived Cost and Benefit

It is said that environmental problems in recent years are due to a life style of mass production, mass consumption and mass disposal. Therefore, recycling and reducing household waste is different from the present lifestyle in that it requires extra time, action, and costs. It has been reported that the perceived costs of price increases (e.g. Crosby et al. 1981, Vining & Ebreo 1990), and inconvenience (e.g. McCarty & Shrum 1994) toward environmental behavior negatively affect recycling attitudes and behaviors.

On the other hand, waste reduction behavior and purchase of substitution products has the beneficial results of preventing unnecessary consumption and reducing living expenses. Werner & Makela (1998) suggested that recycling behavior is necessary but a boring task and therefore it is important to express it from a viewpoint of benefit and profit for the consumer, and to make the consumer feel that it is an interesting and attractive task. Thus, the presentation of beneficial information increases recycling attitudes and the participation in recycling programs.

In previous research, perceived cost and benefit were not considered individually; rather the sense of balance obtained from the required cost of putting into practice and the benefit of labor compensation was established. However, according to an analysis by Nishio (2002), there is a difference among consumers toward perceived cost and benefit of ecological behavior. For many consumers, cost perception occurs separately from benefit perception. It was found that ecological behavior was not evaluated with a “cost to benefit” comparison. Therefore, in this research it is decided to take up perceived costs and perceived benefits separately.

Rule acceptability

Waste separation and collection for recycling not only requires extra time and effort, it also depends on recycling technology and waste disposal methods. Then, ease of implementation such as intelligibility of rules, ease of task, and ready access to environmental programs, has a large influence on consumer’s behavior and attitude. According to Nishio (2002), the most important accelerat-
The social dilemma is a situation which results in a loss of subjective norm and formation of waste reduction attitude. Effectiveness, perceived risk, perceived benefit, rule acceptability, and subjective norm are assumed to be promotional factors. It is assumed that perceived cost is a hindrance factor with all others perceived benefit, rule acceptability, and subjective norm. It is important variable as a predictor of waste reduction.

**Subjective Norm**

Because environmental problems have a social dilemma, individual environmental attitude and behavior is influenced by the norm of social groups such as friends and family (e.g. Oskamp et al. 1991, Granzin & Olsen 1991, Hopper & Nielsen 1991, Jackson et al. 1993, Taylor & Todd 1995, Nonami et al. 1997). Granzin & Olsen (1991) reported that the behavior such as newspaper recycling, reuse of clothes and the furniture, and walking instead of using the car for the sake of preserving the environment is subject to normative influence from friends and associates. In addition, Taylor & Todd (1995) examined the influence of internal and external normative belief to waste composting behavior and found that both groups have equal influence. This research, similar to Taylor & Todd (1995), deals with both belief of the internal family normative and the external friends/acquaintances normative.

**Attitude toward Ecological Behavior**

Environmental attitude is considered to be the most important variable as a predictor of ecological behavior (e.g. Hines et al. 1987, Shrum et al. 1994, Fransson & Garling 1999, Kaiser et al. 1999). Environmental attitude is roughly classified as that which measures overall attitude toward the environment/environmental problems, and that which measures attitudes toward specific ecological behavior such as recycling and energy conservation. The overall attitude toward the environment is generally considered as ecological concern, and is presented in various measurements as either single dimensional or multi-dimensional scales (e.g. Weigel & Weigel 1978, Dunlap & Van Liere 1978, Stern et al. 1993). However, since there is a discrepancy between measurement scales in the concept of ecological attitude, the degree of relation between the ecological attitude and ecological behavior is also very different between measurement scales (Tarrant & Cordell 1997). Hines et al. (1987) and many other studies have been reported that the attitude toward specific environmental behavior is more predictor than the overall attitude toward the environment. Therefore, this research will focus not on the overall attitude toward the environment, but rather on the attitude toward waste reduction behavior.

Based on previous research as seen above, the integrated waste reduction model is proposed as shown in Figure 1. The most important variable as a predictor of waste reduction is the attitude toward it’s behavior. The attitude is also formed by ecological involvement, perceived consumer effectiveness, perceived cost, perceived benefit, rule acceptability, and subjective norm. It is assumed that perceived cost is a hindrance factor with all others assumed to be promotional factors.

Consumer involvement has been considered as a strongly mediator that determine his/her behavior and information processing (e.g. Laaksonen 1994). Then, we hypothesize that ecological involvement which is motivational effects on perceived consumer effectiveness, perceived risk, perceived benefit, rule acceptability, subjective norm and formation of waste reduction attitude.

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1The social dilemma is a situation which results in a loss of society’s common profits in spite of the fact that consumer behavior tends to maximizes profit based on personal preference, and the results would be even worse if that behavior was not evident.

According to the agenda-setting function of mass media (McCombs & Shaw, 1972), a topic or discussion is emphasized in the mass media is strongly affects on individual interest and perceived importance of the topic or discussion. It has been shown that even for environmental problems, consumer interest and sense of crisis toward environmental problems is readily influenced by information from the mass media (Nonami et al. 1997, Nishio 2002). Thus, we assume that consumer’s interest in environmental problems in relation to the level of media contact has a positive influence on the formation of consumer ecological involvement.

**METHOD**

The questionnaires consisted of all variables as shown in Figure 1. The ecological involvement scale consists of 4 items referencing the consumer involvement scales (Aoki et al., 1988). The level of media contact scale is composed of 5 items representing the contact level of different types of environmental informational media such as the mass media, books, city advertisements and events, and corporate pamphlets. The perceived consumer effectiveness scale contains 5 scales representing not only of the perceived effectiveness toward individual behavior (Ellen et al. 1991, Nonami et al. 1997), but also the influence of faith in the efficacy of others according to the findings of Berger & Corbin (1992). The perceived cost scale is composed of 3 items that measure effort, labor, inconvenience and sense of burden to lifestyle based on the research of Vining & Ebreo (1990) and McCarty & Shrum (1994). The perceived benefit scale contains 2 items that is generated by referencing Nisho’s open-ended question analysis (2002). The rule acceptability scale is also derived from responses to Nisho’s findings (2002), and is composed of 3 items related to the degree of individual discretion such as the intelligibility of waste separation/recycling rules, and cooperation at ones own pace. The subjective norm scale is composed both the influence of internal family norm and external friends/acquaintances norm based on the findings of Taylor & Todd (1995). The waste reduction attitude scale is composed of 3 items representing an evaluation and an intention toward doing waste reduction behavior. The participation in waste reduction behavior scale contains 2 aspects: (1) participation in recycling behavior (5 items) and (2) participation in household waste reduction behavior (6 items) as we discussed above. These every questions are all measured on a 5-point Likert scales.

**RESULTS**

The data was obtained from a survey of 3,000 representatively selected individuals, living in a Tokyo suburb2 in August 2002. These 3000 samples were chosen using the random sampling method based on the resident database of that city which has about 30,000 households’ data. The response rate for the survey was 39.3%, resulting in a sample of 1179 respondents.3

Factor analysis was performed on each scale to confirm the single dimensional structure of the scale. We also calculated Cronbach’s alpha coefficient to check the reliability of each scale.

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2At the time of the survey of waste collection for Yokkaido city, waste separation along the following lines was implemented: noninflammable waste, inflammable waste, resource waste (aluminum cans, steel cans, bottles and paper), and bulk waste.

3We used random sampling method, however, respondents’ character weren’t well-balanced such that 60% of respondents were female, 23% were in their 50’s, 38% were in their 60’s (the largest bracket), occupation classification showed 31% of respondents as stay-at-home wife/husband, 19% as unemployed, and 18% as office workers.
As a result, as shown in Table 1, each scale was summarized with a factor of 1 and the reliable coefficient (Cronbach’s alpha) was approximately 0.7. However, the perceived consumer effectiveness scale couldn’t be confirmed to the hypothetical structure. It was also rejected in the test for normality of the specific factor variable with the prerequisite for the structural equation modeling because of the extreme deviation in response for the scale. Therefore, below we examine the model which removes the factor of perceived consumer effectiveness from the hypothesized model shown in Figure 1.

The model was formulated as a structural equation model and estimated with the AMOS program. The hypothesized model that was specified in the above-mentioned method shows the goodness of fit indices as shown by Table 2. However, the alternative model which adds the path from rule acceptability to recycling on the hypothesized model suggests the model and the alternative model is $\chi^2(1)=25.769 (p<0.01)$. The other fit indices are also high such as the goodness of fit index (GFI) of 0.901, the adjusted goodness of fit index (AGFI) of 0.885, and the root mean square error of approximation (RMSEA) of 0.050. Figure 2 gives the standardized parameter estimates for the alternative model.

As indicated in Figure 2, all path coefficients in the model were significant. Both recycling and household waste reduction behavior are determined by the strong path coefficient from attitude toward waste reduction. The attitude is positively influenced by ecological involvement, perceived benefit, rule acceptability, and subjective norm but is negatively influenced by perceived cost. Especially, ecological involvement has not only positively effect on perceived benefit, rule acceptability, subjective norm and negatively effect on perceived cost, but also predominantly effect on forming the attitude directly. In addition, ecological involvement is strongly positively influenced the level of media contact.

Furthermore, through the exploratory analysis, a direct positively causal relation was discovered between rule acceptability and recycling behavior (See Figure 2). Direct causality from rule acceptability is not seen in reducing household waste that is waste reduction behavior of another side. These findings indicate that acceptability of the city’s waste separation and recycling rules increase the consumer’s participation to recycling behavior as habitual behavior. However, it is necessary to perform the waste reduction attitude to do reducing household waste such as packaging reduction and refusing wasteful purchases.

CONCLUSION

In this research, the integrated consumer waste reduction behavior model was proposed. As a result of data analysis, the presented model fits well with actual consumer data, and the causal relations hypothesized in the model was accepted with the exception of perceived consumer effectiveness. It became clear that attitude toward waste reduction was the most important variable as a predictor of waste reduction behavior. In addition, it was shown that the city’s recycling rules and systems was also important to perform consumer’s recycling behavior. This provides policymakers with useful advice on approaches to influence waste management behavior.

Future topics are listed below. First, perceived consumer effectiveness which has been considered an important factor of
consumer ecological behavior in previous studies, couldn’t be identified and examined for its effect in this research due to the lack of a reliable scale. Presently, legal arrangements for environmental preservation have been advanced and adopting ecological behavior is required by public opinion. Because waste separation and recycling behavior is probably most familiar and acceptable ecological behavior to consumers, most respondents showed strongly belief to perceived effectiveness of waste and recycling problems. It is necessary to develop more precise measurement and method of perceived consumer effectiveness for waste and recycling problems.

In addition, it was found that the possibility of differences in motivation and causal structure which is the background for waste reduction behavior and recycling behavior. In particular, participants of recycling behavior consist of both groups of people who have the positive attitude towards environmental preservation.

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Results of Factor Analysis for Survey Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey Measures</td>
<td>Factor Loading</td>
</tr>
<tr>
<td><strong>Media Contact</strong></td>
<td></td>
</tr>
<tr>
<td>I usually watch television programs and read newspaper articles about environmental problems.</td>
<td>0.654</td>
</tr>
<tr>
<td>I usually read books about environmental problems.</td>
<td>0.657</td>
</tr>
<tr>
<td>I usually read my city advertisement and pamphlets, and know my city’s environmental policy and strategy.</td>
<td>0.592</td>
</tr>
<tr>
<td>I usually visit the environment related corner at industrial exhibitions.</td>
<td>0.738</td>
</tr>
<tr>
<td>I usually read environmental related articles and pamphlets of corporations, and know their environmental policy and strategy.</td>
<td>0.738</td>
</tr>
<tr>
<td><strong>Ecological Involvement</strong></td>
<td></td>
</tr>
<tr>
<td>I try various innovations in leading an environmental friendly life.</td>
<td>0.715</td>
</tr>
<tr>
<td>When I buy products, I usually think about the effect those products will have on the environment.</td>
<td>0.676</td>
</tr>
<tr>
<td>I have a special interest in waste problems within all the various environmental problems.</td>
<td>0.466</td>
</tr>
<tr>
<td>I think I have an in-depth knowledge of recycling.</td>
<td>0.629</td>
</tr>
<tr>
<td><strong>Perceived Risk</strong></td>
<td></td>
</tr>
<tr>
<td>I feel that reducing waste and recycling is time consuming and bothersome.</td>
<td>0.562</td>
</tr>
<tr>
<td>I believe that waste separation and recycling is ineffective in relation to the effort and cost it takes.</td>
<td>0.593</td>
</tr>
<tr>
<td>I think that waste reduction and recycling is difficult while maintaining a convenient and comfortable lifestyle.</td>
<td>0.498</td>
</tr>
<tr>
<td><strong>Perceived Benefit</strong></td>
<td></td>
</tr>
<tr>
<td>I believe that the effort to reduce waste reduces wastefulness, and leads to a quality lifestyle.</td>
<td>0.672</td>
</tr>
<tr>
<td>I believe that the effort to reduce waste is related to controlling household budget expenses, and is rational behavior.</td>
<td>0.666</td>
</tr>
<tr>
<td><strong>Rule acceptability</strong></td>
<td></td>
</tr>
<tr>
<td>Since waste reduction and recycling can be done at ones own pace, it is easy.</td>
<td>0.527</td>
</tr>
<tr>
<td>It is easy to understanding the city’s waste separation and recycling rules.</td>
<td>0.404</td>
</tr>
<tr>
<td>Waste reduction and recycling has become a custom and is not bothersome.</td>
<td>0.681</td>
</tr>
<tr>
<td><strong>Subjective Norm</strong></td>
<td></td>
</tr>
<tr>
<td>My family has a positive attitude to waste reduction and recycling.</td>
<td>0.652</td>
</tr>
<tr>
<td>My friends and acquaintances have a positive attitude to waste reduction and recycling.</td>
<td>0.807</td>
</tr>
<tr>
<td>My living area has a positive attitude to waste reduction and recycling.</td>
<td>0.670</td>
</tr>
<tr>
<td><strong>Attitude toward Waste Reduction</strong></td>
<td></td>
</tr>
<tr>
<td>I like recycling and waste reduction.</td>
<td>0.642</td>
</tr>
<tr>
<td>I intend to participate in area recycle and environmental clean-up activities.</td>
<td>0.776</td>
</tr>
<tr>
<td>I communicate the importance of, and recommend cooperating with, recycling and waste reduction to those around one.</td>
<td>0.662</td>
</tr>
<tr>
<td><strong>Recycling</strong></td>
<td></td>
</tr>
<tr>
<td>I don’t use the disposable products such as a paper cup and chopsticks.</td>
<td>0.462</td>
</tr>
<tr>
<td>I thoroughly separate waste to make recycling easy.</td>
<td>0.644</td>
</tr>
<tr>
<td>I consider empty bottles and cans not as nonflammable waste but as recyclable products.</td>
<td>0.535</td>
</tr>
<tr>
<td>I take rinsed PET bottles and disposable plastic tray to the appointed waste collection area.</td>
<td>0.516</td>
</tr>
<tr>
<td>I use broken products for a long time by repairing them.</td>
<td>0.520</td>
</tr>
<tr>
<td><strong>Reducing Household Waste</strong></td>
<td></td>
</tr>
<tr>
<td>I take a shopping bag when you go shopping.</td>
<td>0.514</td>
</tr>
<tr>
<td>I make a shopping list so that you won’t buy unnecessary products.</td>
<td>0.493</td>
</tr>
<tr>
<td>I choose products that come in a reusable container.</td>
<td>0.450</td>
</tr>
<tr>
<td>I choose perishable foods not contained in disposable plastic tray.</td>
<td>0.650</td>
</tr>
<tr>
<td>I choose products that come in reusable containers (beer bottle etc).</td>
<td>0.696</td>
</tr>
<tr>
<td>I choose recycled products such as toilet paper made from waste paper.</td>
<td>0.560</td>
</tr>
</tbody>
</table>
### TABLE 2
Test Statistics for the Models Tested

<table>
<thead>
<tr>
<th></th>
<th>Chi-square</th>
<th>df</th>
<th>P</th>
<th>GFI</th>
<th>AGFI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>AIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesized model</td>
<td>2045.886</td>
<td>515</td>
<td>0.000</td>
<td>0.899</td>
<td>0.883</td>
<td>0.862</td>
<td>0.053</td>
<td>2205.886</td>
</tr>
<tr>
<td>Alternative model</td>
<td>2020.117</td>
<td>514</td>
<td>0.000</td>
<td>0.901</td>
<td>0.885</td>
<td>0.864</td>
<td>0.050</td>
<td>2182.117</td>
</tr>
</tbody>
</table>

Note: The alternative model is shown in Figure 2, which adds the path from rule acceptability to recycling on the hypothesized model.

### FIGURE 2
The Standardized Parameter Estimates for the Final Trimmed Model

Note: Path coefficients are standardized parameter estimates that were significant at p < .01 with the exception of the path from rule acceptability to attitude that was significant at p < .10.

Our integrated model should help researchers to better understand the complex structure of consumer waste reduction behavior. It will be expected that the model has significant potential to explain the structure of the other ecological behavior such as choice of environmentally friendly products, energy conservation, et al.

**REFERENCES**


Antecedents of “Brand Loyalty” in 401(k) Plans As Clues to Purchase Criteria for Retirement Investments

Magdalena Cismaru, University of Regina, Canada
Betsy Gelb, University of Houston, U.S.A.

As the United States Congress considers various changes in the policies governing investment of pension funds, at least two issues emerge concerning purchase criteria for retirement investments. One pits those who say that employees will do better than the federal government has done in investing Social Security dollars vs. those who say they will do less well. The other, a consequence of bankruptcies at Enron and other highly visible companies, simply emphasizes giving employees more freedom to divest stock given to them by their employers as a means of funding their 401(k) pension plans.

Consideration of both issues would benefit from clues concerning the degree to which employees with freedom to select retirement investments will or will not concentrate those investments in their employers’ own stock, vs. diversifying. For many years, economists and financial advisors have been trying to educate employees about the need to diversify their portfolios, especially targeting those with heavy concentrations in any one instrument or company (Knutson 2002). In spite of this advice, the Enron collapse revealed an unexpected situation: thousands of employees had invested their entire 401(k) in only one company’s stock—the company they work for.

Given awareness by marketers of the reality of brand loyalty in purchases ranging from automobiles to cereal, despite economic incentives to diversify brand choice, it seems plausible that non-economic factors might also be associated with consumer investment behavior reflected in concentration of one stock in retirement plan portfolios. The purpose of the research to be described here was to identify factors associated with this particular demonstration of “brand loyalty,” making this study an investigation of a particular type of buyer behavior with public policy consequences. A variable that economists would predict as important in this context is the company’s financial performance. However, we also considered company size and age, because studies show that people are more likely to trust a larger company and an older one. Finally, but not the least important, we considered employee satisfaction with the company, taking into account the possibility that more satisfied workers would be more likely to trust the company and invest money in its assets, or at least let their funds remain in company stock provided by their employer as a “match” to employee contributions.

The paper is organized as follows: first, we define terms and emphasize the importance of this issue, which exemplifies the intersection of consumer behavior and public policy in marketing. Then we explain the variables in our model and the basis for their inclusion. Later sections list our hypothesis and describe the databases used, method, results and conclusions.

BACKGROUND

A 401(k) plan enables employees to deduct money from their paychecks to fund their personal retirement plans. According to Consumer Reports (2002), an estimated 55 million American workers, 75 percent of those whose employers offered retirement plans, participate in 401(k) or other tax-deferred, defined contribution plans.

In contrast to a pension plan, which relies on the employer to contribute money toward an employee’s retirement resources, a 401(k) is built from the employee’s investment decisions and pre-tax dollars. The payoff has been viewed as providing for employee control and ability to tailor a savings strategy to meet individual needs for retirement. However, these employees incur the higher risks associated with higher rewards. In contrast to pension plans, which are insured by the American Pension Benefit Guaranty Corporation, a federal agency, to provide a specified amount to the beneficiary if an employer or its pension plan goes under, 401(k) plans had, as of spring of 2002, no safety net. Thus, 401(k) investors had no way to recoup their funds even if they were lost because of corruption or malfeasance (Consumer Reports 2002).

Therefore, the United States Congress in 2002, the year following Enron and other conspicuous corporate bankruptcies, was offered legislation to give employees freedom to divest company stock after three to five years of employment, instead of waiting until age 50 or 55, as was common practice among companies before 2002. The proposed legislation also required that workers receive quarterly statements showing the value of their retirement investments with a prominent reminder about the benefits of diversification. Additionally, it provided for worker education concerning their investment options and advice to help them achieve their goals, according to presentation from a supporting group representing mutual funds (Investment Company Institute 2002). In sum, the proposal did not limit the ability of an employee to concentrate his or her plan in an employer’s stock; it simply provided communication concerning the merits of acting otherwise.

However, it should be noted that even had such legislation existed in 2001, it would not have precluded financial catastrophe for many Enron employees. Many who could have divested their Enron shares chose not to, and until 2002, the majority of company stock represented voluntary purchases by employees (Wilcox 2002).

The concentration of 401(k) plan assets was certainly not limited to Enron, where 57.7% plan assets were invested in the company’s stock. A study conducted by the American Institute of Management and Administration (IOMA) showed that of 220 company 401(k) plans analyzed, 25 had more than 60% of their assets wrapped up in company stock (2001). Three plans among those researched by IOMA had in excess of 90% of employee assets in company stock: Procter & Gamble, 94.6%; Sherwin-Williams, 91.6%; and Abbott Laboratories, 90.2%.

Of course, many such buyer choices proved unwise. Enron stock fell in value by 98.8% in calendar 2001. Other substantial declines during the same period were Coca-Cola Co. (81.5% of 401(k) assets in company stock) down 22.3%; Texas Instruments (75.6% in company stock) down 32.3%; Williams Cos., Inc. (75% in company stock) down 33.1%; and McDonald’s Corp. (74.3% in company stock) down 21.1% (IOMA 2001). Even when experiencing such losses, however, many employees kept company stock, according to an issue brief of the asset allocation, account balances and loan activity covering 11.8 million 401(k) participants (VanDerhei 2002). Thus, the relationship between a company’s financial performance and buyer response when those buyers are employees who owned stock seems weak, at least on a short term.

It therefore makes sense to examine other variables. Job satisfaction is one way to predict employee commitment to a company (Barling, Wade and Fullagar 1990; Caldwell, Chatman and O’Reilly 1990; Fullagar and Barling 1991). Often, it is corre-
lated with compensation, and compensation is in turn a common correlate of company size, according to Hewitt Associates (1999). The third variable examined was company age, given that it is viewed as a subtle indication of worthiness and reliability, particularly for companies in less than venerable industries; e.g., high tech (Rieck 2000).

HYPOTHESES

Such reasoning led to the development of the hypotheses tested in this study.

H1: All else equal, satisfied employees invest a larger percentage of their 401(k) in the stock of the company they work for in comparison with less satisfied employees.

H2: Employees invest a larger percentage of their 401(k) in firms with higher business longevity in comparison with firms with lower business longevity.

H3: Employees invest a larger percentage of their 401(k) in larger firms in comparison with smaller companies.

H4: The company’s financial performance lacks a significant impact on the employees’ decisions to invest their 401(k) in its stock.

Thus, our basic prediction was: the concentration of 401(k) in the company’s stock is determined by employees’ satisfaction with the company and the company’s age and size, rather than by the company’s financial performance.

METHOD

The databases used to test these hypotheses began with the DC Plan Investing published by IOMA (www.ioma.com/products/prod_detail.php?prodid=12), which was used to assess the 401(k) plan assets invested in the company stock. The data provided was the last reported company stock as percent of Defined Contribution plan company stock holdings, December 2001, for 220 companies. These companies became the sample employed for analysis, and we sought predictive data concerning them, as follows:

- Fortune—Best Companies to Work For Database was used as a proxy measure of employees’ satisfaction with their job (www.fortune.com/lists/bestcompanies). While this list is not based on employee survey data, it emphasizes elements of compensation, which are often used as contributing to satisfaction with one’s employer (Hewitt Associates, 1999). The data was also for year 2001. Only 13 from the 220 listed in IOMA DC Plan Investing were included in this Fortune list, however.

- Fortune 500 America’s Largest Corporations was used to assess the size of the companies (www.fortune.com/indexw.jhtml) together with Business & Company Resource Center Database (www.galenet.galegroup.com/servlet/BCRC?locID=txshracd2588), for revenues in millions. The data was also for the end of 2001.

- Fortune 500 America’s Largest Corporations (www.fortune.com/indexw.jhtml) was used to assess the age of the companies together with Business & Company Resource Center Database (www.galenet.galegroup.com/servlet/BCRC?locID=txshracd2588) (year founded).

EMPIRICAL MODEL

We employed a linear model to test the effect of the employees’ satisfaction, company’s age, size and performance on the percentage of 401(k) invested in the company’s stock. The selection of the dependent variable (percentage of 401(k) invested in the company’s stock) and the independent variables (company’s size and age, employees’ satisfaction, and company’s financial performance measured by returns of investment) were based on literature reviewed here. All the variables are metric with the exception of satisfaction which is dichotomous (on the Fortune list or not).

The model tested was:

\[ \text{Perc}_{401(K)} = \alpha + \delta_1 \text{Sat}_i + \delta_2 \text{Age}_i + \delta_3 \text{Size}_i + \delta_4 \text{Finperf}_i + \epsilon_i \]

where

- \text{Perc}_{401(K)} = \text{Percentage of 401(K) invested in the company’s stock for a company } i
- \text{Sat}_i = \text{Employees’ satisfaction toward the company } i \text{ (present in the Best Company to Work For Fortune list or not)}
- \text{Age}_i = \text{Age of the company } i \text{ (number of years since the company was founded)}
- \text{Size}_i = \text{Size of the company } i \text{ (revenue in millions)}
- \text{Finperf}_i = \text{Financial performance of the company } i \text{ (return of investment)}

RESULTS

To determine the relative importance of each independent variable in predicting the dependent variable, multiple regression analysis was employed. Specifically, the regression analysis permitted examination of the variance in the percentage of 401(k) invested in company’s stock explained by the size and age of the company, the satisfaction of the employees (a Fortune leader or not) and the financial performance of the company.

We examined standardized regression coefficients (beta coefficients) to assess the relative strength of each independent variable in the equation. Consistent with our first hypothesis, we found that the presence of an employer on a list indicating high employee satisfaction significantly predicts a greater proportion of 401(k) funds invested in the company’s stock. We employed several models that took into consideration the satisfaction proxy and in all of them we found the categorization of a company as “best to work for” had an important and a significant influence on the percent of 401(k) invested in the stock (\(p < .004\)).

Our second hypothesis predicted that a company’s age would have a positive impact on the percent of 401(k) invested in the company’s stock: the older the company, more likely that employees will invest in the company’s stock. Although the relationship was in the direction expected, the coefficient did not reach statistical significance (\(p > .3\)). Thus, starting with the second model we excluded company age from the analysis.

The third hypothesis, stating that employees invest a larger percentage of their 401(k) in bigger firms in comparison with smaller companies, found support, using sales revenue as the indicator of size. The sales revenue beta coefficient reached significance in all models employed (\(p < .005\)).

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Recall that we expected that a company’s financial performance to have a less than significant effect on the percent of 401(k) invested in the company’s stock, even if the relationship is positive. In other words, we expected to find that satisfaction and company size and age have a bigger influence on the percentages of 401(k) invested in the company than the financial performance of the company. We found support for this hypothesis. Although the beta coefficient for returns was positive, its level did not reach significance in any of the models ($p > .2$).

We also excluded the satisfaction dummy variable from the analysis to see the contribution of the other variables in its absence (Model 4 and Model 5). We found that revenues, which represent company size, remained an important predictor of our dependent variable ($p < .005$). In contrast, financial return was insignificant again ($p > .2$). Thus, this additional analysis also supported our hypotheses.

Finally, in Model 5, we redid the analysis with all variables as dummies. Since we had expressed satisfaction as a dummy variable, because of the small number of companies found in the 100 Best Companies to Work For, we were concerned that we might have forced the difference and that this methodological issue explained why satisfaction was found to be an important predictor. Thus, by making all variables dummies we tried to assure equal chances for all our variables in the model. We obtained the same results as before.

The F values and the significance values showed that all our models provided a good fit. However, seeking parsimony we considered the second model to be best. In this model, only two variables, size of the company and employees’ satisfaction, made a significant contribution in predicting the dependent variable, whereas financial performance represented by return on investment had an insignificant role.

**DISCUSSION**

Limitations of a study of this kind include the problem that causality can only be inferred after the fact. There is no way to say that viewing a company as a good place to work, or trust in that company based on its size, led to the level of purchase employed here as a dependent variable.

Employee satisfaction is not measured directly but through “best company to work for” database. A validation of this measure might be done by finding secondary research data on employee satisfaction studies that have correlated this construct with the age of the company in which the employee worked. In addition, observation of “best company to work for” is limited to 13 companies out of 190 in the sample. Also, with the exception of financial returns, it was not possible to find data for several years for the other variables. Thus, one can draw conclusions only on the basis of a very limited set of companies.

Moreover, in this study, control variables could not as a practical matter be considered, such as how long each company requires investors to hold shares contributed by the company before allowing them to diversify, average size of employees’ assets, or information about the length of time workers have been employed at the firm. It might be possible that companies with relatively young workers would have fewer dollars in such plans and therefore be more likely to have a higher percentage of their assets invested in company stock. In contrast, companies where most workers have been employed for a long period of time would be more likely to have reached a level where they are able, under plan rules, to sell company stock to purchase other assets to diversify their portfolio.

Keeping these limitations in mind, however, these findings suggest that a Congressional decision to give employees freedom to divest themselves of company stock after three or five years of service, instead of waiting until age 50 or 55, might have less impact than expected. Since company financial performance appears to have only a minimal impact on employee decisions to invest in their company’s stock, giving employees freedom to sell their stock after three years might not make a difference in preventing disasters such as Lucent and Enron. Consequently, although it might constitute an administrative headache and could prompt employers to cut back on contributions (Wilcox 2002), measures like limiting the amount of company stock that 401(k) participants may own to a fixed percentage (say 10% or 20% of their account), in addition to education programs about the risk of overconcentration, might constitute a better way to help prevent overwhelming loss of savings.

There is a broader marketing policy implication, also, in the evidence presented here that investment purchases are like the purchases of cars, cereal, or magazine subscriptions in the role played by factors beyond economic calculations. In a sense, employees may be “buying” comfort with the purchase of something...
familiar, the virtuous feeling of supporting their employer, and the avoidance of choosing among a complex set of possible investment vehicles when they concentrate 401(k) purchases in the stock of their employer. Those considering turning over the investment of funds now invested through a central Social Security system might take these findings into account. In fact, any legislation concerning the purchase of any investment vehicle will presumably benefit from greater understanding of how such choices are made.

REFERENCES
Many marketers think market segmentation is the most important engine of growth. On the contrary, it is technological change that is perhaps the most powerful engine of growth. Numerous examples can be cited from the industry to support this claim. First, the growth of Microsoft from a fledging company to the colossus of the computer industry was enabled by technological change. Second, emergence of internet-enabled products, walkman, washers etc. suggest that technological change creates new growth markets. Third, the meteoric rise of Amazon and Dell suggests that it is technological change that also propels small outsiders into market leaders.

However, firms cannot gain from technological change if they do not understand it well. Specifically they need to understand how new technologies evolve, including any underlying patterns. It is also important to know the dimensions of competition between technologies, the process of transition between old and new, and the source of innovations. Currently, the main sources of answers to all these questions are limited findings in the technology management literature (e.g. Foster 1986; Utterback 1994; Christensen 1997). These sources promote a theory commonly known as the Theory of S curves. Our study seeks to confirm whether this commonly accepted model of technological evolution promoted by these sources holds.

One of the reasons for limited research in this area is the lack of ready made data. We had to painstakingly collect data over a large portfolio of categories using historical method (Golder 2000; Golder and Tellis 1993). We define three types of innovations—platform, design and component innovations—strictly based on the intrinsic characteristics of the technology. These definitions avoid the error of circular reasoning created if definitions based on market outcomes of innovations are used to predict market outcomes. A platform innovation is the emergence of an entirely new technology based on scientific principles distinct from those of the existing technologies e.g. the compact disk. Design and component innovations incorporate changes in materials and layout respectively within the same platform innovation.

We selected a mix of old and new categories allowing both comparison and validation. Existence of at least two platform innovations in each category and ease of data availability were other criteria. Our sample includes 23 technologies in external lighting, data transfer, computer memory, desktop printers, display monitors, and analogesics. We first identified all the platform innovations and then recorded the maximum performance of products for each year from its year of introduction till 2001, and details of the firm that introduced it.

Prior literature (Foster 1986, Sahal 1981) suggests that technologies evolve through an initial period of slow growth, followed by one of fast growth culminating in a plateau. When plotted against time, the path resembles an S curve. To test these hypotheses, we plotted performance of technologies over time and also fitted the generalized logistic function using nonlinear regression techniques in SAS to estimate the model, but found little support for the hypothesis. In majority of technologies we found long periods of static performance interspersed with abrupt improvements in performance. Some technologies even showed no change in performance since introduction.

The theory of S curves suggests that sometime during the life of the first technology, a new one emerges and initially it also performs worse than the old technology. With time, it improves faster than the old technology and finally overtakes it in performance. Hence we expect a series of S-curves with single crossing, new attack always from below and each ending at higher level. However, we find no support for these hypotheses. Most new technologies performed better than the old technology, right from the time they were introduced while others never improved. Also, some technologies exhibited multiple crossings as dominance shifted interchangeably between the two.

Past research suggests that competition occurs systematically and sequentially along four generic dimensions of inter-technological competition: functionality, reliability, convenience, and cost (Christensen 1999). On the contrary, our results suggest a sequence of random, unpredictable secondary dimensions in each of the six categories e.g. brightness/color index/compactness in lighting.

There is evidence of both increasing pace and constant pace of technological change in prior literature. However, most of the studies employ indirect measures due to lack of data. Our rich data allows using three direct measures of the rate of technological change—the pace of introduction of new technologies, of technological improvements within each platform and the annual rate of improvement for each technology. Tests of all three measures support an increasing pace of technological change.

The conventional wisdom is that small outsiders are more likely to introduce new technologies. Although these small firms are ridiculed and ignored by incumbents in the beginning, they eventually become successful and large incumbents with more opportunity and resources for innovations. However, size and incumbency lead to complacency and technological inertia. Hence we expect innovations to come from small outsiders and large incumbents. We find strong support for both these hypotheses.

To summarize, we failed to find support for many prevailing beliefs about technological change. We conducted a series of robustness tests to validate our findings on shape, path, and crossing patterns. First, we redid all analyses for two different reference points—first technology in each category, the dominant technology in each category in addition to the one just prior. Second, we examined the effect of using benefits per dollar as a metric instead of only benefits. Finally, we also tested the hypotheses using multiple dimensions of performance simultaneously.

This study has several implications for managers. First, using the S-curve to predict the performance of a technology is quite risky and may be misleading. Second, the continuous emergence of new technologies and the steady growth of most technologies suggest that relying on the status quo is deadly for any firm. Third, another threat to incumbents is the emergence of secondary dimensions of competition. Fourth, large firms are not doomed to extinction. More details and results are available in Sood, Ashish and Gerard J. Tellis (2005), “Technological Evolution and Radical Innovation,” Journal of Marketing.
ABSTRACT
This research considers the impact of technology on the salesperson’s activities. The study integrates a literature survey with quantitative research to uncover the relationship between the usage of technology and the alignment of salespeople’s time within the HR services industry. A survey of 50 HR sales consultants was conducted and it was found that these salespeople do save time by using mobile technologies, but channel their additional time into selling activities instead of building stronger relationships with existing customers. Discussion addresses the possible reasons for salespeople not redirecting their time toward customer relationship marketing, as it was postulated they would.

TECHNOLOGY AND EFFICIENCY

Hardware
Many companies have been providing their staff with information technology (IT) as it becomes available based on the assumption that it will lead to an increase in productivity and other long run benefits for the company. Various studies of IT and performance/productivity have been conducted, but most of these studies seem to be more concerned with the effects of IT on productivity at the industry/economy level. The findings from these studies are often contradictory in any case, and have led to the discussion of the “IT productivity paradox.” This paradox was formulated by Nobel laureate Robert Solow in response to the massive investments in IT that started began in 1980 yet seemed to have limited positive effects on productivity growth (Solow 1987). However, it was also argued that many of these studies suffered from methodological flaws in that they do not regard differences between firms or industries.

Limited academic research has been devoted to the study of the effect of technology on salespeople’s performance. However, early case studies have shown the potential benefits of technology for salespeople (Cronin and Davenport 1990; Moriarty and Swartz 1989). Still, little insight has been provided as to whether the use of technology can add value. The objective of this research is to examine the usage of IT among salespeople. More specifically, an endeavor is made to find out whether higher usage of technology results in a “better” alignment of time spent on the various activities in which salespeople are involved.

Hammer and Champy claimed that the real power of technology is not that it can make the old processes work better but that it enables organizations to break old rules and create new ways of working (Hammer and Champy 1993). This is evident in the role that the salesperson plays, which seems to have changed over the years as salespeople are no longer simply promoting their goods and services to the consumers on a transactional basis in a bid to increase sales. Many salespeople have evolved from transactional selling to become managers of customer relationships, and technology has played a part in this transition by facilitating buyer-seller interactions, building stronger customer relationships and allowing easier access to critical sales information. Technology is thus increasing the efficiency and effectiveness of salespeople through their ability to improve communications between the salespeople, the selling organization and the customers (Taylor 1993).

Changes in communication-related technology was the strongest new trend reported in a salespeople’s focus group study conducted by Marshall, Moncrief and Lassk (1999). Communication technologies such as email and cellular phones have been found to be useful communication tools that increase salespeople’s productivity and aid in the provision of higher levels of customer service (Marshall et al. 1999). In addition, e-mail allows messages to be sent almost instantaneously to any number of recipients. E-mails have the additional advantage of being able to send personalized messages to customers. Even fax programs, such as WinFax, enables HR sales personnel to bypass the traditional fax machines, hence saving time.

The Internet is proving to be a powerful and low-cost way to communicate with customers. The key to staying competitive is to provide timely and detailed information to consumers, and Internet access has become widely used with almost every company having its own website for consumers or other stakeholders to gain access to updated information about the company and the products. One of the most popular sales uses of the internet is in generating prospects. Salespeople are becoming increasingly cyber-savvy to make contacts and subtly promote their products online (Success 1996). Also, distributing customer support information through the internet is a cost-efficient and time-saving way of delivering information to thousands of current and prospective customers (Taylor 1994).

Handheld device technology is rapidly becoming the standard equipment for many mobile workers and for executives who are frequently away from their desks. Many companies encourage their employees to make use of PDAs because they are believed to be able to boost productivity away from the office (Lewis 2002). It has also been suggested that wireless applications may even make business more productive. The access to real-time data by remote service staff and the instant information on parts, inventory, and order status available to the salespeople will significantly improve service quality and reduce the transaction times (Xu, Yen, Lin, and Chou 2002). With more places providing wireless networking infrastructure, mobile technology such as PDAs and WAP-enabled mobile phones are gaining popularity as they can support anytime/ anywhere access via networking.

As technology advances rapidly, companies have provided technological equipment to their staff in order to stay competitive. As a result, desktop computers and laptops and other forms of IT hardware have become fundamental tools in almost every company. Personal computers have enabled the sales force to provide high quality customer service by having quick access to timely and updated information (Futrell 2001).

Anderson argued that notebook computers equipped with various Sales Force Automation software applications have helped to reduce much of the paper work, helped to manage accounts, and helped to control sales administration tasks (Anderson 1996). Early in the last decade, laptop computers were shown to have the potential to deliver substantial benefits—(Moncreif, Charles W. Lamb, and Mackay 1991). Later, laptop computers were reported to empower salespeople by allowing them to quickly and easily access their company’s computer databases instead of going through their sales managers or any other headquarters’ sources (Seideman 1994). Hence mobile computing is generally seen as a valuable tool.
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for increasing the level of productivity and a competitive weapon for organizations

Software

For a salesperson, maximizing time for daily accomplishments is essential for consistent sales performance. Time management software enables the sales person to spend more time in front of the ‘right’ customers, plan his presentation and utilize non-selling time in a more productive way. This improvement of time management directly increases productivity. Contact management is a listing of all the customer contacts. Contact management software such as the electronic address book enables the salesperson to retrieve this information easily in a variety of formats. Customers can be categorized into groups and assigned to salespersons, so that salespersons can perform tasks such as prioritize, schedule follow-up actions and update information easily.

Microsoft PowerPoint is one of the most commonly used presentation software packages which allows sales personnel to create dramatic and interactive computer based presentations at relatively low cost. As the old adage of “A picture is worth a thousand words” seems to still be true today, computer graphics can be very effective in creating an impact and capturing the attention of the clients during presentations.

Alignment of Salespeople’s Time

A preliminary research project concerning the alignment of salespeople’s time revealed that their time is mainly spent as follows (1996; O’Connell and Keenan 1990): Selling activities (56%), which is divided between face-to-face selling (31%) and selling via telephone (25%). Traveling/waiting time accounts for the second highest time usage (18%). Next is administration (15%) and account service/coordination (11%). These classifications of activities are rather broad, however, and provide little detail. In an earlier study reported by Moncrief (1986), 121 sales activities were identified. These activities are classified under ten headings shown in Table 1.

Several selling activities–product testing, installation supervision, accessory ordering, recruiting and training new sales rep and traveling with them, did not show up in a later study (Duncan and Moriarty 1998), resulting in the elimination of one of the factors;

| TABLE 1 | Summary of the activities and their composition |
| Factor | Activity Composition |
| Selling function | Select appropriate customers, understand them sufficiently to plan appropriate presentations, select appropriate products for sales calls, make sales presentations, overcome objections, plan selling activities, introduce new products, identify buying center members, prospect for new customers, call on new accounts, help clients plan. |
| Working with people within own organization | Correct erroneous orders, expedite orders, handle back orders, and facilitate correction of shipment problems. |
| Servicing the product | Test equipment, be present during repairs, supervise installation, learn about product usage/usage from customer’s technician, perform maintenance, make delivery using product, order accessories, teach safety instructions, train customers (and their customers) to use product. |
| Information Management | Provide feedback to supervisors, receive feedback from clients, check-in with superiors, read trade publications, provide technical information. |
| Servicing the Account | Inventory, set-up point of purchase displays, handle local advertising, stock shelves. |
| Conferences and meetings | Attend sales conferences and regional sales meetings, assist clients in managing conferences, exhibitions, trade shows; attend corporate and client training sessions. |
| Training and recruiting | Recruit new sales representatives, train and mentor new representatives, assist sales management in planning future selling activities. |
| Entertaining | Entertain customers and their customers in an interesting and appropriate manner. |
| Traveling | Travel to visit customers both at home and away from home. |
| Working with Distributors | Sell to distributors, train distributor sales people and technicians, establish relations with distributors, help them manage their inventories, extend credit, collect past due accounts. |
“training and recruiting.” Furthermore, in their 1998 study, 49 new selling activities were identified in addition to the 121 selling activities uncovered in the previous 1985 study—and of the 49 new selling activities that were identified, 25 of them were technology-related (Marshall et al. 1999).

HYPOTHESES DEVELOPMENT

Technology is believed to make the selling process more efficient by automating highly repetitive support tasks, reduce the time salespeople spend on non-selling tasks and thus give salespeople more time to sell (Moriarty and Swartz 1989). IT should generally ease and speed the sales persons’ information and communication processes and their performance. Therefore, IT-savvy sales people will have the ability to build stronger customer relationships, provide better customer service and enhance their productivity (Colombo 1994; Duncan and Moriarty 1998; Keillor, Bashaw, and Pettijohn 1997).

Even though the number of activities identified as required for successful performance of the sales task has generally increased (Marshall et al. 1999), the use of appropriate technology should still improve salespeople’s productivity, freeing time from mundane and repetitive tasks and allowing more time for selling. This is presumably because salespeople who use technological tools will spend less time on administrative tasks and are thus able to spend more time on selling, providing customer service and developing customer relationships. Hence the related research hypotheses follow:

H1: The use of mobile technology decreases the proportion of time spent on administrative activities.
H2: The use of technology increases the proportion of time spent on selling.
H3: The use of technology increases the proportion of time spent on providing after-sales service.
H4: The use of technology increases the proportion of time spent on developing customer relationships.
H5: There is a negative relationship between the level of technology usage and time spent on traveling.

RESEARCH METHOD

Sample and Data Collection
The nature of selling activities differs among industries leading to differences in the time allocated to various activities performed by salespeople in these different industries. The sample frame consisted of 50 respondents from the human resource industry only. In this light, our focus is on the salespeople within that industry (i.e. the HR consultants who are selling HR services). The objective of focusing on a single industry is to isolate the effects that inter-industry differences would have on the time allocated to various activities. The relative usage level of technology by the respondents is used to enable classification into hi-tech and lo-tech groups.

The survey was conducted through in-office interviews, using a convenience sample of respondents from various head-hunting firms in Singapore. Face-to-face in-office interviews ensure a lower non-response rate, and facilitate clarification of survey questions.

Questionnaire Development
Questions one and two of the survey probe into the kinds of IT that HR personnel use. Specifically, question one examines the types of hardware used, whereas question two relates to the types of software programs used. Question three uses a seven-point Likert scale to assess the perceptions that HR personnel have on the relationship between technology and time management, as it was thought that attitudes might play a role in technology usage.

In order to obtain a more specific proportion of time spent on each activity, respondents were asked to distribute a scale of 100% in accordance to the relative time they spend doing each item on the list of activities given to them. This constant sum scale was chosen for the ease of completion and understanding by respondents.

The generation of the list of activities for the respondents was based largely on the findings of the research of Marshall, Moncrief et al. (1999), although these activities have been reclassified to suit the nature of the human resource industry. Activities that are not relevant in this industry, such as “Working with Distributors,” are thus omitted. It is difficult to draw a distinct line between the product and the client in the services industry; therefore, “Servicing the Account” and “Servicing the Candidate (Product)” are combined and renamed as “After-Sales Service.” The terminology of some of the activity-groupings have also been changed, to ease respondents’ understanding. The list of activity classifications, as well as their activity composition, is shown in Table 2. Order taking and order processing, and information processing and management are considered as administrative activities, as stated in hypothesis H1.

A pretest of the procedures and the instrument was conducted with ten HR consultants from the target group, after which several minor adjustments to the questionnaire were made. For instance, the constant-sum scale was changed from 100-hours to 100 percent, because the pretest group expressed difficulty in allocating in terms of a 100-hours scale.

RESEARCH FINDINGS

IT Tools that HR Consultants Use
Table 3 shows the percentages of HR consultants who use the various IT tools. The survey showed that desktop PCs, word processors, web browsers and communication software (e.g.: email clients) are the most popular technologies used by the HR consultants. It was also found that less than 50% of the respondents actually use mobile IT devices (e.g. cellular handphones, laptops, PDAs and WAP *phones) on the job.

To facilitate the testing of the hypotheses, the respondents are first separated into two groups. Based on the survey data, users of WAP, PDAs or laptops are separated from non-users. From the former group (users of WAP, PDAs or laptops), those who use Time Management Software (TMS), Contact Management Software (CMS) or web browsers are selected. This final classification of the HR consultants in the sample, consists of 29 respondents classified as hi-tech users while the remaining 21 respondents fall under the low-tech users group.

Respondents’ Perceptions of Technology
This variable was, unfortunately, not very helpful, as there is an almost unanimous agreement that technology helps productivity—in retrospect the social acceptability bias should, perhaps have been avoided in the question framing. The 7-point scale mean
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(Where “7” = agreement that technology the use of personal technology has enabled them to better manage and allocate their time) is 5.2, the mode 5, and only three respondents answered below the mid-point of the scale.

Percentage Time Spent on Various Sales Activities
The means, standard deviations and confidence intervals of the percentage time spent on the respective activities are tabulated and presented in Table 4.

An exploratory investigation of the relationships between time spend on the respective activities was undertaken using correlation analysis. Table 5 contains a summary of the correlations between the variables included in this study, which are sufficiently encouraging to encourage hypothesis testing. In particular, a strong negative correlation can be seen between selling and after-sales service, traveling time, administration and, oddly, customer relationship marketing activities.

Hypotheses testing
Hypothesis 1 states that the use of technology reduces the time spent on administrative activities. Analysis by ANOVA, where the dependent variable is time spent on selling and the independent is high- or low-technology usage, reveals an effect in the expected direction (Mean (hi-tech) = 13.5, Mean (low-tech) = 10.6; F = .88, p = .05).

Using Cohen’s classification of effect size and Hay’s Omega squared ($\omega^2 = .054$) then this significant effect is on the cusp of being a small or medium effect (Cohen, 1977).

H2 states that the use of technology increases the proportion of time spent on selling; this hypothesis can also be tested by ANOVA using the hi- and low technology categorizations as the independent

### TABLE 2
Classification of Selling Activities in the Human Resource Services Industry

<table>
<thead>
<tr>
<th>Classification</th>
<th>Activity Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling Function</td>
<td>Screening potential candidates; making sales presentations; calling on potential accounts; planning selling activities; preparing sales presentations; identifying person in authority; searching out leads; call on new accounts; help clients plan; preparing candidate resume; etc.</td>
</tr>
<tr>
<td>Order Taking and Order Processing</td>
<td>Writing up orders; keeping track of invoices; handing over orders to support staff for processing; calculating payments due from clients; verifying commissions; etc.</td>
</tr>
<tr>
<td>After-sale service</td>
<td>Orientating selected candidates; visiting selected candidates; checking back on selected candidates’ performance; candidate replacement; etc.</td>
</tr>
<tr>
<td>Information Processing and Management</td>
<td>Generating sales activity reports; monitoring competitors; updating and maintaining a database of clients &amp; candidates; collecting customer feedback; etc.</td>
</tr>
<tr>
<td>Conferences / meetings</td>
<td>Attending sales conferences; attending regional sales meetings; setting up exhibitions &amp; trade shows; attending training sessions; etc.</td>
</tr>
<tr>
<td>CRM</td>
<td>Sending letters &amp; greeting cards; calling on existing clients, entertaining them.</td>
</tr>
<tr>
<td>Traveling</td>
<td>Traveling to client’s location; traveling to meeting &amp; conferences venue.</td>
</tr>
</tbody>
</table>

### TABLE 3
Percentage of HR Consultants who use IT tools

<table>
<thead>
<tr>
<th>IT Tools</th>
<th>% of HR Consultants</th>
<th>IT Tools</th>
<th>% of HR Consultants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop PC</td>
<td>96</td>
<td>Laptop</td>
<td>30</td>
</tr>
<tr>
<td>Word Processors</td>
<td>96</td>
<td>Contacts Management Software</td>
<td>28</td>
</tr>
<tr>
<td>Web Browsers</td>
<td>80</td>
<td>Personal Website</td>
<td>28</td>
</tr>
<tr>
<td>Communication software</td>
<td>76</td>
<td>Payroll Software</td>
<td>14</td>
</tr>
<tr>
<td>Cellular telephones</td>
<td>48</td>
<td>PDA</td>
<td>10</td>
</tr>
<tr>
<td>Presentation Software</td>
<td>42</td>
<td>WAP telephones</td>
<td>8</td>
</tr>
<tr>
<td>Time Management Software</td>
<td>32</td>
<td>Other software</td>
<td>4</td>
</tr>
</tbody>
</table>

(where “7” = agreement that technology the use of personal technology has enabled them to better manage and allocate their time) is 5.2, the mode 5, and only three respondents answered below the mid-point of the scale.)
variable and selling time as the dependent. Again, the hypothesis is supported \(\text{Mean}_{\text{hi-tech}}=33.79\), \(\text{Mean}_{\text{low-tech}}=24.42\); \(F=3.94, p=.05\). In this instance \(w^2=0.056\), another significant effect on the cusp of being small and medium-sized.

Hypotheses 3, 4 and 5 pertain to the use of high-technology allowing more time to be spent on after-sales service, customer relationship management and less on traveling, but all three are not supported statistically.

### TABLE 4
Descriptive statistics for the High- and Low-tech groups

<table>
<thead>
<tr>
<th>Percentage Time Spent on:</th>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upper Bound</td>
</tr>
<tr>
<td>Selling</td>
<td>Lo</td>
<td>24.52</td>
<td>15.883</td>
<td>3.466</td>
<td>17.29</td>
</tr>
<tr>
<td></td>
<td>Hi</td>
<td>33.79</td>
<td>16.565</td>
<td>3.076</td>
<td>27.49</td>
</tr>
<tr>
<td>Order Taking &amp; Order</td>
<td>Lo</td>
<td>13.00</td>
<td>8.216</td>
<td>1.793</td>
<td>9.26</td>
</tr>
<tr>
<td>Processing</td>
<td>Hi</td>
<td>11.03</td>
<td>7.835</td>
<td>1.455</td>
<td>8.05</td>
</tr>
<tr>
<td>Information Processing &amp; Management</td>
<td>Lo</td>
<td>14.00</td>
<td>9.899</td>
<td>2.160</td>
<td>9.49</td>
</tr>
<tr>
<td></td>
<td>Hi</td>
<td>10.10</td>
<td>6.253</td>
<td>1.161</td>
<td>7.73</td>
</tr>
<tr>
<td>Administrative</td>
<td>Lo</td>
<td>13.50</td>
<td>5.718</td>
<td>1.247</td>
<td>10.90</td>
</tr>
<tr>
<td></td>
<td>Hi</td>
<td>10.57</td>
<td>4.779</td>
<td>0.887</td>
<td>8.75</td>
</tr>
<tr>
<td>After-sale Service</td>
<td>Lo</td>
<td>17.86</td>
<td>12.204</td>
<td>2.663</td>
<td>12.30</td>
</tr>
<tr>
<td></td>
<td>Hi</td>
<td>15.17</td>
<td>7.960</td>
<td>1.478</td>
<td>12.14</td>
</tr>
<tr>
<td>Attending Conferences &amp; Meetings</td>
<td>Lo</td>
<td>5.24</td>
<td>4.867</td>
<td>1.062</td>
<td>3.02</td>
</tr>
<tr>
<td></td>
<td>Hi</td>
<td>7.00</td>
<td>5.292</td>
<td>.983</td>
<td>4.99</td>
</tr>
<tr>
<td>Traveling</td>
<td>Lo</td>
<td>4.95</td>
<td>4.695</td>
<td>1.025</td>
<td>2.82</td>
</tr>
<tr>
<td></td>
<td>Hi</td>
<td>7.00</td>
<td>4.536</td>
<td>.842</td>
<td>5.27</td>
</tr>
<tr>
<td>CRM</td>
<td>Lo</td>
<td>20.43</td>
<td>20.750</td>
<td>4.528</td>
<td>10.98</td>
</tr>
<tr>
<td></td>
<td>Hi</td>
<td>15.52</td>
<td>9.855</td>
<td>1.830</td>
<td>11.77</td>
</tr>
</tbody>
</table>

### TABLE 5
Correlation matrix showing relationships between HR consultants’ time expenditures

<table>
<thead>
<tr>
<th>Activity (as a % of total)</th>
<th>Selling</th>
<th>After-sales service</th>
<th>Conferences &amp; meetings</th>
<th>Traveling</th>
<th>CRM</th>
<th>Admin.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling</td>
<td>1</td>
<td>-.327*</td>
<td>-.178</td>
<td>-.339**</td>
<td>-.525**</td>
<td>-.299**</td>
</tr>
<tr>
<td>After-sales service</td>
<td></td>
<td>1</td>
<td>-.2</td>
<td>-.279*</td>
<td>-.183</td>
<td>.067</td>
</tr>
<tr>
<td>Conferences/meetings</td>
<td></td>
<td></td>
<td>1</td>
<td>.382**</td>
<td>-.135</td>
<td>.019</td>
</tr>
<tr>
<td>Traveling</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>.094</td>
<td>.042</td>
</tr>
<tr>
<td>CRM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>-.410**</td>
</tr>
<tr>
<td>Admin.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Note: *=correlation is significant at the 0.05 level (2-tailed).
**=correlation is significant at the 0.01 level (2-tailed).
**DISCUSSION**

**Summary**

The use of computer technology is becoming part of the life of HR consultants, as it is for salespeople other industries all over the World. Whether it takes the form of computer-based contact management, electronic mail or searching for information on the World Wide Web, all of the HR consultants in this study are using technology on the job in one way or another. In fact, the overall usage figures surprised, as they seem somewhat low. Unfortunately the data does not allow speculation as to whether this is an industry effect (maybe HR consultants feel reluctant to use the technology, preferring a face-to-face contact?) or a national one (the research was conducted in an Asian city and thus may not reflect Western levels of usage).

The results suggest a statistically significant negative correlation between percentage of HR consultants’ time spent on selling activities and time spent on after-sale service, time spent on traveling, time spent on developing and maintaining customer relationships and time spent on administrative activities. The results also suggest significant negative correlations between time spent on after-sale service and time spent on traveling, time spent on developing and maintaining customer relationships and time spent on administrative activities. In addition, a positive correlation between the time spent on attending conference and meetings and time spent on traveling was found.

The study findings do not support the overall assertion that a salesperson spends the time freed up from repetitive tasks for developing and maintaining customer relationships. As expected, though, “hi-tech” HR consultants spend significantly less time on administrative activities than their “low-tech” counterparts, and this represents an important finding. The second major discovery here is that time freed up on administrative efficiency due to technical sophistication is spent mainly on more selling.

**Implications for Theory**

As in previous research with salespeople, it was found here that the average HR consultant spends the greatest proportion of his/her time selling. An average HR consultant also devotes more than 30% of his/her time to after-sales service and customer relationship development. In addition, a significant proportion of time is spent on information processing, information management, order taking and order processing. Only a small fraction of the HR consultants’ time is spent on traveling or attending conferences and meetings. Although it seems a truism, selling is, then, still the most important aspect of a salespersons’ job.

The literature had seemed to suggest, though, that sales consultants are spending more time on customer relationship management and after-sales service activities. In this customer relationship marketing era, it is a little puzzling that the HR consultants surveyed are not spending more time on developing customer relationships and providing better service.

Two speculations are tempting. First, in the tough economic climate prevalent in Singapore a short-term sales view may be dominant. Again, it would be really interesting to find out if this is an industry or a national phenomenon; is lip-service only being paid to customer relationship marketing in tough times, or is this a only a local issue?

A further fascinating speculation concerns the interpretation of the nature of activities that constitute selling and customer relationship development. In a sense the two functions may be very hard to separate as CRM is not undertaken for any philanthropic reason, but simply to increase sales in the medium to long term. Not only might there be some real confusion here (certainly in the minds of the respondents, at least) about the real differences, but maybe what we are seeing here is merely a short-term, rather than a long-term, sales concept at work?

**Managerial implications**

The use of technology will eventually lead to a decrease in the proportion of time being spent on mundane tasks by salespeople whether it is deliberately sought or not. However, sales managers could take a proactive stance and push to advocate the use of technology among salespeople; maybe financial incentives could be used to this end, to subsidize the cost of personal technology purchases by sales personnel. Certainly, the company could provide relevant hardware and software and training to its (HR) sales personnel.

The freed-up time of HR consultants with the use of technology apparently does not necessarily lead to more time being allocated to developing and maintaining customer relationships. The fact that time saving was not channeled to customer relationships maintenance and after sales services meant that there is a possibility that the HR consultants are not catching on to either the fact that productive time can be freed by technology, or that there is a general misunderstanding, or disagreement, about the value of building and maintaining a strong relationship with (certain) customers. There seems an opportunity for companies to first of all establish their priorities, and then consciously direct the HR/sales personnel in the desired direction—either a short-term sales orientation or to forgo one-time sales transactions and focus on building a long term relationship with the customers.

**Future research**

This is exploratory research that uses a local convenience sample and descriptive research methods. Clearly, confirmatory research on a larger scale, which could lead to wider generalizations, would be of great value. Furthermore, the use of a nominal scale to judge technical sophistication is crude; an equal-interview scale would not only allow more sophisticated statistical analysis but also allow the extent of adoption to be more accurately gauged.

Furthermore, the list of software and hardware which we consider in our study now are limited only to those basic off-the-shelf products. With the introduction of 3G technology and Multimedia Messaging Service (MMS), a broader list of hardware and software can be developed. The list could also be extended to include customized software and Sales Force Automation (SFA) products on an organization level.

Nevertheless, a useful contribution has been made. That busy salespeople can save time on administration by using mobile technologies has been empirically demonstrated, and the options of spending that “found” time on short-term sales efforts or on longer customer relationship activities has been highlighted as an issue for sales managers to ponder.

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Success, Selling (1996). Rent a Sales Superstar. in Selling Success.


Why Functional Specialists Should Be Encouraged to Use the Internet: The Changing Pattern of Influence in Buying Centers

Roger Marshall, Nanyang Technological University, Singapore
Na WoonBong, Kyunghee University, South Korea
Park ChanWook, Kyunghee University, South Korea
Peter Allan Reday, Ashland University, U.S.A.

ABSTRACT

It is hypothesized that the influence structure of industrial purchasing centers will vary depending upon whether or not the company is Internet-enabled as functional specialists will become more knowledgeable. Analysis of the research data shows that the marketing managers in the Internet-enabled companies are significantly more influential over the stages of the decision compared to both their counterparts in non Internet-enabled companies and to their CEOs.

PROBLEM ORIENTATION

For decades, ever since the importance of the group purchase process within industrial organizations was identified and encapsulated into models of industrial purchase behavior, research has been carried out with regard to the power structure and size of organizational buying centers. It is our belief, however, that a sweeping change is taking place in the structure of company buying centers because of the impact of Internet.

It is often said that we live in an information age. The important implication of the statement is that those who have information power, should they choose to use the information. It is a basic premise of Internet business models that information is readily available to anyone who cares to tap into the appropriate network; thus the hierarchical nature of information diffusion within organizations (and, thus, the traditional power structure) is no longer necessarily applicable. This idea is neatly encapsulated in the work of Evans and Wurster (Evans and Wurster 1997), who emphasize the possibility of almost immediate diffusion of information within either an intranet system or on the World Wide Web.

This suggests to us the possibility that everyone in the buying center—who cares to seek for it, at least—can now have access to information that was exclusive to information gatekeepers in the past. Past studies have documented the typical influence of various role players in industrial buying centers, but it seems likely to us that in this new information age new patterns may begin to appear. It is the primary purpose of the research reported here to speculate what these patterns might be and to conduct some preliminary field work to test these speculations.

SELECTION OF A SPECIFIC SERVICE

To facilitate this study of the influence of Internet on buying centers, we have selected advertising as the service to be purchased by industrial buying centers. The rationale for this choice is based not only upon the importance of the decision but, mainly, the convenience of having specific, published, recent data about the size and influence structure within such selection teams (as this literature calls corporate buying centers purchasing advertising agency services).

Few would argue with the statement that advertising expenses are generally increasing. Among the many reasons for this must be the availability of a wider, technology-enabled media selection, plus increasing competition in so many markets, and the need to reach diverse and wider markets with globalization that must place pressure upon the structure and maintenance of an appropriate company or product/service image. At a firm level, organizations are thus often faced with a number of escalating concerns. Basic costs are rising, technical complexity of the media decision is increasing, the use of Internet, intranet and extranet to further develop customer relationships and expedite operations all call for further image co-ordination. All this, plus the fact that few firms have the internal expertise to manage this communication process themselves so find it necessary to entrust the reputation and image of the company to the hands of another organization— it is little wonder that the selection of advertising agency service is so important.

As long ago as 1988 a call was made to delineate the organizational decision process that results in an advertising agency being hired, and to identify the key participants in it (Harvey and Rupert 1988). This call has oft been heeded, and so we have fairly detailed answers (Cagley, et al. 1984; Cagley 1986; Lynn 1987; Harvey and Rupert 1988; Marshall and Na 1994; Kim and Waller 1999; Na, Marshall et al. 1999; Na and Marshall 2001). These, and other appropriate papers, will be inspected shortly as the research hypotheses are develop.

HYPOTHESES DEVELOPMENT

Size of the Buying Center

The buying center includes all members of the organization who are involved in the buying process. The structure of this group fluctuates as expertise is required, or time-pressure is felt. As purchasing groups are usually informal in nature, there is often no audit trial to enable the precise structure of buying centers to be defined. Over the years, however, many studies have been conducted to investigate the mean size of buying centers in various types of organizations. Variables such as the size of the organization (Bellizzi 1981; Crow and Lindquist 1985); the value or importance of the purchase made (Johnston and Bonoma 1981); the length of time a buying relationship has existed (Lynn 1987) and the type of industry the purchasing firm operates in (Crow and Lindquist 1985) have been included in these studies to investigate their impact on the size of an organization’s buying center. A summary of the figures from current research is presented in Table 1.

It can be seen, from a scrutiny of the Table, that buying centers concerned with purchasing advertising agency services are significantly smaller than those for most industrial goods. There seems a consensus that this is mainly because of the specialized nature of the service being purchased.

None of this research has taken explicit notice of the use, or lack of use, of Internet, and what impact on the size of the buying center this factor might have. Thus there is no guide whatsoever in this matter, other than the development of a logical argument from our current observations. It is quite clear that anybody in the buying center can gather any amount of information about almost any agency anywhere in the world, should they so desire. As few have the motivation to search for this particular information, however, we cannot see that the size of the buying center should differ whether Internet is widely used by company executives or not. That
is, it is interest that probably drives extended search behavior, and we believe that few people other than those explicitly involved in the advertising agency purchase situation would have that interest. This logic is especially compelling in the agency situation, where it has already been noted that the specialized purchase topic results in a smaller than usual purchase team. Hence:

Hypothesis 1: No significant difference exists in the sizes of buying centers of companies that widely use the Internet and those that do not.

The structure of Influence within Buying Centers

Although we do not believe that the size of agency buying centers will vary with the introduction of Internet usage, the same is not true for the influence structure within centers. Again, there is no specific literature to help formulate our ideas about what this change might be, so we will again weave a picture of what may be going on here, using only the wool of logic and the warp of observation. That there will be some sort of differential impact caused through the level of technology utilized by companies within which buying centers operate, however, can be justified by reference to the established literature. Right from the beginning of academic interest in buying centers, it has been postulated by a number of authors that the structure of the buying center will be affected by the environmental factors surrounding it. Webster and Wind (1972) and Sheth (1973), in their early models, postulated that different types of influence surround the center like the skins of an onion; with physical, economic and legal environmental factors the outer layer, and then organizational, technical, economic and cultural factors in successive layers of influence getting ever closer to the buying center itself. The same set of factors, albeit presented rather differently, figure in the models and lists of later authors also (see, for instance Hart (1984)). None of these authors tell us just what to expect in this specific situation, where the technological factors are so critical, however; but none could have possibly imagined the sweeping power of the Internet, either.

There is strong evidence that information empowers the holder in situations such as this. The Technology Gatekeeper idea of Allen (1984), as well as the well-developed Opinion Leadership construct (e.g. Childers (1986)), are predicated on this principle. It has been noted above that the buying center for advertising agency services is small, as the interest and the knowledge required to participate in the purchase process is limited. Thus it seems likely that the influence structure with the buying center will vary according to the acquisition of specialist knowledge by interested parties.

The literature about advertising agency selection is very specific about these influence structures. There are two main players in the process, the CEO and the marketing manager. In situations where there is an advertising manager, then s/he tends to supplement or complement the marketing manager’s influence (Marshall and Na 1994; Na and Marshall 2001). The pattern of influence suggested by this latter research follows a fairly common-sense path; the CEO is most influential during the initiation and the final stages of the decision, whilst the marketing manager has the greatest influence during the identification of potential agencies and the review process.

The pattern of influence that might evolve with the widespread adoption of Internet within a firm, we believe, is that the marketing manager (or advertising manager if there is one) will generally become more powerful. This is because although more information is available to both the marketing manager and the CEO, it seems unlikely that a general manager could be bothered to seek it out. On the other hand, a marketing manager is probably interested in the information for it’s own sake, in the acquisition of knowledge that will add to his/her stock of expertise, and in gaining credibility in the eyes of his/her employer.

Hypothesis 2: Marketing Managers will have more influence throughout the advertising agency selection process in companies that widely use the Internet than in those companies who do not.

The corollary of this situation is straightforward—the CEO of companies using Internet extensively will have less influence than their counterparts in companies that make less use of Internet. This is because gaining and losing influence within any buying center is a zero-sum game; power gained by one player must be at the expense of another and, as we have seen, there are few powerful players in this particular purchase situation. Thus our final research hypothesis:

Hypothesis 3: CEOs will have less influence throughout the advertising agency selection process in companies that widely use the Internet than in those companies who do not.

RESEARCH METHODOLOGY

Overview

An initial survey was distributed to interested MBA students, studying on a part-time basis. With their cooperation contact was made with the Marketing Managers of a number of companies. These company officers were given a questionnaire that helped

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### TABLE 1
Comparison of buying center size in reported studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Scope</th>
<th>Buying center size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speckman and Stern [20]</td>
<td>Industrial goods purchase, USA</td>
<td>6.20</td>
</tr>
<tr>
<td>Lynn [6]</td>
<td>CPA services purchase, USA</td>
<td>3.53</td>
</tr>
</tbody>
</table>
identify the influence structure over stages of the advertising agency selection process. Consequent analysis breaks them into two groups, high and low Internet usage, then compares their decision structures.

**Sample**

The sample is a convenient quota sample—responses were collected until we had a reasonable balance of companies, in terms of Internet usage. Data from 36 companies were finally used; profiles of the companies, sorted into their operational categorization, are contained in Table 2. There is some evidence of a difference between the two groups—the low-user companies tend to be larger in terms of employee numbers but smaller in terms of dollar sales and advertising expenditures as a percentage of sales—this might indicate that the high users are in a more high-tech environment, which is not, of course, surprising. The literature on advertising agency selection has not related any of these factors to influence structure, so this difference in the sample is ignored.

**Research Instrument**

*Initial survey cum letter*

The preliminary instrument was distributed to MBA students, and simply contained an explanation and a few questions to classify the companies for whom they worked. This was to minimize the amount of information needed to be collected from the marketing managers.

*Main survey instrument*

Naumann, Lincoln and McWilliams (Naumann, Lincoln et al. 1984) set the precedent of breaking the buying process for advertising agency services into four stages; initiating the selection or change of an agency, establishment of objectives and need configuration, identification and evaluation of possible agencies, and the final selection. Others have followed this lead, (e.g. Harvey and Rupert 1988; Marshall and Na 1994; Kim and Waller 1999; Na and Marshall 2001). It was nevertheless decided to further split the identification and evaluation of possible agencies into two stages as it was felt that the two processes are actually different and, if they were to be collected separately, accuracy of the findings would be enhanced.

The second questionnaire (meant for the Marketing Managers) comprises of three sections. The first is used to identify the team members participating in the advertising agency selection. The identification of participants was by free elicitation, which is claimed to minimize the bias imposed by forced choice scale and to allow the flexibility to cope with the complex structures involved (Robles 1984). When identified, a constant-sum technique is used in the second section of the instrument, where 100 points are distributed between all the identified selection-team members. This is not a classical “snowball” technique, where the responses of all members of the buying center are solicited then averaged, to better arrive at a fair rating of influence, but is entirely the subjective opinion of the marketing managers. In this preliminary work we do not think that this bias matters, as it is the same for all the companies surveyed and we are interested in the comparison between the two groups rather than the absolute levels of influence.

The third section of the instrument elicits information to allow differentiation between companies that use Internet in the selection process of advertising agencies and companies that do not. Three, 5-point Likert-style questions are used, to enable a scale to be developed.

**Procedure**

As mentioned above, a strictly convenient basis was used for selecting companies, asking part-time MBA students to provide the contact to their companies. It is hard to obtain this type of data and the method used is far from ideal. The working principle, however, is that if there really is as much difference between Internet-users and non-Internet-users as anticipated, then it will show despite the less-than-ideal sample. The MBA students made contact with their colleagues and passed the relevant questionnaire to them, along

<table>
<thead>
<tr>
<th>Variable</th>
<th>Low Internet usage group (15)</th>
<th>High Internet usage group (21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Industrial</td>
<td>53%</td>
<td>43%</td>
</tr>
<tr>
<td>– Consumer</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>– Not classified</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>Number of employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Under 50</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>– 51–100</td>
<td>33</td>
<td>43</td>
</tr>
<tr>
<td>– 101–300</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>– Over 300</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>Sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– $3m–5m</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>– $5m–10m</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>– $10–20m</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>– Over $20m</td>
<td>13</td>
<td>28</td>
</tr>
<tr>
<td>Advertising as percentage of sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– 1%</td>
<td>33</td>
<td>28</td>
</tr>
<tr>
<td>– 2%</td>
<td>40</td>
<td>33</td>
</tr>
<tr>
<td>– 3%</td>
<td>20</td>
<td>33</td>
</tr>
<tr>
<td>– 4%</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>
RESULTS

Preliminary matters

Cronbach’s alpha for the three-item, 5-point scale used to ascertain Internet usage is 0.945, suggesting that the items do form a reliable scale. The single item consequently formed from the scale mean value was then used to divide the respondent companies into two groups, high and low Internet usage. A t-test between the Internet usage variable of the two groups (high and low usage) shows that separation was achieved (Mean_{High use}=4.5, Mean_{Low use}=1.83, t=18.28, p<0.001).

Hypothesis testing

A further t-test reveals that, as suspected, the mean size of advertising agency selection teams between the two groups is statistically no different (Mean_{High use}=2.95, Mean_{Low use}=3.00, t=0.128, p=0.899). This was as anticipated (in Hypothesis 1), and that the overall mean size of the selection teams is 2.97 adds credibility to the findings, as this is in line with previous findings.

Effect of Internet usage on the influence of Marketing Managers (By Stages)

The data presented in Figures 1A and 1B sum up the difference in influence structure between the two groups of companies. As can be seen, the marketing managers are empowered in the companies in which Internet is used extensively. To give statistical support to the charts, Table 3 shows the stages of the decision for which the mean influence of the marketing managers and CEOs are statistically different. Thus marketing managers with greater information access (in high Internet-usage companies) gain power at the beginning and end of the process and only show no such increase in the middle part, where they are already the strongest player anyway. CEOs’ influence loss is ubiquitous. Both Hypothesis 2 and 3 are strongly supported.

DISCUSSION

This simple research illustrates an idea that most people are already familiar with—that ownership of information can lead to power. Actually, the idea is just a little more complex than this—it is reputed that Einstein said that imagination is more powerful than knowledge; we understand this to mean that knowledge/information only leads to power if it is applied. This idea is neatly demonstrated here in that the information that marketing managers seem to have acquired has indeed led them to a more powerful position when applied in a very practical decision situation.

The finding reported here make intuitive sense—CEOs are usually not really that interested in advertising matters per se; under pre-Internet conditions they merely wanted to be assured that an optimal decision is made and therefore seemed to retain control of the all but the “donkey-work” of the advertising agency purchase decision. In the high Internet-usage situation, where their marketing manager is seen to be very knowledgeable about the matter, it appears that they are prepared to empower the expert, thus freeing their own valuable time for other, more appropriate, matters.

The guesswork above is linked to the fact that the information enabling marketing managers in high Internet-usage organizations to gain influence is also available to their CEOs. As stated in the introduction, however, it seems improbable that CEOs would bother, as the Internet offers them—in turn—a wealth of other, more critical, information of a more strategic than operational nature.
decision making is the central operational business of business, therefore anything that can add to the efficiency of the process is valuable. It is obvious that the availability of good information makes decisions easier to make, it is also fairly obvious that the Internet should make a great deal of information available to aid with these decisions. What is not quite as clear is that a distinction needs to be made between Internet information that provides support for operational decisions and that which supports strategic, more competitive decisions. Functional, middle-management specialists should, perhaps, concentrate on the acquisition of the former information type, which will lead them to become more expert, while strategists should try to avoid getting overwhelmed by the information needed at this operational level.

This is merely another restatement of the fact that managers already understand, the need for specialization. However, deliberately using the Internet to reinforce this process is, perhaps, not as commonly understood. That this is true is witnessed by the fact that we found 15 of the 36 companies we conveniently selected not to be going through this process. Furthermore, the fact that the companies we worked with were already enlightened enough to encourage their staff to undertake part-time MBA studies may well have contributed to the higher proportion of companies we found that do make quite extensive use of Internet. Finally, it has to be said that we have no means of telling whether the empowerment that seems to be taking place is planned, or is simply happening as a positive spin-off from Internet usage.

The obvious marketing message this research holds is the empirical fact that the target executive for advertising agents is the CEO when Internet is not widely used, and the marketing/advertising manager when Internet is widely used. Thus the ideas of Sheth and the other, earlier marketing writers is justified, and the environmental factors do impinge upon buying center dynamics, and in a far more dramatic way than they can possibly have imagined.

Of course, we have only checked one decision situation. It seems very probable that the same situation is true for the purchase of other professional services (the advertising agency selection situation has already been shown to be very similar to the accounting services selection decision (Lynn 1987; Harvey and Rupert 1988). The extent to which the findings reported here generalize to the wider buying center situation is an entirely open question, but there seems no reason why the logic should not be transferred.

### TABLE 3
Significance of between-group influence differences

<table>
<thead>
<tr>
<th></th>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Stage 4</th>
<th>Stage 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>p</td>
<td>F</td>
<td>p</td>
<td>F</td>
</tr>
<tr>
<td>Mktg. Mgr.</td>
<td>11.04</td>
<td>.002</td>
<td>6.33</td>
<td>.017</td>
<td>.49</td>
</tr>
<tr>
<td>CEO</td>
<td>17.60</td>
<td>&lt;.001</td>
<td>20.22</td>
<td>&lt;.001</td>
<td>6.45</td>
</tr>
</tbody>
</table>

### IMPLICATIONS
Decision-making is the central operational business of business, therefore anything that can add to the efficiency of the process is valuable. It is obvious that the availability of good information makes decisions easier to make, it is also fairly obvious that the Internet should make a great deal of information available to aid with these decisions. What is not quite as clear is that a distinction needs to be made between Internet information that provides support for operational decisions and that which supports strategic, more competitive decisions. Functional, middle-management specialists should, perhaps, concentrate on the acquisition of the former information type, which will lead them to become more expert, while strategists should try to avoid getting overwhelmed by the information needed at this operational level.

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### REFERENCES


DEVELOPING THE RESEARCH ISSUE

The relationship between knowledge and power has been a matter of more than just academic interest for centuries. Sun Tzu discussed the power of information within a military context some 300 years before Christ. In the late Sixteenth Century, when Francis Bacon wrote of knowledge being power, he was a herald for an industrial age when knowledge was no longer to be hoarded by an elite few, but was to become far more widely shared and applied. The application of the rapidly-growing body of knowledge, mostly technology, led to the rapid growth of physical power, productivity, profits and standards of living for those who harnessed it. The link between organized, useful information (hereafter called knowledge) and power in a scientific, technical sense is well-entrenched, and a scan of the technical innovation literature shows that the relationship is still deemed to be relevant (Carter and Scarbrough 2001; Hislop, Newell, Scarbrough, and Swan 2000).

Closer to marketing, negotiators speak of knowledge as giving power, too. It is widely recognized that information about the objects of negotiation and opponents in a negotiation situation can lead to a clear advantage to a negotiator (e.g. Weingart, Hyder, and Prietula 1996). The Internet and computer technology have lead to yet another tightening of the relationship between knowledge and power, as companies have moved to knowledge-management and data-based marketing in order to optimize the use of the flood of information that has become so readily available to them. The relationship is clearly recognized in both the popular literature (e.g. Teresko 1996) and in the academic literature (e.g. Grimshaw 2001).

The objective of the research reported here is to find out whether or not an assumption can be made by marketers that organized information, or knowledge, leads to power in group purchasing decisions. Logic certainly supports such a view. If a group decision can be viewed as a negotiation (and it often is, if the marketing literature is taken at face value) then the acquisition of pertinent information not held by others in the group should lead to the information-gatherer gaining power in the decision. Again, the rationale for information gatekeepers and opinion leaders is based upon the idea that relevant information assists persuasion through either adding to the persuader’s perceived credibility or by controlling the flow of information (Allen 1984; Childers 1986).

The topic takes on a new relevance and importance when the possible impact of the Internet on group purchase decisions is considered. Patterns of influence are fairly well understood, in general, in both industrial and family group decisions. But–if the knowledge-power link is indeed real–then the emergence of the Internet has brought a whole new perspective to bear on group decision power structures, as Internet access is not controlled by marketing people in the same way that direct mail (electronic or not) and interpersonal communication channels are. Even the reach of information contained in advertising materials is generally understood by marketers, but there is no way, at this time, that the Internet habits of specific role-players in decision groups can be predicted satisfactorily. If knowledge acquisition is enhanced through Internet use and knowledge does indeed lead to power, then the familiar patterns of power in group purchase decision centers may well be disrupted in hard-to-forecast ways. A search of the literature (not just the marketing literature, but several related literatures as well) reveals that the issue of knowledge and power in group decisions has remained assumptive; rigorous attempts to verify the relationship have never been reported. This gap in the literature provides an motivation and a focus for this research.

RESEARCH METHOD

Hypothesis development

The basic contention under consideration is that domain-specific information acquisition will lead to an increase of decision-power in purchase situations involving the specific domain. To test this idea data is gathered from families which are carefully matched on a number of relevant dimensions, in order to minimize contamination from alternative explanations. First, the Internet usage of adolescent sons with respect to their parents is ascertained and, second, the family buying power patterns exhibited for thirteen products are identified. There is, once again, only a single, simple research hypothesis:

H1: The acquisition of domain-specific knowledge by an individual will enhance the power of that person, within the relevant domain, in a group-decision situation.

Sample

As the drive of this research is to build theory and not simply to provide empirical information, representation of the sample was sacrificed in favor of control. The literature on family decision making is well established, and a number of factors have emerged which are understood to exert an influence on the power of the family decision role-players. Control of these factors is discussed below.

Adolescent boys were selected as the focus for the research for several reasons. In order to give the effect under consideration a good chance to show, adolescents were chosen as they are more likely to have input in family decisions than their younger siblings (Foxman, Tansuhaj, and Ekstrom 1989; Lee and Beatty 2002). This is particularly pertinent as the knowledge under consideration is being acquired via the Internet; adolescent children are more likely to be Internet users than their younger siblings, especially with respect to the use of the Internet for purchase-related search. Boys were selected, rather than girls, as a control measure. Given that the focus falls on families whose eldest child is a 13 to 15 year old son, the family life cycle (which has been shown to have a strong impact on family decision patterns) is also effectively controlled.

Ethnicity obviously does have an influence on family decision patterns, as much empirical research has demonstrated (e.g. (Lee
and Marshall 1998; Na, Marshall, and Son 2003). An attempt was made to optimize control by limiting even sub-cultural ethnic participation, so that whatever effect emerges can be reasonably ascribed to the information-acquisition manipulation and not to a contaminant. Consequently, responses from minority ethnic groups were removed, so all 255 nuclear families providing data are from the same ethnic group.

Social class is strongly related to culture, and there is an established literature that shows that lower- and upper-class families tend to exhibit a stronger, more traditional sex-role orientation than the more liberal, middle and upper-middle classes, resulting in a more democratic process in family decisions (Lee and Marshall 1998). As social class is such a difficult construct to operationalize an employment proxy was used here, and all the respondent families were drawn from the white-collar group, who are more likely to have Internet access than blue-collar.

Data Preparation

Independent variable, Comparative Internet usage

The extent of Internet usage, for the purposes of acquiring purchase-related information, is quite hard to assess objectively. The first item collected was a straightforward question asking respondents to state the average number of hours per month which were spent seeking product/service-specific information on the Internet. Although this measure has strong face validity, there are a number of problems with it regarding reliability, as not only is it difficult to accurately recall the “average hours” spent doing almost anything, but also it is very hard to distinguish between directed search and casual surfing. A single item is, in any case, intrinsically unreliable. Consequently, a seven-item scale was also constructed, asking each son, mother and father about their preferences and willingness to search for information prior to purchase.

After deleting one (reverse-scored) item the scale has an Alpha of .82 for sons, and .92 for both mothers’ and fathers’ usage. In order to test the validity of the usage scales, they were compared to the relevant single-item statements concerning the number of hours each respondent claimed to spend searching for data in an average month. In each case there is a low, but positive and significant correlation between them (Sons’ $r=.24$, $p<.001$; Fathers’ $r=.34$, $p<.001$). Even the fact that sons’ correlation is lower adds to the validity, as it seems likely that sons would have greater difficulty than their parents in sorting out in their minds the difference between searching for domain-specific information and Internet cruising.

Furthermore, there is a need to compare comparative, rather than absolute usage of the Internet for information search purposes, of the adolescents. That is, if one son has an absolute high usage rate but his parents have an even higher exposure, then his real, comparative Internet usage is less than another son with an absolutely lower usage but whose parents barely use the medium. Thus sons’ Internet usage was re-expressed as a proportion of the total family Internet use.

An inspection of this scale for Sons shows the distribution to be somewhat leptokurtic (kurtosis=1.59), and slightly skewed (skewness=.76). This centralizing tendency was expected both because of the homogeneity of the respondent families and the large sample size. There do not seem to be any natural breaks in the distribution of the variable, however, so the data set was divided into three equal groups and only the two extreme groups were used in consequent analysis. Thus, the final sample is composed of two homogenous groups of nuclear families, each fulfilling the sample requirements concerning ethnicity, family life cycle and social class. Group 1 consists of 83 families (mean Sons’ Comparative Internet Usage=30.1, $SD=4.5$); while Group 2 consists of 85 families (mean Sons’ Comparative Internet Usage=49.2, $SD=7.6$). This represents a significant difference in comparative Internet usage ($t=19.7, p<.001$).

Dependent variable, Decision Power

Measurement of decision power follows documented prior research (Lee and Beatty 2002; Mangleburg 1990). Data were collected from each of the three family members, on a 100-point, constant sum scale, regarding the perception of each others’ (and their own) decision power for 13 products, over three decision stages (Initiation, negotiation and final decision). Means were then calculated across each decision stage to yield a single number representing the mean power of each family member for each product.

Analysis

The analytical focus

First, it should be noted that the decision topics selected were deliberately chosen, from topics used previously, to offer a range of products with regard to the expected change of influence of an adolescent son (Mangleburg 1990), particularly when he becomes more Internet enabled. Thus it was thought that sons would try to exert influence in the selection of their own sports clothing, music CDs, computer hardware/software and computer games. It was further considered that these are not “bookish” young people, so looks might not be important to them and neither might family activities such as eating out, going to the movies or going on family holidays. Although family decisions—such as the purchase of TV and audio equipment—are less easy to hypothesize about, there seems at least a possibility that these products might come under the influence of a maturing, Internet-savvy young son. Certainly it was not expected that their parents’ clothing or banking activities would hold the remotest interest for these teenagers!

Factor analysis, purchasing power

Factor analysis of the purchasing power of sons for the 13 products was undertaken using SPSS. This is a Q-type analysis, where there is an assumption about an underlying change of behavior of the respondents in relationship to the type of product being considered, rather than an R-type where the relationship between the factors is of primary importance. The Kaiser-Meyer-Olkin measure of sampling adequacy is .77, and Bartlett’s test of sphericity is both high (806.4) and highly significant ($p<.001$). Furthermore, the number of observations is 168 and the number of variables (products) is only 13; giving a satisfactory observations-to-item ratio (see, for instance, Hair et al. (1995)).

General Least Squares analysis was used to extract the factors, as there are only 13 items in the variable list and several fail to reach the .6 communality level suggested by Gorsuch (1983). An orthogonal rotation was used, because uncorrelated factors are a preferable output of the analysis which is intended for use in further analysis by ANOVA. A VARIMAX rotation was selected, (although a test showed that neither EQUIMAX, PROMAX nor QUARTIMAX yield significantly different factor solutions).

Three factors emerged from the analysis, with Eigenvalues of 3.74, 2.79 and 1.45 respectively; the total variance explained is 62%. The Rotated Factor Matrix is shown in the Table. At a significance level of 0.05 and a power level of 80%, the sample size of 168 would conservatively suggest that loadings exceeding .45 should be considered as significant.

There is little ambiguity in the data displayed in the Table; the factors seem quite clear and are easy to name. Factor 1, “Youth-centric”, consists of the few product decisions that it was considered adolescent males would care to exert an influence on and where
their new-found knowledge might give them an edge, although books do feature on the list and were not expected to. The second factor, “Parent-dominated”, consists of items where a youth would normally be excluded from participation (later analysis shows a mean comparative purchase influence for sons of only 12%). The final factor, “Syncratic”, represents the joint decisions that are made in the light of fairly extensive product knowledge of all the participants, whether or not they access the Internet (again, later analysis shows a fairly equal decision influence here).

The inclusion of books in Factor 1 surprised. Hence, an investigation was undertaken, by t-test, to gauge the extent to which Internet empowerment effects the influence children have in the selection of books, and it was found that there is no change whatsoever. This could, perhaps, be a function of their already-strong influence in the area (in excess of 50% of the family’s decision weight). It was consequently determined to remove this item and form a new “Youth-centric” factor, consisting of CDs, computer games, sports products and computer hardware/software.

Testing the hypothesis; Change in Influence

Three separate ANOVA models are run to test for differences in power-structure of sons between the two groups. There is no significant difference for either the Parent dominant or the Syncratic factors, but the mean difference for the Youth-centric factor between the high-Internet group and low is significant (\(M_{\text{High usage}}=57, M_{\text{Low usage}}=48; p<.001, F=13.66\)). Hay’s \(\chi^2\) reveals an effect size of .47 for the Youth-centric factor; Cohen describes this as “medium-sized”.

Decision stages

The decision influence data were collected over three stages; Initiation, Negotiation and Final decision. The effect of Internet-enabled knowledge is significant at each stage (Initiation\(_{\text{High}}=68, \text{Initiation}_{\text{Low}}=59, F=12.3, p=.001\); Negotiation\(_{\text{High}}=59, \text{Negotiation}_{\text{Low}}=51, F=8.7, p=.004\); Final\(_{\text{High}}=43, \text{Final}_{\text{Low}}=35, F=9.0, p=.003\).

DISCUSSION

The study reported above offers strong evidence that the acquisition of information specific to a purchase domain, which increases an individual’s knowledge, will add influence to that individual in a group decision situation. The precise mechanics involved—that lead from information acquisition to power in group decision-making—are not clear for the research. It seems probable that new knowledge merely aids it’s owner to negotiate his/her point of view more persuasively, but it is also possible that the knowledge provides more credibility to the role-player in the eyes of his/her fellow decision-group members. Nevertheless, the fact that there does seem to be a significant change in the balance of power in group (family, at least) decisions based upon the information-acquisition strategies of the decision protagonists is of interest and importance in itself.

Implications for marketing practice

As the main research reported here is fundamentally of a theory-development rather than empirical nature, the sample design focused on control rather than representation and thereby sacrificed much empirical relevance. The fact that the research design used worked so well, though, holds real promise for any company marketing products or services which might be purchased in a situation where group influence comes into play. It is not complicated research to replicate for a particular product/service situation and inspection of the results of a similar survey with an appropriate sample and decision-objects would reveal very valuable strategic information about not only the influence structures at play but also the effect of providing information to particular role-players.
Implications for marketing theory

Information acquisition does lead to power-enhancement in group decisions. Although this important fact has hitherto simply been assumed, it seems as if it is a reality. Moreover, the relationship does not always hold, as was evidenced above by the failure of sons’ knowledge enhancement to affect their decision power for products in which his parents were equally, or more, powerful and interested. This effect requires yet more rigorous research—possibly using more sophisticated modeling techniques—to fully unravel precisely what variables do intervene between knowledge and power and moderate the knowledge-power relationship.

Another aspect of interest is the emergence of Internet as a knowledge-enhancement vehicle. The interest stems from the difficulties surrounding assessment of individual’s exposure to Internet. Thus it seems as if further research could also be fruitfully conducted to ascertain the relative importance of this new vehicle vis-à-vis other, more conventional media.

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Teresko, John (1996). Data warehouses; build them for decision-making power. in Industry Week.
Form vs. Function: Emotional and Behavioral Consequences of Hedonic vs. Functional Tradeoffs
Ravi Chitturi, Lehigh University, U.S.A.
Raj Raghunathan, University of Texas at Austin, U.S.A.
Vijay Mahajan, University of Texas at Austin, U.S.A.

EXTENDED ABSTRACT

Most important decisions, including consumption decisions, involve making trade-offs. In the process of making difficult trade-offs, consumers experience significant negative affect (e.g., Luce 1998; Luce, Payne and Bettman 1999). For example, decisions involving a trade-off between safety of a car (high vs. low) and its price (low vs. high) may induce negative emotions that, in turn, influence subsequent behavior (Luce, Payne and Bettman 2001). In general, decisions involving difficult trade-offs have been found to induce decision avoidance—the tendency to postpone purchase—presumably because consumers feel uneasy about taking a decision without first having resolved the negative emotions evoked by that decision-situation (Luce 1998; see Luce, Bettman and Payne 2001, for a review).

Previous research (e.g., Luce, Bettman and Payne 2001) has found that, in decisions involving price-quality trade-offs, people tend to choose the option higher in quality. To formulate a more general theory, however, it is important to incorporate dimensions other than price or quality, since consumers often face decisions involving a trade-off between two equally priced alternatives of equal overall quality (e.g., a Dell vs. Compaq) that differ on other attributes. This research looks at the emotional and behavioral consequences of tradeoffs involving hedonic and functional attributes. Choosing between products that are a combination of hedonic and functional attributes requires a tradeoff between two types of goals. One set of goals that are fulfilled by hedonic attributes and the other set of goals that are fulfilled by functional attributes. Based on regulatory focus theory (Higgins 1997), it is suggested that hedonic attributes help meet promotion focus goals of “aspirations and advancement” and functional attributes help meet prevention focus goals of “security and responsibility”. When the goals of security and responsibility are compromised, it leads to a discrepancy between “ought to behave” vs. “actual behavior”. This discrepancy generates feelings of guilt (Roseman 1991; Higgins 1989). On the other hand, when the goals of aspirations and advancement are compromised, it leads to a discrepancy between “ideal state vs. actual state”. This discrepancy generates feelings of sadness (Roseman 1991; Higgins 1989).

Marketing literature provides conceptual support for the idea that the utilitarian and hedonic dimensions capture important aspects of product differences (e.g., Batra and Ahtola 1990; Dhar and Wertensbroch 2000; Holbrook and Hirschmann 1982). However, little research pertains directly to the emotional and behavioral impact of making decisions involving trade-offs between utilitarian vs. hedonic attributes. The focus of this research is on the emotions induced by decisions involving trade-offs between utilitarian vs. hedonic attributes—which refer to the functional (utilitarian) and aesthetic (hedonic) aspects of products, respectively—and the effect of these emotions on purchase behavior. For example, it is unclear, from previous research, whether and to what extent negative emotions are induced in decisions involving a choice between, say, a highly functional computer that does not look good and one that is low on functionality, but is aesthetically pleasing. Based on a suggested correspondence between functional attributes and prevention focus, and hedonic attributes and promotion focus, it is expected that, 1) trading functionality for hedonics will generate feelings of guilt, 2) trading hedonics for functionality will generate feelings of sadness (Higgins 1997).

In this research, we report findings from three experiments that were conducted to test for emotional and behavioral consequences of making such trade-offs. In the first experiment, the consumers were asked to consider choosing between a functionally superior (functionally inferior) cell-phone and a functionally superior (hedonically inferior) one. They were asked to report the level of guilt and sadness with the choice of each cell-phone in the choice set. The results from the first experiment show: 1) consumers feel significantly higher level of guilt with the choice of a hedonically superior and functionally inferior product, 2) they report greater sadness with the choice of a functionally inferior and functionally superior alternative. In the second experiment, the moderating influence of functional needs (cut-offs) on the intensities of guilt and sadness was tested. The same choice set was used, but the subjects were treated to two different conditions. In the first condition the subjects were told that they need high level of hedonics and functionality in their cell-phone. In the second condition, the subjects were told that they need low level of hedonics and functionality. The results from the second experiment show: 1) intensity of guilt is lower with a functionally superior product when it meets functional cut-offs compared to when it does not meet functional cut-off, 2) intensity of sadness is higher with the choice of a functionally superior product, when the hedonically superior alternative in the choice set meets functional cutoffs compared to when it does not. In the third experiment, we wanted to show that relative intensities of guilt and sadness with each product choice in the choice set can explain consumer choice behavior. In this experiment, the subjects were asked to report the level of guilt and sadness with each product choice and were also asked to choose one of the two products from the choice set. The results show: 1) choice of a functionally superior alternative is mediated by the higher intensity of guilt compared to sadness with the hedonically superior alternative, 2) choice of a hedonically superior alternative is mediated by the higher intensity of sadness compared to guilt with the choice of a functionally superior alternative. Together, these results suggest that designers and marketers must monitor the intensities of emotions and design products with an optimal combination of hedonic and functional attributes that minimize guilt and sadness with a product choice compared to the alternative.

Overall, our results suggest that manufacturers should focus on satisfying functional “cut-offs” first, and that, once this goal is met, focus should shift to maximizing the hedonic appeal of their offerings. This recommendation, however, may be easier said than done, given that consumers’ perceptions of what they think is an acceptable (cut-off) level of functionality is likely to evolve. In general, it is reasonable to assume that consumers will expect and “need” higher and higher levels of overall quality—including functional performance—with the passage of time. A recommended strategy would, therefore, be to make a conservative prediction of the level of functionality consumers will find acceptable in the future and ensure that this level of functionality is provided. Thereafter, attention should be directed to enhancing the
hedonic appeal (e.g., by incorporating better designs, color schemes etc.).

REFERENCES
Consumer Confusion of Percent Differences: When Less is More and More is Less
Patrick Vargas, University of Illinois at Urbana-Champaign, U.S.A.
Justin Kruger, University of Illinois at Urbana-Champaign, U.S.A.

ABSTRACT
If A is 33 percent less than B, then B is 50 percent more than A. What is the effect of this counterintuitive mathematical tautology on consumers evaluating price and value? In four experiments, perceived price differences were greater when the cheaper of two products was the referent of the comparison (e.g., B is 50% more than A) than when it was the target of the comparison (e.g., A is 33% less than B). Products that were the same price were perceived as a different price, and products that differed in price (by as much as several hundred dollars) were perceived as the same price.
The Effect of Consumer Literacy on Product Choice
Haeran Jae, University of Kentucky, U.S.A.
Devon DelVecchio, University of Kentucky, U.S.A.

EXTENDED ABSTRACT

Forty-four million people in the United States cannot read a newspaper or fill out a job application and another fifty million more cannot read or comprehend above the eighth grade level (Kirsch et al., 1993). Illiteracy is rampant in many emerging markets. For instance, the adult illiteracy rate in India and China is 44% and 17% respectively. Even wealthier nations with high purchasing power, such as in Saudi Arabia and United Arab Emirates, suffer 25% illiteracy rates (World Bank, 2001). Yet, consumer research assumes implicitly that consumers possess sufficient levels of literacy to comprehend available information. With the increase in literacy, research on the topic within marketing has declined to an almost non-existent level (Wallendorf, 2001). Thus, marketing researchers have apparently drawn their cue from the increasing rate of literacy rather than the continued large size of the low-literacy market segment. Even more alarming, literacy also appears to be assumed by marketing practitioners who do little to aid decision-making by low-literacy consumers. In the absence of aid from retailers and/or consumer product manufacturers, consumers with low literacy often engage in decision-making with poor results such as buying substandard products or paying price premiums (Wallendorf, 2001). Such outcomes suggest that low-literacy consumers systematically differ from high-literacy consumers in decision-making processes.

Therefore, the dual goals of this paper are to a) apply existing theory to explain the choice process of low-literacy consumers and b) demonstrate how the presence of a decision aid at the point-of-purchase can improve choice by allowing low-literacy consumers to better use information. We explore the influence of literacy on consumers’ decision-making behavior in a choice environment by conducting a simple experiment in which the underlying cognitive process that drives product choice is compared across low- and high-literacy consumers. More specifically we employ the Elaboration Likelihood Model (Petty and Cacioppo, 1981, 1984) to predict the outcome of a shopping task and demonstrate that providing a visual decision aid can reduce differences in decision-making between low- and high-literacy consumers.

Eighty subjects comprise of the sample for the experiment. Forty-one subjects with low literacy were recruited from local reading center. For the purpose of our study, low-literacy adults are those who possess literacy skills of Level 1 or Level 2 (see Adkins, 2001 for the same interpretation). All of the low-literacy subjects have been tested at a Level 1 or Level 2 literacy level by the reading center. Thirty-nine high-literacy subjects were recruited from the staff members of a large southeastern university. As series of four logit log-linear analyses was used to analyze the differences in the rate of choice of the peripheral cue brand by low- and high-literacy consumer groups across the two choice conditions (written decision aid/visual decision aid).

The findings of the current study support the main premise that, given adequate involvement, high-literacy consumers tend to choose a product based on central cues while low-literacy consumers tend to choose a product based on peripheral cues. The findings also indicate that presenting a visual aid improves the ability of low-literacy consumers to make normative decisions. From a policy standpoint, the findings speak to the need for simple visual product descriptions to enable low literacy consumers to make more informed decisions.
EXTENDED ABSTRACT

As consumers increasingly use debt and installment payments to finance durable goods, understanding of how financing decisions are made can allow marketers to better design financing schemes that will stimulate purchases.

In a typical financing scenario, the consumer makes payments for an agreed upon time period and in exchange uses the product and reaps the benefits that are derived from consumption. Research has shown that consumers prefer to match the cost stream associated with the financing payments with the benefit streams that accrue from using the product (Hirst, Joyce, and Schadewald 1994; Prelec and Loewenstein 1998). When unbalance between the two types of stream occur, people are less likely to choose financing as a method of payment. This has been one of the primary reasons for people’s hesitance for financing services such as vacations since the benefits terminate once the trip is over but the payments used for financing the trip continue (Hirst, Joyce, and Schadewald 1994).

First, we attempt to capture how consumers prefer to match the length of benefit streams with the length of cost streams (experiment 1). We specifically address this in the context of a widely used and accepted promotion, payment deferrals. Second, whereas prior research has found a linear pattern for mental depreciation of durable goods, we contest this and suggest a non-linear mental depreciation pattern for high-tech products (experiment 2). Third, past research has been solely focused on the temporal contiguity of costs and benefits thereby suggesting that as long as the benefit stream coincides and overlaps with the cost stream, consumers will be favorable towards financing (Hirst, Joyce, and Schadewald 1994). We build and extend this argument by asserting that it is not only the length of cost and benefit streams that are relevant but also the pattern of costs and benefits that is of utmost importance in determining consumer’s preference for financing (experiment 3). Thus, we tested the presence and validity of the matching between the benefit and payment streams, the alignment hypothesis, in a series of three experiments.

In three experiments, we confirmed the presence of the alignment hypothesis in consumer financing decisions. Experiment 1 confirmed consumer’s preference for temporal contiguity between the benefits accrued from using products with the payments resulting from using a financing scheme. In experiment 2, we examine the alignment hypothesis by testing for the possibility of non-linearity in the benefits that accrue from using high-tech products or more generally, products that become obsolete quickly over time. Our study found that durable products may have a different rate of mental depreciation. Products with a high newness premium such as computers have a kinked mental depreciation curve such that there is greater depreciation early in the product’s life than in the later parts. Products which provide stable benefits in its life cycle instead exhibit a linear depreciation curve. Finally, in experiment 3, we build on this non-linear benefit pattern to explicitly test our alignment hypothesis and find that consumers prefer to align their payment stream to their product’s mental depreciation pattern.

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Brand Switching in Clothing as a Manifestation of Variety-Seeking Behavior
Nina Michaelidou, Nottingham Business School, UK
Sally Dibb, Warwick Business School, UK
David Arnott, Warwick Business School, UK

ABSTRACT

The paper examines the relationship between consumers’ general need for variety in their lives and their brand switching behavior when shopping for clothes. A review of the various motivations of variety-seeking behavior is offered. However, the research described in the paper focuses solely on the consumers’ internal need for stimulation (optimal stimulation level) as an antecedent of variety-seeking behavior and brand switching. This relationship is tested in the context of consumer shopping for clothes, measuring variety seeking levels and investigating their effect on brand switching behavior. The findings indicate no relationship between VSB and brand switching; suggesting that brand switching in clothing purchases is likely to be driven by factors other than ‘the need for variety’.

The underlying premise of variety-seeking behavior (VSB) is that ‘under certain conditions we all need variety in our lives’ (Faison 1977). This conflicts with classical theories of learned behavior which describe consumer behavior as a series of needs which are met by activities which then become learned responses to be repeated as the needs recur. However, research suggests that variety-seeking is likely to account for brand switching in consumer choice (Bass, Pesssemier, and Lehman 1972). Twenty years ago researchers were preoccupied with understanding VSB, resulting in a proliferation of explanations and models for the phenomenon, its antecedents and manifestations. In a recent resurgence in interest, researchers have been keen to synthesize the literature and further explore the VSB concept (Kahn 1995; Ratner, Kahn, and Kahmann 1999).

Although previous research indicates a relationship between the need for variety and brand switching behavior, these studies tend not to consider how product category affects the relationship. Yet brand switching is a situation and product-specific phenomenon; therefore its underlying motivations vary across situations and different product groups. What causes brand switching in one product class may not be the same as in another. More research is therefore needed to determine the impact of product class on brand switching behavior. This paper addresses this concern, examining the relationship between consumers’ need for variety in their lives and their brand switching behavior when shopping for clothes. The literature review considers various motivations for VSB, focusing on the consumers’ internal need for stimulation (Optimal Stimulation Level) as an antecedent of VSB and brand switching. Research findings are then presented which address the relationship between VSB and brand switching for clothing consumers.

MOTIVES OR ANTECEDENTS OF VARIETY-SEEKING BEHAVIOR

The concept of variety-seeking behavior (VSB) originated in psychology and was introduced in 1955 separately by Leuba and Hebb. Since then, psychologists, marketers and economists have examined the antecedents of VSB and considered its implications for individual and household choice behaviors. However, inconsistencies in the evolving literature arose because the term ‘variety’ was defined inconsistently. McAlister and Pesssemier (1982) added order to the literature by categorizing ‘varied behavior’ as either derived or direct. Derived variation results from external motives which are not related to the desire for variety (e.g., multiple needs, multiple users or multiple situations). Direct variation, on the other hand, is the result of ‘intra-personal’ motives such as the need for stimulation or because of satiation with a product’s attributes.

Based on McAlister and Pesssemier (1982), Kahn (1995) developed an integrating framework explaining why consumers seek variety. This framework classified VSB into three categories: ‘satiation/stimulation’, ‘external situation’ and ‘future preference uncertainty’. The first two categories correspond with McAlister and Pesssemier’s explanation. The third is based on the notion that variety-seeking is observed when consumers make purchases for future consumption. These categorizations (Kahn 1995) are now used for classifying the motivations for VSB proposed in the literature. The discussion, which is divided into two parts, is based on two different schools of thought for conceptualizing VSB: inexplicable (or stochastic) and explicable (or deterministic).

Inexplicable or Stochastic Conceptualizations

According to the theory of stochastic preference, VSB is viewed as inexplicable and is attributed to ‘a stochastic element in the brain’ (Bass 1974). Various models were developed during the 1960s and 1970s to describe the statistical properties of buying behavior (e.g., Bass et al. 1974). Such models do not incorporate explanatory factors (e.g., product attributes, marketing mix variables etc.). Rather, they propose a probability model based on the economic theory of utility, emphasizing that future preference is affected by past experience. Despite their limited application, these models inspired the evolution of a second generation of models incorporating variables to explain the probabilities. Thus first generation models predict VSB using probabilities and assumptions of ‘static’ market conditions (e.g., Bass et al. 1974). Later models, however, incorporate various consumer and market variables such as the effect of promotions (Kahn and Louis 1990; Kahn and Raju 1991) and the degree of similarity between two or more brands (Feinberg et al. 1994). Little by little this has caused the stochastic and deterministic traditions to converge (Kahn, Kalwani, and Morrison 1986).

Explicable or Deterministic Conceptualizations

Despite the view that choice behavior might include stochastic or random components, most consumer behavior research assumes that behavior is caused, and therefore is ‘explicable’. These deterministic paradigms for explaining VSB can be categorized according to whether they are based on psychological or other explanations.

Psychological Explanations. Psychologists recognize variety as a basic human need under the general rubric of exploratory behavior. Exploratory behavior refers to behavior that ‘results from motives that do not seem to conform to general expectations’ (Raju 1981). A number of theories have explored what motivates exploratory behavior. Although there is considerable disagreement, an area of common ground is that individuals prefer an intermediate level of environmental stimulation. The dominant explanation of VSB is based on the notion of ‘optimal stimulation level’ (OSL) (Hebb 1955; Leuba 1955). This maintains that individuals have a preferred or optimal level of environmental stimulation. When the actual level of environmental stimulation is above or below the
optimal, individuals will try to adjust it through exploration (e.g., VSB) or avoidance behavior (e.g., inertia) (Raju 1980, 1981). Alternative psychological explanations of VSB include: ‘arousal potential’, ‘variation, ambiguity and intensity of the environmental stimuli’, the ‘incongruity concept’ and the ‘general incongruity adaptation level’ (Berlyne 1960; Fiske and Maddi 1961). Although these theories differ in their interpretation of the relationship between environmental stimulation and individual preference, they basically agree that OSL is a cause of exploratory behavior (e.g., VSB). They also agree that OSL varies among individuals and that it can determine the degree of individual exploratory tendencies across many situations (Raju 1980).

Other Explanations. Other explanations of VSB relate to the internal and external factors which influence VSB and which lead to various behaviors such as brand switching, innovating and information seeking.

Explanations involving internal factors include the notion of satiation with product attributes and future uncertainty (Jeuland 1978; McAlister 1982). Satiation arises when familiarity with a stimulus causes decline in the stimulation potential because it is no longer novel to the consumer (Berlyne 1960). Future uncertainty explanations focus on the idea that variety-seeking is sought not because of the utility for diversity per se, but because of uncertainty about future preferences (Kahn 1995). This may be particularly pertinent to consumers faced with making multiple purchases for future consumption who may use VSB as a risk-reduction strategy.

Various external factors, including changes in usage situations, price promotions and the retail environment, have been shown to motivate VSB in some contexts. For example, research indicates that price promotions have a positive effect on VSB (Kahn and Raju 1991). In an experiment into brand choice and price promotions Kahn and Louie (1990) found that respondents sought variety when promotional activity was involved and were loyal to their preferred brands when the price promotions were retracted.

MANIFESTATIONS OF VARIETY-SEEKING BEHAVIOR

Having reviewed the antecedents or motivations for VSB, it is important to consider its ‘symptoms’ or how it is manifested. Three types of behavior have been cited as potential manifestations of VSB (Price and Ridgway 1982). These include:

1. Exploratory purchase behavior: Examples of such behavior involve brand switching and innovating. Thus an image-conscious twenty year-old may enjoy experimenting with a variety of different cosmetics and hair-care products.

2. Vicarious exploratory behavior: This type of behavior does not involve product purchase although it may be an outcome. Examples include reading about, talking to others or window-shopping for new or unfamiliar products. Eg: a student seeking a new CD mini system may refer to specialist magazines or seek advice from friends.

3. Use innovativeness: Examples include using a previously adopted product in a novel manner or using a current product in a wide variety of ways. Eg: someone buying a food processor for mixing cakes might extend its’ use to pureeing fruit and vegetables for soups and sauces.

In this paper the focus is exclusively on brand switching as a manifestation of VSB. Most variety-seeking research uses probability theory and focuses on modeling brand switching as a phenomenon of VSB (caused by internal factors) [Feinberg, Kahn, and McAlister 1992; Jeuland 1978; Trivedi, Bass, and Rao 1994]. In a few instances, brand switching has also been modeled as a function of marketing variables (see Carpenter and Lehman 1985). Such models predict brand switching using the effects of past purchases, price and promotional activities to investigate changes in the market shares of brands over a period of time (Ansari, Bawa, and Ghosh 1995). Some authors have also combined the effects of variables, including variety-seeking, inertia, marketing variables, and customer characteristics (e.g., demographics), within the same model (Ansari et al. 1995).

Brand switching is viewed here as resulting from the internal need for variety which is explained by optimal stimulation level. The objective is to examine the relationship between OSL (which determines individual variety-seeking levels) and brand switching. Although this relationship has previously been addressed by Raju (1980), a re-examination exploring the manifestations of VSB in specific product classes is needed. The focus of the research is therefore on the product category, with measures being developed at a product rather than a brand level. The product examined by the research is clothing. Given the ‘product-oriented’ focus, brand switching is considered to be the consumer disposition to exhibit switching patterns in clothing.

THE MEASURES

The notion of optimal stimulation level (OSL) was used as the basis for measuring consumers’ need for variety in their lives. As already mentioned, individuals possess a variable need for stimulation which indicates their propensity to look for variety (Hoyer and Ridgway 1984). OSL has been found to determine the extent of individual variety-seeking (or novelty-seeking) tendencies in a consumer context (Raju 1980, 1983). In particular, Raju (1980) found a positive relationship between OSL and various behaviors such as brand switching, information seeking and the adoption of new products.

Measuring Optimal Stimulation Level

In measuring OSL, three scaling procedures which utilize statements and which derive from the psychology literature were considered (Garlington and Shimota 1964; Mehrabian and Russell 1974; Zuckerman 1964). Of these three, the ‘arousal seeking tendency’ scale or AST (Mehrabian and Russell 1974) was preferred. This scale, which is the most recent and concise, is the easiest to administer (Raju, 1980). The scale has been extensively applied in the consumer behavior literature and construct validity is indicated (Raju 1980; Wåhlers and Etzel 1990). To ensure the scale’s fitness in the context of the present research, some modifications have been made. These include some instances of word replacement, rephrasing and item reversing. In addition, for purposes of parsimony, some items were eliminated as overlapping. This meant that 26 out of the original 40 items from the original instrument were retained. Another three items have been added which originate from Raju’s (1980) ‘exploratory tendencies in consumer behavior scale’ to bring the scale closer to the context of shopping.

Measuring Brand Switching

Brand switching is operationalized in this research as the consumer propensity to exhibit switching patterns. Two variables served as surrogate measures of brand switching including 1) the degree of importance the individuals attach to the brand name and 2) the individuals’ commitment to their favorite brand of clothes.

METHODOLOGY AND ANALYSIS

The choice of clothing in this study is justified on the basis that clothing has been linked with various psychological concepts like perceived risk and involvement (Hawes and Lumpkin 1986; Tiger,
The four factors shown in table 1 correspond to the four sources of stimulation reflected in the factor labels. These are 1) new and unfamiliar stimuli, 2) change stimuli, 3) risk stimuli and 4) activity stimuli. This interpretation of the factor solution is consistent with the original scale (Mehrabian and Russell 1974). These results suggest that OSL is a multidimensional construct with fairly reliable dimensions.

**Brand Switching Potential (BSP):** A combination of two measures was used to assess brand switching. Respondents were asked to indicate on bi-polar five-point scales 1) the importance they attach to brand name when shopping for clothes and 2) their commitment to their favorite clothing brand. While this is not a rigorous measure of brand switching, in this exploratory study the aim is simply to seek indicators of a link (or its absence) as opposed to developing a predictive, associative model.

To investigate the relationship between optimal stimulation level and brand switching behavior in clothing an equation was derived using regression analysis. The goal of this approach is to establish a relationship which predicts the values of the dependent variable of brand switching using the independent OSL factors. A number of statistics were used to examine linearity including descriptives, the $R^2$ goodness of fit, the standard error of the estimate, ANOVA, collinearity statistics and finally the t-statistic (see tables 2, 3, 4).

The statistics show no relationship between brand switching in clothing and OSL. For example, the $R^2$ equals .015 and the adjusted $R^2$ is .007. Similarly Beta values (table 4) are significantly low and a linear relationship is therefore doubtful. The possibility that the data may not be suitable for a linear model has been examined, with the likelihood of a non-linear relationship between the two addressed through data transformations. A number of equations [addressing non-linearity] have been derived, indicating that a relationship between OSL and brand switching in clothing might be ‘inherently impossible’.

The possibility that the scale offers a superior interpretation because it uses a summated OSL scale rather than the factors scores has also been investigated. The five point Likert scale for OSL items meant that a simple summed score was deemed an appropriate indicator of overall OSL. Possible scores ranged from 29 x one (i.e. 29) to 29 x five (i.e. 145), although the actual range recorded was zero to110. Observations with incomplete OSL responses (<29) were excluded from the analysis. A regression analysis of the brand switching potential against the summated OSL scores revealed no significant relationship with a near zero R-squared ($R^2=0.001$, $p=0.594$) (see table 5). Furthermore, an independent-samples t-test comparing the brand switching potential of the lowest and highest OSL quartiles showed no significant differences in the mean value of brand switching potential (table 6). Thus, there is little evidence of a link between OSL and brand switching irrespective of whether a single scale or one broken into its various components is used. This leads to the conclusion that, counter to other literature, if OSL affects brand switching at all it is at best a category specific variable. Further research is needed to identify susceptible and non-susceptible categories.

Brand switching has been argued to be a manifestation of the need for variety explained by optimal stimulation level (Hoyer and Rigway 1984; Raju 1980). In this respect, individuals with a relatively high need for variety in their lives are expected to show brand switching propensities in their choice behavior (Raju 1980, 1981). However, the results indicate that brand switching in clothes is not related to consumers’ need for variety. This implies that while consumers need variety in their lives, they do not satisfy this need through brand switching in their clothing choice. In other words, the brand switching observed may be the result of other factors than the need for variety.

As pointed out earlier, there are various possible internal and external factors that explain brand switching. In this study of clothing purchases, the OSL factor was explored, and found not to explain the brand switching observed. It is therefore important to revisit the other factors which might explain brand switching in clothing purchases.
First, satiation with the brand or its attributes is considered as a major drive for VSB. Consumers become satiated by the consumption of a particular brand and look for alternatives. In the case of clothing [and in contrast to some other products] clothing brands are characterized by a set of attributes which are subject to change due to fashion trends. However, there are also certain attributes that become permanent features and which are retained by the manufacturer to shape the image of the brand. Such attributes are likely to be quality, fit, style, and perhaps fashionability. The manufacturer and retailer hope that a satisfactory combination of these attributes will encourage the consumer to remain loyal to the brand. Satiation with the brand is likely to occur not because the consumer has become bored with the quality or fit of a given brand but because the combination of permanent characteristics is perceived as unsatisfactory. Under such circumstances the consumer is likely to switch to other brands of clothes. Of course, it is also important to recognize that this brand switching will probably be achieved within the context of the portfolio of clothing brands preferred by the consumer. In other words, most consumers will not confine their clothing purchase to a single brand.

A second internal factor is future uncertainty. This factor may explain brand switching in product categories other than clothing. VSB and brand switching as a result of future uncertainty is most often observed in the purchase of food products, where consumers...
switch brands as a way of reducing the risk of future taste changes.
In the case of clothing, consumers do not employ brand switching
as a risk reduction strategy but try to handle the risk through other
methods like loyalty and information search.

Certain external factors might also explain brand switching in
clothing purchases. However, in this study the focus was on the
internal motivations of VSB and brand switching. External factors
such as discounts and price promotions have been found to encour-
age brand switching behavior for a short period of time. Research
indicates that the effect of promotions declines once these are
retracted (Kahn and Louie 1990). The effect of promotions has only
been investigated in certain product categories such as groceries. It
is therefore unknown in the literature whether external factors have
an effect on VSB and brand switching in clothing.

Finally, it is important to acknowledge that an alternative
explanation for the null effect of OSL on brand switching behavior
in clothing may relate to limitations in brand switching measures.
The surrogate measures used to capture brand switching may have
been insufficiently sensitive to detect any effect of OSL on brand
switching behavior.

**CONCLUSIONS**

Previous research suggests a relationship between the need for
variety (explained by OSL) and brand switching behavior (Raju
1980). As Raju explains, his research found a significant correlation
between brand switching and OSL: “...the results suggest that
people who have higher OSL’s are generally more likely to manifest
exploratory behaviors in the consumer behavior context. The
exploratory tendencies are more likely to be manifested as risk
taking and innovativeness somewhat likely to be manifested as
brand switching” (p279).

Raju’s (1980) findings confirm a relationship between brand
switching and optimal stimulation level in general, but do not
consider the effect of product type. Where this relationship is
examined in a specific product class, product type is expected to
explain variations in switching behavior. This is because brand
switching is a product-specific phenomenon and therefore its
motivations presumably vary by product class.

The paper has explained the many motivations for VSB,
including internal (OSL, satiation, future uncertainty) and external
(price promotions, discounts, out-of-stock conditions etc.) However,
these explanations do not consider the role of the product class
in determining the occurrence of brand switching. Since brand
switching is product-specific, these explanations are therefore
arguably limited in scope. As a result, there is a lack of differentia-
tion in the motivations of brand switching across product catego-
ries. The research reviewed in this paper seems to suggest that,
contrary to non-product specific research findings on VSB, clothes
shoppers’ general need for variety in their lives does not appear to
affect their brand choice. Of course, this does not mean that the

**TABLE 4**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
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<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
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<tr>
<td>(Constant)</td>
<td>1.834</td>
<td>.160</td>
<td>11.481</td>
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<td>-.109</td>
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<td>Activity Stimuli</td>
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**TABLE 5**

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<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
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<td>.029</td>
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<td>0.534</td>
<td>0.594</td>
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**TABLE 6**

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<th>Group</th>
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<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
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<td>OSL Quartile 1</td>
<td>10.38</td>
<td>1.231</td>
<td>159</td>
<td>.220</td>
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<td>OSL Quartile 4</td>
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purchase behavior of these individuals in other product classes follows the same pattern. Indeed, these findings highlight the need for further research. In particular, additional research is required to examine the conditions when brand switching is a manifestation of internal sources of VSB behavior. This could involve using a framework which can predict when OSL or other internal sources are related to or explain brand switching behavior. Both the present study and the earlier research findings of Raja could be regarded as preliminary steps in this research direction.

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Does Competition Matter in the Evaluation of Brand Extensions?
Harish Kapoor, Carleton University, Canada
Louise A. Heslop, Carleton University, Canada
Statia Elliot, Carleton University, Canada

EXTENDED ABSTRACT
This study reviews the literature on the evaluation of brand extensions, and reports the findings of an experiment that explores whether or not existing competing brands affect the evaluation of brand extensions, taking into account the perceived relevance or fit of the extension to the parent brand. Results indicate that competition does indeed affect the evaluation of brand extensions but that the impact depends on the perceived congruency of the extension fit with the parent brand.

Brand extensions are often used to enter a well-established or rapidly growing product category under the assumption that when consumers’ attitude toward the parent brand is positive, this attitude is transferred to the extension. While the evaluation of brand extensions has been widely researched, most efforts fail to recognize the pre-existence of competing brands in the extension category and do not account for their impact on the evaluation process. Considering the expense of new product introductions, a managerially relevant and theoretically significant research effort would examine brand extensions in the presence of competing brands. This study represents a first step towards the understanding of how competing brands affect the evaluation of brand extensions.

The literature on the evaluation of brand extensions has significantly contributed to the understanding of how brand extensions are evaluated, but has focused on product and brand attributes, ignoring the competition. In most product categories, especially consumer goods categories, numerous brands compete and consumers do not make purchase decisions in a “competitive vacuum” (Han 1998) and their attitudes are affected by competitor activity (Czellar 2003). Research on extension evaluation has focused on the fit between the parent brand and the extension. Relatively little is known about the role and influence of competing brands on brand extension evaluation.

The authors argue that the evaluation of a brand extension will be adversely affected by existing competing brands even when the fit between the parent brand and its extension is high. To test this hypothesis, an experiment was conducted to explore the evaluation of brand extensions when taking into account both perceived fit with the parent brand, and competing brands.

Five brands that possessed dominant brand associations were selected, and a total of eight brand extensions were chosen for the experiment. Of the resulting eight extensions, four were associated with complex products and four with routine product categories. Two versions of questionnaires were developed, each with two complex and two routine product categories, and randomly allocated to one hundred and three participants who were undergraduate students enrolled in marketing courses at a Canadian university.

Questions using a nine-point Likert scale captured respondents’ familiarity with the parent brand, relevance of the brand extension used as a measure of fit, and attitude toward the brand extension. Respondents were then asked to list existing major brands and their brand associations in the extension category in order to induce competitive comparison effects. Following this, two questions based on a nine-point Likert scale captured attitudes toward the brand extension in comparison to existing brands, and how well respondents felt the brand extension would fare in the target category compared to the existing brands. Finally, two open-ended questions asked respondents to list their favorite brand in the extension category and the reasons for their liking or disliking the proposed brand extension.

Paired t-tests were conducted on the evaluation of brand extensions before and after the competitive comparison was induced. In six out of eight cases, paired t-tests indicated that when the extension is perceived to be of high relevance, cuing of the competition adversely affected the evaluation of the brand extension. These results indicate that the evaluations of brand extensions are affected by the competing brands, particularly when relevance of the brand extension is high. It is important to note that relevance (fit) of the brand extension with the parent brand in the brand extension evaluation process becomes unimportant once competing brands are introduced. This suggests that either the measures of fit used to assess the relevance of an extension to its parent brand were inadequate to capture the fit in the presence of competing brands or, possibly, the notion of fit between a parent brand and its extension is not an indicator of an extension’s success in the target category.

The results of our study can be explained using the “attraction effect” that posits that the introduction of a new brand in a category affects the attractiveness of the existing brands due to “data and cognitive deficiencies” (Pan and Lehman 1993; Malaviya and Sivakumar 2002). The findings of our study imply that brand extension programs should take into account the effects of competitive comparisons while planning to introduce a brand extension. Future studies should examine the impact of target category structure, intensity of competition, and relative strengths of the parent brand and competing brand attitudes on the evaluation of brand extensions vis-à-vis existing brands.

REFERENCES
EXTENDED ABSTRACT

As linguistic labels, brand names should be subjected to structural differences among language systems. Thus, the unique linguistic characteristics which govern each language may potentially affect the effectiveness of brand-name translations. Along this line, Zhang and Schmitt (2001) prescribed a framework to elucidate issues in English to Chinese brand-name translation, highlighting the notion that brand naming should take linguistic factors into consideration. Following this effort, our study investigates bilingual consumers’ evaluation of brand-name translations from logographic Chinese characters to alphabetic scripts. We propose that the effectiveness of four possible methods of translation—semantic-English translation, phonetic-English translation, phonosemantic-English translation, and Hanyu Pinyin (a Romanized phonetic system of Chinese) translation—may vary with bilingual consumers’ chronic differences in language proficiency as well as the presence of situational primes.

We extend the bilingual perspective (Zhang and Schmitt 2001, 2004) to include a complete and in-depth examination of language proficiency effects. We hypothesize that consumers who are proficient in both English and Chinese tend to engage in both phonological and semantic processing of words and hence prefer phonosemantic-English brand-name translation to other translation methods. On the other hand, consumers who are proficient in English but weak in Chinese tend to engage in phonological processing and hence prefer phonetic-English translation to other translation methods. In contrast, consumers who are weak in English but strong in Chinese tend to engage in semantic processing and regard Hanyu Pinyin translation most highly since Hanyu Pinyin translation not only provides immediate mapping to the precise semantic meaning of the original brand name but also involves orthographic rules that this group of bilinguals are familiar with.

Furthermore, we suggest that bilingual consumers’ preference for brand-name translations may be affected by situational primes which create contexts for the subsequent evaluation of brand names. We examine two factors in the marketplace that may serve as prior contexts for influencing consumers’ sensitivity towards phonetic/semantic features of a translated brand name. The first is the prior translation methods used in the marketplace (adapted from Zhang and Schmitt 2001) and the second is the target market of the brand (whether the consumers are predominantly English- or Chinese-speaking). We propose that an English “prior context” will prime phonological encoding whereas a Chinese “prior context” will prime visual encoding. The effects of these temporarily activated processing modes may be additive to or outweigh bilingual consumers’ chronically nurtured inclinations, leading to another set of hypotheses regarding the interplay between primed and innate preferences.

A 3 (Bilingual Language Proficiency: strong in both languages vs. strong in English weak in Chinese vs. weak in English strong in Chinese) X 3 (Prime: phonological prime vs. semantic prime vs. without prime) X 4 (Translation Type: Hanyu Pinyin vs. phonetic-English vs. phonosemantic-English vs. semantic-English) X 5 (Product Category: shampoo vs. apparel vs. floor detergent vs. vitamins vs. furniture) mixed-factorial experiment with translation type and product category as within-subjects factors was conducted among bilingual students from an Asian university. Hypotheses about the main effects of language proficiency on consumers’ preference for brand-name translations are supported. Regarding the interaction between situational prime and language proficiency, the results are mixed. As predicted, with subtle phonological priming where participants were informed that the product’s target customers were proficient in English, those who were strong in English, regardless of their Chinese proficiency level, were found to evaluate phonetic-English translation most favorably; those who were weak in English but strong in Chinese were found to evaluate Hanyu Pinyin translation most favorably. However, with obvious phonological priming where participants were told that the prior translation method in the product category was phonetic-English, those who were weak in English but strong in Chinese rated phonetic-English translation most highly, which is inconsistent with our hypothesis. As predicted, with subtle semantic priming where participants were informed that the product’s target customers were proficient in Chinese, those who were strong in both English and Chinese regarded semantic-English translation most highly; those who were weak in English but strong in Chinese preferred Hanyu Pinyin translation to other methods. Participants strong in English but weak in Chinese were found to evaluate semantic-English translation most favorably (directionally consistent but insignificant). In contrast, supporting our hypothesis, those who were strong in English but weak in Chinese rated semantic-English translation most highly with obvious semantic priming where they were told that the prior translation method in the product category was semantic-English. Inconsistent with our hypothesis, those who were strong in Chinese but weak in English preferred semantic-English translation to other methods. The different pattern of findings we obtain using subtle and obvious prime implies that the outcome of the interplay between innate and primed preference may depend on the relative preference-intensities.

Our study offers insights on Chinese brand-name translation in a bilingual context by demonstrating the impact of the different mental representation of English and Chinese on brand-name translation preference, by revealing the interaction between situational priming and chronically preferred mental mode, by introducing and examining the phonetic/semantic features of Hanyu Pinyin translations which are distinct from those of the three English-based translations, and by uncovering the profound influence of priming intensity on experimental conditions. Future research may be conducted to further shed light on the processing mechanism of Hanyu Pinyin and to explore the generalization of the current findings to the translation of other logographic systems (e.g., Korean Hanja, Japanese Kanji) into alphabetic scripts (e.g., English, Romanized Korean, Romanized Japanese).

REFERENCES


Do Co-Branding Products Increase Consumers’ Purchase Behaviors in Taiwan?
Mengkuan Lai, National Chengkung University, Taiwan

ABSTRACT
This study examines the effect of co-branding strategy on consumers’ evaluation of the extension products. Co-branding is operated based on the brand strength, similarity/complementary of parent brands. The results indicate that, for high involvement product, brand strength rather than similarity/complementary of parent brands play a critical role in the evaluations of co-branding products. The evaluations of co-branding product influence the brand equity. Discussions, contributions, and suggestions to future research and practitioners are addressed.

As the market becomes increasingly competitive and more variety of products available to consumers, brands can facilitate consumers in decision process and enhance effectiveness (Doyle 1990). Brand extension has been a widely applied strategy by marketers in introducing new products to reduce the risks and costs and leverage on brand equity. Seventy-eight percent of new products introduced in 1998 were based on line extension however their success rate (28%) was lower than new products (47%) (Ernst and Young 1998, cited from Simms 2000). Co-branding among marketers from either same or different distribution levels and across industries has become a viable strategy. Few researches have focused on co-branding. Thus, the primary purpose of this study is to investigate the effects of parent brands’ brand equity on the evaluations of co-branding products.

Affect and Purchase Intension
Affect is an individual’s evaluation of a particular stimulus on its meanings, causes, consequences, and personal implications (Westbrook 1987, p. 259). Affect is a primal motive that could be viewed as a crucial determinant in product choices (Chaudhuri 1997). Although various definitions of affect could be found in literature, researchers agree that it is a mental phenomenon characterized by continuous experiences with emotions and moods and subjective affect states (Westbrook 1987). Both positive and negative affect influence purchase intention. Different affects are produced by different causes. Consumer purchases are often emotionally (Curry-Swann 1998), substantial impacts on cognitive process and social behaviors occur even with mild changes in emotional states (Aaker, Stayman, and Hagerty 1986). In addition, researches (Ajzen and Fishbein 1980; Miniard and Cohen 1979; Warshaw 1980) point out that purchase intention is a more valid predictor to behavior compared with attitude that can substitute behavior in developing models (Ryan and Bonfield 1980; Ergülu 1992). Accordingly, both affect and purchase intention are dependent variables of this study.

Brand, Alliance, and Consumer Attitudes
Consumers tend to rely on external (e.g., price and brand) rather than internal (e.g., quality) product information while making decision since external information is easier for them to obtain and judge. Brand simplifies decision process by providing consumers with a sense of safety and consistency (Barwise and Robertson 1992). In most transactions, especially consumer products, brand is a crucial factor (Barwise and Robertson 1992).

Successful brands could generate higher return on investment and quality, and service rather than advertising are the optimal strategies to build brands (Doyle 1990). Therefore, manufacturers value the potential value and power of their brands while realizing that every brand has its limitations (Boad 1999). Under this circumstance, many successful brands re-concentrate on their core business and become conservative in brand stretching. Alternatively, alliances have become a preferred strategy by increasing number of marketers compared to engaging in high risk and cost brand extension, expansion or diversification (Boad 1999).

Brand alliances refer to the collaboration between two existing brands in order to produce a new product. The alliance parties could be of either the same level (e.g., manufacturer to manufacturer) or different levels (e.g., manufacturer and retailers) in the marketing channels (Park, Jun, and Shocker 1996) that cooperate with each other on the 4Ps. Brand alliance is the optimal collaboration mode between two corporations since alliance makes the relationship highly visible and the reputation of the involved parties are affected by the results of alliance (Park, Jun, and Shocker, 1996). When the characteristics between the alliance parties are inconsistent, consumers would be confused (Park, Jun, and Shocker 1996).

Brand Strength and Purchase Intentions of Co-branding Products
Strong brand can enhance brand familiarity and knowledge thus generates association between brand and quality (Smith and Park 1992), which, in turn, reduce perceived risks and increase purchase intention of the extension (Aaker and Keller 1990; Reddy, Holak, and Bhat 1994). Park, Jun and Shocker (1996) claimed that the strength of the header positively impact the evaluation of co-branding products. However, the strength of parent brands both influence the evaluation of co-branding product.

$H1$: The strength of the parent brands both positively impacts the evaluations (i.e., affect and purchase intention) of co-branding product.

Similarity or Fit of Parent Brands. Brand similarity is viewed as the shared salient attributes of abstract product concept or actual product attributes between the core brand and the extension (Loken and Ward 1990). Although co-branding related literature tends to be reports on business cases and its effects, the success of co-branding does rely on the brand equity of the parent brands. Research has found the similarity or fit between parent brand and extension to have significant impact on the evaluation and purchase intention of its extension (Aaker and Keller 1990; Boush and Loken 1991) since consumers presume that their knowledge on parent brand can be transferred to the extension (Keller and Aaker 1992).

Brand equity exerts even higher value in organizational portfolio than presenta live (Barwise and Robertson 1992). In other words, the overall performance of an organization can enhance brand value. When the characteristics of parent brands of the co-branding partners are inconsistent, consumers will be confused (Park, Jun, and Shocker 1996). Park, Jun, and Shocker (1996) studied composite brand in terms of complementary and concluded that parent brands compensate each other generate more positive evaluation on the extension when compared to rely on the strong brand in introducing extension.

1The author thanks National Science Council, Taiwan for supporting this research.
**H2a**: The higher the similarity between the parent brands the more positive the evaluations (i.e., affect and purchase intention) of co-branding products.

**H2b**: Parent brands compensate each other will have a positive impact on the evaluation (i.e., affect and purchase intention) of co-branding products.

Brand serves as a signal of product quality (Rao, Qu, and Ruekert, 1999) that consumers utilize to evaluate new product (Cohen and Golden 1972). Brand with established equity could be used in expanding new products. However, the failure of the extension will undermine the image of high equity parent brand (Keller and Aaker 1992). Attitudes toward brand alliance positively impact on the brand equity of parent brands (Simonin and Ruth 1998). Accordingly, this study hypothesizes,

**H3**: The evaluations of co-branding product will have a positive impact on the brand equity of parent brands.

### METHOD

A 2 (order of the co-branding brands) x 2 (high versus low brand strength) x 2 (fit and complimentary of parent brands) factorial design was used to test the hypotheses. The similarity and compliment of parent brands were determined based on respondents’ evaluation of parent brands’ brand equity. Control group with product name and model but no brand name appeared on the ad was included in the experiment. Two steps involved in the development of measurements—selection of co-branding product and parent brand and the development of formal questionnaire.

#### Selection of Co-branding Product and Parent Brand

Since Park, Jun, and Shocker (1996) studied co-branding equity with low involvement product, this study chose high involvement product to test the effect of co-branding. Considering market potential in the future, this study selected cell phone PDA as co-branding product of cell phone and notebook. A pretest was carried out to decide the parent brands. The respondents were first asked about the importance of the parent products (cell phone and notebook) and the important product attributes. Then they indicated whether they recognized the brands and select the three most favorable one. The photo with the highest bad quality, in/out of style, and buy/not buy). Finally, respondents were asked to select the most favorable one. The photo with the highest means of all the items was selected based on the responses from 44 valid questionnaires collected.

The questionnaire includes an advertising of a coming to market cell phone PDA, manipulation checks, and items measuring affect, function, and demographics. The content of the ads includes the co-branding name, cell phone PDA photo, and product attributes. Seventeen advertising scenarios (2 cell phone parent brands x 4 notebook parent brands x order of co-branding, plus one control groups) were developed. Manipulation check items asked respondents the main products produced by each of the parent brand. Affect is measured with a 17 semantic differential scale (Lai and Liu 2001) modified from Watson, Clark, and Tellegen’s (1988). Product function is measured with 8 items. Consumer-based brand equity scale (Lassar, Mittal, and Sharma 1995) was used to measure brand equity of parent brand and co-brand.

### RESULTS

Considering the characteristics and price of the research product, cell phone PDA, respondents were people with full-time job. Among the 647 questionnaires distributed, 508 are valid. The sample distributions are 59% male, 85% aged between 23 and 40, 38.9% has hourly income of $885~$1475, 22.7% in manufacture, 18.8% are government employees, and 17.8% in service industry.

Item-to-total analysis and factor analysis were used to extract factors. Single factor was extracted for function and purchase intention with the explained variance of 59% and 81% and α value of .85 and .88, respectively. Positive and negative affects were extracted from affect measurement and the α values are both .87. As to the brand equity measures, factor results after deleting item 1 and 4 are the same as reported by Lassar, Mittal, and Sharma (1997), indicating construct validity (Zaichowsky 1985). The α values of social image, attachment, trust, and performance are .92, .94, .80, and .80, respectively. The measurement is valid and reliable.

Each variable index is the sum of item multiplies its corresponding loading and percentage of variance explained by that factor if there are more than one factors compose the variable (Anastasi and Urbina 1997, p. 302). The study then analyzed the components and overall brand equity of parent brands to decide on the similar and complementary co-branding partners. The ranks of overall brand equity, from high to low, are Toshiba, Nokia, IBM, ASUS, OKWAP, and Twinhead. For the co-branding based on the similarity of parent brands, the two brands are both rated high (or low) on all the components and overall brand equity and their differences are not statistically different. For the complementary co-branding, one of the co-branding partners is rated high while the other is rated low on all the components and overall brand equity and the differences are statistically significant. As a result, the high and relative low brands strength of notebook parent brands is Toshiba and Twinhead, respectively. The high and relative low brand strength of cell phone parent brands is Nokia and Okwap, respectively. The similar co-branding groups are Toshiba Nokia and Twinhead Okap. The complementary co-branding groups are Toshiba Okwap and Twinhead Nokia. Table 1 list the brand equity of each co-branding group.

#### Hypothesis testing

H1 is tested by GLM where the independent variable is the strength of parent brands. Only the main effect of the brand strength of cell phone is significant on the functional evaluation of co-branding product (see table 2). Nokia generates higher functional evaluation than that of Okwap. Hypothesis 1 is partially supported.

GLM is used to test hypothesis 2 where the independent variable is the co-branding groups plus control group. The results
Table 1: Brand equity of co-branding brands

<table>
<thead>
<tr>
<th>Co-branding</th>
<th>n</th>
<th>Performance</th>
<th>Social image</th>
<th>Trust</th>
<th>Attachment</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toshiba Nokia</td>
<td>58</td>
<td>4.09</td>
<td>4.83</td>
<td>4.79</td>
<td>5.20</td>
<td>4.73</td>
</tr>
<tr>
<td>Toshiba Okwap</td>
<td>58</td>
<td>3.97</td>
<td>4.36</td>
<td>4.39</td>
<td>4.91</td>
<td>4.41</td>
</tr>
<tr>
<td>Twinhead Nokia</td>
<td>59</td>
<td>4.11</td>
<td>4.64</td>
<td>4.56</td>
<td>5.03</td>
<td>4.59</td>
</tr>
<tr>
<td>Twinhead Okwap</td>
<td>62</td>
<td>3.58</td>
<td>4.28</td>
<td>4.40</td>
<td>4.77</td>
<td>4.24</td>
</tr>
<tr>
<td>Control group</td>
<td>28</td>
<td>3.30</td>
<td>3.90</td>
<td>3.70</td>
<td>4.67</td>
<td>3.89</td>
</tr>
</tbody>
</table>

Table 2: GLM Results–Dependent variables=f (brand strength of cell phone and notebook)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive affect</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>intercept</td>
<td>1</td>
<td>5615.62</td>
<td>5615.62</td>
<td>7060.48</td>
<td>0.000</td>
</tr>
<tr>
<td>notebook</td>
<td>1</td>
<td>2.53</td>
<td>2.53</td>
<td>3.18</td>
<td>0.076</td>
</tr>
<tr>
<td>cell phone</td>
<td>1</td>
<td>0.38</td>
<td>0.38</td>
<td>0.47</td>
<td>0.492</td>
</tr>
<tr>
<td>notebook x cell phone</td>
<td>1</td>
<td>0.315</td>
<td>0.315</td>
<td>0.40</td>
<td>0.530</td>
</tr>
<tr>
<td>Error</td>
<td>233</td>
<td>185.32</td>
<td>0.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>236</td>
<td>5803.41</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Negative affect       |    |     |     |      |         |
| intercept             | 1  | 1609.24 | 1609.24 | 1479.24 | 0.000   |
| notebook              | 1  | 0.78  | 0.78 | 0.72  | 0.398   |
| cell phone            | 1  | 0.66  | 0.66 | 0.60  | 0.483   |
| notebook x cell phone | 1  | 0.844 | 0.844 | 0.78  | 0.379   |
| error                 | 233| 253.48 | 1.09 |       |         |
| Total                 | 236| 1864.78 |       |       |         |

| Functional evaluation |    |     |     |      |         |
| intercept             | 1  | 6769.28 | 6769.28 | 8835.98 | 0.000   |
| notebook              | 1  | 9.481E-02 | 9.481E-02 | 0.12  | 0.725   |
| cell phone            | 1  | 9.13  | 9.13 | 11.92 | 0.001   |
| notebook x cell phone | 1  | 0.12  | 0.12 | 0.156 | 0.693   |
| error                 | 233| 178.50 | 0.77 |       |         |
| Total                 | 236| 6954.17 |       |       |         |

| Purchase intention    |    |     |     |      |         |
| intercept             | 1  | 4644.90 | 4644.90 | 2141.61 | 0.000   |
| notebook              | 1  | 1.41  | 1.41 | 0.65  | 0.422   |
| cell phone            | 1  | 0.60  | 0.60 | 0.28  | 0.599   |
| notebook x cell phone | 1  | 0.11  | 0.11 | 0.05  | 0.821   |
| error                 | 233| 505.35 | 2.17 |       |         |
| Total                 | 236| 5150.56 |       |       |         |

(see table 3) show that except for purchase intention, the main effect of co-branding is significant at .05 for positive and negative affect and function evaluation. Scheffe tests indicate that on positive affect evaluation, Toshiba Nokia is significant higher than control group. Toshiba Nokia generates significantly lower negative affect than control group. Both Toshiba Nokia and Twinhead Nokia are rated higher on function when compared to control group.

The results do not completely support hypothesis 2. The reason could be that respondents consider only the strong co-branding partner when evaluating co-branding products. Thus, the co-branding groups were re-classified based on the strong brand of the two parent brands composing the co-brand. For instance, Nokia Toshiba is classified as Toshiba group since Toshiba has higher brand equity than Nokia. Four groups resulted from the classification-Toshiba, Nokia, Okwap, and control group. The results of GLM analyses show that the main effects are significant at .05 except that for purchase intention. Scheffe tests found that Toshiba group generates higher positive affect than control group does. Both Toshiba and Nokia groups generate higher functional evaluation than control group does.

To test whether the strong brand placed as the header or modifier has a significant effect on the evaluation of co-branding
product, a 2-way GLM was performed to analyze the data. The results show that the interaction effect of order of the strong brand in the co-branding and similar/complementary parent brands on the evaluation of co-branding products is not significant. Only the main effects of order of the strong brand in the co-branding on negative affect and the similar/complementary parent brands on the evaluation of co-branding products are significant. When strong brand is placed as the header, co-branding product arouses less negative affect to respondents. Twinhead Nokia generates higher functional evaluation than Twinhead Okwap. Both are similarity groups.

It seems that respondents consider only the strong partner instead of the relationships between the two partners when evaluating co-branding product. Thus, this study examined whether the strong brand partner with different levels of brand equity partner influence the evaluation of co-branding products. The results of t-test show that there is no difference on the evaluation of co-branding product whether Toshiba co-brands with Nokia or Okwap. Hypotheses relating to purchase intention are not supported. It could be that 97.9% and 18.8% of respondents already own a cell phone and PDA, respectively. Thus, this study examines the effects of respondents' intention on replacing their current cell phone and PDA on the dependent variables (four groups resulted). The results show that, compared with no intention of replacing both cell phone and PDA, respondents intend to replace both have higher positive affect, function evaluation, and purchase intention toward co-branding product.

Stepwise regression is used to test whether the evaluations of co-branding products (i.e., positive affect, negative affect, function, and purchase intention) have positive impact on the evaluation of original brand. Three different measures of brand equity were used in the regression models, brand equity of co-branding, brand equity of co-branding minus that of the strong brand partner, brand equity of co-branding minus that of the control group. Similar patterns of independent variables entering the regression model are observed with different measures of brand equity (see table 4). The variances of dependent variable explained by the independent variables are similar for the three dependent variable measures (R^2 ranges from .31 to .61). Functional evaluation accounts for most of the variance explained by the independent variables for the performance component of brand equity (about 25%). Purchase intention explains most of the variances of social image component of brand equity (around 45%). Positive affect accounts for the most variances of trust (about 23%) and attachment (about 30%) component and overall brand equity (about 40%). It appears that the dependent variable is most affected by its relevant independent variable.

### CONCLUSIONS

This study simulates a new product, cell phone PDA, to investigate the effects of brand strength, similarity/complementary co-branding partners on the evaluations of co-branding products. The results of this study show that, on brand strength, only cell phone parent brand affect the evaluation of function of co-branding product. The similarity/complementary partners have effects on the evaluation of function of the co-branding product is partially supported. It could be that co-branding strategy is still not common in Taiwan. At the time of data collecting, there is only one recognizable co-branding–Sony Ericsson which is the merge of cell phone divisions of Sony and Ericsson. Respondents base their evaluation of the co-branding product on the strong partner under this circumstance. A further test provides evidence that strong partner plays the major role in co-branding.

All the effects of independent variable on the purchase intention are not significant. A further analyses show that those effects will be significant if respondents are considering replacing their current cell phone or PDA.

As to the effect of co-branding equity on the equity of parent brands, the regression results show that each brand equity component is affected most by its relevant evaluation dimension of co-branding product. Specifically, evaluation of function accounts for performance component, purchase intention accounts for social image, and positive affect influence trust and attachment component and overall brand equity.
## TABLE 4
The Results of Stepwise Regression–Brand equity of co-branding $= a + b_1$ performance  + $b_2$ purchase intention  + $b_3$ positive affect

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>BE$_{co-branding}$ $(n=264)$</th>
<th>BE$_{co-branding-strong brand}$ $(n=265)$</th>
<th>BE$_{co-branding-control group}$ $(n=265)$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$eta$ t $R^2$ Adj-$R^2$ VIF$^a$</td>
<td>$eta$ t $R^2$ Adj-$R^2$ VIF$^a$</td>
<td>$eta$ t $R^2$ Adj-$R^2$ VIF$^a$</td>
<td>$eta$ t $R^2$ Adj-$R^2$ VIF$^a$</td>
</tr>
<tr>
<td></td>
<td>Performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 function</td>
<td>0.51 9.64** 0.26 0.26 1.00</td>
<td>0.50 8.73** 0.25 0.24 1.0</td>
<td>0.52 10.00** 0.27 0.27 1.00</td>
<td></td>
</tr>
<tr>
<td>2 function</td>
<td>0.41 7.18** 0.31 0.30 1.22</td>
<td>0.40 6.59** 0.29 0.28 1.20</td>
<td>0.42 7.47** 0.32 0.32 1.22</td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>0.24 4.24** 1.22</td>
<td>0.24 3.89**</td>
<td>1.20</td>
<td>0.24 4.29**</td>
</tr>
<tr>
<td>3 function</td>
<td>0.37 6.19** 0.32 0.31 1.35</td>
<td>0.61 11.88** 0.38 0.37 1.0</td>
<td>0.38 6.52** 0.33 0.33 1.35</td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>0.19 3.15** 1.41</td>
<td>0.45 8.24** 0.46 0.46 1.30</td>
<td>0.20 3.28**</td>
<td>1.41</td>
</tr>
<tr>
<td>P. effect</td>
<td>0.14 2.31* 1.44</td>
<td>0.34 6.16**</td>
<td>1.30</td>
<td>0.13 2.08**</td>
</tr>
<tr>
<td>Social image</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 PI</td>
<td>0.67 14.43** 0.44 0.44 1.00</td>
<td>0.40 7.21** 0.50 0.49 1.39</td>
<td>0.67 14.56** 0.45 0.44 1.00</td>
<td></td>
</tr>
<tr>
<td>2 PI</td>
<td>0.51 11.15** 0.56 0.56 1.22</td>
<td>0.28 4.97**</td>
<td>1.42</td>
<td>0.51 11.23** 0.56 0.56 1.22</td>
</tr>
<tr>
<td>P. affect</td>
<td>0.38 8.31** 1.22</td>
<td>0.21 3.87**</td>
<td>1.31</td>
<td>0.38 8.38**</td>
</tr>
<tr>
<td>3 PI</td>
<td>0.41 8.97** 0.61 0.60 1.40</td>
<td>0.43 7.30** 0.19 0.18 1.00</td>
<td>0.41 9.02** 0.61 0.61 1.41</td>
<td></td>
</tr>
<tr>
<td>P. affect</td>
<td>0.30 6.66** 1.34</td>
<td>0.31 4.89** 0.25 0.25 1.23</td>
<td>0.30 6.17**</td>
<td>1.35</td>
</tr>
<tr>
<td>function</td>
<td>0.26 5.62** 1.43</td>
<td>0.29 4.58**</td>
<td>1.23</td>
<td>0.26 5.67**</td>
</tr>
<tr>
<td>Trust</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 P. affect</td>
<td>0.49 9.00** 0.24 0.23 1.00</td>
<td>0.49 8.65** 0.24 0.24 1.00</td>
<td>0.50 9.26** 0.25 0.24 1.00</td>
<td></td>
</tr>
<tr>
<td>2 P. affect</td>
<td>0.34 5.97** 1.25</td>
<td>0.33 5.42** 0.32 0.32 1.31</td>
<td>0.35 6.24** 0.33 0.32 1.25</td>
<td></td>
</tr>
<tr>
<td>function</td>
<td>0.32 5.66** 0.32 0.31 1.25</td>
<td>0.33 5.27**</td>
<td>1.31</td>
<td>0.32 5.58**</td>
</tr>
<tr>
<td>Attachment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 P. affect</td>
<td>0.55 10.53** 0.30 0.29 1.00</td>
<td>0.27 4.25** 0.36 0.35 1.43</td>
<td>0.53 10.15** 0.28 0.28 1.00</td>
<td></td>
</tr>
<tr>
<td>2 P. affect</td>
<td>0.39 7.34** 0.41 0.41 1.22</td>
<td>0.27 4.28**</td>
<td>1.40</td>
<td>0.37 6.99** 0.39 0.39 1.22</td>
</tr>
<tr>
<td>PI</td>
<td>0.37 7.13** 1.22</td>
<td>0.22 3.73**</td>
<td>1.31</td>
<td>0.37 6.99**</td>
</tr>
<tr>
<td>3 P. affect</td>
<td>0.31 5.87** 0.45 0.45 1.35</td>
<td>0.55 10.16** 0.31 0.30 1.00</td>
<td>0.30 5.50** 0.44 0.43 1.35</td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>0.29 5.26** 1.41</td>
<td>0.40 7.36** 0.42 0.42 1.20</td>
<td>0.28 5.09**</td>
<td>0.28</td>
</tr>
<tr>
<td>function</td>
<td>0.25 4.50** 1.44</td>
<td>0.37 6.83**</td>
<td>1.20</td>
<td>0.26 4.62**</td>
</tr>
<tr>
<td>Overall Brand Equity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 P. affect</td>
<td>0.64 13.30** 0.40 0.40 1.00</td>
<td>0.30 5.34** 0.48 0.47 1.39</td>
<td>0.64 13.33** 0.40 0.40 0.64</td>
<td></td>
</tr>
<tr>
<td>2 P. affect</td>
<td>0.50 9.94** 0.54 0.54 1.22</td>
<td>0.30 5.46**</td>
<td>1.31</td>
<td>0.47 9.70** 0.53 0.53 0.47</td>
</tr>
<tr>
<td>function</td>
<td>0.41 8.97** 1.22</td>
<td>0.28 4.87**</td>
<td>1.42</td>
<td>0.39 8.35**</td>
</tr>
<tr>
<td>3 P. affect</td>
<td>0.38 8.26** 0.60 0.60 1.34</td>
<td>0.50 8.73** 0.25 0.24 1.00</td>
<td>0.39 8.30** 0.58 0.58 0.39</td>
<td></td>
</tr>
<tr>
<td>function</td>
<td>0.31 6.74** 1.40</td>
<td>0.40 6.59** 0.29 0.28 1.20</td>
<td>0.29 6.16**</td>
<td>0.29</td>
</tr>
<tr>
<td>PI</td>
<td>0.29 6.09** 1.44</td>
<td>0.24 3.89**</td>
<td>1.20</td>
<td>0.28 5.81*</td>
</tr>
</tbody>
</table>

*Note. P. affect is positive affect; PI is purchase intention
* p<.05; ** p<.01

a. Hair, Anderson, Tatham and Black (1998) suggested that VIF should be small than 10.
Contributions
The results of this study contribute to the co-branding literature. Co-branding has been a common marketing practice but not many researches have been focus on this subject. Park, Jun, and Shocker (1996) concluded that complementary brands generate better attribute evaluations than solely rely on the extension of a strong brand. They used a low involvement product. However, the results of this study suggest that respondents probably depend on their perceptions on the strong partner to evaluate the co-branding product. The first reason could be that respondents are not familiar with the co-branding strategies. In fact, some respondents indicated that they did not notice the research product was marketed by two manufactures. The second reason could be that respondents believe in well-established brand (or brand-oriented) in making decision especially for high involvement product, cell phone PDA in this study. They only focus on the one brand that appeals to them. Thus, the order of co-branding partners has no significant effect on the evaluation of co-branding product. As to the effect of the evaluation of the co-branding extension on the brand equity of parent brands, the results of this study are similar to previous research (e.g., Rao, Qu, and Ruekekt 1999; Simonir and Ruth 1998).

Suggestions to practitioners
Co-branding strategy makes the relationship between the alliance partners highly visible (Park, Jun, and Shocker 1996), thus increase the awareness level. The reputation of co-branding partners certainly would impact the success of co-branding strategy. The following suggestions are based on the findings of this research.

First, the results of this study show that both similarity and complementary partners enhance the positive evaluation of co-branding product. Since co-branding is a market expansion strategy (Kotler and Armstrong 1996) and a differentiation strategy in the mature market (Dagnoli and Hum, 1991). Thus, marketers could pursue partners that are either comparable or complementary on the marketing mix to develop new markets. For marketers with an average-rated brand equity, pursuing high brand equity partner in establishing co-branding strategy seem to be more viable when potential buyers are not familiar with co-branding or aspiring to brand name products.

Second, the study found that respondents have higher evaluation of co-branding product when they have the intention to replace their current related product. Thus, marketers need to arouse consumers’ interest in the new product before co-branding strategy can generate profits. Marketers need to recognize the need and switch cost of consumers to introduce attractive co-branding product.

Suggestions for future research
This study manipulates the similarity/complementary of co-branding partners by the evaluations of brand equity, future research may consider co-branding of the marketing mix; for example, the co-branding of channel operator and product brand. The results of this study propose that brand strength is more effective than similarity/complementary alliance to extend to new product for high involvement products. Future research could test whether product category does impact on the co-branding strategy.

REFERENCES


BACKGROUND

Over the past few years, the interest in health-conscious organic food has remarkably increased. Behind this trend is a growing concern for issues concerning health or the environment, and an increase in the number of children with allergies. Organic food is gradually attracting the attention of people who previously had little interest in them. Statistic data confirms the presence of active consumers who choose organic food, even if prices remain comparatively high.

In Japan, the organic food industry has mainly developed through the home delivery system (Ogawa, 1999, 2001; Tokue, 1999). So far, the exclusive, membership based home delivery system was the dominant distribution channel for organic products. However, this trend is gradually shifting towards the open, retail system, where the general run of consumers can have easy access to organic products.

In addition, organic food is finally being acknowledged by the general public, as the enactment of the revised Japanese Agricultural Standards for organic products in June 2000 symbolizes. The enforcement of the law introduced the full-fledged certification system of organic produce, which is likely to expand business opportunities for the organic food market.

Although there are many articles that discuss consumer behavior towards organic food in other countries, little is known about Japanese organic food consumers.

Since the increase in organic food-conscious consumers in many countries, a number of studies have investigated consumer behavior towards organic food in the European and U.S markets. For example, in 2001, Squires et al. presented a cross-cultural study of organic food consumption comparing Denmark and New Zealand. Gardyn analyzed the U.S organic market in 2002. In 1995, Grunert et al. took an interest in Danish schoolteachers buying organic food. In contrast, studies on Japanese consumer behavior towards organic food are quite limited.

RESEARCH OBJECTIVES

As an open distribution channel, organic supermarkets are expected to become a major driving force for the growth of Japan’s organic food market. This pioneering study identifies the characteristics of organic supermarket users, in expectation of contributing to develop the brand management of organic supermarkets in Japan.

The purpose of this paper is to demonstrate consumer behavior in organic supermarkets. Based on the discoveries obtained from this research, we will discuss future development strategies of the organic food market. We shall particularly offer some important implications inferred from an in-store questionnaire survey data.

DATA

We hypothesized that the population for this questionnaire survey would be the customers of a specific organic food supermarket. To grasp the general trends of the customers of this store, we sampled some of the visitors who purchased food items. Accordingly, the actual population for this research is the total amount of customers who visited this store on the day of the survey. A total of 103 samples were selected among 990 visitors via random sampling.

The field investigators conducted questionnaire surveys by interviewing and filling out the answers given by the informants on the questionnaire form. The survey points were set at the opposite side of cash registers so that field investigators could interview customers who actually purchased items.

The majority of respondents were female (84.2%) and housewives accounted for 70.9%. Most of the respondents were in their 30’s (43.7%).

CONSUMER CHARACTERISTICS IN THE QUESTIONNAIRE SURVEY

High Frequency of Visit and High Per-Customer Expenditure

Out of 103 valid samples, 30 were heavy users, who visit the store more than 3 times a week (Table 1). By combining them with the users who use the store “once or twice a week,” we can estimate that “frequent users” consist of 77.2% of the total customers. The average (median) expenditure per customer is 2,000 yen (Table 2), which is quite high for a supermarket that only sells food. According to the consumer monitor research conducted by the Ministry of Agriculture in 2000, the mode expenditure per customer is between 400-499 yen for vegetables, and between 700–999 yen for meat products. We estimate that the general consumer spends approximately 1,500 yen per visit.

The prices of vegetables sold in the organic supermarket we researched were approximately 30% higher than an ordinary supermarket in that neighborhood.

A number of studies point out that there is a willingness to pay premium prices for eco-products and organic food (c.f. Loureiro et al., 2002; Thompson, 1998; Weir and Calverler, 2002).

Consumers' Motivations for shopping at MOTHER’S

Table 3 shows that “shopping at a natural food specialty store” was the most popular motivation for organic supermarket users (72.8%). “High quality” was the second most answered reason, chosen by 57 people (55.3%). Both of these two choices are related to the quality of product itself. Given the facts that customers chose MOTHER’S because it is a natural food shop or because the quality of the products is high, we can assume that consumers have a strong
commitment to food. This assumption is confirmed by the subsequent responses to the different standards of motivations such as “good service,” “cheap price” and “a wide variety of goods”.

Another distinctive feature of MOTHER’S customers is that vicinity of residence did not constitute a main reason to visit the store.

Customer’s Store Loyalty

Here we analyze the results to the question of whether the customers visit other natural food stores or not (Table 4).

Forty-eight users (47.5%) answered that they visited other (multiple) stores. Given the MOTHER’S consumers’ keen interest in natural food in general, those customers fall into two segments. One consists of people who have a strong interest in natural food and tend to shop around among a variety of food and stores for comparison. Another segment is consisted of people who only visit MOTHER’S. The latter, who represent 52.5% of all respondents, are considered to have a noticeably strong store loyalty to MOTHER’S. A reservation should be made, however, about the possibility that some of them may shop at only MOTHER’S not because they are loyal, but simply because there are no other natural food stores available in their neighborhood.

The Level of Concern for Agricultural Chemicals

We asked how seriously consumers cared about chemical-free food at the time of purchase (Table 5). The respondents were asked to answer on a scale of 1 to 4: “very concerned,” “concerned,” “sometimes concerned” or “not concerned”. The results are shown in Table 6. The “very concerned” customers account for 51.0%, followed by “concerned” (32.4%). Considering the fact that a majority of the customers visit MOTHER’S because it is a natural food store, the keen interest in natural food is intrinsically-linked to the concern for chemical-free food. It is therefore natural that many customers showed “very concerned” and “concerned” attitudes towards pesticide-free food. This concern for pesticides is the specific feature for MOTHER’S customers, and can not be generalized to all consumers. It would be reasonable to conclude that consumers who care for chemical-free food chose MOTHER’S.

Strong Commitment to Natural Food

In this section we asked how frequently the customers bought natural food on a scale of 1 to 5: “almost always,” “regularly,” “once every two shopping occasions,” “occasionally” or “rarely” (Table 6). The sum of people who bought natural food “almost always” or “regularly” amounts to 54.9%, while only 2.9% people answered that they “rarely” buy them.

These results suggest MOTHER’S customers’ strong loyalty to natural food category. In the previous questions, we confirmed consumers’ interest in natural food at the perceptual or attitudinal level. In this section, we will examine it at the behavioral level of purchase. It is possible to assume that there may be a gap between consumers’ attitudes and behaviors. However, in this case study, we observed that the strong concern in natural food led directly to purchase.

Questions about reasons to buy natural food were asked for the people who buy them “almost always,” “regularly,” “once in every two shopping occasions,” and “occasionally”. “Health” and “safety” were the top reasons, each chosen by 68 out of the 99 respondents.

---

**TABLE 1**
Frequency of Visit

<table>
<thead>
<tr>
<th>Percentage of Distribution (%)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than three visits a week</td>
<td>29.1</td>
</tr>
<tr>
<td>One or Two visits a week</td>
<td>48.5</td>
</tr>
<tr>
<td>One or Two visits a month</td>
<td>13.6</td>
</tr>
<tr>
<td>Three or Four visits a year</td>
<td>2.9</td>
</tr>
<tr>
<td>First time visits (Never visited before)</td>
<td>5.8</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**TABLE 2**
Per-Customer Expenditure

<table>
<thead>
<tr>
<th>Percentage of Distribution (%)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 500yen</td>
<td>4.0</td>
</tr>
<tr>
<td>500-999yen</td>
<td>17.0</td>
</tr>
<tr>
<td>1000-1999yen</td>
<td>19.0</td>
</tr>
<tr>
<td>2000-3999yen</td>
<td>31.0</td>
</tr>
<tr>
<td>4000-5999yen</td>
<td>17.0</td>
</tr>
<tr>
<td>6000yen and over</td>
<td>12.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Per-Customer Expenditure (Median) 2,000 yen
Where conventional foods are concerned, taste is usually considered to be the most important attribute, and accordingly the top reason for purchase. In this survey, however, taste ranked only fourth, with 36 out of 99 samples. This reveals the fact that taste is, unexpectedly, a weak and not markedly important reason to choose natural food. We can conclude that “health” and “safety” are the most highly appreciated benefits for natural food consumers.

Consumers’ Evaluation Criteria for Natural Food Purchase

In this section we assess the attributes for purchasing natural food by order of importance. We specified eight attributes: “price,” “wide variety of goods,” “quality,” “display,” “atmosphere,” “package,” “description of products” and “interpersonal service quality”. For each attribute, respondents were required to answer on a scale of -2 to 2. Each answer was scored according to the levels of importance as follows: “very important” (+2 point), “rather important” (+1 point), “don’t know” (0 point), “not very important” (-1 point) and “not important at all” (-2 point). Average values for each attribute appear in Table 8.

Table 8 indicates that priority was given to “quality,” with the highest average value of 1.79. This was followed by “description of products” (1.15). Attributes of “package” and “display” were relatively less significant.

The results provide valuable insight into the marketing of natural food. In terms of average value, two different types of attribute groups can be identified. The top three attributes, “quality,” “description of product” and “a wide variety of goods” comprise one group. Another group would consist of the three lowest ranked attributes such as “display,” “package” and “atmosphere”. By comparing these groups, we found that the attributes for the former group represent essential parts of the products or service, while the latter group’s elements denote relatively fringe values of the goods.
Natural food consumers have a discerning eye when it comes to the essential utility offered by these foods. In addition, a significant observation was that consumers are fairly conscious of the “description of products,” which hints at the possibility of effective sales promotion plans. For example, descriptions may be deployed in POP signage. Also, the disclosure the names of the producers (cultivators) can function as a description. Strengthening of information disclosure on products is likely to be effective to gain support from consumers. Some studies also emphasize the necessity of improving the promotion of products in order to enlarge the market for organic products (c.f. Roddy et al., 1996).

### TABLE 6
Frequency of Natural Food Purchase When Buying Food

<table>
<thead>
<tr>
<th>Percentage of Distribution (%)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buy almost always</td>
<td>25.5</td>
</tr>
<tr>
<td>Buy regularly</td>
<td>31.4</td>
</tr>
<tr>
<td>Buy once in every two shopping occasions</td>
<td>26.5</td>
</tr>
<tr>
<td>Buy occasionally</td>
<td>15.7</td>
</tr>
<tr>
<td>Buy rarely</td>
<td>2.9</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

### TABLE 7
Reasons to Buy Natural Food

<table>
<thead>
<tr>
<th>Percentage of Distribution (%)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>68.7</td>
</tr>
<tr>
<td>Safety</td>
<td>68.7</td>
</tr>
<tr>
<td>For the family’s sake</td>
<td>44.4</td>
</tr>
<tr>
<td>Taste</td>
<td>36.4</td>
</tr>
<tr>
<td>As a customary practice</td>
<td>6.1</td>
</tr>
<tr>
<td>Others</td>
<td>5.1</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

### TABLE 8
Important Attributes in Purchasing Natural Food

<table>
<thead>
<tr>
<th>Average Value</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food quality</td>
<td>1.79</td>
</tr>
<tr>
<td>Description of products</td>
<td>1.15</td>
</tr>
<tr>
<td>A wide variety of goods</td>
<td>0.98</td>
</tr>
<tr>
<td>Interpersonal service quality</td>
<td>0.67</td>
</tr>
<tr>
<td>Cheap price</td>
<td>0.48</td>
</tr>
<tr>
<td>Store atmosphere</td>
<td>0.36</td>
</tr>
<tr>
<td>Package</td>
<td>-0.05</td>
</tr>
<tr>
<td>Merchandise display</td>
<td>-0.03</td>
</tr>
</tbody>
</table>

### BUYING HABITS OF THE HIGH-INvolvement IN ORGANIC FOOD SEGMENT

**Consumers with strong interest in organic products**

For organic supermarket companies, it is crucial to understand the tendency of organic consumers’ buying behavior and their standards of goods purchase.

As mentioned in the previous section, nearly half the customers (50.1%) surveyed in the chosen natural food store were quite conscious about buying products with no (or reduced) pesticide treatment. This suggests that organic supermarket users have a
TABLE 9
Degree of Involvement and Frequency of Purchase of Natural Food

<table>
<thead>
<tr>
<th>Frequency of Purchase of Natural Food</th>
<th>Buy almost Always</th>
<th>Buy regularly</th>
<th>Buy once in every two Shopping occasions</th>
<th>Buy occasionally</th>
<th>Buy rarely</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Involvement in Organic Food</td>
<td>23</td>
<td>21</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>44.2%</td>
<td>40.4%</td>
<td>15.4%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Low Involvement in Organic Food</td>
<td>1</td>
<td>11</td>
<td>19</td>
<td>16</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>2.0%</td>
<td>22.0%</td>
<td>38.0%</td>
<td>32.0%</td>
<td>6.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>32</td>
<td>27</td>
<td>16</td>
<td>3</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>23.5%</td>
<td>31.4%</td>
<td>26.5%</td>
<td>15.7%</td>
<td>2.9%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Kendall’s τb 0.615  Kendall’s τc 0.754

TABLE 10
Organic Involvement and Attributes Evaluations in Purchases

<table>
<thead>
<tr>
<th></th>
<th>Average Score</th>
<th>Standard Deviation</th>
<th>Average Score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food quality</td>
<td>1.88</td>
<td>0.47</td>
<td>1.70</td>
<td>0.58</td>
</tr>
<tr>
<td>Description of products</td>
<td>1.58</td>
<td>0.67</td>
<td>1.15</td>
<td>0.16</td>
</tr>
<tr>
<td>Wide variety of goods</td>
<td>1.17</td>
<td>0.73</td>
<td>0.78</td>
<td>0.89</td>
</tr>
<tr>
<td>Interpersonal service quality</td>
<td>0.83</td>
<td>0.83</td>
<td>0.50</td>
<td>0.95</td>
</tr>
<tr>
<td>Cheap price</td>
<td>0.38</td>
<td>1.17</td>
<td>0.58</td>
<td>1.07</td>
</tr>
<tr>
<td>Store atmosphere</td>
<td>0.50</td>
<td>1.02</td>
<td>0.22</td>
<td>1.15</td>
</tr>
<tr>
<td>Packaging</td>
<td>0.19</td>
<td>1.08</td>
<td>-0.08</td>
<td>1.18</td>
</tr>
<tr>
<td>Display</td>
<td>-0.19</td>
<td>1.08</td>
<td>-0.08</td>
<td>1.08</td>
</tr>
</tbody>
</table>

Note: test of difference in average values (two-sided t-test):
** p<0.01    * p<0.05

higher involvement in natural food than consumers in general. Furthermore, among these organic supermarket users, there exists a segment of users who have an even higher involvement. High involvement leads to purchase.

In the following section, we demonstrate whether the degree of involvement makes a difference in attribute evaluations at the time of buying. The respondents were divided into two segments. One is the “high involvement in organic food segment,” who were “strongly concerned” about no (reduced) pesticide products. Another is “low involvement in organic food segment,” who answered “concerned,” “sometimes concerned” or “not so much concerned”.

Differences in Organic Involvement and Frequency of Purchase of Natural Food

We investigated the correlation between the degree of organic involvement and the frequency of purchase of natural food. As Table 9 shows, the higher the involvement of the segment becomes, the more frequently they buy natural food. To determine the positive correlation between these two variables, rank correlation is used as a measuring instrument. The results of Kendall’s rank correlation coefficient were significantly high, τb=0.615 and τc=0.754.

Correlation between Involvement in Organic Food and Attribute Evaluations in the Purchase of Natural Food

By what standards do high involvement consumers choose natural foods? Focusing on the high involvement in organic food segment, we examine how the degree of involvement affects the attribute evaluations at the time of purchase. The questionnaire adopted a numerical system of rating, that rate the answers on a scale of -2 to 2 for each of the eight factors valued in the purchase of natural food. Average values can be obtained by translating the answers into numerical values.

Table 10 demonstrates the average values of differences between high and low involvement segments. The average values of the high involvement segment are higher in all sections except for
“cheap price” and “display”. Table 10 indicates results of the test that also measure the differences between average values. The average scores for “description of product” were different by 1.0% level of significance.

**Involvement in Organic Food and Per-Customer Expenditure**

Next, we shall verify the correlation between the degree of involvement and the total consumer expenditure at MOTHER’S. Table 11 shows average amounts of purchases and standard deviation according to the degree of involvement in organic food. Evidently, the degree of involvement is proportional to the amount spent. For example, while “concerned” people, who belong to the high involvement in organic food segment, spent an average of 3,591 yen (total amount spent at the store), the members of the low involvement segment spent only 1,957 yen.

**Involvement in Organic Food and Shopping Frequency**

This section examines whether the degree of involvement in organic food corresponds with shopping frequency (Table 12).

In the high involvement in organic food segment, customers who visit MOTHER’S more than three times a week account for 28.8% and “once or twice a week” for 59.6%. In total, 88.4% of the high involvement in organic food segment can be considered as frequent users.

By contrast, in the low involvement segment, frequent users only amount to 66.0%. The rates of “more than three visits a week” or “one or two visits a week” users were 30.0% and 36.0% respectively.

**Involvement in Organic Food and Sales Contribution**

The previous section clarified the correlation between the extent of involvement in organic food and the expenditure per-customer. In this section, we attempt to estimate the sales mix of MOTHER’S, by applying the “frequency of visit” figures.

Table 12 (above) presents the frequency of store visits according to the extent of involvement in organic food. Customers were divided into groups based on the frequency of visit, and by converting the values of each group to a year-round value, we estimated cumulative figures of annual visits. For example, we assumed that the “More than three visits a week” category would visit the store four times a week on average and thus, 208 times a year. Similarly, the “One or two visits a week” group is deemed to visit on average 1.5 times a week, and 78 times a year.

Table 13 shows estimated sales revenue and sales mix per category, depending on the degree of involvement in organic food and the frequency of visit. Here, we weighed the complex factors of annual visit frequency, per-customer expenditure, frequency of occurrence and the sampling ratio (10.4%). The estimated sum was 280 million yen, of which 68.2% was contributed by the high involvement in organic food segment. Also, the data clearly shows that frequent users, who visit the store more than three times a week, generate 59.0% of the turnover.

### Table 11
Involvement in Organic Food and Average Customer Expenditure

<table>
<thead>
<tr>
<th>High-Involvement in Organic Food</th>
<th>Low-Involvement in Organic Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Expenditure (¥)</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>3,591.0</td>
<td>2,348.63</td>
</tr>
</tbody>
</table>

Note: test of differences in average values (two-sided t-test):
**p<0.01  * p<0.05

### Table 12
Involvement in Organic Food and Frequency of Visits

<table>
<thead>
<tr>
<th>Frequency of Visits</th>
<th>More than three visits a week</th>
<th>One or two visits a week</th>
<th>One or two visits a month</th>
<th>Three or four visits a year</th>
<th>First time visits (Never visited before)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Involvement in Organic Food</td>
<td>15</td>
<td>31</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>52</td>
</tr>
<tr>
<td>Low Involvement in Organic Food</td>
<td>15</td>
<td>18</td>
<td>10</td>
<td>2</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>49</td>
<td>14</td>
<td>3</td>
<td>6</td>
<td>102</td>
</tr>
</tbody>
</table>

As mentioned before, overall, the frequency of visits is quite high for MOTHER’S customers, of which the high involvement in organic food cluster has been proven to be the most frequent user segment.
These results offer the important discovery that the crossover segment, where high involvement in organic food and high frequency of visits overlap, plays a vital role for business operations of organic supermarkets.

CONCLUSIONS

In order to reach a conclusion, we must summarize three important facts obtained from the analysis of the questionnaire survey of organic supermarket users.

The first observation is that “cheap price” or “close from home” was not the reasons for store choice for many users. Unlike mainstream supermarket users, orientation towards price or convenience was not a factor here. Additionally, in choosing natural food, these customers attach more importance to “description of products” than to “price,” “package” or “display”.

Secondly, users of the MOTHER’s supermarket showed a strong commitment to organic food. They shop at MOTHER’S on the grounds that it is a natural food shop. They have a tendency to visit multiple natural food stores and opt for natural produce when buying foods. These tendencies attest to their strong adherence to natural products.

We surmise that this adherence is presumably backed up by a strong consciousness for health and safety. These results indicate the existence of a stable consumer segment in Japan, which translates the concern for health and safety translates the concern for health and safety into purchasing behavior.

Finally, among the health/safety-conscious users, there exists a special segment of people who show an extremely high commitment to organic products.

Most of the food consumed by this high involvement in organic food segment was natural food. Research data clearly shows that this high involvement segment appreciates the “description of products” more than the low involvement segment does. This patron base constitutes heavy users whose per-customer spending and frequency of visit are both considerably high. The high involvement in organic segment is therefore the mainstay of support for the organic supermarket business.

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The Influences of the Consumer-Brand Relationship on the Evaluations of Extended Brands
Yung-Shin Sung, Korea University, Korea
Eun-A Park, Korea Broadcasting Advertising Corporation, Korea
Tae-Hyung Kim, CJ Corporation., Korea

EXTENDED ABSTRACT

In this study, we investigated what influences the consumer-brand relationships have on effects on the extended brand and the moderating role of moderate incongruity of the evaluation process on extended brands.

Consumer-brand relationships (BRQ) affect the evaluation of extended brand (Park, 2001). That is, strong BRQ consumers are more positive attitudes toward extended product than weak BRQ consumers. Moderate incongruity effect (MIE) in brand extensions means consumers prefer the extended brands whose attributes are moderately incongruent with their expectations over the brands extremely incongruent or very congruent (Meyers-Levy, Louis & Curren 1994). However, more recent research by Maoz & Tybout (2002) suggested that the moderating role of involvement and differentiation in moderate incongruity effects (MIE) of the brand extension. So we tried to examine that moderate incongruity effects in brand with relation to consumer-brand relationship quality.

It was hypothesized that the MIE would happen to strong brand relationship consumers and that the effect of attribute similarity, which means people have more positive attitudes toward extended brands whose attributes are similar with those of an existing brand (parent brand) than toward extended brands less similar, would happen to weak brand relationship consumers.

Three preliminary researches were executed prior to the main research. Throughout the first preliminary research and the second, the sub-dimensions regarding the measurement of Fournier(1994)’s brand relationship quality (BRQ) and the question items of each sub-dimension were decided. Also, the Korean famous clothes brand,”Bean Pole”, and the brand “Sony” of impact electric home appliances were selected as the brands to be used in the main research. In the third preliminary research, as the extended products whose similarities in the product concepts are high and those in the product attributes are high, medium, and low, we selected full-dress shoes, perfume, and a fountain pen for the Sony brand and a MP3 player, a wrist watch, and a pen for the Sony brand.

The main research showed that as consumers’ brand relationships with an existing brand become strong, they come to have more positive attitudes and higher purchase intentions toward extended brands. This is correspondent with the results of previous researches. Also, we have investigated whether the mechanism in the evaluations of extended brands appear differently in brand extensions depending on the degree of the brand relationship quality strength (High/Low). First, in order to study the MIE in brand extensions, ANOVA was executed to verify the MIE in the high BRQ group. As results of the analyses, there did not appear any differences in the attitudes and the purchase intentions toward extended brands among the three groups classified by the degree of product attribute similarities with each parent brand. This indicates that as for the groups of which the consumer-brand relationships are strong, it appears that they evaluate positively regardless of the degree of the product attribute similarities. Hence, it was shown that the MIE doesn’t appear in brand extensions. In contrast, from the result of the analyses regarding the groups of which the consumer-brand relationships are weak, we could see the significant differences among the groups appeared with regard to the attitudes toward extended brands according to the degree of product attribute similarity with each mother brand. Additional analyses showed that the evaluations of the extended brands are significantly higher in the cases of extending toward the products of which the product attribute similarities are the highest than when extending to the products whose product attribute similarities are medium. And, it was shown that the evaluations of the extended brands are significantly higher in the cases of extending to the products of which the product attribute similarities are medium than when extending toward the products whose similarities are low. Accordingly, the above results lead to the conclusion that for low BRQ group, the more similar the attributes of the products are with the mother brand, the more positive attitudes and the higher purchase intention toward the extended brands they have.

In summary, the results showed that as consumers’ brand relationships with an existing brand become strong, they come to have more positive attitudes and higher purchase intentions toward extended brands regardless of the degree of the product attribute similarities. As for strong consumer-brand relationship groups, the MIE didn’t appear and for weak consumer-brand relationship groups, the product attribute similarities affect their attitudes and purchase intentions of extended brands. This study confirmed that strong BRQ is key important factor to the favorable evaluations of the brand extensions.

REFERENCES

Organized service recovery policies and programs are important tools to firms in their efforts to maintain satisfied and loyal customers. For this reason, service failure and recovery issues have been the focus of much research throughout the last decade. During this time we have achieved considerable understanding of this increasingly important issue. However, despite the insights gained and the consensus reached, we still have a somewhat limited understanding of the topic (Tax, Brown, & Chandrashekaran, 1998). In particular, the service recovery literature generally assumes a somewhat restricted view of the service failure/recovery encounter. Research tends to examine a given failure, consumer reactions (attitudinal and behavioral) to that failure, the company’s attempt at a recovery, and post-recovery consumer outcomes, particularly consumer intentions to remain with the firm. Such research largely ignores a number of relevant variables—existing outside of the failure/recovery encounter—that serve to encourage (or discourage) the consumer’s desire to stay (or leave) the failing company in question. Further, research on this topic in an online setting is practically non-existent (for an exception see Holloway and Beatty 2003).

Therefore, this research undertakes a holistic examination of the service failure/recovery process by incorporating the role of switching barriers. Further, the study is conducted in an online setting in order to extend this research to a context of growing relevance. We believe this represents the first attempt not only to conceptualize and measure online switching barriers, but also to examine their influence in the service failure/recovery process. Service failures—as well as ineffective recovery efforts—have long been regarded as a common reason for switching behavior. When a service failure occurs and a poor or insufficient recovery is attempted, the consumer is very likely to consider alternative service providers. However, it stands to reason that the consumer may choose to remain with the firm or even to “change” the firm via complaint behavior if enough barriers to switching exist—despite the consumer’s dissatisfaction with the recovery effort and increased distrust of the firm.

Switching barriers are defined as any factor that makes it more difficult or costly for consumers to change providers. Building on the research of Jones, Mothersbaugh, and Beatty (2000), the online switching barriers examined here include ongoing relationship quality, perceived switching costs, and the attractiveness of available alternatives. Because of the additional costs and burdens they incur in the switching process, we hypothesize that these barriers will reduce the likelihood of customer switching following a service failure encounter even when other factors, such as dissatisfaction and distrust, may encourage such switching. Therefore, our research examines the direct effects of these barriers on intention to remain with the firm as well as their moderating influence on the relationships between recovery satisfaction→intention to remain, and post-recovery trust→intention to remain following an online service failure/recovery encounter and weak recovery effort.

This research was conducted in the context of two types of online B2C (i.e., business to consumer) operations—retailers that operate only online and retailers that operate both online and offline via traditional stores and/or catalogue. This research involves a web-based survey and incorporates a role-playing technique (e.g., Mohr & Bitner 1995), in which respondents are asked to imagine themselves in the role of a customer, experiencing a hypothetical scenario involving an online service failure encounter followed by a weak recovery effort. All proposed constructs in this research are drawn from existing literature and scale items were adapted for the online context of the study. A total of 516 adult U.S. Internet shoppers were recruited by students from marketing classes to participate. The students were extensively trained before their recruitment occurred. All survey participants were pre-qualified as having purchased at least one physical product (i.e., involving the delivery of physical merchandise) on the Internet within the past 2 years.

The properties of all constructs (reliability and validity) were assessed using structural equation analysis (LISREL 8.3), and all proposed hypotheses are tested using regression and moderated regression analysis. The results highlight the influential role of ongoing relationship quality in the online service recovery process for both groups of companies. Ongoing relationship quality had a significant moderating effect for both groups of companies, as well as a direct effect on intention to remain in the offline/online group. The other switching barrier that influenced respondents’ reactions to the service recovery scenario was the attractiveness of available alternatives variable. This barrier also influenced intention to remain for both groups of companies, although its influence was stronger in the offline/online group than in the online only group. The third proposed switching barrier, perceived switching costs, appeared to have no effect on the dependent variable for both groups of companies.

The results of this study offer a number of meaningful implications for research and practice alike. In particular, the results clearly support the idea that switching barriers—variables that exist outside of the failure/recovery encounter—influence the consumer’s intention to stay (or leave) following an online service failure/recovery encounter. Ongoing relationship quality and the attractiveness of available alternatives have a number of direct and moderating effects across the two groups, thereby supporting the notion that these barriers directly and indirectly foster online customer retention. Further, the proposed switching barriers appear to have a stronger influence following a service failure/recovery encounter in the offline/online setting than in the online only companies. This suggests a strategic advantage for those companies operating in both the offline and online channels over their online-only competitors in regards to more effectively retaining customers. In conclusion, research results here imply that switching barriers should be a key variable for inclusion in future service failure/recovery research, regardless of the context.

REFERENCES
**ABSTRACT**

Trust may be the single most powerful relationship marketing tool available to a services company (Berry 1995), yet little research has provided an in-depth description of how consumer trust develops. We introduce a model describing the stages of development of trust for service providers. It is based on literature on trust and relationship development, as well as qualitative data gathered from five focus groups, 160 written surveys, and 50 in-depth personal interviews. It shows six stages of trust, divided into three main periods: beginnings, middle, and endings. Initial trust and growth comprise the beginnings; maturity and maintenance the middle; and deterioration and dissolution the endings. We pay particular attention to the beginnings and introduce a separate model describing the process by which trust begins. Also important is the endings of trust, where distrust, betrayal and forgiveness are key concepts.

**INTRODUCTION**

Winning the trust of customers is crucial for service providers. As Berry (1995) noted, trust may be the single most powerful relationship marketing tool available to a services company. Despite the importance of trust, little research to date has attempted to provide an in-depth description of how consumer trust develops. In this paper, we introduce a model that describes the development of trust for service providers.

**METHOD**

The model is based primarily on literature on trust and relationship development from a wide range of disciplines, including marketing, social psychology, developmental psychology, sociology, economics, political science and organization science. It has been confirmed and refined using qualitative data gathered from five focus groups, 160 written surveys, and 50 in-depth personal interviews.

The focus groups included groups of students at a university in Hawaii who were from five nations: the United States, Japan, China, the Philippines and Tonga. The discussion in these groups centered on the development of trust for two types of services: health care and hair care. We were particularly interested in observing cross-cultural similarities and differences in how trust is perceived and developed.

The written surveys were collected by students in an undergraduate marketing class. The students were asked to complete the survey themselves; then give them to friends, family members and acquaintances. Because of the multicultural nature of the class, the sample included a mix of students and adults from a variety of cultures. The surveys asked respondents to identify and describe a service provider that they really trust, then write a detailed story of how trust in the service provider developed. They were also asked to identify and describe a service provider that they really distrust, then write a detailed story of how their distrust developed.

The in-depth interviews averaged 25 minutes in length and focused primarily on four types of services with differing types and levels of risk: doctors, financial services, hair care services and restaurants. Respondents were asked to define trust and distrust and differentiate them from satisfaction and dissatisfaction. They were also asked to tell stories about service providers that they really trust, and those they distrust, including how trust and distrust developed.

**DEFINITION OF TRUST IN A SERVICE PROVIDER**

First, we distinguish between trust and trustworthiness. Trustworthiness is a characteristic of the trustee, or the object of one’s trust. Trust is generally regarded as a psychological state (Kramer 1999), defined (in the customer/service provider relationship) as the willingness of a customer to rely on and be vulnerable to a service provider in a situation of uncertainty, based on confidence that the service provider will help the customer reach a goal. As shown, several elements are key to the concept of trust. First, trust involves belief or confidence that the service provider will act in the best interest of the customer. Second, it requires a willingness, or intent, to act on that belief. Finally, trust requires uncertainty, or some degree of vulnerability. If there is no uncertainty, there is no need for trust.

**STAGES OF TRUST DEVELOPMENT**

In describing development and change in close relationships, Levinger (1983) said that relationships take the following course: first meeting to initial attraction to building a relationship to marriage to deterioration to ending. These can be grouped into three main periods: beginnings, middle and endings.

The Beginnings of Trust: Initial Trust and Growth

In the model depicted in Figure 1, the beginnings of trust in a service provider include two stages: initial trust, which occurs during the initial encounter with the service provider, and growth. Figure 2 provides a detailed model of the processes that influence trust during the beginning stages of trust development. The model is patterned after Mayer, Davis and Schoorman’s (1995) integrative model of organizational trust and McKnight, Cummings and Chervany’s (1998) model of initial trust formation, with added contributions from Lewis and Weigert (1985), McAllister (1995), Hardin (1993), and Zand (1972). The focal point of the model is trust, which consists of both perceived trustworthiness and trusting intentions. Perceived trustworthiness is the perception that the service provider can be trusted to act in the customer’s best interest in a particular situation. It is based first on an evaluation of the service provider on important trustworthy attributes. Scholars have identified a number of trustworthy attributes. Mayer et al (1995) identify three: ability, benevolence, and integrity. McKnight et al (1998) add a fourth: predictability, or consistency. Based on responses from our focus groups, surveys and interviews, we suggest that openness (Mishra 1996), or the ability to communicate openly, is particularly important for trust in many types of service providers, such as doctors, psychologists, lawyers and financial advisers.

Hardin (1993) argues that belief that a trustee will act in the trustee’s best interests is based heavily on an evaluation of the trustee’s incentives to act in the trustee’s best interests. If the service provider has little or no incentive to act in the customer’s best interest, the service provider may not be trusted, even if perceived to rate highly on trustworthy attributes. On the other hand, if an otherwise untrustworthy person or organization is perceived to have strong incentives to work in the customer’s best interest, it may be determined that they can be trusted in a specific situation.

**Determining Trustworthiness: Emotional Processes**

Trust is directly influenced by emotional and cognitive processes, and by the customer’s disposition to trust. To date, little
research has examined the role of emotion in the development of trust. What has been written refers primarily to the emotional bonds that develop between partners in a trusting relationship in the mature stages of trust development. For example, McAllister (1995) differentiates between cognition-based trust, which is generally seen as calculative in nature and occurring in the early stages of trust, and affect-based trust, consisting of the emotional bonds between individuals (Lewis and Weigert, 1985).

Based on our qualitative data, we contend that emotion plays a strong, though different role, during the initial encounter with a service provider. Whereas emotions of warmth and affection help cement trust in the middle stages of trust, such emotions as fear and anxiety, or comfort and delight, provide almost instantaneous signals with which to base trusting evaluations. A number of respondents in each of our research methods indicated that it is difficult to make a calculative judgment when little or no information is immediately available. Often, emotions provide the first signals, which encourage cognitive evaluations to determine the reasons for the emotions. As one respondent succinctly stated, “Trust is 90% feeling”. In modeling the role of emotion in trust formation, we draw from Westbrook and Oliver (1991), Schwarz (1990) and Murry and Dacin (1996). Westbrook and Oliver (1991) found that both cognition and affect make independent contributions to satisfaction. Schwarz (1990) and Murry and Dacin (1996) assert that the relationship between cognition and emotion is bi-directional: cognition about events in the environment gives rise to emotions that, in turn, provide information about the environment. Thus, we model a bi-directional relationship between cognitive and emotional processes, as well as direct effects from each process to perceived trust.

**Cognitive Processes**

Particularly in situations of high uncertainty and vulnerability, the customer is typically highly involved in a cognitive process to determine whether a service provider can be trusted. As shown in Figure 2, two major sources are used in this cognitive process. The first is specific knowledge of the service provider gleaned before the first encounter. By first encounter, we refer to the first encounter with the service provider in the role of providing the specific service sought in a specific situation. Based on our data, individuals actively seek three types of specific knowledge: the service provider’s reputation, word of mouth recommendations, and past experience. Reputation is a more public perception of the trustworthiness of the service provider. We include any information that is publicly available as part of reputation. From our research, word of mouth recommendations from trusted sources are perhaps the single-most utilized source of pre-encounter information. This seems to be true in every culture we have studied, but is particularly true in more collectivist cultures such as Tonga and China. Finally, past experience and relationships with the service provider in other roles (e.g., family member, friend, neighbor, member of the same church congregation) are strong sources of knowledge used to base evaluations of trustworthiness.

When little specific information is available, customers often utilize categorization processes to determine trustworthiness (McKnight et al. 1998). This is where the customer looks for cues that help categorize the service provider into a group that can or cannot be trusted in a specific situation. McKnight et al. (1998) identify three types of cues that we include in categorization processes: unit grouping, stereotyping, and situational normality belief.
Unit grouping means to put the other person in the same category as oneself (McKnight et al 1998, p. 480). For example, our respondents actively look for such cues as shared religious affiliation, ethnic group, hometown or alma mater as signals that the service provider can be trusted.

Stereotyping means to place another person into a general category of persons, then to judge trustworthiness based on that stereotype. For example, some respondents indicated that overweight doctors could not be trusted, because they were perceived to be either lazy or unhealthy. Another interesting example is how Tongans viewed Caucasians, who were generally seen as competent, but difficult to be open with.

We included situation normality belief as part of categorization processes [McKnight et al (1998) included it under factors of institution-based trust]. Another term that we use for this phenomenon is “congruence”, or congruence with a set of expectations or a schema of how things should be. Situational normality belief stems from the appearance that things are normal or customary, or that everything seems in proper order (McKnight et al 1998). This was a common theme in our research. In particular, if things do not appear normal or customary, it is a strong signal that something is wrong, and therefore cannot be trusted. Examples cited by our respondents included a doctor’s office that is located in an industrial section of town, or another where no patients are waiting for the doctor’s service. On the other hand, there were cases where respondents were pleasantly surprised or delighted because the service was different in a positive way from normal expectations. For example, if a car repair service provider is unusually clean or polite, shows genuine concern for the customer, or makes recommendations that will clearly reduce its profits—practices not normally expected—the customer will likely have a strong, immediate feeling of trust for the service.
Customer’s Disposition to Trust

In addition to cognitive and emotional processes, the customer’s disposition to trust will influence the level of trust for the service provider. Simply put, the more trusting a person is of other people or organizations in general, the more likely he or she will trust a specific service provider. Disposition to trust is divided into two factors: a general propensity to believe in the trustworthy nature of others, and a trusting stance. As noted by Yamagishi (2002), general propensity to believe can further be divided into a general faith in humanity, and a propensity to believe in a target category of persons. For example, someone may have a high level of trust for people or organizations in general, but because of previous experience or reputation, may have a low level of trust for a specific category of service provider. As shown in Figure 2, the customer’s propensity to believe will have a direct affect on the perception of the service provider’s trustworthy attributes and incentives. In addition, it will influence how he or she cognitively processes information.

Trusting stance means that one believes that, regardless of whether people are reliable or not, one will obtain better interpersonal outcomes by dealing with people as though they are well-meaning and reliable (McKnight et al. 1998, p. 477). A person with a strong trusting stance is willing to engage in trusting behaviors before a trusting belief has been established. As depicted in Figure 2, trusting stance is therefore related to trusting intentions, but not to trusting beliefs. We found strong evidence of trusting stance with our respondents, though it definitely seemed to vary across cultures. For example, Americans and respondents from Hong Kong typically had a strong trusting stance, whereas Tongans and Japanese were much less willing to entrust a service provider to act until they had strong beliefs in the provider’s trustworthiness.

We propose that disposition to trust is influenced by three factors: personality, personal experience, and culture. As McKnight et al. (1998, p. 475) note, according to personality-based trust researchers, trust develops during childhood as an infant seeks and receives help from his or her benevolent caregiver (Bowlby, 1982; Erikson, 1968), resulting in a general tendency to trust others (Rotter, 1967). In addition, an individual’s personal experience with trust will certainly influence his or her propensity to trust. Everything else equal, if the person has had numerous good experiences from trusting others, and relatively few bad experiences, trust will be higher than for individuals who have either had numerous bad experiences, or who have seldom engaged in trusting relationships.

Though there is disagreement on how culture influences general trust, Fukuyama (1995), Yamagishi (2002), Huff and Kelley (2003a, b), and Doney, Cannon and Mullen (1998) all argue that culture influences the general level of trust of people within the culture, as well as the trust for categories of people. In particular, Yamagishi (2002) and Huff and Kelley (2003a, b), have found empirical evidence that people from collectivist cultures have lower levels of trust for people and organizations in general, and particularly for out-groups, than people from individualist cultures.

Institution-Based Trust

A number of scholars have argued that importance sources of trust are institutions or systems that provide protection against opportunistic, untrustworthy behavior (Shapiro 1987; Zucker 1986). In Western societies, such structural safeguards include regulations, guarantees and legal recourse (Shapiro 1987). In collectivist societies such as Japan, social sanctions provide similar safeguards. We propose that institution-based trust influences trust in three ways. First, it has a positive influence on trusting stance. Second, it influences the customer’s perception of the service provider’s incentives. If institutional safeguards such as legal or social sanctions are strong, the service provider should have strong incentives to act in the customer’s best interest and avoid being accused of harming the customer. Finally, as we will discuss below, strong institutional safeguards should reduce perceived vulnerability.

Perceived Vulnerability

One last factor that is key to the nature and development of trust is perceived vulnerability. Vulnerability refers to a perceived susceptibility to injury or to being taken advantage of by another party (Smith and Martin 1997; Lee and Soberon-Ferrer 1997), and is a function of perceived uncertainty, behavioral control, and dependence and the amount at risk. Vulnerability influences trust determination and development in three primary ways. First, the greater the perceived vulnerability, the more highly involved the customer will be in both cognitive and emotional processes. Second, we believe that the nature of vulnerability will influence the relative importance a customer places on different attributes of trustworthiness, as well as on trustworthy incentives versus trustworthy attributes, when determining trusting beliefs. Finally, the greater the perceived vulnerability, the greater the importance of trust beliefs as a determinant of trusting intentions, and trusting intentions as a determinant of trusting behaviors.

Middle Stage: Maturity and Maintenance of Trust

As the customer engages in further cycles of trust determination, trusting behaviors, outcomes and evaluations, trust (or distrust) in the service provider will grow and eventually mature. As this happens, we can expect certain elements of trust to strengthen, and other elements to weaken in importance. For example, trusting beliefs should become more reliant on specific knowledge of the service provider, gained from personal experience, and less reliant on categorization, reputation and word of mouth recommendations. The importance of disposition to trust will also decline as a more specific belief in the service provider develops. Likewise, the customer should come to rely more on his or her own perception of the service provider and less on institutional safeguards.

We would also expect the nature of emotions to change as trust matures. When determining initial trust, particularly when vulnerability is high, emotions will be strong and immediate, often providing visceral responses or cues before cognitive processing can occur. As trust matures, emotions will be more enduring and less volatile. Emotions associated with mature trust could include fondness, affection, joy, and commitment.

Finally, as trust matures, perceived vulnerability should decrease. In fact, reducing perceived vulnerability, which includes uncertainty, risk, and a lack of control, is a major reason that people...
strive to develop trusting relationships. Interestingly, and not coincidentally, when trust is strong, there is little need for trust, as defined. Another interesting point is that because individuals seek trusting relationships in order to reduce perceived vulnerability and transaction costs, there is a strong incentive to continue to trust a service provider, even when the provider may not merit the customer’s trust. Our respondents nearly unanimously admitted that if they develop strong trust for a service provider, they would quite easily forgive mistakes that would not have been forgiven in early stages of trust development. Therefore, the latter part of the middle stage of trust development is generally a maintenance stage in which the service provider may only need to avoid delivering a level of service that falls below a certain threshold point in order to retain the trust of the customer.

**Ending of Trust: Deterioration and Forgiveness or Dissolution**

As discussed, unless the customer has a good reason to distrust the service provider, trust can be maintained for a long period of time. However, two things may lead to deterioration, and eventually dissolution of trust. The first, as mentioned, is if the service provider begins to deliver a level of service that clearly falls below a certain threshold point. The second is if the customer begins to determine that the opportunity costs of remaining committed to the service provider exceed the savings in transaction costs, including the reduction of perceived vulnerability. This may motivate the customer to seek alternatives and re-evaluate the trustworthiness of the service provider relative to other options. In either case, trust could begin to deteriorate.

From our qualitative data we have identified two distinct levels of perceived trust deterioration—distrust and betrayal—which differ in both type and intensity. When a customer comes to distrust a service provider, he or she merely begins to feel that the provider can no longer be trusted to satisfactorily meet the needs or expectations of the customer, usually because they are no longer deemed adequate on one or more trustworthy attributes. While customer distrust is an undesirable state from the perspective of the service provider, it often can be fixed, especially in a society where customers are reasonably forgiving. As Figure 1 shows, and as verified by our respondents, customers will often forgive and regain trust in a service provider, as long as the state of deterioration is simple distrust.

Perceived betrayal is a much more intense form of trust deterioration. There are two key components to betrayal. First, as shown in Figure 1, while distrust can happen at any stage of trust development, betrayal usually occurs only after the service provider has succeeded in winning a strong level of trust from the customer. Second, the customer generally attributes a good share of the blame for distrustful behavior to intentional, self-serving, and malevolent motives on the part of the service provider. Respondents who reported incidents of being betrayed by service providers expressed emotions ranging from disappointment and embarrassment, to anger and rage. They nearly unanimously said that it would be highly unlikely that the guilty service provider would succeed in regaining their trust.

**DISCUSSION AND SUGGESTIONS FOR FUTURE RESEARCH**

The purpose of this research is to introduce a comprehensive model of the development of consumers’ trust for service providers. Figure 1 maps six stages of trust development, divided into three main periods of trust: beginnings, middle, and endings. Figure 2 focuses primarily on the factors that influence perceptions of trustworthiness and trusting intentions during the early stages of trust development.

The three periods of trust differ greatly in their nature and in the requirements of service providers. The beginnings of trust are probably the most crucial. This is where trust is most needed, yet hardest to achieve. It is where the customer feels most vulnerable and is most highly involved in the process of determining, then enacting trust. It is also where competition with other service providers is greatest. The model provides the service provider with a number of insights on how to win the customer’s trust during this vital stage. First, the more information that can be provided to the customer before the first encounter, the more informed the customer will be, and the more confident he or she will be in making an initial determination of trustworthiness. Second, customers rely heavily on word of mouth recommendations from trusted sources. One obvious implication of this is the value of maintaining strong levels of trust with existing customers who will share their opinions with others. Another is that service providers should find ways to encourage existing customers to voice their positive feelings of the service to potential customers. Third, when customers have little pre-encounter knowledge of the service provider, they will pay close attention to cues that help categorize the service provider as one the customer can or cannot trust. Service providers should therefore take great care to understand which cues target customers ascribe to trustworthiness and which they ascribe to untrustworthiness, then provide the positive cues and avoid the negative cues. Fourth, customers are especially sensitive to possible self-serving motives or incentives of the service provider. This was a very strong theme from our research. Customers want to know that the service provider is not acting opportunistically, and has the best interests of the customer at heart. The service provider should look for ways to send strong signals that assure the customer that the provider has benevolent motives and strong incentives to serve the customer well. Finally, anything the service provider can do to reduce perceived vulnerability will increase the chances that the customer will at least take a trusting stance and enact trusting behaviors. Even if the customer’s belief that the service provider is trustworthy is weak, trusting behaviors allow the provider to demonstrate trustworthy attributes and incentives, which should lead to growth in trust.

The model introduces three concepts which are vital to an understanding of trust development and maintenance, yet which have received very little attention by marketing scholars. These are vulnerability, betrayal, and forgiveness. Another aspect of the model which we feel is crucial, but much less developed, is emotion. There has also been relatively little attention given to the distinction between trust and distrust. One important area of future research is to provide stronger conceptual understanding of these important constructs so that they can be more accurately be defined and measured.

Admittedly, it may be difficult to test the model in its entirety. Most future research should therefore test different portions of the model. For example, we are particularly interested in how culture influences disposition to trust; how different types of perceived risk influence the relative importance of trustworthy attributes; the role that emotional processes play in various stages of trust development; and the cues and signals that customers use in different contexts and how they are used to ascribe categories that influence perceived trustworthiness.

In this paper, we make a significant contribution to the literature on consumer trust for service providers. We provide a comprehensive conceptual model that will hopefully be valuable
for researchers striving to better understand how a consumers’ trust for service providers develops. We encourage researchers to test various parts of the model so that a well-developed theory of trust development can emerge.

REFERENCES


Brand Personality, Self-Congruity and the Consumer-Brand Relationship
Hae Ryong Kim, Konkuk University, Korea
Moonkyu Lee, Yonsei University, Korea
Francis M. Ulgado, Georgia Institute of Technology, U.S.A.

ABSTRACT

It is critical to the survival and growth of a company to build and maintain a long-term relationship between a brand and its target customers. The present research examines the emotional process by which a consumer-brand relationship is formed. It focuses on the potential effects on the relationship process of the congruity between brand personality and consumer self-concept. The results of this study show that congruity between brand personality and consumer self-concept kindles such emotions as love, pride, and joy, and ultimately fosters a long-term consumer-brand relationship through brand attachment or self-esteem-building process. The implications of the results for researchers and marketers are discussed.

INTRODUCTION

The effect of the consumer-brand fit on product evaluations has been an important research issue in marketing, and it has been dealt with under the rubric of self-congruity effect (Kleine, Kleine, and Kernan 1993; see Sirgy 1982 for a review). However, it is not yet clear how the congruity between consumer self-concept and brand image influences product evaluations. Thus, the focus of this study is to examine the processes by which the consumer-brand fit determines product evaluations, or more specifically, consumer-brand relationships.

There has been a considerable amount of interest in the concept of brand personality and how it relates to the self-congruity effect (e.g., Aaker 1999). Brand personality is defined as a set of human characteristics associated with a brand (Aaker 1997). In other words, a brand is considered as an active relationship partner rather than a passive exchange object, and is endowed with human characteristics (Fournier 1998). In this study, self-congruity effect is examined in relation with the concept of brand personality on the basis of past research.

In sum, the purpose of our study is to empirically investigate the psychological processes involved in the formation of a positive relationship with a brand and explain the role that self-congruity plays in those processes. We focus especially on such constructs as emotion, which consumers experience as a result of self-congruity and brand commitment, a fundamental determinant of long-term relationships (Gundlach, Achrol, and Mentzer 1995). Also examined in our study are the roles of brand attachment and self-esteem. Brand attachment, an affective concept related to love (Fournier 1998), is associated with one’s identity (Kleine, Kleine, and Allen 1995), and self-esteem implies an overall affective evaluation of the importance and value of one’s self (Judge, Bono, and Locke 2000).

THEORETICAL BACKGROUND

Self-Congruity Effect

Self-congruity is defined in this study as the parallel between consumer self-concept and brand personality that consumers feel or experience in the course of forming a consumer-brand relationship. Consumers tend to like, prefer and ultimately maintain a long-term relationship with a brand which has an image consistent with themselves (Aaker 1999; Fournier 1998; Keller 2003). The self-congruity effect on a long-term brand relationship can explained in relation with the concept of commitment, which has been considered to be a crucial element in the formation of a successful long-term relationship (Gundlach, Achrol, and Mentzer 1995; Morgan and Hunt 1994). Researchers have defined commitment as “an implicit or explicit pledge of relational continuity between exchange partners (Dwyer, Schurr, and Oh 1987)” or “an enduring desire to maintain a valued relationship (Morgan and Hunt 1994).” In accordance with these definitions, brand commitment can be described as a construct with the attitudinal aspect of brand loyalty (Oliver 1999) or as the intention to maintain a continuous relationship with a brand (Fournier 1998). Existing literature suggests that consumers go through one of the following processes when they form a long-term relationship with a brand.

Brand Attachment Process Through the Emotion of Love.

Consumer attachment toward a brand is a strong affective concept (Fournier 1998). Consumers become attached to a specific brand in the process of defining and maintaining their sense of self (Kleine, Kleine, and Allen 1995). The concept of attachment and its formation have been dealt with in the context of infant behavior (Bowlby 1969, 1973, 1980) as well as in the area of adult relationship, especially romantic relationship behavior (Collins and Read 1990; Feeney and Noller 1990; Hazan and Shaver 1987). The concept has been also studied in explaining the formation of consumer-brand relationships (Fournier 1998).

Attachment is basically the process of developing an emotional bond (Collins and Read 1990), which is facilitated by consistent and repeated experiences between relationship partners (Perry 1998). It can be measured on the basis of dependence, anxiety, and closeness (Collins and Read 1990). Attachment provides psychological comfort and pleasure, and its loss evokes strong distress (Perry 1998). The formation of a romantic love between adults can be explained in terms of the attachment process; the more secure the attachment that lovers have, the more positive aspects of love they experience (Hazan and Shaver 1987). Fournier (1998) also describes love and passion as part of the affective attachment involved in the consumer-brand relationship, and reports that attachment is a condition of emotional dependence involving separation anxiety and irreplacability.

Self-Esteem Process Through the Emotions of Pride and Joy.

Self-esteem is an overall affective evaluation of one’s importance and values (Judge, Bono, and Locke 2000), which involves a multidimensional perspective (Feeney and Noller 1990; Noller and Shum 1988). Self-esteem consists of self-appraisal and reflected appraisal (Laverie, Kleine, and Kleine 2002). It is suggested that by using a brand with self-congruent personality, the consumer expresses his or her own values (leading to self-appraisal) and goes through a social adjustment process (resulting in reflected appraisal) at the same time (Hogg, Cox, and Keeling 1998).

Cognitive appraisals elicit various emotions (Lazarus 1991; Lea and Webley 1997; Luce, Payne, and Bettman 1999; Richins 1997). For example, self-esteem is closely associated with the positive consumption emotions of pride and joy (or happiness). Pride itself is sometimes regarded as an attitude, but is usually conceptualized as an emotion induced by a high self-esteem. It includes primary pride that results from one’s own achievement and secondary pride that occurs in an ordinary life (e.g., possession). Of the two types of pride, the latter, in its broader meaning, is referred
to as a source of a high self-esteem (Lea and Webley 1997). Joy or happiness is another emotion involved in self-esteem (Luce, Payne, and Bettman 1999). It often occurs when the consumer uses a brand with self-congruent personality. It is closely related to materialism and such concepts as satisfaction and well-being in life (Richins 1997; Richins and Dawson 1992).

**RESEARCH HYPOTHESES**

**Brand Attachment Process**

Consumers show a strong attachment to anything self-expressive, that is, an object congruent with the self, which reflects the extent of “me-ness” (Kleine, Kleine, and Allen 1995). Likewise, in the infant-parent relationship, similarity of personality or temperament increases the extent of emotional bond (Perry 1998). Experimenting with different brands enables consumers to expand and develop a variety of self-concepts (Belk 1988).

As stated previously, consumer’s love of a brand is an attachment process (Fournier 1998; Hazan and Shaver 1987), and attachment implies emotional dependence and separation anxiety (Collins and Read 1990; Fournier 1998). The more attached consumers are to a brand, the more dependent they are on it and the more anxious about it when unable to use it (e.g., Remember the consumer response when New Coke was introduced). Due to separation, consumer’s love of a brand can actually become stronger.

When the separation ends, consumers may feel joy (Chaudhuri and Holbrook 2001; Hazan and Shaver 1987) and more intense love (Fournier 1998). Thus, the following hypotheses are put forward:

H1: Brand personality/self-concept congruity is positively related to emotional dependence and separation anxiety.

H2: Emotional dependence and separation anxiety evoke positive emotions related to brand attachment such as love and joy.

**Self-Esteem Process**

As mentioned earlier, a high self-esteem is the result of experiencing pride and joy (Lea and Webley 1997; Luce, Payne, and Bettman 1999; Richins 1997). The emotions of pride and joy are caused by positive self- and reflected appraisals, which are often evoked by the consistency between brand personality and consumer self-concept. Johar and Sirgy (1991) suggest that the relationship between a brand and the actual or ideal self produces a positive self-appraisal and has an influence on the level of actualization of one’s own present and ideal self, which occurs regardless of other people. On the other hand, the correspondence between a brand and the social or ideal-social self can generate the satisfaction of fulfilling other people’s expectations, eliciting their positive appraisals.

Therefore, two more hypotheses are proposed:

H3: Brand personality/self-concept congruity is positively associated with self- or reflected appraisal.

H4: Positive self- or reflected appraisal evokes positive emotions such as pride and joy related to self-esteem.

**Emotion and Brand Commitment**

Although commitment in the consumer-brand relationship is an affective concept, it should be differentiated from other constructs of emotions (Chaudhuri and Holbrook 2001). Consumers who once experienced a positive emotion as a result of using a brand are expected not to hesitate to maintain a long-term relationship with the brand (Chaudhuri and Holbrook 2001). As suggested in the attachment theory, such an emotion contributes to building and maintaining an individual’s long-term relationship with a brand. Thus, the following hypotheses are set forth:

H5: Positive emotions such as love and joy in the brand attachment process are positively associated with brand commitment.

H6: Positive emotions such as pride and joy in the self-esteem process are positively associated with brand commitment.

The research model with the hypotheses proposed thus far is presented in Figure 1.

**RESEARCH METHOD**

**Research Sample and Procedure**

Various product categories in which brand personality was important in the consumer-brand relationship were selected on the basis of past literature. Respondents were asked to choose a brand that they purchase and use most frequently in a given product and answer the questions with that brand in mind. A convenient sample of college students and residents in metropolitan areas participated in the survey. Out of 538 questionnaires collected, 450 valid ones were used for the analysis. Among the respondents, 43.4% were male and 56.6% female, and the majority was college students (67.3%) in their 20s (85.8%).

**Construct Measures**

The reliability and validity of the construct measures in the research model were assessed. Alpha coefficients were computed for testing the reliability of each construct, and confirmatory factor analysis was conducted for checking unidimensionality of the measures. Confirmatory factor analysis was first done for each construct and then for all of them a la Steenkamp and van Trijp (1991).

**Self-Congruity.** Brand personality/self-concept congruity was directly measured based on the self-reports of the associated brand personality (Sirgy, et al. 1997). The consistency of brand personality with self-concept (i.e., actual, ideal, social and ideal-social) was measured on a 7-point Likert scale based on existing literature (e.g., Jamal and Goode 2001; Sirgy, et al. 1997; Sirgy and Su 2000). Since self-concept is a holistic as well as a multidimensional construct and was also proved to be a higher-order construct (Bollen 1989), a second-order analysis was performed with actual, ideal, social, and ideal-social self-congruity as its subordinate categories. The results suggested a good model fit ($\chi^2=153.48, df=16, p<.01$, GFI=.92, AGFI=.82, NFI=.94, NNI=.91, CFI=.95, RMSEA=.13, RMR=.08), and the alpha coefficients for all self-congruity constructs were above the required level (Nunnally 1978).

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1 Based on preliminary research, the present study proposes that attachment can result in emotional dependence and separation anxiety, which should be distinguished from the emotion of love itself. Through the preliminary research, which was based on the psychology and marketing literature concerning attachment types (e.g., Collins and Read 1990; Fournier 1998), the dimensions were refined in explaining the consumer-brand relationship properly.

2 Product categories examined were cellular phones, personal computers, digital cameras, clothing, cosmetics, jewelry, food/beverages, stationeries, consumer goods, family restaurants, and shopping malls.
Emotional Dependence and Separation Anxiety. In terms of brand attachment, emotional dependence was evaluated on five items such as “I want to associate myself completely with this brand,” and separation anxiety on six items such as “Something is missing when I do not use this brand,” based on the results from the preliminary study as well as past literature (Collins and Read 1990; Fournier 1998). The final measures were refined down to three items for emotional dependence and four items for separation anxiety, and the results of the confirmatory factor analysis also indicated a good model fit ($\chi^2=68.306$, $df=13$, $p<.01$, GFI=.96, AGFI=.91, NFI=.96, NNFI=.95, CFI=.97, RMSEA=.09, RMR=.03).

Self-Appraisal and Reflected Appraisal. Measures for self- and reflected appraisals as part of the self-esteem process were developed based on past studies (Laverie, Kleine, and Kleine 2002). Self-appraisal, defined as ‘one’s own thoughts about using this brand’ and reflected appraisal, regarded as ‘other people’s thoughts about using this brand’ were both assessed on a 7-point bipolar scale of ‘notable/ordinary’, ‘excellent/poor’, ‘spectacular/terrible.’ One item with a low alpha coefficient (notable/ordinary) was excluded from the analysis. Again, the confirmatory factor analysis provided evidence for a good model fit ($\chi^2=40.283$, $df=1$, $p<.01$, GFI=.96, AGFI=.61, NFI=.97, NNFI=.83, CFI=.97, RMSEA=.2, RMR=.01).

Emotion. The study deals with such positive emotions as love, pride and joy (Aaker 1999). Previous research implies that such emotions are the ones that consumers experience most frequently in their consumption life (Izard 1977; Plutchik 1980; Richins 1997; Shaver, et al. 1987)3. As mentioned above, love and joy are associated with brand attachment, and pride and joy are related with self-esteem. It has been suggested that understanding individual emotions is more important than understanding abstract emotions in the study of consumption emotion (Westbrook and Oliver 1991; Richins 1997).

To assess emotions, respondents were asked to answer the question, “What kinds of feelings are generated when you use this brand?” on a 7-point Likert scale. Measurements of love focused on such general aspects as ‘loving,’ ‘warm-hearted,’ ‘sentimental,’ and joy and was evaluated on items including ‘happy’, ‘pleased,’ and ‘joyful’ (Richins 1997); pride was measured on such items as ‘self-esteem,’ ‘self-regard,’ and ‘pride’ (Laverie, Kleine, and Kleine 2002). The statistical analysis again indicated a good model fit ($\chi^2=183.943$, $df=24$, $p<.01$, GFI=.91, AGFI=.84, NFI=.95, NNFI=.93, CFI=.95, RMSEA=.12, RMR=.07).

Brand Commitment. Brand commitment is defined as the intention to continue the relationship with a brand, implying a certain amount of effort and sacrifice (Aaker, Fournier, and Brasel 2004). It is generally considered as an indicator of brand loyalty (Gundlach, Achrol, and Mentzer 1995). Commitment was measured on four 7-point Likert scales, based on past studies (Aaker, Fournier, and Brasel 2004). The results of the confirmatory factor analysis indicated a good model fit ($\chi^2=13.364$, $df=2$, $p<.01$, GFI=.99, AGFI=.93, NFI=.98, NNFI=.95, CFI=.98, RMSEA=.1, RMR=.03).

Confirmatory Factor Analysis for All Items. Before the hypotheses were tested, all measurement items were estimated by confirmatory factor analysis. The result showed a good model fit ($\chi^2=1815.32$, $df=1398$, $p<.01$, GFI=.90, AGFI=.87, NFI=.93, NNFI=.95, CFI=.96, RMSEA=.05, RMR=.04), and all phi-values, which measured the correlations between constructs, were not equal to 1, which indicated discriminant validity of the measures. Also, all the reliability coefficients exceeded the minimum value. The results of the confirmatory factor analysis are shown in Table 1.

RESULTS

The hypothesized model was estimated by LISREL. The results indicate a marginal fit of the data with the conceptual model ($\chi^2=1641.19$, $df=445$, $p<.01$, GFI=.82, AGFI=.79, NFI=.86, NNFI=.88, CFI=.89, RMSEA=.07, RMR=.12). The results,
SUBJECTIVE \textit{JOY} and \textit{PRIDE} are the most of the results support Hypotheses 3 and 4. The current study suggests that consumers experience a feeling of attachment in a relationship with a self-congruent brand. The brand attachment process involves the emotions of love and joy, which increase as a result of emotional dependence and separation anxiety. Joy is a positive emotion that consumers usually feel when using the brand they like (Chaudhuri and Holbrook 2001). This feeling of joy is a starting point in forming an emotional bond with the brand and in developing more profound emotions such as love. Oliver (1999) refers to commitment based on love as `unfailing

Table 1 presents the results of confirmatory factor analysis for all measure items. The table shows that brand personality/self-congruency increases the consumer's emotional dependence upon the brand ($\beta=.50$, $t=11.59$) and evokes separation anxiety ($\beta=.33$, $t=8.11$). Emotional dependence causes love ($\beta=.51$, $t=8.94$) and joy ($\beta=.50$, $t=7.72$); separation anxiety also generates love ($\beta=.24$, $t=5.78$) and joy ($\beta=.41$, $t=8.22$). These results indicate support for Hypotheses 1 and 2.

In addition, brand personality/self-congruency produces positive self-appraisal ($\beta=.52$, $t=11.22$) and positive reflected appraisal ($\beta=.50$, $t=10.76$). Subsequently, positive self-appraisal creates pride ($\beta=.35$, $t=7.83$) and joy ($\beta=.17$, $t=4.02$), and positive reflected appraisal elicits pride ($\beta=.31$, $t=7.19$). Although reflected appraisal does not show evidence of a significant influence on joy, most of the results support Hypotheses 3 and 4.

Finally, love ($\beta=.13$, $t=2.38$), joy ($\beta=.36$, $t=7.62$), and pride ($\beta=.25$, $t=6.17$) triggered in the brand attachment or self-esteem process are all proved to increase the consumer’s long-term brand commitment. This indicates that brand commitment is formed on the basis of consumer emotions; thus, Hypotheses 5 and 6 are supported.

\textbf{DISCUSSION}

\textbf{Summary of Results}

The present study reveals the importance of brand personality in the formation of brand-consumer relationships. In particular, it empirically proves that consumers establish more intense brand commitment through the experiences of love, joy and pride induced by the process of brand attachment or self-esteem. This finding supports the argument that such emotions, the determinants of commitment, should be conceptually and empirically differentiated from commitment \textit{per se} (Chaudhuri and Holbrook 2001).

The current study suggests that consumers experience a feeling of attachment in a relationship with a self-congruent brand. The brand attachment process involves the emotions of love and joy, which increase as a result of emotional dependence and separation anxiety. Joy is a positive emotion that consumers usually feel when using the brand they like (Chaudhuri and Holbrook 2001). This feeling of joy is a starting point in forming an emotional bond with the brand and in developing more profound emotions such as love. Oliver (1999) refers to commitment based on love as `unfailing
commitment,’ emphasizing its qualitative difference from attitudinal loyalty based on other emotions.

In addition, according to the analysis, brand personality/self-concept congruity affects emotional dependence relatively more than does separation anxiety. From an empirical perspective, this result is presumably related to the characteristics of the product categories or situational factors, but it also implies that the essence of attachment is dependence (Perry 1998).

As indicated by the results, consumers feel pride in using a brand with self-congruent personality, and this emotion has a positive influence on a long-term commitment. This supports the idea that the self-congruity effect can be explained by self-concept motives (Johar and Sirgy 1991; Sirgy, Grewal, and Mangleburg 2000), especially by the actualization of the self-esteem process (Judge, Bono, and Locke 2000). Additionally, the fact that pride is evoked from positive self- and reflected appraisals is consistent with the past research which shows that a high self-esteem is achieved by the expression of one’s own value as well as social adjustment (Hogg, Cox, and Keeling 1998). Joy does not have a significant relation to a positive reflected appraisal in the self-esteem process, but it seems to be a result from a positive self-appraisal; thus, the study supports the notion that joy is also relevant to self-esteem.

### Implications and Future Research Directions

The role of brand personality in a consumer-brand relationship is examined in the present research. In particular, it is proved that brand personality/self-concept congruity has an effect on the formation of long-term relationships and the effect is mediated by the brand attachment or the self-esteem process. Moreover, in this study, the concept of attachment is defined and applied to the research context of consumer-brand relationships. The concept is distinguished conceptually and empirically from the notion of commitment. It is believed that these concepts will serve as a basis for future studies in this area.

The results of this study also provide insight for brand managers and marketers. According to the study findings, brand personality can play a critical role in the formation of the relationship between a company and its consumers. Based on a branding strategy that incorporates the target customers’ self-concept and distinct, congruent brand personality, a firm can induce the feelings of brand attachment and commitment from its customers, and thus, build a long-term relationship with them.

However, the present study has some shortcomings, which need to be addressed and overcome in future studies. First, the study is limited in terms of the product categories that were investigated and the respondents who participated. Future research should

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### TABLE 2

<table>
<thead>
<tr>
<th>Path</th>
<th>Hypothesis</th>
<th>Gamma (t-value)</th>
<th>Beta (t-value)</th>
<th>Result</th>
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<tr>
<td>Self-congruity</td>
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<td>0.78 (18.46)</td>
<td>0.62 (13.79)</td>
<td>0.75 (17.46)</td>
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<td>0.50 (7.72)</td>
<td>0.24 (5.78)</td>
<td>0.41 (8.22)</td>
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<tr>
<td>Separation anxiety</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Self-congruity</td>
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<tr>
<td>Self-appraisal</td>
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<td>0.17 (4.02)</td>
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<td>Joy</td>
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<tr>
<td>Love</td>
<td>0.13 (2.38)</td>
<td>0.36 (7.62)</td>
<td>0.25 (6.17)</td>
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<td>Commitment</td>
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examine more various product categories with more diverse groups of respondents for a higher level of generalizability of the results. Second, further studies are needed, which explore potential moderating variables in the research model, such as consumer and product characteristics, for instance. Finally, this study is also limited in the sense that it does not examine which dimension of brand personality is related to which emotion in brand personality/self-concept congruity. Future studies are expected to shed light on these issues.

REFERENCES

Developing a Scale for Measuring Brand Relationship Quality
Hyun Kyung Kim, Yonsei University, Korea
Moonkyu Lee, Yonsei University, Korea
Yoon Won Lee, TNS Korea

ABSTRACT
Building and maintaining a long-term consumer-brand relationship has become critical to sustaining a competitive advantage. Successful management of the consumer-brand relationship requires a valid and reliable set of measures to assess its quality. The present study develops and tests a measurement scale for evaluating consumer-brand relationship quality. Results are discussed in terms of both theoretical and practical implications.

INTRODUCTION
Marketing mix paradigms have dominated marketing thoughts and practices over many years. However, because of dramatic changes in the market environment, these paradigms are changing accordingly. Technological advances are shortening the lengths of product life cycles, the differences among products/brands are becoming less discernible, and customers’ needs are growing more diverse. Many firms find, in such an altered environment, that more profit can be obtained by keeping their current customers than by seeking new customers and that they should emphasize and differentiate not only functional but also emotional aspects of their brands in order to keep the customers. Therefore, consumer-brand relationship (or brand relationship, hereafter) has become crucial in today’s marketing environment. In this study, a set of factors determining brand relationship is proposed, quantitative measures for each of these factors are developed and tested, and implications of the measures are discussed from a methodological and practical standpoint.

THEORETICAL BACKGROUND
Relationship Quality
This section deals with some definitions and dimensions of relationship quality proposed by the existing research in the service and product domains.

Defining Relationship Quality. Most studies of relationship quality deal with an interpersonal relationship, defining quality as a set of intangible values that brings expected exchanges between a buyer and a seller and that increases product sales (e.g., Levitt 1986). Relationship quality is described as a higher-order construct with several distinct but related dimensions. But there are diverse views on its dimensions (Crosby, Evans, and Crowles 1990; Dwyer and Oh 1987; Kumar, Scheer, and Steenkamp 1995).

Existing Studies of Relationship Quality. Many studies have been conducted in an effort to examine potential dimensions of relationship quality. In the service domain, Crosby, Evans, and Crowles (1990) identify two dimensions of relationship quality; namely, trust and satisfaction. Wray, Palmer, and Bejou (1994) and Shamdasani and Balakrishnan (2000) also propose these two dimensions as the main elements of relationship quality. In a slightly different context, Moorman, Zaltman, and Deshpande (1992), investigating the relationship between knowledge providers and users of market research services, find that relationship quality consists of perceived quality, commitment, and involvement. They also suggest that trust is an antecedent to a good quality relationship. In a similar vein, Roberts, Variki, and Brodie (2003) define relationship quality as a high-order construct composed of trust, commitment, satisfaction, and affective conflict. Finally, Hennig-Thurau (2001) suggests that the main dimensions of relationship quality are service quality, trust, and affective commitment.

Research effort has also been made in the product domain. Lagace, Dahlstrom, and Gassenheimer (1991) identify trust and satisfaction as the main elements of relationship quality in the pharmaceutical industry. In addition, Kumar, Scheer, and Steenkamp (1995) propose that trust, commitment, conflict, expectation of continuity, and willingness to invest are the main components of relationship quality. On the other hand, Dorsch, Swanson, and Kelley (1998) propose that relationship quality is composed not just of trust, commitment, and satisfaction, but also of opportunism, customer orientation, and ethical profile. In summary, the dimensions of relationship quality that existing studies suggest most frequently in the service and product areas are trust, commitment, and satisfaction.

Brand Relationship
This section describes how brand relationship has been dealt with in past studies. First of all, Belk (1988) suggests that people often regard their possessions as part of themselves and an important component of their sense of self. Likewise, Kleine, Kleine III, and Allen (1995) propose that possessions to which people are strongly attached reflect their sense of self. But they seem to overlook the fact that people or possessors can consider their possessions as partners in interactive relationships in their lives.

Blackston (1993) points out that existing studies of brand image and brand personality view a brand simply as an object of customer attitude. Constructing a communication model that describes a reciprocal relation between brands and consumers, he redefines brand relationship as ‘an interaction between the consumers’ attitude toward the brand and the brand’s attitude toward the consumer.’ Thus, he argues that the consumer’s recognition of the brand’s attitude toward consumers should be incorporated into the study of brand image.

In a similar vein, Fournier (1998) suggests that brand relationship is an emotional ties resulting from the interaction between the consumer and his/her brand. Therefore, brand relationship should be thought of as a result of the interactive process between the consumer and a personified brand rather than a simple pattern of repurchase based on the consumer’s satisfaction with a product or a service. Fournier lays an integrative theoretical groundwork for the research in this area and proposes six factors leading to a long-lasting brand relationship: (a) love and passion, (b) self-connection, (c) interdependence, (d) commitment, (e) intimacy, and (f) brand partner quality.

RESEARCH CONSTRUCTS
The focus of this study is to develop a comprehensive scale for measuring brand relationship quality (or BRQ, hereafter). Susan Fournier’s framework (1998) along with other research literature explained above is used in identifying major dimensions of BRQ. The present section elaborates on those dimensions underlying BRQ.

Self-Connective Attachment
Schifferstein (2001) suggests that memories related to a brand evoke one’s attachment to that brand. Self-image or surroundings...
can also generate attachment to a specific brand. Fournier (1998) also proposes that affective attachment is generated when a brand becomes involved in one’s self-concept and self-image. Such a self-connective aspect of attachment is one of the BRQ dimensions.

**Satisfaction**

In a retail setting, Westbrook (1981) defines satisfaction as an affective state aroused by an evaluation of the interaction between customer and salesperson. This definition is consistent with that of Anderson, Fornell, and Lemmann (1994), who propose that “satisfaction is an overall evaluation based on long-term experience of purchasing and consuming a product or service.” According to Storbacka, Strandvik, and Grönroos (1994), customer satisfaction is the ‘customer’s cognitive and affective evaluation based on their personal experience across all service episodes within the relationship.’ In fact, satisfaction has been considered one of the major factors determining relationship quality in many previous studies (Bejou, Wray, and Ingram 1996; Crosby, Evans, and Crowles 1990; Dorsch, Swanson, and Kelley 1998; Lagace, Dahlstrom, and Gassenheimer 1991; Roberts, Varki, and Brodie 2003; Wray, Palmer, and Bejou 1994). Thus, it is included in this study.

**Commitment**

Hennig-Thurau and Klee (1997) indicate that commitment is a matter of the customer’s orientation toward a long-term relationship. Similarly, Moorman, Zaltman and Deshpande (1992) define commitment as ‘an enduring desire to maintain a valued relationship.’ In addition, Morgan and Hunt (1994) define relationship commitment as the belief that a consistent relationship with a partner is worthwhile and warrants efforts to maintain it. On the basis of such definitions, commitment has been analyzed in past studies in many different ways. But it is generally dimensionalized as cognitive, affective, and behavioral (Meyer and Allen 1991). Consumers tend to build up commitment when maintaining the relationship yields more benefits than terminating it (cognitive commitment), when they simply feel an emotional bond within the relationship (affective commitment), or when they do not want to switch to other alternatives (behavioral commitment). Likewise, Verhoef, Frances and Hoekstra (2002) distinguish two types of commitment: calculative and affective. Calculative commitment is the state of maintaining a relationship for economic reasons, a concept similar to cognitive commitment (Gundlach, Achrol, and Mentzer 1995). The relationship is usually maintained because the benefits of keeping it exceed those of terminating or altering it (Meyer, et al. 1989). Affective commitment, in contrast, is based on feelings of identification (Skarmeas, Katsikeas, and Schlegelmilch 2002). Since this particular type of commitment is often confused with emotional attachment described earlier, this study confines itself to the cognitive and behavioral aspects of commitment.

**Trust**

Fournier’s concept of BRQ (1998) is consistent with the notion of trust in the context of interpersonal relationships. The existing literature in social psychology proposes two types of trust: (a) trust in honesty and (b) trust in benevolence (Larzeler and Huston 1980; Rempel, Holmes, and Zanna 1985). Trust in a partner’s honesty is the belief that the partner will perform his or her role effectively and reliably (Dwyer and Oh 1987; Ganesan 1994; Kumar, Sheer, and Steenkamp 1995) and that the partner will keep promises and meet one’s needs (Anderson and Narus 1990). Trust in a partner’s benevolence in economic relationships is a customer’s perception that a firm is concerned about the welfare of customers (Kumar, Sheer, and Steenkamp 1995; Rempel, Holmes, and Zanna 1985) and his/her confidence that a salesperson will behave in a way that serves the customer’s long-term interests (Crosby, Evans, and Crowles 1990). Trust is also incorporated in this study.

**Intimacy**

Altman and Taylor (1973) define intimacy as a deep understanding and knowledge of a partner; Davis and Latty-Mann (1987) consider it the mental closeness of the relationship between partners. In short, intimacy is associated with the depth of one’s knowledge of one’s partner. Our pilot study indicates that intimacy also has an affective aspect. Thus, in this study, intimacy is included with two sub-dimensions of knowledge depth and affective ties.

**METHODOLOGY**

The objective of the present research is to develop a measurement scale for brand relationship quality based on the procedure proposed by Churchill (1979). Two pilot studies were conducted prior to the main study.

**Pilot Study 1**

In the first pilot study, we conducted face-to-face in-depth interviews to confirm the dimensions of the BRQ model. The respondents varied in age and sex, i.e., four respondents each in their 20’s, 30’s, and 40’s, and two males and two females in each age group. After choosing a favorite brand of product or service, interviewees were asked why they liked that brand in particular. We further asked them to describe the elements that contributed to the quality of their relationship with the brand. We found that the younger interviewees were, the more deeply attachment and commitment based on satisfaction and trust affected BRQ; the older interviewees were, the more likely they were to buy habitually on the basis of satisfaction and trust. The dimensions of relationship quality offered by interviewees were very consistent across age and sex, although there were slight differences according to the type of product or service.

**Pilot Study 2**

Since the existing studies of relationship quality have focused primarily on the service domain, the measures used there are not totally applicable to the physical product area. Hence, the measurement items drawn from past studies as well as those from the first pilot study were revised by marketing professionals in the second pilot study. Respondents were 40 brand professionals and graduate students in marketing. Presented with a list of measures, they were asked to choose and rank five items that would best explain the determinants of brand relationship quality. Table 1 shows the items selected through the two pilot studies.

**Main Study**

Respondents were asked to complete a survey with their favorite brands in mind. As the pilot studies revealed some differences in relationship quality dimensions for products and services, the main study distinguished between product and service brands. In the study, three product and three service categories were presented. Respondents chose one category of product and another of service and evaluated their favorite brands in those categories. A convenient sample of 361 respondents participated in the survey. Among them were undergraduate and graduate students at a metropolitan university as well as office workers.

**RESULTS**

We ran exploratory and confirmatory factor analyses to assess the reliability and validity of the measures. In this section, we describe the results for product brands first and explain those for service brands.
Developing a Scale for Measuring Brand Relationship Quality

Results for Product Brands

Refinement of Items. Out of 361 respondents, 210 respondents (57%) were male and 161 (43%) female; 235 (70%) were in their 20’s and 194 (53.8%) were students. The data indicated five factors, as proposed earlier; each item was categorized into one of the five. Reliability was tested by exploratory factor analysis. To verify the factor structure, we deleted items with factor loadings below 0.6. For all the dimensions, Cronbach’s alphas were above 0.8, indicating a high level of internal consistency. Composite reliability, which needs to be above 0.6 (Bagozzi and Yi 1988), was also confirmed. Table 2 shows the internal consistency for all indicators.

After testing for the reliability, we examined the validity of the factors through confirmatory factor analysis, using LISREL 8.5. To investigate both convergent and discriminant validity, we checked all factors in a measurement model, including exogenous and endogenous factors (Bollen 1989). A measurement model makes an overall evaluation of the construct validity and a confirmatory assessment of the convergent and discriminant validity (Campbell and Fiske 1959). To determine convergent validity using LISREL, we used factor loading λ and standard error. We assumed that if the factor loadings were statistically significant (t≥2.00), convergent validity was achieved (Anderson and Gerbing 1988). The results showed that the values of coefficient λ, which linked items to the corresponding construct, were all significant; thus convergent validity was confirmed. To check discriminant validity in LISREL, we tested the null hypothesis, assuming all constructs to be the same (δ=1.0). If all values of coefficient δ were not equal to 1 at a 95% confidence level, discriminant validity was established (Anderson and Gerbing 1988). As presented in Table 3, the model was found to have discriminant validity. In addition, although items used in the survey were extracted from previous studies, they were examined again by marketing professionals for ensuring content validity.

Model Re-estimation. To optimize each construct, we estimated GFI, AGFI, RMR, and NFI. A confirmatory factor analysis of the initial measurement model using a covariance matrix indicated that the performance of the measurement model was not good (GFI=0.84, AGFI=0.79, Standardized RMR=0.059, NFI=0.84). Thus, the research framework was modified and re-examined. A re-test with the modified showed improved performance (GFI=0.92, AGFI=0.89, Standardized RMR=0.047, NFI=0.91). Table 4 exhibits the items that were eliminated and those retained.

Results for Service Brands

Refinement of Items. The same respondents answered the questions regarding their favorite service brand. The first factor analysis yielded six factors. A reliability test was conducted through

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TABLE 1
Initial Measurement Items Developed Through Pilot Studies

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Measurement Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Connective Attachment</td>
<td>I use this brand because I can express my values with it (A1).</td>
</tr>
<tr>
<td></td>
<td>I like this brand very much because it shows who I am (A2).</td>
</tr>
<tr>
<td></td>
<td>I am intrigued by this brand because it shows who I want to be (A3).</td>
</tr>
<tr>
<td></td>
<td>This brand goes so well with my lifestyle that I would feel empty without it (A4).</td>
</tr>
<tr>
<td></td>
<td>This brand is part of my life; without it, I would feel something is missing (A5).</td>
</tr>
<tr>
<td></td>
<td>Since this brand shows who I am, I would feel empty without it (A6).</td>
</tr>
<tr>
<td></td>
<td>I like this brand because it makes me feel more special than other people (A7).</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>This brand is exactly what I want (S1).</td>
</tr>
<tr>
<td></td>
<td>I don't regret choosing this brand (S2).</td>
</tr>
<tr>
<td></td>
<td>I really like this brand (S3).</td>
</tr>
<tr>
<td></td>
<td>Using this brand is a good experience for me (S4).</td>
</tr>
<tr>
<td></td>
<td>The performance of this brand is better than I expected (S5).</td>
</tr>
<tr>
<td></td>
<td>I really enjoy using this brand (S6).</td>
</tr>
<tr>
<td>Commitment</td>
<td>I don’t have to consider other brands because I have this one (C1).</td>
</tr>
<tr>
<td></td>
<td>I want to keep using this brand (C2).</td>
</tr>
<tr>
<td></td>
<td>I want to maintain a long-term relationship with this brand (C3).</td>
</tr>
<tr>
<td></td>
<td>I would strongly recommend this brand to my friends (C4).</td>
</tr>
<tr>
<td></td>
<td>I enjoy my relationship with this brand, so I want to keep buying it (C5).</td>
</tr>
<tr>
<td></td>
<td>I have chosen this brand for practical reasons (C6).</td>
</tr>
<tr>
<td>Trust</td>
<td>I trust this brand (T1).</td>
</tr>
<tr>
<td></td>
<td>This brand gives me what I want (T2).</td>
</tr>
<tr>
<td></td>
<td>This brand always cares about the consumer’s needs (T3).</td>
</tr>
<tr>
<td></td>
<td>This brand keeps its promises (T4).</td>
</tr>
<tr>
<td></td>
<td>Whatever happens, I believe that this brand would help me (T5).</td>
</tr>
<tr>
<td></td>
<td>This brand works hard for my well-being (T6).</td>
</tr>
<tr>
<td>Intimacy</td>
<td>I know about this brand better than I know about other brands (I1).</td>
</tr>
<tr>
<td></td>
<td>I can describe this brand well to my friends who don’t know about it (I2).</td>
</tr>
<tr>
<td></td>
<td>I am familiar with this brand (I3).</td>
</tr>
<tr>
<td></td>
<td>This brand makes me feel comfortable (I4).</td>
</tr>
<tr>
<td></td>
<td>This brand fits me naturally (I5).</td>
</tr>
<tr>
<td></td>
<td>I am also familiar with other products or services this brand offers (I6).</td>
</tr>
</tbody>
</table>
### TABLE 2
Reliability and Validity Tests of the Structural Model: Product Domain

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>CFA* Loading</th>
<th>t-value</th>
<th>SMC**</th>
<th>Coefficient Alpha</th>
<th>Composite Reliability</th>
<th>AVE***</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Connective</strong></td>
<td>A2</td>
<td>1.00(0.72)</td>
<td>-</td>
<td>0.51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A3</td>
<td>1.14(0.75)</td>
<td>13.63</td>
<td>0.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A4</td>
<td>1.29(0.82)</td>
<td>14.81</td>
<td>0.67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A5</td>
<td>1.17(0.74)</td>
<td>13.43</td>
<td>0.55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A6</td>
<td>1.26(0.84)</td>
<td>15.11</td>
<td>0.70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A7</td>
<td>1.20(0.75)</td>
<td>13.65</td>
<td>0.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Satisfaction</strong></td>
<td>S1</td>
<td>1.00(0.73)</td>
<td>-</td>
<td>0.53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>S2</td>
<td>0.93(0.64)</td>
<td>11.53</td>
<td>0.41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>S3</td>
<td>1.16(0.79)</td>
<td>14.24</td>
<td>0.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>S4</td>
<td>1.04(0.71)</td>
<td>12.67</td>
<td>0.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>S5</td>
<td>1.08(0.64)</td>
<td>11.55</td>
<td>0.41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>S6</td>
<td>1.21(0.76)</td>
<td>13.72</td>
<td>0.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Commitment</strong></td>
<td>C1</td>
<td>1.00(0.69)</td>
<td>-</td>
<td>0.47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C2</td>
<td>0.90(0.85)</td>
<td>14.29</td>
<td>0.72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C3</td>
<td>0.87(0.88)</td>
<td>14.60</td>
<td>0.77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C5</td>
<td>0.78(0.76)</td>
<td>13.04</td>
<td>0.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Trust</strong></td>
<td>T3</td>
<td>1.00(0.62)</td>
<td>-</td>
<td>0.38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T4</td>
<td>1.04(0.60)</td>
<td>8.94</td>
<td>0.36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T5</td>
<td>1.28(0.73)</td>
<td>10.20</td>
<td>0.54</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T6</td>
<td>1.21(0.76)</td>
<td>10.39</td>
<td>0.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Emotional Intimacy</strong></td>
<td>I3</td>
<td>1.00(0.68)</td>
<td>-</td>
<td>0.47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I4</td>
<td>1.41(0.92)</td>
<td>13.22</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I5</td>
<td>1.24(0.76)</td>
<td>12.75</td>
<td>0.57</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* CFA: Confirmatory Factor Analysis, ** SMC: Squared Multiple Correlation, ***AVE: Average Variance Extracted

### TABLE 3
Coefficient $r$ Values in Discriminate Validity Test: Product Domain

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Attachment</th>
<th>Satisfaction</th>
<th>Commitment</th>
<th>Trust</th>
<th>Intimacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>0.46</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Commitment</td>
<td>0.42</td>
<td>0.61</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Trust</td>
<td>0.28</td>
<td>0.47</td>
<td>0.51</td>
<td>1.00</td>
<td>-</td>
</tr>
<tr>
<td>Intimacy</td>
<td>0.28</td>
<td>0.41</td>
<td>0.41</td>
<td>0.32</td>
<td>1.00</td>
</tr>
</tbody>
</table>
exploratory factor analysis. Items were divided among the six dimensions of the BRQ, and Cronbach’s alphas were calculated for each of the dimensions. To reduce the number of factors, a second analysis was run with only five factors, and the result showed that five factors explained 65% of the variance. The same BRQ dimensions were identified with these factors, and each item was found to be properly categorized. Among the items in each factor, those with factor loadings over 0.6 were selected. Cronbach’s alphas for each dimension were reasonably good with scores over 0.8, indicating a high level of internal consistency. Composite reliability was also confirmed, as all values exceeded 0.6 (see Table 5).

We ran confirmatory factor analysis to test convergent and discriminant validity. The values of coefficient λ were all significant, indicating convergent validity. Additionally, the values of δ were not equal to 1, suggesting discriminant validity (see Table 6). Because the study used the same items as those in the products domain, content validity was also assumed to be acceptable.

Model Re-estimation. Again, we tested GFI, AGFI, RMR, and NFI as we did in the product domain in order to optimize each dimension. A confirmatory factor analysis was run for the initial measurement model using a covariance matrix. The measurement model was not found to be adequate (GFI=0.86, AGFI=0.82, Standardized RMR=0.049, NFI=0.86). Therefore, the research framework was modified and estimated again. With the modification, a second estimation showed improved fit (GFI=0.92, AGFI=0.89, Standardized RMR=0.047, NFI=0.91). The final dimensions of brand relationship quality for both products and services are summarized in Table 8 (Note that C5 applies only to products, SC3 and ST6 only to services.).

Table 4 shows the items, and empirically tested it for products and services. Content validity was also assumed to be acceptable.

## DISCUSSION

### Summary of Findings

The main goal of the current study was to develop a scale for measuring brand relationship quality. Drawing from existing theories, we have conceptualized a model describing the determinants of brand relationship quality, developed a new set of measurement items, and empirically tested it for products and services.

**Product Brands.** The BRQ model developed through exploratory and confirmatory factor analyses in this study is consistent with the existing research models. Dimensions underlying BRQ are self-connector attachment, satisfaction, commitment, trust, and intimacy. We have found that self-connector attachment is correlated with BRQ more strongly than any other factors.

The results differ from the proposed model in several ways. First, the research model hypothesized two sub-dimensions of commitment, behavioral and cognitive, but the latter was eliminated during analysis. Thus, consumer commitment to a product brand does not seem to have a significant cognitive aspect. In other words, with regard to the measurement of BRQ, commitment is fully represented by the concept of behavioral commitment. Second, intimacy was expected to entail both knowledge depth and emotional ties in our initial model, but knowledge depth was eventually eliminated in the analysis. The affective aspects of intimacy, such as comfort and familiarity, appear to account fully for the role of intimacy in BRQ.

**Service Brands.** The results for service brands were quite similar to those for product brands. BRQ consists of the five factors described earlier; the cognitive aspects of commitment and intimacy do not appear to play a significant role in maintaining a long-term relationship with a service brand.

### Comparison of Results

We conducted separate analyses for products and services, expecting that the BRQ dimensions for the two areas would differ from each other. However, the study results point out only one meaningful difference, i.e., with product brands, commitment explains BRQ better than trust does, whereas with service brands, trust accounts for BRQ better than commitment does. The final dimensions of brand relationship quality for both products and services are summarized in Table 8 (Note that C5 applies only to products, SC3 and ST6 only to services.).

### Methodological and Practical Implications

The notion of consumer-brand relationship, pioneered by Susan Fournier (1998), has inspired many studies in this area. Fournier viewed brand relationship as a relationship between a consumer and a personified brand, akin to a relationship between two people. Her data, however, were drawn only from qualitative research. The present study contributes to the field by adopting a quantitative approach to measuring brand relationship quality.

Brand management is becoming more important to the marketers who are struggling to achieve sustainable competitive advantage in today’s marketplace. The BRQ measurement scale developed in this study will offer brand managers and marketers useful insights and tools for conducting consumer research and formulating brand strategies. For instance, since self-connector attachment is found to be the single most critical factor in BRQ, managers, as they develop strategies for establishing and maintaining long-lasting consumer-brand relationships, need to find ways to reflect consumers’ desired or ideal self-images.

### Limitations and Future Research Directions

There are several limitations of the present study which need to be addressed and overcome in future research. First, since the...
### TABLE 5
Reliability and Validity Tests of the Structural Model: Service Domain

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>CFA* Loading</th>
<th>t-value</th>
<th>SMC**</th>
<th>Coefficient Alpha</th>
<th>Composite Reliability</th>
<th>AVE***</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Connective Attachment</strong></td>
<td>SA2</td>
<td>1.00(0.79)</td>
<td>-</td>
<td>0.63</td>
<td>0.90</td>
<td>0.90</td>
<td>1.28</td>
</tr>
<tr>
<td></td>
<td>SA3</td>
<td>1.00(0.78)</td>
<td>15.91</td>
<td>0.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SA4</td>
<td>1.11(0.79)</td>
<td>16.29</td>
<td>0.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SA5</td>
<td>1.04(0.75)</td>
<td>15.17</td>
<td>0.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SA6</td>
<td>1.05(0.83)</td>
<td>17.44</td>
<td>0.70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SA7</td>
<td>1.09(0.78)</td>
<td>15.93</td>
<td>0.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Satisfaction</strong></td>
<td>SS1</td>
<td>1.00(0.73)</td>
<td>-</td>
<td>0.53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SS2</td>
<td>0.97(0.72)</td>
<td>13.14</td>
<td>0.52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SS3</td>
<td>1.26(0.81)</td>
<td>14.70</td>
<td>0.65</td>
<td>0.88</td>
<td>0.87</td>
<td>0.99</td>
</tr>
<tr>
<td></td>
<td>SS4</td>
<td>0.99(0.70)</td>
<td>12.67</td>
<td>0.49</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SS5</td>
<td>1.10(0.70)</td>
<td>12.64</td>
<td>0.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SS6</td>
<td>1.26(0.78)</td>
<td>14.19</td>
<td>0.61</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Commitment</strong></td>
<td>ST3</td>
<td>1.00(0.69)</td>
<td>-</td>
<td>0.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ST4</td>
<td>1.03(0.69)</td>
<td>11.20</td>
<td>0.47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ST5</td>
<td>1.10(0.69)</td>
<td>11.28</td>
<td>0.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ST6</td>
<td>1.17(0.77)</td>
<td>12.17</td>
<td>0.59</td>
<td>0.80</td>
<td>0.80</td>
<td>0.78</td>
</tr>
<tr>
<td><strong>Trust</strong></td>
<td>SC1</td>
<td>1.00(0.58)</td>
<td>-</td>
<td>0.34</td>
<td>0.79</td>
<td>0.82</td>
<td>0.95</td>
</tr>
<tr>
<td></td>
<td>SC2</td>
<td>1.11(0.85)</td>
<td>11.44</td>
<td>0.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SC3</td>
<td>1.16(0.88)</td>
<td>11.53</td>
<td>0.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Emotional Intimacy</strong></td>
<td>SI3</td>
<td>1.00(0.74)</td>
<td>-</td>
<td>0.55</td>
<td>0.83</td>
<td>0.84</td>
<td>1.16</td>
</tr>
<tr>
<td></td>
<td>SI4</td>
<td>1.22(0.89)</td>
<td>14.78</td>
<td>0.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SI5</td>
<td>1.12(0.77)</td>
<td>13.78</td>
<td>0.59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* CFA: Confirmatory Factor Analysis, ** SMC: Squared Multiple Correlation, ***AVE: Average Variance Extracted

### TABLE 6
Coefficient ¥ Values in Discriminate Validity Test: Service Domain

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Attachment</th>
<th>Satisfaction</th>
<th>Commitment</th>
<th>Trust</th>
<th>Intimacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>0.49</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Commitment</td>
<td>0.48</td>
<td>0.66</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Trust</td>
<td>0.51</td>
<td>0.63</td>
<td>0.56</td>
<td>1.00</td>
<td>-</td>
</tr>
<tr>
<td>Intimacy</td>
<td>0.35</td>
<td>0.49</td>
<td>0.51</td>
<td>0.53</td>
<td>1.00</td>
</tr>
</tbody>
</table>
## TABLE 7
Final Items for Each Dimension and Model Fit: Service Domain

<table>
<thead>
<tr>
<th>Dimension of RQ</th>
<th>Number of Items Before Re-estimation</th>
<th>Number of Items After Re-estimation</th>
<th>Fit of Final Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Connective Attachment</td>
<td>6</td>
<td>4 (SA2, SA5*)</td>
<td>GFI=0.92</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AGFI=0.89</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Standardized RMR=0.045</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NFI=0.91</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Emotional Intimacy</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

* Items eliminated

## TABLE 8
Measurement Items for Consumer-Brand Relationship Quality

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Product</th>
<th>Service</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Connective Attachment</td>
<td>A3</td>
<td>SA3</td>
<td>I am intrigued by this brand because it shows who I want to be.</td>
</tr>
<tr>
<td></td>
<td>A4</td>
<td>SA4</td>
<td>This brand goes so well with my lifestyle that I would feel empty without it.</td>
</tr>
<tr>
<td></td>
<td>A6</td>
<td>SA6</td>
<td>Since this brand shows who I am, I would feel empty without it.</td>
</tr>
<tr>
<td></td>
<td>A7</td>
<td>SA7</td>
<td>I like this brand because it makes me feel more special than other people.</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>S1</td>
<td>SS1</td>
<td>This brand is exactly what I want.</td>
</tr>
<tr>
<td></td>
<td>S2</td>
<td>SS2</td>
<td>I don’t regret choosing this brand.</td>
</tr>
<tr>
<td></td>
<td>S3</td>
<td>SS3</td>
<td>I really like this brand.</td>
</tr>
<tr>
<td></td>
<td>S4</td>
<td>SS4</td>
<td>Using this brand is a good experience for me.</td>
</tr>
<tr>
<td></td>
<td>S5</td>
<td>SS5</td>
<td>The performance of this brand is better than I expected.</td>
</tr>
<tr>
<td></td>
<td>S6</td>
<td>SS6</td>
<td>I really enjoy using this brand.</td>
</tr>
<tr>
<td>Behavioral Commitment</td>
<td>C1</td>
<td>SC1</td>
<td>I don’t have to consider other brands because I have this one.</td>
</tr>
<tr>
<td></td>
<td>C2</td>
<td>SC2</td>
<td>I want to keep using this brand.</td>
</tr>
<tr>
<td></td>
<td>C5</td>
<td>-</td>
<td>I enjoy my relationship with this brand, so I want to keep buying it.</td>
</tr>
<tr>
<td>Trust</td>
<td>T3</td>
<td>ST3</td>
<td>This brand always cares about the consumer’s needs.</td>
</tr>
<tr>
<td></td>
<td>T4</td>
<td>ST4</td>
<td>This brand keeps its promises.</td>
</tr>
<tr>
<td></td>
<td>T5</td>
<td>ST5</td>
<td>Whatever happens, I believe that this brand would help me.</td>
</tr>
<tr>
<td></td>
<td>T6</td>
<td>ST6</td>
<td>This brand works hard for my well-being.</td>
</tr>
<tr>
<td>Emotional Intimacy</td>
<td>I3</td>
<td>SI3</td>
<td>I am familiar with this brand.</td>
</tr>
<tr>
<td></td>
<td>I4</td>
<td>SI4</td>
<td>This brand makes me feel comfortable.</td>
</tr>
<tr>
<td></td>
<td>I5</td>
<td>SI5</td>
<td>This brand fits me naturally.</td>
</tr>
</tbody>
</table>
data were collected from a convenience sample, the study results were limited in terms of generalizability. Respondents of diverse characteristics should be selected on a more systematic basis in future studies for a higher level of external validity of results. Second, this study established an empirical model which identified a set of determinants of BRQ. More research effort should be made in enhancing the explanatory and predictive power of the model by examining potential mediating and moderating factors. One of the immediate extensions would be a study investigating relative differences in the impact of the BRQ determinants caused by consumer and product characteristics.

REFERENCES


Developing a Scale for Measuring Brand Relationship Quality


Unraveling Cross-cultural Differences: Effects of Observability, Self Monitoring and Desire for Unique Consumer Products on Tendency to Seek Variety

Nur Halimah Chew Abdullah, Nanyang Technological University, Singapore
Bharadhwaj Sivakumaran, Nanyang Technological University, Singapore

ABSTRACT

Using North American and Asian subjects, Study 1 found that western subjects had higher Variety Seeking (VS) disposition than their eastern counterparts. Effects of situational context and observability conditions (public versus private) were present for western subjects, but only context influenced eastern subjects. Study 2 suggested that self-monitoring tendencies offer insight to VS tendencies in an eastern culture. High Self Monitors (SM) sought more variety in public than private but had less variety than low SM across observability conditions. In addition, an individual trait, Desire for Unique Consumer Products did not seem to underpin impression management in the East.

INTRODUCTION

While there is a plethora of research on Variety Seeking (VS) behavior over the past 30 years, most of it is still traditionally conducted in the West (e.g., Ratner & Kahn 2002). In a review (Sojka & Tansuhaj 1995), single culture studies are still set mainly in North America followed by France, England, and Japan. Although few studies have examined VS in domains such as the East, efforts to evaluate the universality of the theoretical assumptions are forthcoming (e.g., Faison 1980; Kim & Drolet 2003). These are timely because even as the consumption preferences of urbanized consumers appear to be converging in this globalized world (i.e. “Westernized”), underlying beliefs and inference from norms can contribute to a deeper understanding of consumer behaviors in cross-cultural settings.

Studies have suggested links between VS and individual differences in optimal stimulation levels (e.g., Murray & Manrai 1993; Steenkamp & Baumgartner 1992) and also culture-bound values such desire for uniqueness (Ariely & Levav 2000; Kim & Drolet 2003). The argument for cultural heterogeneity is underlined by the premise that VS motivations emanate from pecuniary socialization processes. Individuals are imbued from young cultural values that shape their cognitive, affective and behavioral systems. In fact, studies have demonstrated discrepancy due to variant cultural orientations (Faison 1980; Kim & Drolet 2003; Murray & Manrai 1993). While empirical efforts are being made, there still remains a continuous strive to interpret observed differences or similarities using established cultural constructs. Hence, this signals research opportunities in terms of identifying and uncovering other relevant cultural influences on VS. This paper hopes to contribute to this stream of research with the study of culture-bound values and contexts. With this, the conceptual framework will be presented next, followed by an elaboration of the two studies and the respective findings. In the experiments, the observability conditions and situational contexts for consumption choices are manipulated. In addition, the associative relationships of personality traits such as Self Monitoring (SM) and Desire for Unique Consumer Products (DUCP) with variant cultural orientations are also uncovered. The effects of SM and DUCP on VS in the East are explored in post-hoc analyses. Finally, a brief discussion on the key limitations and future research directions will conclude this paper.

CONCEPTUAL FRAMEWORK & HYPOTHESES

Variety Seeking (VS) is defined as a switch or alternation between two or more brands/flavors, either within a single purchase episode or across successive purchase occasions (Kahn 1995). Generally, it is classified as either intrinsically or extrinsically motivated (McAlister & Pessemier 1982). Intrinsically motivated VS stem from intra or interpersonal antecedents. At an intrapersonal level, VS is associated positively with a desire for change or novelty (Raju 1980), anticipated or experienced satiation (McAlister & Pessemier 1982), and optimal stimulation levels (OSL) (Steenkamp & Baumgartner 1992). Interpersonally, the need for group affiliation or social distinction also encourages VS (McAlister & Pessemier 1982). Accordingly, aligning oneself with a group involves keeping up with changing trends or peers, while a desire to affirm self identity leads to a tendency to differentiate, both of which can increase VS tendency. Extrinsically motivated VS, on the other hand is concerned with circumstantial antecedents such as multiple needs, users or situations (McAlister & Pessemier 1982).

Individualistic and Collectivistic Orientations on VS

Traditionally, cultural difference between the East and the West are attributed to individualistic and collectivistic (I/C) orientations of the people (e.g., Hofstede 2001). At a cultural level, it is acknowledged that children in the West are socialized from young to assert independence and self-identity. This is clearly different from the East where harmony and adherence to group behavior are accentuated (Hofstede 2001). Self-concept theory proposes that I/C tendencies are manifested through the saliency of independent and interdependent self-construal when members of a culture are considered as a whole (Markus & Kitayama 1991). Specifically, consumers with dominant independent self-concepts have a psychological tendency to realize their internal attributes. As the normative imperative in the West is to become independent from others, and to discover and express one’s unique attributes (Markus & Kitayama 1991), their internal value systems often gear individuals towards social differentiation. Thus, from a cross-cultural perspective, VS in the West may be explicated by the need to be socially distinctive from others.

Conversely, such an intrinsic motivation may not have a similar value or may even be interpreted as going against group norms for highly collectivistic cultures (Kim & Drolet 2003). However, to date, the purposeful meaning underlying VS in choices for more collectivistic consumers have not really been examined. Therefore, it is theoretically possible that their behavior may be underscored by other reasons such as a need to affiliate with a group. One might say that choices by such consumers may be influenced more heavily by interpersonal factors (Kim & Drolet 2003). For example, to maintain congruence with normatively held social values, collectivistic consumers may adjust their VS behavior according to situations. Hence, it is plausible to speculate that such consumers seek variety depending on the norm and other circumstantial influences. Markus & Kitayama (1991) also discussed the implications of a dominant interdependent self-construal of such individuals. The normative imperative for them is not so much of distinguishing separate entities but rather maintaining connections/interdependence among individuals.

To surmise, the first hypothesis is based on the premise that the tendency to seek variety is influenced by the salient I/C orientations. While a VS tendency can be attributed to a stronger internal disposition within individualistic consumers, it is not as clear-cut

Asia Pacific Advances in Consumer Research
Volume 6, © 2005
for collectivistic consumers. If VS is largely motivated by social distinctiveness, the VS behavior for a relatively more collectivistic individual may appear to be less pronounced as compared to an individualistic consumer.

**H1:** Individualistic consumers have generally higher VS tendencies than collectivistic consumers.

### VS in Public versus Private

Switching behavior is also triggered by external circumstances (McAlister & Pessemier 1982). Here, Ratner and Kahn (2002) found that their subjects included more variety in public consumption decisions to elicit favorable impressions. Apparently, someone who chooses variety is perceived as exciting, fun, open-minded, and flexible than someone who does not. Hence, impression management goals can underlie VS. However, they also questioned the generalizability of their assumptions to other cultural samples.

Conceptually, if individualistic consumers strive for social distinctiveness, the act of making a varied choice offers a point of differentiation, especially when it is clearly visible to others. Although this suggests that individualistic consumers are somewhat extrinsically motivated, it is argued that the act is triggered by their internal attributes. Specifically, social comparison theory in a cross-cultural context speculates that a contrast effect is more prevalent for consumers with salient individual ("I") self-concepts (Sul, Martin & Wheeler 2002). Thus, a disposition to be different from others should motivate the inclusion of more variety in public than private. The need to be unique or distinct—clearly individualistic values may well explain some aspect of VS in public. Contrarily, collectivistic consumers appear to be heavily influenced by social/group norms (e.g., Hofstede 2001). Hence, they pay more attention to social contexts and appropriate interactions (Markus & Kitayama 1991; Miller 1984). At a cultural level, while the West values social distinctiveness, consumers in the East are likely to be geared towards affiliation, which generally leads to imitation tendencies. This emphasis of one’s connection with other people (“we”) promotes assimilation—the tendency to be similar with others (Sul, Martin & Wheeler 2002). Therefore, the observability of a situation also moderates the extent of VS in the East but may not necessarily be driven by similar motivations as in the West.

Ratner and Kahn (2002) also demonstrated that the VS tendency attenuated in private conditions. As such situations exclude the presence of others (which are probable sources of reflected appraisal) (Markus & Kitayama 1991), individualistic consumers have lesser need to assert their uniqueness. For collectivistic consumers, the extent of VS is intuitively, dependent on the appropriateness of the situation. For instance, if variety is sought to reflect a group’s taste, imitation tendency prevails when the consumption decision is more observable. On the other hand, if loyalty to a prominent brand or flavor is preferred by the majority, this could inhibit VS tendencies of collectivistic consumers in relatively more observable situations.

**H2a:** Individualistic consumers seek more variety in public than private

**H2b:** Collectivistic consumers have variety seeking tendencies that differ significantly in public and private

### Self-Monitoring (Ability to Modify Self-presentation) and Need for Uniqueness

When VS is used as a mean for managing impressions, related personality attributes such as self-monitoring (SM) and need for uniqueness (NFU) can be utilized as indicators of impression management tendencies. SM theory postulates that there are differences in the extent to which people value, create, cultivate, and project social images and public appearances (Gangestad & Synder 2000). High Self Monitors (SM) are sensitive to social environments and thus, behave appropriately so as to impress. Meanwhile, low SM are true to their attitude and values across situations. Hence, high SM is conceptualized as a situational disposition and low SM, a consistent individual trait (Gangestad & Synder 2000). As high SM are more cautious of how they come across to others, they are probably affected by the social norms to greater extent than low SM. This proposition appears to coincide with cultural theories that highlight the tendency of collectivistic consumers to define themselves as parts or aspects of a group. Priority is usually accorded to group objectives over personal aims during conflicts of interest and thus, social behavior is better predicted from norms, perceived obligations and duties (Miller 1984). Theoretically, SM tendency should be associated more strongly with collectivistic than individualistic orientations. Consequently, how high or low SM behave in an eastern context may allow some inference on the general direction of VS behavior in a more collectivistic culture. This will be explored in the post-hoc analyses.

**H3a:** Self monitoring tendency is more strongly associated with collectivistic than individualistic orientations

In some single culture studies, uniqueness is cited as what underpins self-presentations for people who vary their choice decisions (e.g., Ariely & Levav 2000; Kim & Drolet 2003, and Simonson & Nowlis 2000). Ariely & Levav (2000) confirms that whenever unique choices are used as positive self-presentation cues, VS at a group level ensues. And whenever consumers are given opportunities to express reasons for their choices, the effect of appearing unique in choices emerges (Simonson & Nowlis 2000). This is reinforced by Kim & Drolet’s (2003) findings that uniqueness—a positive assumption in US, motivates only native but not Korean-born subjects, to vary their use of choice rules. As these observations were made in a predominantly western culture, it is difficult to conclude whether uniqueness has a similar effect on VS in the East. However, as social distinctiveness is inherently related to being unique, it is clear that it has a positive linkage with VS in the West. This thus leads to the conjecture that uniqueness, being an individualistic value is likely to be associated more strongly with individualistic than collectivistic orientations. As with H3a, the possible effect of uniqueness on VS in the East will be explored in the post-hoc analyses.

**H3b:** Uniqueness is more strongly correlated with individualistic than collectivistic orientations

### STUDY 1

The main objectives are to establish VS tendencies and compare VS for some common consumer products/services between two cultures. Secondly, VS differences in two consumption decision situations are explored. A 2 level between-subject (Observability: Public vs. Private) quasi-experimental design was adopted with a within-subject manipulation (Contexts: Hotel Reception and Grocery Shopping). Data was from one Singapore and US University with a total of 156 Asians (AS) and 107 North Americans (NA). All subjects were Business school undergraduates who participated for extra credit. For the Asian subjects, English is the medium of instruction and their official working language.

Students were randomly assigned to the conditions into sessions of 10-15. They had 30 minutes to complete the questionnaires.
A booklet was prepared with a cover page to instruct the completion of all items and maintenance of confidentiality. The manipulated questionnaire consisted of the following: Triandis & Gelfand’s (1998) 16-item I/C scale, 3-item VS scale1 (adapted from Baumgartner & Steenkamp 1996) each for five product categories (soft drinks, ice-cream, restaurant, shampoo, and deodorant), a hotel vignette2, distraction tasks, a grocery shopping vignette3, a 7-item SM subscale (adapted from Lennox & Wolfe 1984), and 7-item Change Seeking Index (CSI) (Steenkamp and Baumgartner 1995). Each vignette was followed by a choice list of either five typical ice-cream (Vanilla, Rum Raisin, Mint, Strawberry, and Chocolate Chip) or chocolate flavors (Mint, Almond, White chocolate, Raisin, and Caramel). The order of the vignettes and products were counterbalanced to minimize response set bias. All IVs were measured on 5-point Likert scales.

RESULTS

Exploratory factor analysis (EFA) using Principal Component Analysis (PCA) with Varimax Rotation under SPSS 11.5 established the psychometric properties of the scales for both countries. Please see Table 1–3.

The overall alpha levels for I/C scales ranged from .66–.73 for the NA group and .65–.72 for the AS group in Study 1. The CSI (OSL) scale had alpha of .85 (NA) and .84 (AS) while the SM scale exhibited internal reliabilities of .83 and .86 for the NA and AS samples respectively.

I/C Orientations and VS Tendencies

Results indicate that the North Americans were significantly more individualistic than the Asians (NA: 3.73 vs. AS: 3.58, F=5.734, p<.05). Generally, North Americans have marginally higher overall VS tendencies than Asian subjects (NA: 3.44 vs. AS: 3.34, F=2.954, p<.05). At a categorical level, North Americans tend to seek more variety in restaurants (NA: 4.07 vs. AS: 3.79, F=9.814, p<.01) and shampoos (NA: 3.35 vs. AS: 2.80, F=21.920, p<.000). However, Asian subjects showed higher VS tendencies for ice cream (NA: 3.62 vs. AS: 3.85, F=3.957, p<.05). Here, there is partial support for H1.

Effects of Observability on VS Behavior

The main dependent measure used is based on the number of times a particular choice was different from any previous selection. Termed as Switch Scores (SW Scores), it reflected “choice patterning” in VS (Menon & Kahn 1995) where differences in the preceding choices were scored as 1 or more and accumulated. No VS (e.g. AAAAA) was scored as 0 while highest VS was seen in ABCDE, computed as $10^4$. A manipulation check determined if the observability (Public/ Private) and situational contexts (Hotel/ Grocery Shopping) were effective. In the NA sample, both the situational context (F=12.321, p=.001) and observability conditions (F=10.637, p=.001) were influential but only context was significant for the AS sample (F=14.107, p=.000).

For H2a and H2b, a MANOVA test found interaction effects (OBS*CTY) in both vignettes. In the grocery shopping context, the NA sample had more variety in public than private (F=4.327, p<.05). Similarly, Asians sought more variety in the public conditions (F=3.386, p<.07). In the hotel vignette, North Americans continued to choose more variety in public than private (F=4.327, p<.05). However, Asian subjects had greater patterning tendencies in their choices in private than public conditions (F=4.327, p<.05).

Self-Monitoring (Ability to Modify Self-Presentation)

At a cultural level, NA subjects have significantly higher SM tendencies than AS subjects (NA: 3.43 vs. AS: 2.97, F=26.33, p=0.000). From the correlation analysis, SM is correlated with both individualistic (rIND=.324, p=.001) and collectivistic (rCOL=.231, p<.05) values for the NA sample. However, for the AS sample, it was not significant for either orientation (p=.444 & .118). H3a is not supported in either case.

DISCUSSION

Although it is arguable that the absolute difference for VS in products is not entirely meaningful, the findings offer some evidence of cultural dissimilarity. A relatively higher OSL disposition in part is related to greater VS for the western subjects. This provides some indirect support for H1. On hindsight, in the West, restaurant dining is perhaps a more widespread phenomena and less casual than in the East. Consumers are more likely to switch given the wider number of choices available. As personal care products are more utilitarian in nature, Asian subjects may be more resistant to switch and prefer to stick to tried and tested items. For ice-cream, the greater VS tendency by Asians could be attributed to the inherent environmental conditions. In tropical climates where ice-cream is frequently consumed to quell the heat, the tendency to seek variety is intuitively higher than in a temperate environment. The findings also indicated that individualistic North Americans exhibit more invariability in VS than Asians, even in different contexts. They consistently sought more variety in public than private. Hence, VS tendency appears to be more robust in the West (support for H2a) but is less predictable in the East. As hypothesized, the appropriateness of contexts used may have affected the Asian subjects. Specifically, the slightly lower means from Asian respondents in the public version of the hotel vignette may have some impression management undertones. The presence of an interviewer could have led subjects to list their choices to come across as perhaps more rational and consistent. On the other hand, it is also conceivable that the use of this context had confounded results. For instance, the private condition may not have been as “private” as previously thought. The subjects could have imagined that the social event was also going to be attended by others. Thus, the lack of consistency from both vignettes highlight possible manipulation weaknesses. Nevertheless, there is still partial support for H2b as VS tendencies

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1 The 3-items are “Compared to other product categories, I would switch between brands or flavors of…”; “Compared to other product categories, I would be very cautious in switching between brands or flavors of…”; “Compared to other product categories, I would enjoy taking chances in buying unfamiliar brands or flavors of … just to get some variety in purchases” (reverse coded). The raw scores were combined to form a mean VS score for each product/service.

2 Subjects were asked to either imagine responding to an interviewer (public) or coming up individually (private) with a list of dessert choices (chocolates or ice-cream) for an upcoming hotel reception. (Adapted from Ratner & Kahn’s (2002) Study 3 experimental design).

3 Subjects imagined either to be grocery shopping with a group of friends (public) or alone (private) for some snacks (ice-cream or chocolate)

4 i.e. 2nd choice is different from 1st=1; 3rd choice is different from 1st and 2nd choice=1+1; 4th choice is different from 1st, 2nd and 3rd choice=1+1+1 and 5th choice is different from all previous choices=1+1+1+1.
<table>
<thead>
<tr>
<th>I/C Items</th>
<th>AS SAMPLE 1 (2)</th>
<th>NA SAMPLE 1 (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Winning is everything</td>
<td>.668 (.690)</td>
<td>.730 (.746)</td>
</tr>
<tr>
<td>2. Competition is the law of nature</td>
<td>.620 (.555)</td>
<td>.774 (.767)</td>
</tr>
<tr>
<td>3. When another person get does better than I do, I get tensed and aroused</td>
<td>.778 (.714)</td>
<td>.648 (.819)</td>
</tr>
<tr>
<td>4. It is important to me that I do my job better than others</td>
<td>.741 (.781)</td>
<td>.640 (.677)</td>
</tr>
<tr>
<td>5. I would rather depend on myself than others</td>
<td>.748 (.856)</td>
<td>.809 (.874)</td>
</tr>
<tr>
<td>6. I rely on myself most of the time; I rarely rely on others</td>
<td>.848 (.851)</td>
<td>.840 (.892)</td>
</tr>
<tr>
<td>7. I often do “my own thing”</td>
<td>.761 (.543)</td>
<td>.733 (.588)</td>
</tr>
<tr>
<td>8. My personal identity, independent from others, is very important to me</td>
<td>.543 (.432)</td>
<td>.868 (.877)</td>
</tr>
<tr>
<td>9. Family members should stick together, no matter what sacrifices are required</td>
<td>.844 (.802)</td>
<td>.860 (.772)</td>
</tr>
<tr>
<td>10. It is my duty to take care of my family, even when I have to sacrifice what I want</td>
<td>.861 (.886)</td>
<td>.845 (.823)</td>
</tr>
<tr>
<td>11. It is important to me that I respect the decision made by the group</td>
<td>.564 (.586)</td>
<td>.646 (.680)</td>
</tr>
<tr>
<td>12. Parents and children must stay together as much as possible</td>
<td>.705 (.695)</td>
<td>.652 (.858)</td>
</tr>
<tr>
<td>13. I feel good when I cooperate with others</td>
<td>.758 (.567)</td>
<td>.594 (.746)</td>
</tr>
<tr>
<td>14. The well being of my co-worker is important to me</td>
<td>.826 (.738)</td>
<td>.822 (.651)</td>
</tr>
<tr>
<td>15. If a co-worker gets a prize, I would feel proud</td>
<td>.730 (.512)</td>
<td>.745 (.387)</td>
</tr>
<tr>
<td>16. To me, pleasure is spending time with others</td>
<td>– (.746)</td>
<td>– (.667)</td>
</tr>
</tbody>
</table>

Extraction method: Principle Component Analysis. Rotation method: Varimax with Kaizer Normalization
* Reverse Coded
AS–Asian; NA–North American, 1–Study 1, 2–Study 2
TABLE 2
Rotated Component Matrix for CSI Items

<table>
<thead>
<tr>
<th>Change Seeker Index (OSL) Items</th>
<th>AS SAMPLE 1 (2)</th>
<th>NA SAMPLE 1 (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I like to continue doing the same old things rather than trying new and different things*</td>
<td>.706 (.737)</td>
<td>.660 (.726)</td>
</tr>
<tr>
<td>2. I like to experience novelty and change in daily routine</td>
<td>.706 (.784)</td>
<td>.774 (.871)</td>
</tr>
<tr>
<td>3. I like a job that offers change, variety and travel, even if it involves some danger</td>
<td>.771 (.662)</td>
<td>.676 (.685)</td>
</tr>
<tr>
<td>4. I am continually seeking new ideas and experiences</td>
<td>.688 (.716)</td>
<td>.834 (.769)</td>
</tr>
<tr>
<td>5. I like continually changing activities</td>
<td>.760 (.838)</td>
<td>.793 (.804)</td>
</tr>
<tr>
<td>6. When things get boring, I like to find some new and unfamiliar experiences</td>
<td>.593 (.699)</td>
<td>.653 (.513)</td>
</tr>
<tr>
<td>7. I prefer a routine way of life to an unpredictable one, full of change*</td>
<td>.798 (.720)</td>
<td>.722 (.673)</td>
</tr>
</tbody>
</table>

Extraction method: Principle Component Analysis. Rotation method: Varimax with Kaizer Normalization
* Reverse Coded
AS–Asian; NA–North American, 1–Study 1, (2)–Study 2

TABLE 3
Rotated Component Matrix for SM Items

<table>
<thead>
<tr>
<th>Self Monitoring (SM) items</th>
<th>AS SAMPLE 1 (2)</th>
<th>NA SAMPLE 1 (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In social situations, I have the ability to alter my behavior if I feel that something else is called for</td>
<td>.723 (.712)</td>
<td>.680 (.579)</td>
</tr>
<tr>
<td>2. I have the ability to control the way I come across people, depending on the impression I wish to give them</td>
<td>.788 (.786)</td>
<td>.753 (.756)</td>
</tr>
<tr>
<td>3. When I feel that the image I am portraying isn’t working, I can readily change to something that does</td>
<td>.785 (.700)</td>
<td>.785 (.709)</td>
</tr>
<tr>
<td>4. I have trouble changing my behavior to suit different people and different situations*</td>
<td>.671 (.727)</td>
<td>.639 (.741)</td>
</tr>
<tr>
<td>5. I have found that I can adjust my behavior to meet the requirements of any situations I find myself in</td>
<td>.836 (.838)</td>
<td>.780 (.798)</td>
</tr>
<tr>
<td>6. Even when it might be to my advantage, I have difficulty putting up a good front*</td>
<td>.649 (.535)</td>
<td>.637 (.865)</td>
</tr>
<tr>
<td>7. Once I know what the situation calls for, it’s easy for me to regulate my actions accordingly</td>
<td>.764 (.499)</td>
<td>.633 (.706)</td>
</tr>
</tbody>
</table>

Extraction method: Principle Component Analysis. Rotation method: Varimax with Kaizer Normalization
* Reverse Coded
AS–Asian; NA–North American, 1–Study 1, (2)–Study 2
were significantly different in private and public in both vignettes. The correlation results also showed that SM is positively related to I/C orientations. However, the relationship was stronger for individualistic than collectivistic orientations in the NA sample thus refuting H3a. In the second study, the limitations in Study 1 were addressed with more carefully worded vignettes. Additionally, uniqueness in a product context is also used to understand its associative relationship with I/C orientations.

STUDY 2

The objectives are to replicate the earlier manipulations and to explore the effects of uniqueness in a product context (i.e. Desire for Unique Consumer Product). Impressions of a variety seeker were also probed. A 2 level between-subject (Observability: Public vs. Private) quasi-experimental design with a within-subject manipulation (Contexts: Vending Machine/ Grocery Shopping) was used again. 170 second-year Asian undergraduates (AS) from a Singapore university participated for credits. Another 127 North American (NA) undergraduates from two US universities were also recruited. They were either paid or granted credits for their efforts.

Students were randomly assigned to either condition conducted in the same venue. Those in the public condition participated in sessions of 20-30 where they sat next to one another. They were instructed to double-check their neighbor’s scripts upon completion on the pretext of minimizing missing data. The experimenter walked around subjects to create the feeling of being observed. Subjects in the private condition participated in smaller sessions of 10-15. They sat apart, isolated from one another, remained silent and were only allowed to query the experimenter. They also checked their scripts on their own. The experimenter remained as unobtrusive as possible. All subjects completed a booklet comprising two vignettes. The vending machine vignette\(^5\) had five typical chocolate flavors (caramel, mint, toffee, dairy milk and almond) and the grocery shopping vignette\(^6\) had five typical ice-cream flavors (Banana, chocolate, strawberry, vanilla and coffee). Subjects then rated their perception of the situations (Manipulation Check: Quiet/Busy; Public/ Private; Uncrowded/Crowded) on 7-point scales. They also indicated if they had consumed the products before and if any of the flavors were their favorites. This was followed by a rating of their impression of someone who is a high variety seeker on eight evaluative scales\(^7\) (adapted from Ratner & Kahn 2002). The order of the vignettes was counterbalanced to minimize response set bias. Finally, they completed randomized items: I/C scale (Triandis & Gelfand 1998) and 8-item Desire for Unique Consumer Product (DUCP) scale (Lynn & Harris 1997). Other IVs such as SM and CSI were collected earlier during a mass registration exercise for Singapore. In US, subjects completed a randomized version of all items.

RESULTS

Tables 1-3 show the EFA results for Study 2. The internal reliability for I/C scale ranged from .65-.72 for AS and .57-.67 for NA. As for the CSI scale, alpha was .41 (NA) and .86 (AS). For the SM subscale, the internal reliabilities were .77 (NA) and .81 (AS). Finally, for DUCP, two latent factors were found for the AS sample (\(\alpha=.50\)). In the NA sample, a three factor structure was detected (\(\alpha=.74\)).

I/C Orientations and VS Tendency

Generally, the results did not find AS subjects to be significantly less individualistic or more collectivistic than their NA

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\(^5\)Subjects were asked to imagine that they were attending a seminar and wanted to grab a quick snack from a nearby chocolate vending machine. A pack of five miniature chocolates of their choice cost $1. The vignettes were similarly worded except in private condition, the seminar was exclusive, subject was alone and one of the first to arrive. In the other condition, the seminar was public; subject was with friends and arrived just in time with rest of attendees.

\(^6\)Subjects were asked to imagine browsing in a supermarket. A one time promotional offer of five ice-creams for $3 was on and they were told that they considered having an ice-cream daily for the next 5 days. In the private condition, subjects were shopping alone on a quiet weekday afternoon and walking down a clear aisle. In the public condition, they were shopping with friends on a busy weekend afternoon and walking down a congested aisle.

\(^7\)The eight adjectives: favorable/unfavorable; bad/good; not interesting/interesting; rational/irrational; innovative/not innovative; not creative/creative; risk seeking/not risk seeking and not sensible/sensible were rated on 7-point scales.
TABLE 4
Rotated Component Matrix for DUCP Items

<table>
<thead>
<tr>
<th>Desire for Unique Consumer Products Items</th>
<th>AS 1</th>
<th>AS 2</th>
<th>NA 1</th>
<th>NA 2</th>
<th>NA 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I tend to be fashion leader than a fashion follower</td>
<td>.529</td>
<td>.665</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I am more likely to buy a product if it is scarce</td>
<td>.484</td>
<td>.803</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I like to try new products and services before others do</td>
<td>.562</td>
<td>.701</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I enjoy shopping at stores that carry merchandise that is different and unusual</td>
<td>.692</td>
<td>.547</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I enjoy having things others do not have</td>
<td>.716</td>
<td>.744</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I would prefer to have things custom-made than to have them ready-made</td>
<td>.505</td>
<td>.807</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I rarely pass up the opportunity to order custom features in the products I buy</td>
<td>.568</td>
<td>.838</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I am very attracted to rare objects</td>
<td>.776</td>
<td>.828</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Extraction method: Principle Component Analysis. Rotation method: Varimax with Kaiser Normalization

AS—Asian; NA—North American

counterpart. However, AS subjects were found to be higher in the vertical components of I/C (p<.05–.06), while NA were significantly higher in the horizontal dimensions (p<.00–.05). Using OSL as a proxy for VS tendency, NA subjects have higher VS tendencies than AS subjects (NA: 3.63 vs. AS: 3.13, F=31.66, p=.000).

Effect of Observability on VS Behavior
Manipulation checks for both samples showed that subjects in the public conditions perceived both vignettes to be busier than those in the private conditions8 with the exception of perceived crowdedness (Vending Machine) for the NA sample. In testing H2a & H2b9, the main effect (CTY, p<.05) and interaction effect (OBS*CTY, p=.05) were significant only for the grocery shopping vignette. NA subjects had higher VS behavior in private than public conditions. However, these findings refute H2a, which was hypothesized in a different direction. In the AS sample, there was support for H2b as the subjects sought significantly more variety in public than private. In the case of the vending machine vignette, only a main CTY effect was detected (p<.05).

SM (Ability to Modify Self-Presentation) and DUCP
SM was found to be positively related to collectivistic (r=.231, p<.001), but not individualistic (p=.156) orientations for AS subjects. This renders partial support to H3a. For NA subjects, SM is more strongly correlated with individualistic (r=.273, p<.01) than collectivistic (r=.203, p<.05) values. Results also revealed that DUCP is associated only with individualistic (r=.397, p<.000 and r=.248, p=.001) but not collectivistic (p=.770 and p=.121) orientations for both samples. Hence, H3b is accepted.

Post-hoc Findings (Effects of SM and DUCP on VS)
Previous studies (e.g., Ratner & Kahn 2002; Simonson & Nowlis 2000) showed that western subjects managed self-presen-

tations in order to distinguish themselves from others. One motivation to do so was to showcase one’s uniqueness. Is this assumption applicable in the East? Secondly, if a high SM has a greater tendency to manage impressions, is it similarly underpinned by the need to come across as unique (as proxy by DUCP)? Using OBS, SM & DUCP as IVs and SW scores as the DV, a main effect of SM (F=7.976, p<.01), and interaction effects between OBS*SM (F=3.098, p<.09), OBS*DUCP (F=3.648, p<.06) and SM*DUCP (F=5.754, p<.05) were found.

Hence, further tests were run with the AS dataset to determine if uniqueness (proxy by DUCP) had any influence on the VS behaviors of high and low SM. The AS sample was split into high and low DUCP groups10. Each group was then tested for any main and interactive effects of OBS and SM. Results show that within the low DUCP group, the main SM and interactive effects were present. Low SM had sought more variety than high SM across observability conditions (Hi SM: 8.46 vs. Lo SM: 7.93, F=9.109, p<.01). Furthermore, both high and low SM subjects had higher means in public than private conditions (Pub/Hi SM: 8.36 vs. Pte/Hi SM: 6.55; Pub/Lo SM: 9.05 vs. Pte/Lo SM: 8.86, F=4.633, p<.05), suggesting impression management tendencies. The same test was repeated in the high DUCP group but neither the main (p=.556–.766) nor interaction terms (p=.782) were significant. Logically, if self-monitoring tendencies in the East are also underpinned by the need for uniqueness, there should be a systematic finding in both groups. Thus, these post-hoc findings results provide some insight that impression management in the East may not be similarly motivated by the desire to appear unique or to be socially distinct.

DISCUSSION
When OSL is used as a proxy for VS tendency, NA subjects had higher scores than their AS counterparts. This finding provides some indirect support for H1. Results also revealed that AS subjects

8Manipulation check results available upon request
9The MANOVA test was ran with demographic variables and liking/favorite ratings of products as covariates.

10High DUCP Group (High SM: 3.88 vs. Low SM: 3.10; F=104.604, p=.000); Low DUCP Group (High SM: 3.82 vs. Low SM: 3.00, F=192.682, p=.000)
incorporated more variety when they do grocery shopping in public conditions. However, it was the opposite for NA subjects. When the NA data was examined closely, private condition subjects’ VS means were significantly related to favorable, good and sensible. However, only rational and creative were related to VS for those in public conditions. For the Asians, only favorable and sensible were significant. On hindsight, as the grocery shopping vignette had a promotional element, choosing more flavors appears to be more sensible than choosing only one’s favorite. Secondly, VS in public may have also been influenced by subjects’ thoughts on how much variety their friends might have chosen. Ratner & Kahn (2002) found that their subjects had thought that a typical person would choose greater number of different appetizers. If a similar effect is in place in the East, VS may be driven by this expectation of others seeking variety. Thus, a desire to keep up with the group implies imitation tendencies. The findings also indicated that self-monitoring is significantly related to only collectivistic orientation (H3a) for the AS sample. This reinforces Miller’s discussion (1984) that collectivistics tend to be more attentive to situation than individualistics in judgment of others and are more aware of appropriate behavior in different situations. The results also support H3b that DUCP is associated with only individualistic orientations. At the same time, post-hoc analyses yielded preliminary evidence that SM may be moderating VS differently in the East (i.e. Negative effect of SM on VS). A review of cultural literature (Hofstede 2001) suggests the possible influence of Confucian dynamism on Eastern societies dominated by Chinese populations. These societies tend to differ in their approaches in life from western societies. The virtue of thrift, hard work and moderation are more prevalent and such values are also broadly held. Hence, high SM may be unconsciously “tweaking” their choices in more observable situations to reflect “moderation”. Another interesting post-hoc finding is that this self-monitoring tendency is significant only in subjects with low DUCP. Therefore, while both high/low SM sought more variety in public than private situations, and appear to be driven by impression management intents, the desire to come across as unique may not be underpinning self-presentation goals in an Asian culture.

GENERAL DISCUSSION

When OSL is used a proxy for VS tendency, NA subjects had consistently higher VS dispositions than AS subjects. While the Study 1 showed that western subjects were more consistent in their VS tendencies, eastern subjects were less lucid. For example, the manipulation checks indicated that the AS subjects did not seem to differentiate between observability conditions and context unlike NA subjects. This observation may be explained by the tendency of eastern subjects to adopt holistic perspectives of situations. The assumption is in line with the notion that eastern consumers tend to learn from young that circumstances have a bearing upon what is appropriate or not (Wen 2003). Despite criticisms that the vignettes were rather contrived scenarios, significant differences were still found among subjects. Methodologically, vignettes provide an enriching alternative to measure VS compared to previous studies (e.g. Kim & Drolet 2003; Ratner & Kahn 2002). Hence, when taken altogether, these undertakings shed further insight on VS in an eastern context. Study 2 also buttressed the notion that self-monitoring tendency in the East is more positively correlated with collectivistic than individualistic tendencies. Plausibly, adherence to social norm and preferences of majority has far more reaching influences for collectivistic individuals. Meanwhile, this trait was consistently correlated more positively with individualistic than collectivistic orientations for both NA samples. So although H3a may not be fully supported, the findings appear to be nomologically valid. Theoretically, the self-monitoring tendency in the West should be related to a greater extent, to a dominant independent self-concept. In another Singapore-based study (Chew, Poh & Zhuo 2004), which used the mail-intercept survey technique, the researchers found that high SM had lower VS tendencies than low SM. They propounded that such consumers may have different self-presentation intentions such appearing more sophisticated or savvy, unlike previous US-based studies. This appear to coincide with Study 2’s finding that impression management also seemed to guide the VS behavior of eastern subjects, but may be a consequence of other underlying motives apart from the need to assert uniqueness.

LIMITATIONS AND FUTURE RESEARCH

In retrospect, several limitations are acknowledged in this paper. Firstly, as with most cross-cultural studies, there are concerns with measurement and scalar equivalences especially when the analyses were conducted at an inter-country level. Although factor structures were assessed using EFA, the use of confirmatory factor analysis will further strengthen the inferences made. Hence, the inter-country comparisons drawn are somewhat limited. Another constraint is that some of the inferences made were correlation instead of causal. Thirdly, the unexpected finding in the NA sample (Study 2) also limited the extent of inference with regard to the influence of I/C and observability conditions on VS cross-culturally. It also highlights difficulty in replicating previous findings in such cross-border efforts. Future research endeavors should replicate the key findings in different product categories (e.g., services, non-food products) using more realistic consumption decisions experiments. Additional data from more homogenous eastern cultures such as Japan, South Korea or Thailand where cultural differences may be starker, will help to enhance the generalizability of inferences made. Finally, it could be potentially fruitful to collect data using qualitative techniques such as focus groups, projective tools, and content analyses to unearth pertinent underlying VS motives in different cultures.

REFERENCES


EXTENDED ABSTRACT

Virginia Slims is a popular cigarette brand produced by New York-based Altria (parent company of Philip Morris), which is the largest tobacco firm in the world. By analyzing trade press and internal tobacco industry documents publicly accessible as a result of American court proceedings, a case study is provided of Virginia Slims brand marketing, in which comparisons are made between the brand’s American- and Korean-based print advertising platforms.

The late 1960s are regarded as a defining period for the proliferation of women’s niche cigarette brands and a corresponding increase in smoking prevalence among young American women (Pierce, Lee, and Gilpin 1994; Pierce and Gilpin 1995). Philip Morris’ Virginia Slims was introduced to the American marketplace in 1968, whereby “slims” represented a supposedly new product development (i.e., a reduced-circumference cigarette). Initial advertising campaigns during the late 1960s included the product development (i.e., a reduced-circumference cigarette).

In contrast to men, women were entering the American consciousness. The tagline remained relevant and in use until the mid-1990s, when finally older women were also being targeted in the market. The slogan, “You’ve come a long way, baby,” was launched at a time when women’s liberation was entering the American consciousness. The tagline remained relevant and in use until the mid-1990s, when it finally gave way to “It’s a woman thing.”

Market research shows that the typical Virginia Slims smoker in the United States is a woman between the ages of 18 and 34 (Roper Research Associates 1970; Holbert 1981; Princiotta 1981). The 1980 Cigarette Tracking Study, for example, revealed that 93% of Virginia Slims smokers were women, with 63% between the ages of 18 and 34. The most pronounced overrepresentation was within the 18-24 age segment (Princiotta 1981). Virginia Slims was introduced to the South Korean market in 1988. This seemingly late market entry reflected that foreign cigarettes were banned in Korea until the mid-1980s (Sesser 1993). Undoubtedly, Philip Morris viewed their entry into Korea as a great market opportunity. During a 1989 Philip Morris Corporate Affairs speech in New York, John Dollisson stated that, “U.S. cigarette exports to Asia account for close to 70% of our volume and 97% of our profits. Furthermore, future growth is likely to come from export markets such as Japan, Taiwan, Korea and Thailand” (p.2500101312). Philip Morris faced an interesting dilemma, how-ever, with respect to the brand’s positioning; smoking prevalence among Korean men is 65%, while it is 5% among women (Mackay and Eriksen 2002). Smoking prevalence among female smokers was 63% between the ages of 18 and 34. The most pronounced overrepresentation was within the 18-24 age segment (Princiotta 1981).

Virginia Slims was introduced to the South Korean market in 1988. This seemingly late market entry reflected that foreign cigarettes were banned in Korea until the mid-1980s (Sesser 1993). Undoubtedly, Philip Morris viewed their entry into Korea as a great market opportunity. During a 1989 Philip Morris Corporate Affairs speech in New York, John Dollisson stated that, “U.S. cigarette exports to Asia account for close to 70% of our volume and 97% of our profits. Furthermore, future growth is likely to come from export markets such as Japan, Taiwan, Korea and Thailand” (p.2500101312). Philip Morris faced an interesting dilemma, however, with respect to the brand’s positioning; smoking prevalence among Korean men is 65%, while it is 5% among women (Mackay and Eriksen 2002). Moreover, by voluntary code, cigarette advertisements cannot be directed toward women in South Korea, and women are not allowed to be shown smoking in the promotions (Shafey, Dolwick, and Guindon 2003). Consequently, Philip Morris appears to be engaging an extreme makeover strategy for the positioning of Virginia Slims in Korea. That is, the brand’s advertising is seemingly targeted toward Korean men rather than women. Several Korean advertisements proclaim, “Virginia Slims: The cigarette for the successful man” (Cho 1997), and the advertisements commonly depict male models and circulate in magazines that have a predominantly male readership.

Our findings reveal that, unlike other markets, Virginia Slims is first and foremost a male brand in Korea (i.e., 94% of Virginia Slims consumers are male, while 6% are female), and the brand largely appeals to males who are older, health-conscious, and possess an above average income (Philip Morris 1993). This contradictory positioning appears to reflect differences in cultural values and regulatory environments.

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Kittichai Watchravesringkan, University of Arizona, U.S.A.
Jennifer Yurchisin, University of Arizona, U.S.A.
Miwoo Nam, Seokyeong University, Seoul, Korea

EXTENDED ABSTRACT

Individuals’ value orientations tend to be culture-bound. For example, individuals living in Western countries (e.g., the US) tend to place a great deal of importance on the value of individualism, whereas the value of collectivism is highly regarded in Asian countries (e.g., Korea) (Triandis 1989). Such values are reported to influence consumers’ consumption behavior indirectly through consumers’ attitudes (Shim & Eastlick 1998). Additionally, materialism is another important consumption-related value that affects consumers’ attitudes and subsequent behaviors.

One particular consumption-related attitude that may be affected by such values is price perception. Price perception has a significant impact on consumption behavior (Lichtenstein et al. 1993). Price possesses two distinct roles: positive, in which the price of an object serves as an indicator of prestige and quality, and negative, in which the price of an object is viewed as a monetary sacrifice on the part of the consumer. Little research, however, has been performed to determine the direct effect of values on these two perceived roles of price.

The behavioral responses of all consumers may not have been accurately portrayed because previous studies have generally examined search behavior that is related to a specific consumption need. However, some search activity is recreational or occurs without consumption-need recognition (e.g., browsing) (Bloch et al. 1986). Thus, it is important for researchers to investigate both ongoing search and actual purchase behavior.

The objectives of this research were (1) to examine the impact of values (i.e., materialism, individualism, and collectivism) on different aspects of consumers’ price perceptions, (2) to assess the influence of aspects of price perception (i.e., the positive and negative roles of price) on consumers’ ongoing search behavior, and (3) to investigate the relationship between ongoing search activity and mall shopping behavior.

A questionnaire was designed to collect information needed to test the hypotheses. Prior to the data collection, a native Korean professor who is fluent in both English and Korean translated the questionnaire into Korean. Questionnaires were then distributed to a convenience sample of undergraduate students at a university in the US and a university in Korea during two consecutive semesters. Apparel was the focus of this study because it is a product with which students would have experience that can be associated with both status and value (Richins 1994). Participants were asked to complete six sections concerning materialism, individualism and collectivism, price perception, ongoing search behaviors, purchase behaviors, and demographic information.

Demographic characteristics of the US sample were quite similar to the Korean sample, except in the case of annual household income (60% of the US sample came from upper-class families whereas 50% of the Korean sample came from middle-class families).

Responses from both samples were pooled for the analysis. A principal components factor analysis using varimax rotation was executed on each multiple-item scale. A series of t-tests were also conducted to ensure that there were differences between the US and the Korean samples related to individualism and collectivism. As expected, results revealed that the US group had a significantly higher individualistic score than the Korean sample. Similarly, the Korean group had a significantly higher collectivistic score than the US group. Thus, differences between the Americans and Koreans on the dependent measure can be attributed to the cultural values of individualism and collectivism. Subsequently, a structural equation analysis was performed using a two-step approach through LISREL 8.3.

Results showed that materialistic consumers were likely to have a favorable attitude toward price in terms of prestige sensitivity and value consciousness. That is, buying expensive apparel products helped them gain a feeling of prominence that may reflect high status as perceived by others (Lichtenstein et al. 1993). Highly materialistic people also responded favorably to price cues associated with the negative role of price (i.e., value consciousness). In addition, it is evident that individualism positively influenced consumers’ price perception cues in terms of prestige sensitivity but negatively influenced their perceived price cues in terms of value consciousness. These findings seem to indicate that, while individualistic American people associate high price with prestige, the value obtained from purchasing apparel products tends to be less emphasized.

In contrast, collectivist consumers were less likely to have a favorable attitude toward the prestige sensitivity aspect of price but were more likely to have a favorable attitude toward the value consciousness aspect of price. These findings are logical given Korea’s current economic situation. In addition, due to the fact that our sample of Korean students mainly came from middle-class families, these participants may not have large disposable incomes and therefore may not be concerned with getting a good deal as opposed to showing prestige. Hence, they tended to react more favorably to the value consciousness role of price than the prestige sensitivity role of price.

The paths to ongoing search behavior from prestige sensitivity and value consciousness were both positive. The more the individuals perceived price to provide a signal of prestige, the more likely they were to conduct search activities that were totally independent of consumption-related problems (e.g., browsing a store). Similarly, the more individuals were concerned with the investment of their monetary sources relative to the quality received (i.e., value consciousness), the more likely they were to conduct ongoing search activities. Lastly, a positive path between ongoing search behavior and shopping behavior was found.

These results suggest that the global firms need to be cautious when developing communication strategies. For instance, an ad campaign for high priced products (e.g., Gucci) with a strong emphasis on prestige may be effective among American college students, but the exact same ad may not be effective among young Koreans because this segment is more value conscious than others. In contrast, an ad emphasizing value consciousness may be more effective in collectivist Korean culture than individualistic American culture. Related to the effect of ongoing search on actual mall shopping behavior, retailers need to provide excitement (e.g., retail-tainment) to attract and retain consumers since such activity appears to lead to purchase.
REFERENCES


ABSTRACT

This exploratory study investigates the moderating influence of culture on the persuasiveness of fear appeal versus sexual appeal in advertising. An experiment was conducted on a sample of 392 subjects (160 from France, 60 from Denmark, 100 from Thailand, and 72 from Mexico). A univariate analysis of variance was performed with two main effects (country and type of ad) and one interaction effect. The findings revealed that all effects are statistically significant and that both the type of ad and the country where the data have been collected do have an effect on the attitude toward the brand (Ab). Globally, sexual appealing ads generate higher Ab than fear appealing messages. The highest Ab scores have been found in Mexico and Thailand whereas the lowest Ab scores have been measured with French subjects. Finally, limitations of this study are underlined and issues for further research are discussed.

1. INTRODUCTION

As advertisers search for a way to break through clutter and draw attention to their messages, the use of sexually attractive persons in advertising as well as shocking advertisement seems to be widespread. Such illustrations are found for instance in ads for luxury products which are supposed to be sold on a worldwide level. Authors define shock advertising appeal as one that deliberately, rather than inadvertently startsles and offends its audience (Gustafson and Yssel, 1994; Venkat and Abi-Hanna, 1995). One recent research has shown that shocking content in an advertisement significantly increases its impact, that is to say it increases attention, benefits memory, and positively influences behaviour (Dahl D.W., Frankenberger K.D. and Manchanda R.V., 2003).

However, most French practitioners consider that shocking tactics used in many Anglo-Saxon countries do not “fit” the “Latin culture” which responds better to softer advertisement using implicit references to nudity or fear. Practitioners also advocate that shocking messages are used to draw attention to an advertisement, expecting further processing if the advertisement is noticed and, as a consequence, better advertising effectiveness. Combining those two approaches, the purpose of this study is to examine the communication effectiveness of visually explicit sexual or fear stimuli, and to analyse the impact of culture on the advertisement perception. Is there a country effect on the way advertisements are perceived? Are softer appealing advertisements more adapted to Latin culture?

In order to answer these questions, we divide this article into three parts. The first part is a literature review about the use of sex appeal and fear appeal in advertising and their effects on advertising effectiveness. The second part describes the methodology and data collection procedures. The last part focuses on results and discussion with both theoretical and managerial implications.

2. BACKGROUND

2.1 The use of sex appeal in advertising

Sex appeal ads is defined as the presentation of a product in a straightforward sexual presentation, an expression of the sexual motives, or the exploitation of the female or male body (Richmond and Hartman, 1982). Even though the use of sex appeal in advertising has been criticized by consumers and practitioners, for its social and ethical implications, it is a widespread practice. Previous research has focused on studying the trend: is there an increasing use of sex appeal in advertising or not? For Hoyer and MacInnis (1997) its use has become more and more popular even for products that are not congruent with nudity. Sciglimpaglia, Belch and Cain (1978) assert that “a trend toward an increasing use of sex in advertising can hardly be disputed”. For Soley and Kurzbard (1986) many factors are to be studied in order to understand the trend. They have, therefore, performed a content analysis of sexual portrayals in magazine2 advertisements between 1964 and 1984 in the United States and found that the percentage of ads with sexual content did not increase over the twenty-year period, but that the types of sexual portrayal did, sexual illustration became more overt and there was a greater reliance on visual rather than verbal sex in 1984 than in 1964. Lambiase, Morgan, Carstarphen and Zavoina (1999) have replicated the study over the years 1983 to 1993 and concluded that there has been an increasing use of sex appeal in advertising over this decade.

Although the use of sex appeal in advertising is worldwide but especially used in Europe, few studies have been undertaken in other countries. Herbig (1998) states that sexual appeals are more often used in French advertisements than in US ones. Piron and Young (1996) replicated the Soley and Kurzbard (1986) study in order to compare the States with Germany. They found that there are more sex appealing ads in the States than in Germany.

The purpose of this study is to examine the effects of two widespread appeals in advertising on its effectiveness: sex appeal and fear appeal. More specifically, we will examine the impact of different levels of nudity and levels of fear on emotions felt by the viewer and on attitude toward the brand.

2.2. The effects of sex appeal on advertising effectiveness

Research on the effects of sex appeal in advertising has first focused on its effects on information processing. Findings indicate that sexual illustrations may increase attention and that sex as an element in ads will arouse the immediate interest of both men and women (Baker, 1961).

However Belch, Belch and Villareal (1987) performed an extensive review of the literature on advertising communication and concluded that the effectiveness of sex appeal in advertising seems to vary depending upon the dependent measures used, the product advertised, and the gender of the receiver. As a conse-

1The authors thank Brice Bernard, CERAM’s Student, for his help in the elaboration of this paper.

2The magazines studied were Time, Newsweek, Cosmopolitan, Redbook, Playboy and Esquire.
quence, the use of sex appeal in advertising may have positive or negative effects on advertising effectiveness according to those factors.

For instance, Steadman (1969) showed that although sex appeal is effective in attention-getting, advertisements featuring sex are less effective than nonsexual ads on brand recall. The author suggested that the attention paid to the sexual illustration detracted from attending to the brand name. He also related his findings to the attitude of the viewer toward the use of sex appeal in advertising and found that those holding a favorable attitude toward the use of sex in advertising recalled more correct brand names than did respondents who had unfavorable attitudes toward such use. Peterson and Kerin (1977) also highlighted some negative effects of sex appeal on advertising effectiveness. They found that the ad using sex appeal was evaluated as least appealing, the product lowest in quality, and the company least reputable. Similar findings were reported by Alexander and Judd (1978) and Sciglimpaglia, Belch and Cain (1978).

Another research trend focuses on the use of “decorative models” in advertising and gender effects. Decorative models are defined as “functionless model whose primary activity is to adorn the product as a sexual or attractive stimulus” (Chesnut, LaChance and Lubitz, 1977). Baker and Churchill (1977) manipulated the degree of model attractiveness and found that males and females evaluated reacted more favorably to the ads with a model of the opposite sex than to those with models of the same sex. Recent research confirms the existence of an “opposite gender effect of decorative models”. Males tend to have positive attitudes toward advertisement featuring attractive female models and neutral or negative attitudes toward ads with male models. The opposite effect has been found for females (Simpson, Horton and Brown, 1996; Jones, Stanaland and Gelb, 1998).

The congruity between the product and sexual appeal has also been considered as a variable having an influence on advertising effectiveness. Richmond and Hartman (1982) showed that sexual appeals are considered as functional when they are congruent with the nature or the use of the product. The authors found that functional sexual appeals generated the highest advertisement effectiveness. The recall level of the ad is lower, the appeal evaluated reacted more favorably to the ads with a model of the opposite sex than to those with models of the same sex. Recent research confirms the existence of an “opposite gender effect of decorative models”. Males tend to have positive attitudes toward advertisement featuring attractive female models and neutral or negative attitudes toward ads with male models. The opposite effect has been found for females (Simpson, Horton and Brown, 1996; Jones, Stanaland and Gelb, 1998).

2.3 The use of fear appeal in advertising

Fear is a powerful human emotion that can affect buyer behavior (Engel, Blackwell and Miniard, 1986). The principle of using fear in advertising is to associate a practice (like smoking or not using a specific brand of soap, …) with threatening negative consequences (like lung cancer or a body odor, …) in order to arouse fear. Fear can be defined as a negative emotion « experienced as apprehension, uncertainty and the feeling of danger » (Izard and Buechler, 1989). Witte (1998) explains that two conditions are necessary for the receiver to feel fear. The first one is the perceived probability that the threat will occur, which is the degree to which people feel at risk. The second one is the perceived severity of the threat, which is the magnitude of warning derived from the threat. When both probability and severity are perceived as high, fear is felt by the receiver.

Research on fear appeals in advertising has investigated both physical and social threats to the receiver. Physical fear includes harm to the body whereas social threat is fear of being disapproved by others (e.g. bad breath or ring around the collar). Advertisements recommend using a specific product or behaving in a certain way in order to reduce physical or social threats.

Past research has focused on the effects of fear- arousing content and resulting attitude and behavior, but most of the literature was dealing with social marketing issues rather than commercial ones. More than 100 articles have been written on fear appeal in advertising and a thorough review of literature may be found in the works of Sternthal and Craig, 1974, Boster and Mongeau, 1984, Mongeau, 1998, Sutton, 1982, Witte and Allen, 2000.

2.4 The effects of fear appeal on advertising effectiveness

In a recent meta-analysis (Witte and Allen, 2000), fear was described as a facilitating variable that has a positive impact on persuasion and message acceptance. Indeed, in most experimental studies, fear-arousing advertisement has a positive effect on attention, awareness, memory, attitude toward the recommended behavior, and intentions to buy (Niles, 1964, Janis and Mann, 1965, Tanner, Hunt and Epplright, 1991, King and Reid, 1990, Latour, Snipes and Bliss, 1996, LaTour and Rotfeld, 1997, Marchanda, 2001, LaTour and Tanner, 2003). However, other studies have found contradictory results (Janis and Tverrillgser, 1962, Leventhal and Niles, 1964, Leventhal and Watts, 1966, Marchand and Filiatrault, 2002).

Several theoretical models were proposed to explain this lack of convergence in findings. Leventhal (1970) claims that the “parallel process model” is a step toward the integration of previous findings. He states that two reactions can occur when viewing a fear
appealing message: a cognitive process ("danger control process") and an emotional process ("fear control process"). The cognitive process happens when the receiver focuses on existing ways to avert the threat, whereas the affective process is when individuals develop denying and avoiding strategies to reduce their fear (Stuteville, 1970). If the cognitive route is superior to the affective one, researchers assume acceptance of the recommendation, whereas a superior affective route will result in poor persuasion.

Later, the « Protection Motivation Model » has focused on cognitive responses that influence message acceptance (the « danger control process ») (Rogers, 1975). Most recent research has demonstrated that the link between fear and persuasion is not straightforward and that other variables combined with fear do influence persuasion. To improve the persuasion process, research has been suggested to bring about two processes in the receiver: the « efficacy » of the recommended response (i.e., « this brand of soap will significantly reduce body odor ») and its « self-efficacy » (i.e., the receiver’s ability to perform the recommended action successfully) (Bandura, 1977). These two processes combine to create the perceived threat control (i.e., the receiver’s perception of success in controlling the threat). Thus, high levels in severity of the threat and its probability to occur, combined with high levels in efficacy and self-efficacy of the recommended response will result in message acceptance (Rogers and Deckner, 1975, Maddux and Rogers, 1983, Tanner, Hunt and Eppright, 1991, Floyd and Prentice-Dunn, 2000, Gallopel and Valette-Florence, 2002).

Lastly, the “Extended Parallel Process Model” (Witte, 1998) states that when perceived efficacy and self-efficacy are superior to perceived severity and probability of the threat to occur, receivers engage in the “danger process control”. In contrast, when perceived efficacy and self-efficacy are inferior to perceived threat, receivers feel unable to avoid the threat and try to reduce dissonance through a “fear process control”. Therefore, there is a threshold that could explain failure or success of shock advertising.

Moreover, some individual variables have been identified to moderate the effect of fear-appealing ads: trait of anxiety (Witte and Morisson, 2000), self-esteem (Highbee, 1969), defensive/resistant responses (Keller, 1999), past experiences with the threat (Tanner, Day and Crask, 1989)… As far as cultural effects are concerned, very little research has been done outside Anglo-Saxon countries (Lavack, 1997, LaTour and Pitts, 1989, Ramirez and Lasater, 1977), Laroche and ali. (2001) implemented a cross-cultural study between Asiatic and Western cultures (China / Canada) dealing with the persuasive effect of fear appeal messages in cigarette advertising. Their research has shown that physical and social threat ads had a much greater effect on attitude measures for Anglo-Saxon than for Chinese subjects. This study confirms Hofstede’s work (1991) that has shown an influence of culture on individual reactions.

Another variable that has been neglected in fear literature is gender. However, Zuckerman (1989), Kellaris and Rice (1993), Dillon, Wolf and Katz (1985), Brody and Hall (1993)… have shown a significant effect of sex on positive or negative affective reactions with women being more emotional and more emotionally expressive than men.

As for sex appeal ads, our objective is to assess whether there is a cultural impact of fear appeal on advertising perception. As a consequence, we suggest studying the influence of fear appeal on attitude toward the brand (Ab), according to the country where data were collected. Therefore, consistent with the literature, we expect that:

H3: Advertisement appealing to fear has a different impact on receivers according to their culture.

H4: The effect on attitude toward the brand (Ab) will be the lowest for Asian subjects.

Finally two global hypotheses were added to our research in order to determine whether there could be a “country effect” or a “type of ad” effect:

H5: The type of ad, with fear appeal versus sexual appeal has an effect on attitude toward the brand (Ab).

H6: The country where data were collected, France, Denmark, Thailand or Mexico, has an effect on attitude toward the brand (Ab).

3. RESEARCH METHODOLOGY

As explained above, our objective is to highlight the impact of sexual or fear appeal on emotions and attitude toward the brand (Ab) in an advertising context. Therefore, we selected an experimental approach which took place in three steps as described below.

3.1 Stimuli Development

The first step of the procedure was the selection of the advertisements. As the aim of the experiment was to compare the effectiveness of sex appeal and fear appeal, we needed to select at least two advertisements: one with sex appeal and one with fear appeal. In order to improve the external validity of our experiment, we chose to test two different ads for each appeal.

Firstly, a set of several photographs was chosen by the researchers based on two criteria: the pictures had to be unfamiliar and to include sex or fear. Secondly, 36 students from an introductory marketing course were asked to rate on a 10-point scale whether each photograph was perceived as sex appealing or fear appealing. Lastly, among the most appealing photographs, four experts selected the four pictures that were considered as highly sexual or fear appealing. None of these photographs highlighted a specific product so that the subjects didn’t know anything about the product advertised (totally fictitious). We added on the picture a fictitious brand name that was chosen so that no product link could be seen: Arthémys (See appendixes 1 to 4).

3.2. Dependent and moderating variables

The second step of the procedure was to select the dependent and moderating variables in order to test our primary hypotheses.

Two basic categories of dependent variables were chosen: emotions felt when watching the ads and attitude toward the brand (Ab). Emotional measures were developed using a scale of de Barnier (2002) adapted from Holbrook & Batra (SEP–1987). Participants were asked to indicate the extent to which they felt each emotion suggested on a five-point staple scale (1 for words that respondents think are very far from what they felt, all the way to 5 for words that are very close to their feelings). Five items measured the “pleasure” dimension of emotions (loving, affectionate, friendly, grateful, thankful), five other items assessed the “control” dimension (sad, distressed, sorrowful, fearful, afraid), and three items measured the “domination” dimension (attentive, curious, interested).

In addition, attitude toward the brand (Ab) was measured with a scale developed by de Barnier (2002). Participants indicated the extent to which each phrase described their point of view about the brand on a four-point Likert scale. Finally, it is expected that the impact of shocking advertisement will have a different effect on the receiver according to his culture. Culture was considered according to the country where questionnaires were administrated. Four countries were selected: France, Denmark, Thailand and Mexico.
Those four countries were selected for comparison, on the assumption that these countries differ with respect to their cultural background (different religion, Western vs. Asian background ...). Questionnaires were translated into English for the 3 other countries. They were pre-tested on four individuals in each country in order to validate the comprehension of every question.

3.3. Subjects
The final step was the selection of the sample. The aim of this experiment was to highlight the different answers according to different advertisements, not to predict any effect. As a consequence, a representative sample was not necessary (Cousineau and Bastin, 1975) and we chose to test the ads on a convenience sample in Universities and Business Schools. Most of the subjects were students following English taught marketing programs, and, in order to vary ages, we also asked a few lecturers and administrative staff to participate to the study. In the end, a total of 392 subjects from 18 to 40 participated to the study. Each advertisement was shown to a total of 98 subjects, according to Table 1.

The subjects were assigned to a single treatment condition according to a randomly procedure.

3.4. Experimental procedure
Each advertisement was shown once approximately 20 seconds to the subjects. Immediately afterwards, the subjects had to indicate their emotional responses and attitude toward the brand (Ab). The respondents were given about five minutes to respond to the advertisement. No one had difficulty filling out the items in that time.

4. RESULTS

In order to test our hypotheses we followed a two-step procedure: we first tested the validity of our scales and, second performed analysis of variances. The results of each step are presented below.

4.1 Scale validations procedure
We performed a principal component analysis on the Holbrook and Batra (1987) scale. We found 5 factors that account for 67.738% of the variance. Referring to the sub-dimensions of the SEP scale, the five factors found were labeled fear/sadness, activation/surgery, skepticism, interest and affection. This factor analysis confirmed the three factors of the SEP: Pleasure, Arousal, and Domination. However our results show those factors as split into five: fear/sadness and skepticism belonging to the Domination dimension, activation/surgery and interest belonging to the Arousal dimension and Affection being the Pleasure dimension. We then computed the factor scores used subsequently as dependent variables for the anovas.

The same procedure was followed for the attitude toward the brand (Ab) scale. We also performed a principal component analysis that led as expected to only one factor that accounted for 61.430% of the variance. Again, we computed factors scores used as dependent variables for the anovas.

4.2 Analysis of variances
In order to test the aforementioned hypotheses we performed a univariate analysis of variance with two main effects (country and type of ad) and one interaction effect. All effects are statistically significant with an interaction effect clearly lower than the two main principal effects (respectively F=24.627, p=0.000 for the type of ad; F=21.122, p=0.000 for the country effect and F=2.718, p=0.044 for the interaction effect). This result shows that both the type of ad and the country where the data have been collected do have an effect on the attitude toward the brand (Ab).

Hypothesis 5 suggested that the type of ad, with fear appeal versus sexual appeal has an effect on attitude toward the brand (Ab). The results show that the type of ad does have an effect on Ab, and that sexually appealing messages generate more positive brand attitude than fear appeal messages. As a consequence, hypothesis H5 is validated. The following chart 1 shows the mean profiles for Ab relative to the differences between the ads.

Hypothesis 6 suggested that the country where data were collected (France, Denmark, Thailand and Mexico) has an influence on attitude toward the brand (Ab). The results show that this is the case, and that Mexico and Thailand are the countries which scored the highest on attitude toward the brand after viewing the ads and that France subjects had the lowest Ab scores. Hypothesis H6 is therefore validated. The following chart 2 shows the mean profiles for Ab relative to the differences between the countries.

Hypothesis H1 and H3 suggested that the type of ad, with fear appeal versus sexual appeal had a different impact on receivers according to their culture. Results show that there is a country effect (F=21.122 and p=0.000). Globally sexual appealing ads have generated higher Ab that fear appeal ads. However results differ according to countries. Hypotheses H1 and H3 are validated.

Consistent with the work of Sharkey and Singelis (1995) that showed that Asian-Americans tend to have a higher embarrassability level than European-Americans we expected Asian subjects tend to have a lower attitude toward the brand (Ab) than European subjects when viewing sexual appealing ads (hypothesis H2). However
results do not confirm this hypothesis since Mexico, Denmark and Thailand are the three countries with the highest Ab when exposed to the sexual appealing ads and France is the country with the lowest Ab scores. As a consequence, hypothesis H2 is not validated.

The same effect has been studied for fear appealing messages. Consistent with the study of Laroche and Ali. (2001), we expected the effects on attitude toward the brand (Ab) to be the lowest on Asian subjects (Hypothesis H4). Results do not confirm this hypothesis since Mexico and Thailand are the two countries with the highest Ab when exposed to the sexual appealing ads. As a consequence, hypothesis H4 is not validated.

4.3 Discussion

These results suggest that the type of appeal (sexual versus fear) matter in assessing the effectiveness of advertising, since they have a different impact on Ab. The specific way in which appeals contribute, has not been found uniform: sexual appeals having more impact on Ab than fear appeal. As a consequence, if practitioners want to build strong brands sexual appeal has proven to be a good choice. However, countries where the advertisement is shown may

The following chart 3 shows the mean profiles for Ab relative to the differences between the countries.
be a moderating variable. French respondents were the least influenced by both appeals, supporting the French practitioners’ argument considering that shocking tactics used in many Anglo-Saxon countries do not “fit” the “Latin culture”.

It has been found that there is a country effect on the way advertisements are perceived: Mexico is the country with the highest Ab means scores, followed by Thailand, Denmark and France. These results are non consistent with research on embarrassability stating that Asian-Americans tend to have a higher embarrassability level than European-Americans (Sharkey and Singelis, 1995).

These results may be of interest for the practitioner who is interested in creating commercials that elicit emotional responses in order to generate positive attitudes toward the ad and the brand. Many commercials elicit “Domination” emotions, like fear. In the car industry, for instance, commercials may appeal to the fear of having an accident or the anxiety about the car breaking down. Our results suggest that such commercials are not as effective as they should be since they generate low Ab scores. On the contrary, commercials appealing to “Pleasure” or “Arousal” dimensions, with sexually attractive characters do have a positive effect on attitude toward the brand. Moreover, it has been found that sexual appealing advertisements are well accepted across the four countries studied: France, Thailand, Mexico and Denmark. These results may explain why a lot of luxury brands recently have chosen strong sexual appeal for their worldwide campaign (Dior, Armani, Ungaro, Versace…). However, the use of such practices may have some limits especially as far as how explicit sexual appeals are perceived.

Future research may focus on several issues in order to better understand the effects of sexual or fear appeal in advertisements. Is there a gender effects over the four countries studied? Is this effect homogenous over the four countries? Research may also focus on each emotional dimension aroused by the ads: pleasure, domination or arousal (Holbrook and Batra, 1987). Are the three dimensions felt the same way across countries? If not which dimension is the most effective on Ab? Finally which dimension is mostly perceived when exposed to a sexually or fear appealing advertisement?

4.4 Limitations

Although this study supports previous research, the findings must be qualified by a few limitations. First of all, mostly students were included in our research sample which may have constrained the extrapolation of the present results and the possibility to generalize them. Secondly, the ads used in this study all promoted products that were unknown and not specified, with a new unknown brand: Arthémis. For well-known products or brands additional research is needed since the congruence between former Ab and the advertisement may interfere. Thirdly, only press ads were studied. Future research is therefore needed across products, media and different and more representative populations, to establish whether these findings could be generalized.

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APPENDIX 1
Sexual appealing advertisement n°1

Arthémys
APPENDIX 2
Sexual appealing advertisement n°2
APPENDIX 3
Fear appealing advertisement n°1

APPENDIX 4
Fear appealing advertisement n°2
A Cross-cultural Study of the Persuasive Effects of Sexual and Fear Appealing Messages


Self-Indulgence or Loss of Self-Control? Or, is it a Bit of Both? Investigating Cross-cultural Aspects of Impulse Buying Behavior
Piyush Sharma, Nanyang Business School, Singapore

EXTENDED ABSTRACT

Introduction
Impulse buying is considered an important and widespread phenomenon by consumer researchers as well as marketing practitioners in the US and other western countries and it has been considered largely universal in nature (Beatty and Ferrell 1998; Hausman 2000; Rook and Fisher 1995). However, recent research has highlighted the need to explore the cultural context of consumer behavior to help the marketers understand and capitalize on cross-cultural differences in an increasingly globalized marketplace (Maheswaran and Shavitt 2000). In this context, some researchers have begun to investigate impulse buying behavior in other countries besides US such as Australia, Hong Kong, Singapore, Malaysia and Vietnam (Kacen and Lee 2002; Nguyen et al. 2003).

On the other hand, there is also a growing demand to establish measurement equivalence for scales developed with the US consumers before using these in countries outside the US (Sharma and Weathers 2003; Steenkamp and Baumgartner 1998). Unfortunately, most cross-cultural studies into impulse buying used scales did not adhere to the suggested methods to demonstrate measurement equivalence, despite using scales developed in the US among their non-US subjects. Hence, there is still no conclusive evidence to support the assumption that impulse buying has the same meaning and implications across cultures.

Conceptual Framework
In this research, we address this gap with three studies. In our first study, we used an existing scale to measure consumer impulsiveness construct, which is defined as a combination of two components–prudence and hedonism each of which along with the situational factors may influence the accessibility of the costs and benefits leading to either resistance or enactment of the buying impulse (Puri 1996). These two components of consumer impulsiveness are expected to be independent of each other and opposite in terms of their association with impulse buying behavior i.e. negative for prudence and positive for hedonism.

Study 1
Based on this conceptual framework, we investigated the consumer impulsiveness trait using an experimental approach as a part of another larger study with 204 Singaporean undergraduate student subjects, adapted from Rook and Fisher (1995). We were unable to establish measurement equivalence for the consumer impulsiveness scale wherein our Singaporean sample displayed a significantly different factor structure compared to the US subjects in prior studies, with three-components instead of the two we expected. Specifically, six out of the seven items related to the original “prudence” component loading as expected on one single component, but the five items of “hedonism” component and item 7 from “prudence” component loaded on two different components, which we named “impulsivity” and “self-indulgence” based on the description of all these items.

Study 2
These findings prompted us to conduct another study to explore the possibility that the consumer impulsiveness construct may actually have different meaning in different cultures and also rule out other explanations like chance factor or idiosyncrasies of the sample in our first study. In our second study, we again used a similar experimental approach with 648 Singaporean undergraduate subjects and then we ran exploratory factor analysis to demonstrate if consumer impulsiveness did indeed have an extra “self-indulgence” dimension for our Singaporean subjects. We once again discovered a three-dimensional structure and used these findings to develop a revised three-dimensional scale to capture the consumer impulsiveness construct.

Study 3
Finally, in our third study with 160 Singaporean student subjects, we ran confirmatory factor analysis on this new scale using a Structural Equation Modeling approach with LISREL 8.54 and our analysis did show that the three-dimensional measurement model provided a better fit compared to one or two dimensional alternative models.

Contribution and Implications
Our research represents one of the first few conceptual efforts to acknowledge and explore the cross-cultural differences in impulse buying behavior. Using a series of three experimental studies among Singaporean subjects we were able to demonstrate that the consumer impulsiveness construct for them does indeed have a different underlying structure compared to its traditional interpretation for US subjects. This is the most important contribution of our research and it merits attention from consumer researchers, especially in countries and cultures outside the United States.

Limitations and Future Research
However, we do have a few limitations. We compared the results of factor analysis of our data with factor structures reported for US subjects in prior research, used only student subjects and the same experimental approach in all our studies and explored only the trait aspects of impulse buying behavior. In future, we would like to replicate our study with both US and non-US subjects, to even more clearly demonstrate the differences between the factor-structure of consumer impulsiveness construct across different cultures, using cross-group comparison with an SEM approach. Future research should also replicate our studies with non-student subjects using other research methods such as surveys, to eliminate the possibility of common method variance and explore the possibility of cross-cultural differences in the influence of relevant situational factors such as time and money availability, mood and involvement level.

References


Religiosity and Brand Commitment: A Multicultural Perspective
Aric Rindfleisch, University of Wisconsin-Madison, U.S.A.
James E. Burroughs, University of Virginia, U.S.A.
Nancy Wong, Georgia Institute of Technology, U.S.A.

EXTENDED ABSTRACT

Research Issues

Firms regularly seek to cultivate a base of committed brand users. To help firms achieve brand commitment, marketing scholars have developed a number of useful concepts, including brand equity (Keller 1993), brand personality (Aaker 1997), brand relationships (Fournier 1998), and brand community (McAlexander, Schouten, and Koeing 2002), among others.

Although the development of these brand-focused concepts has played an important role in marketing theory and practice, we believe that marketers should not lose sight of potential non-brand-based influencers of brand commitment. Specifically, we propose that certain individuals may be more likely to become committed to branded products and services than others. This notion has received recent support in a study by Coulter, Price, and Feik (2003), who found that consumers vary in their involvement with branded products based on their cultural experiences. Similarly, we suggest that cultural influence in the form of religiosity (i.e., the importance placed on religion in one’s life) may also affect the degree to which individuals become committed to the brands they buy and use.

We focus on religiosity for three reasons. First, religiosity is a central life value that is often developed at an early age and plays an important role in establishing consumption prescriptions and proscriptions (Delener 1994). Second, the role of religiosity is under-recognized in contemporary marketing research, as only a handful of studies of religion have been conducted in the marketing literature over the past 25 years. Third, religiosity is a multi-faceted construct (Stark and Glock 1968). We believe that some of these facets may eschew, while other facets might encourage, brand commitment.

Based on a review of a broad swath of religiosity research across a broad base of disciplines including psychology (e.g., Gorsuch and Miller 1999), sociology (Cardwell 1969), marketing (e.g., LaBarbera 1987), and religious studies (e.g., Stark and Glock 1968), we have uncovered two competing perspectives of the relationship between religiosity and brand commitment.

Religiosity as a Transcendent Experience: The search for and attainment of transcendent experiences is a fundamental aspect of religiosity (Stark and Glock 1968). Regardless of their specific manifestation, these sacred and transcendent experiences are typically viewed as an escape from the everyday world and its profane and secular nature (Gorsuch and Miller 1999). As noted by Belk, Wallendorf, and Sherry (1989), material objects such as branded products are often viewed as embodiments of the profane. Thus, individuals focused on the transcendent aspects of religiosity may be expected to exhibit weak commitment to branded products as a means of divesting in the profane as they search for the sacred.

Religiosity as an Expression of Commitment: Beyond the search for the transcendent, highly religious individuals also typically exhibit a strong sense of commitment to their belief system. As noted by Stark and Glock (1968), “the heart of religion is commitment” (p. 1). Because of this strong sense of commitment, highly religious individuals are often viewed as being dogmatic and closed-minded (Delener 1994; Stark and Glock 1968). Regardless of its framing, the expression of religious commitment appears to extend beyond religion itself, as these individuals also appear to be quite committed to other types of beliefs and behaviors, including, perhaps the brands they buy and use. In other words, religiousness may be indicative of a broader life orientation. Thus far, the relationship between religious commitment and brand commitment has remained unexplored. However, a few scholars have observed connections between these two domains. For example, Djiepe (2002) characterizes religious commitment as a form of brand loyalty. Thus, individuals focused on religion as a form of commitment should exhibit a strong level of commitment to brands as well.

Method

We assessed these two competing hypotheses via a mall intercept of 300 Singaporeans. We selected Singapore as the setting for this study because it is one of the few places in the world where the populace contains a sizable percentage of adherents to three of the world’s leading religious traditions (i.e., Christianity, Islam, and Buddhism).

Our survey contained two different measures of brand commitment (i.e., brand loyalty and self-brand connection), two different measures of religiosity (i.e., spirituality and fundamentalism), and a set of control variables. We assessed brand commitment for two product categories: (1) cell phones, and (2) wristwatches. All measures displayed strong reliability and validity.

Findings

We examined the relationship between religiosity and brand commitment using a series of multiple regression analyses. In each of these regressions, our two measures of religiosity were the independent variables, and age, gender, education, income, socially-desirable responding, product satisfaction, and mode of acquisition (self purchase or gift) were entered as control variables. Our dependent variables were brand loyalty (BL), and self-brand connection (SBC). Thus, we ran a total of four individual regressions (2 dependent variables x 2 product categories). Religious fundamentalism was positively and significantly related to both indicators of brand commitment for both cell phones (BL: b=.13, p<.10; SBC: b=.13, p<.10) and watches (BL: b=.23, p<.01; SBC: b=.17, p<.05). In contrast, religious spirituality was unrelated to any of the four measures of brand commitment. These results demonstrate that religiosity, in the form of fundamentalism, is positively associated with brand commitment.

In order to test the cultural robustness of our results, we conducted a series of regression analyses similar to the one just described among Buddhists, Christians, and Muslims, respectively. This analysis revealed that, among Christians, religious fundamentalism is positively related to both brand loyalty to cell phones (b=.33, p<.001) and self-brand connections to watches (b=.23, p<.10). Among Buddhists, religious fundamentalism is positively related to brand loyalty (b=.20, p<.10) and self-brand connections to watches (b=.20, p<.10). Religious fundamentalism exhibits no significant relationship to any of the four measures of brand commitment among Muslims.

Collectively, these results appear somewhat weaker than our overall findings. We believe this discrepancy is largely due to the greater degree of variation in religious fundamentalism when all three religions are combined (M=4.79, SD=1.49), compared to when they are treated separately (Buddhists: M=3.80, SD=1.28;
Christians: M=4.56, SD=1.35; Muslims: M=6.01, SD=.81. This attenuation is particularly noticeable among Muslims, where the lowest level of fundamentalism among our 100 individual respondents is 4.00.

In sum, as shown by our research, involving hundreds of respondents across three religious traditions and two product categories, religiosity (in the form of fundamentalism) has an important influence upon brand commitment.

References
Effects of Secondary Associations on Brand Value: A Study of the Relationship Between Corporate Image and Consumers’ Willingness to Pay

Even J. Lanseng, Agricultural University of Norway, Norway
Santa Masandaviciute, JSC Market Stimulating Systems, Lithuania

EXTENDED ABSTRACT
Consumers’ brand value judgments are primarily based on brand elements directly associated with the underlying product such as instrumental properties, physical characteristics, and packaging (e.g. Keller 1993). Judgments can also be based on indirect or secondary associations, that is, associations related to entities not directly linked to the judged product. Such entities include companies, countries of origin, channels of distribution, other brands, and spokespersons (Keller 1998). The brand’s linkage to a secondary entity causes the occurrence of secondary brand associations because this entity typically has its own knowledge structure in the consumer’s memory (Keller 1993). Thus, consumers can infer brand value by “borrowing” from other information sources than the product itself. Secondary associations might be particularly important when product quality grows toward parity or in cases of low involvement judgments. Recently, Keller (2003) argued that to develop efficient brand building practices in today’s highly competitive marketplaces, one has to understand the brand-levering process (i.e. effects on consumers of linking a brand to a secondary entity), as well as the cognitive factors affecting this process.

This study analyzes the impact of secondary associations on brand value judgments. Keeping in line with some previous research (Brown and Dacin 1997), the company delivering the product was chosen to represent the secondary entity, and the effects of different corporate image dimensions on product value were analyzed. Particularly, an experimental auction was conducted in which willingness to pay (WTP) was elicited and used as a measure of brand value and, concurrently, associated with different levels of company image associations (i.e. no associations vs. innovativeness vs. customer orientation vs. social consciousness). The study also analyzes three cognitive factors expected to facilitate a successful linkage process: awareness of the secondary entity, meaningfulness of this information, and its transferability to the product. The findings reveal a significant impact of secondary associations on brand value judgments. Particularly, consumers’ willingness to pay increases when the companies delivering the brands are associated with important company image dimensions such as innovation, customer orientation, or environmental orientation. Also, the findings largely support the auxiliary functions of awareness, meaningfulness, and transferability in this regard. Partially speaking, high awareness of company profiles causes an increase in brand value of approximately 30% as compared to low awareness, and high transferability increases brand value with approximately 19% compared to low transferability. Contrary to expectations, however, information meaningfulness affects the linkage process negatively. High meaningfulness leads to relatively lower WTP than do low meaningfulness.

The topic studied here is important to brand builders. The knowledge consumers’ have of secondary entities that might become linked to a particular brand, is a potential source of value to that brand. If such links are particularly strong, the secondary entity will ultimately become an integral part of the consumers’ brand knowledge. Moreover, sources of secondary associations are difficult or even impossible for the individual brand provider to control. Therefore, at least information about how these effects work and their economic implications should be valuable inputs to brand builders’ decision-making.

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The Influences of the Brand Personality on Brand Attachment and Brand Loyalty: 
Centered on the Differences Between the Brand Community Members and Non-members

Yung-shin Sung, Korea University, Korea
Euna Park, Korea Broadcasting Advertising Corp., Korea
Min-kyung Han, Research International, Korea

EXTENDED ABSTRACT
According to McCracken’s (1988) meaning transfer model, marketing activities of corporations, such as advertising, are the core media that transfer cultural meanings to the brands. In order for a symbolic meaning encoded to a brand to be conveyed to the consumers, it is necessary for consumers to play an active role in brand consuming behavior. Namely, the meaning of the brand is formed according to not only the story the marketer has endowed on the brand but also the story formed by the consumer through his/her personal consumption experience. One of the effective methods that can enrich the consumer’s brand experiences is the brand community activity.

In this study, we investigated the differences between brand community members and non-members on the perceptions of the brand characters, emotional attachment to the brand, and the loyalty to the brand. There were three objectives of this study. First, we examined the relationship among the brand personality, brand attachment, and brand loyalty. Second, the differences between the brand community members and non-members were compared with regards to perceptions of the brand personality, brand attachment, and brand loyalty. Finally, the moderating role of brand community commitment was investigated on the perception of the brand personality, attachment to the brand, and brand loyalty.

An on-line survey was executed on the subjects of 295 persons, aged between fifteen and thirty four (brand community members: n=172, males-70.9%, females-29.1%, mean age=22.13, non-members: n=123, males-56.3%, females-43.7%, mean age=22.67). The subject brand was SamSung “Anycall,” a famous Korean mobile phone.

In order to identify the factor structure of the brand personality, brand attachment, and brand loyalty, we performed factor analyses and reliability tests. t-tests and the ANOVA’s were executed in order to verify the differences between the variables by each group. For the structural equation model verifications among all the variables, AMOS 4.0 package program was used.

Anycall’s brand personality consisted of five factors (liveliness, competence, sincerity, aggressiveness, and softness) and brand attachment construct had three factors: love, care, and knowledge.

From the structural equation model, the relationships among sub-factors of brand personality, brand attachment, and brand loyalty were verified (Chi-square=98.522, df=59, p=.001, GFI=.883, AGFI=.819, NFI=.866, and RMR=.044, p<.001). Brand personality was an excellent preceding variable that influenced brand attachment, which in turn affected brand loyalty.

There were significant differences between brand community members and non-members in terms of perception strength of the brand personality and influential factors making brand attachment. In case of non-members, the ‘competence’ factor had a major influence on brand attachment, but in community members, ‘competence’ and ‘liveliness’ were predictive variables to the degrees of the brand attachment. Moreover, brand community members had stronger attachment and loyalty to their brand than those of the non-members, and also they had more positive perceptions of the brand personality. The results also showed the moderating role of community commitment level to the brand attachment and loyalty. That is, the more the member is committed to the brand community, the stronger they perceived brand personality. In addition, they showed higher brand attachment and loyalty.

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True Value of Brand Loyalty
Desmond Lam, University of Western Australia, Australia

ABSTRACT
For companies operating in increasing global context, the importance of brand loyalty is extremely crucial to business sustainability. This paper reviews brand loyalty research done over the years and proposes another way of examining the construct: one that includes repeat purchases and non-purchase behavior. It is believed that a truly loyal customer not only buys consistently from a company but also actively engages in positive non-purchase behavior. The most important form of non-purchase behavior is positive word-of-mouth, which includes referral. A framework has been proposed and illustrated with an empirical study. The implications of this view for future research and for management of marketing programs are derived.

INTRODUCTION
Soliciting brand loyalty has never been more challenging. With increasing global economic uncertainty and intense competition in the global markets, companies are finding new and better ways to not only attract and satisfy their customers but also to form sustainable relationships with them. Needless to say, there are many reasons why companies are doing so. Very often, these are related to the direct value that these customers can bring to the companies—sales, revenue and profits. However, companies should realize that the value of a loyal customer does not simply come from his/her purchase value. It goes much further. Companies must view the value of a loyal customer as a combination of purchases as well as non-purchases such as positive word-of-mouth. This paper will first review past literature on brand loyalty and then discuss the significance of these two behavioral consequences (re-purchase and non-purchase) of loyal customers. Subsequently, a simple framework of brand loyalty will be proposed and tested through a simple empirical study.

REVIEW ON BRAND LOYALTY RESEARCH
The topic on brand loyalty was first published through the works of Copeland in 1923 (Jacoby and Chestnut 1978). Subsequently, there were numerous definitions of the construct, and with many different measurement methods employed. Many of these definitions were operational in nature and, hence, few researchers actually tried to explore the theoretical meaning of the loyalty construct. Jacoby and Chestnut (1978) cited 53 definitions in their review in 1978. In the last two decades, other researchers had attempted to improve and conceptualize the meaning of brand loyalty.

The lack of a clear definition did not hamper the progress of loyalty measurement techniques (Bass 1974; Uncles, Ehrenberg, and Hammond 1995; Bhattacharya 1997; East 1997; Ehrenberg 1996; Morrison and Schmittlein 2001). Traditionally, brand loyalty research has focused on behavioral measures that include purchase sequence, proportion of purchase and probability of purchase (Jacoby and Chestnut 1978). Most of these behavioral studies focused mainly on repeat purchases. Bass (1974) suggested that brand choice behavior (i.e. purchase) is substantially stochastic and presented a general theory of stochastic preference. He concluded that deterministic prediction of individual behavior would achieve limited success. Ehrenberg and Goodhardt (1970) extended the stochastic preference models into multi-brand buying.

While these behavioral studies claimed successes in estimating and even forecasting aggregated brand loyalty effects, they did not attempt to understand the true underlying reasons (perhaps, other than by random effects) why customers behave the way they do. Some researchers argued that these loyalty measures that were based on report of purchase decisions, do not distinguish true loyalty from “spurious” loyalty associated with consistent purchasing of one brand because there are no others readily available or because a brand offers a long series of deals, etc (Day 1969). In addition, most of the behavioral research works so far have examined behavior only in the light of consumer purchases; few, if not none, have included non-purchases such as positive word-of-mouth as the key component of loyalty behavior.

The deficiency of behavioral studies has sparked other researchers to look into the attitudinal element of brand loyalty (i.e. Day 1969; Jacoby 1971; Dick and Basu 1994; MacStravic 1994; Jarvis and Wilcox 1997; Bowen 1998; Ha 1998; Iwasaki and Havitiz 1998; Sirideshmukh, Singh and Sabol 2002). Oliver (1997) defined loyalty as a “deeply held commitment to rebuy or repatronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behavior.” Day (1996) viewed brand loyalty as comprising both repeated purchases and strong internal disposition (i.e. attitudes). Jacoby and Chestnut (1978) concluded a composite definition of brand loyalty that included both attitudinal and behavioral components. They defined brand loyalty as (1) biased (i.e. non-random), (2) behavioral response (i.e. purchase), (3) expressed over time, (4) by some decision-making unit, (5) with respect to one or more alternative brands out of a set of such brands, and (6) is a function of psychological (decision-making evaluative) processes. In the last decade, a number of researchers started to add new theoretical meaning to the loyalty construct. Dick and Basu (1994) viewed loyalty as the relationship between relative attitude and repeat patronage. In Oliver (1994)”s dynamic framework, customers actually progress from cognitive commitment to emotional bonding as their loyalty increases. Fournier and Yao (1997) also consider affect as an integral component of relationship in their framework. More recently, Baloglu (2002) found that truly loyal customers had more emotional commitment to a brand than any other groups of customers. Another research also discovered that evoking the loyalty emotions significantly strengthened customers’ intent to return to a hotel and their willingness to recommend a hotel brand to others (Barsky and Nash 2002). Apparently, emotive customers seem to be most loyal (Coyles and Gokey 2002). Combining all these papers together, it seems that the more recent conceptualizations of brand loyalty point towards the inclusion of affect in understanding brand loyalty. Interestingly, recent research has also linked affect to the giving of positive word-of-mouth (Harrison-Walker 2001).

Many researchers have now agreed that brand loyalty is complex and should be a multi-dimensional construct. For example, Bennett and Bove (2001) felt that both attitudinal and behavioral loyalty should be measured so as to gain an appreciation of the loyalty make-up of a firm’s customer base. Baldinger and Rubinson (1996) conducted a longitudinal customer loyalty research, measuring both attitudinal and behavioral variables. They discovered that highly loyal buyers had a probability of staying with a brand over the coming year that was related to their attitudes towards the brand. They, stressed that a combination of attitudes and behavior could provide a better loyalty definition that was the basis for assessing, tracking and taking actions to improve brand...
FIGURE 1
Two Main Types of Loyal Behaviors

Repeat Purchase Behavior

Loyal Behavior

Non-Purchase Behavior

health. Chaudhuri and Holbrook (2001) explored the effects of both purchase and attitudinal loyalty on brand performance. They found that purchase loyalty led to greater market share, while attitudinal loyalty resulted in higher relative price for the brand. Amidst the general agreement, some researchers believed the composite definition of loyalty is probably a mistake; it is difficult to operationalize, and probably very few people will be classified as truly loyal when so many criteria have to be met (East 1997).

This paper agrees that brand loyalty is a complex and multi-dimensional construct. Previous studies seemed to have neglected non-purchase loyal behavior, especially the impact of positive word-of-mouth. In fact, few researchers have investigated brand loyalty behavior simultaneously in terms of both purchases and non-purchases. Given that a few researchers have now included affect into the brand loyalty construct and that positive word-of-mouth behavior has been linked to affect in some separate studies, this paper recommends a re-orientation of loyal behavior to include both purchases and non-purchases. While acknowledging the importance of cognition/attitude as part of the brand loyalty construct, this paper will only examine the behavioral aspect.

BEHAVIOR IN DETAIL (REPEAT PURCHASES AND NON-PURCHASES)

Loyal customers usually pay higher prices, are cheaper to serve, and have more predictable sales (Jain and Singh 2002). They are also more likely to refer other customers and buy other additional complementary goods and services (Gremler and Brown 1999). Past research on customer value tends to focus on the direct impact of the loyal customers to the company such as the direct revenue that is a result of customer purchases (as described in the earlier section). However, the value of brand loyalty from a customer is not simply the purchase values; it should also include all other non-purchase values. Loyal customers often generate new businesses via positive word-of-mouth, hence expanding a company’s customer and revenue bases. As such, companies should look beyond these direct revenue streams contributed by their loyal customers and include all other positive benefits associated them especially the value of the positive word-of-mouth (Reichheld and Teal 1996; Gremler and Brown 1999).

While previous brand loyalty studies have repeatedly focused their attention solely on customers’ repeat purchases, this paper argues that a typical loyal customer would engage in two main types of behaviors: repeat purchase and non-purchase (Figure 1). For example, a brand loyal customer should be defined as one who regularly repeat-purchases and, at the same time, engages in positive non-purchase behavior such as positive word-of-mouth. As such, researchers should examine both behaviors concurrently in order to gain a better understanding of the brand loyalty construct. Figure 2 illustrates the total cumulative value (probable) of a loyal customer to a business. As time passes and with each repeat purchases, the value of a customer’s non-purchase value may increase much faster than its purchase value. Values from a loyal customer’s non-purchase behaviors include mainly the provision of positive word-of-mouth. It may also include contributing to co-production of services, acting as encouragers and mentor to new customers or other activities.

For example, a brand loyal customer may purchase a particular brand of shampoo every three months over a period of 5 years (i.e. 20 purchases). Each year, assuming he/she makes five recommendations (positive word-of-mouth) to his/her friends who may, as such, make their purchases on that brand. To the company managing the brand, the total value of that loyal customer is thus much higher than his/her purchase value. It also includes 25 probable extra purchases (5 x 5 years) made by his/her friends as a direct result of his/her recommendations.

Positive word-of-mouth represents the most important component of non-purchase behavior. It is one of the most neglected marketing areas (Silverman 2001) and to date, relatively few companies have tried to harness the full potential of its power (Buttle 1998). Word-of-mouth describes the communications between groups such as independent experts, family and friends, current and potential customers (Ennew, Banerjee, and Li 2000). Arndt (1967), one of the earliest marketing researchers on word-of-mouth’s influence on consumers, viewed word-of-mouth as an oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, product or service. It is certainly a group phenomenon involving the exchange of thoughts and ideas among two or more individuals in which none of the individuals represent a marketing source (Bone 1992).

Word-of-mouth has been shown to influence a variety of conditions: awareness, expectations, perceptions, attitudes, behavioral intentions and behaviors (Reingen 1987). It is widely reported to be many times more effective than newspapers and magazines, personal selling, and radio advertising in influencing consumers to switch brands (Katz and Lazarfeld 1955; Herr, Kardes, and Kim 1991). According to a study conducted by Herr, Kardes, and Kim (1991), a face-to-face word-of-mouth was much more persuasive
Katz and Lazarsfeld (1955) found word-of-mouth to be the most important source of influence in the purchase of household goods and food products. Past research has shown that satisfied customers often engage in positive word-of-mouth and make referrals (Sundram, Mitra, and Webster 1998). Similarly, loyal customers are often assumed to add business benefits to a company through their engagement of positive word-of-mouth. This paper argues that while some customers may express their loyalty to a brand by repeat purchases, others may express it by engaging in positive word-of-mouth such as referral. Thus, for better measurement of brand loyalty, researchers should examine both behaviors concurrently.

**CONCEPTUAL FRAMEWORK AND DISCUSSION**

Figure 3 shows a proposed model for brand loyalty in a 2x2 matrix. This simple framework intends to encourage the examination and discussion of a loyal customer in terms of both re-purchase and non-purchase behavior. The framework also highlights the inclusion of positive word-of-mouth as a major component of brand loyalty. It will encourage marketers to broaden their marketing outlook and their understanding of brand loyalty within their customer segments. For example, a customer may purchase brand X (purchase loyalty) and yet loyal to brand Y (affective loyalty). Further research will include developing a reliable methodology to accurately estimate the value of word-of-mouth.

A customer has little brand loyalty when he/she exhibits low purchase and non-purchase behaviors. If he/she demonstrates high purchase behavior but low non-purchase behavior, he/she is simply just purchase loyal. Many consumers should fall into this category. When the customer exhibits low purchase behavior but high non-purchase behavior, he/she is affective loyal to the brand. Such customer may exhibit strong psychological emotions/affect to the
brand that propels him/her to engage in positive word-of-mouth. He/she does not purchase as often perhaps due to both personal and market situations. For example, a customer may love Toyota cars and may own one in the past. Perhaps due to economic difficulties, he/she is unable to repeat purchase a Toyota car. This customer may still engage in positive word-of-mouth and make recommendations to his/her friends, families, colleagues, etc. If a customer shows high purchase and high non-purchase behaviors, he/she is truly a brand loyal customer. This customer is strongly committed to the brand, frequently engages in both purchase and non-purchase behaviors, and has the highest value to any businesses.

Given this framework, marketers can attempt to differentiate their customers based on this 2x2 matrix. They can then develop the appropriate marketing strategies to suit each particular segment. For example, to move consumers with little/no loyalty to the true brand loyalty segment, marketers may need to pursue multi-level strategies. For those customers with little/no loyalty, marketers can implement strategies to encourage purchases and move them up to purchase loyalty segment. Alternatively, they can encourage positive word-of-mouth and move them horizontally to affective loyalty segment. In either strategy, marketers will reap some customer values for their businesses. The former strategy is a rather traditional way of marketing products in the marketplace. The latter strategy is commonly used by the Internet companies via of viral marketing. Once the customers are placed in either affective or purchase loyalty segment, marketers may then pursue more specific strategies to increase their purchases or positive word-of-mouth behavior respectively.

**A SIMPLE EMPIRICAL ILLUSTRATION OF THE FRAMEWORK**

To illustrate the framework, a self-administrated survey was conducted on a sample of 77 participants in Singapore. The participants were white-collar working Singaporeans with ages ranged from 18 to 41 years old, and a median of 26 years old. The participants were solicited through a number of sources including an evening university class, an international hotel and an international financial institution. About 82% of the participants were female.

Each participant was given a questionnaire consisting of six items. Four of the items were used to solicit responses with reference to a downtown restaurant that was hugely popular among people working in downtown offices. Out of the four items, two items were designed to measure the level of positive word-of-mouth given on the reference restaurant. Participants were also asked if they think they were loyal patrons to the reference restaurant. These items were measured using a five-point likert scale that ranged from strongly disagree (1) to strongly agree (5). In addition, the participants were asked to estimate the total number of times that they had patronized the reference restaurant in the last 12 months. The last two items were questions on age and gender.

**Data Treatment**

A factor analysis was performed on the two items that were used to measure positive word-of-mouth. The method yielded a single factor with equal loading (.884) among the two items and an item reliability coefficient (alpha) of .719. Nunnally (1967) has suggested that reliabilities in the range of .5 to .6 are satisfactory in the early stages of research. The obtained coefficient was, hence, deemed sufficient given the exploratory nature of this study. Subsequently, averaging the two items created a positive word-of-mouth index. Using a median split across the new positive word-of-mouth index, the participants were separated into two categories: low and high positive word-of-mouth groups. Median splits were also performed on the frequency of patron and self-reported loyalty results; the participants were split into light/heavy patrons, and low/high reported loyalty groups. Lastly, the responses to gender and age were treated as extraneous variables and were tested for differences between the described groups. No significant differences were found (p>.05).

**Results and Discussion**

The survey revealed some interesting findings. Figure 4 shows the percentage of participants classified accordingly to each category/group of the proposed model. As expected, substantially more participants lie in the low purchase/low non-purchase group (46.8%) than the other groups. There were also more purchase-loyal customers (35.1%) than affective-loyal customers (7.8%). Only about 10% of the sample taken could be considered as truly-loyal customers according to the proposed model. Working with simple mathematics, one would notice that only 23% (i.e. 8 divided by 35) of those who regularly patron (i.e. high purchase behavior) the reference restaurant engaged in high non-purchase behavior or positive word-of-mouth behavior. Marketers should focus on pursuing strategies to encourage the other 77% of regular patrons to engage in more positive word-of-mouth and subsequently move them to the true-loyal quadrant of the model. As there are relatively few affective-loyal customers (i.e. customers who seldom patron the reference restaurant but engage in positive word-of-mouth) than other groups in this case, it is unsure if the economic benefits can outweigh the costs of promoting more purchase behaviors from these affective-loyal customers.

Next, the mean self-reported customer loyalty index was compared between the groups using a one-way ANOVA with Tukey-HSD multiple comparison test (See Figure 5). The results of the ANOVA showed significant differences between the groups, F(3,77)=8.93, p<.001. Post hoc Tukey-HSD tests showed that the mean loyalty scores of the true-loyalty (M=5.00) and affective-loyalty groups (M=4.67) were significantly higher (p<.05) than the mean loyalty scores of both the little/no-loyalty (M=3.50) as well as the purchase-loyalty groups (M=3.63). Expectedly, the no/little loyalty group scored lowest in mean reported loyalty. It is, however, surprising to find the mean loyalty score of the purchase-loyalty group to be much lower than the affective-loyalty and true-loyalty groups. Under normal circumstances, one would expect customers who buy/patron regularly to think they are loyal to that brand. Interestingly, many regular customers to the reference restaurant do not think that they are loyal customers (i.e. the mean reported loyalty score was lower). Another important finding in this study was that participants who showed high self-reported loyalty toward the reference restaurant were those who actively engaged in non-purchase behavior or positive word-of-mouth. This finding further supported the proposal to include positive word-of-mouth behavior into the brand loyalty construct.

**CONCLUSION**

This paper proposes a framework for brand loyalty and provides a simple illustration. Of particular importance is the re-orientation of what defines brand loyalty behavior. It is paramount that marketers view the value of a loyal customer as the total benefits that can be derived from keeping a customer loyal. Hence, both repeat purchase and non-purchase behavior should be measured simultaneously so as to gain a deeper understanding of true brand loyalty. This paper merely promotes a concept. More empirical works are required to accurately estimate the value of the positive word-of-mouth of a loyal customer.
The paper cites positive word-of-mouth as the most important non-purchase behavior that a loyal customer engages in. While this is true in most sense and vastly confirmed by past research, there are other behaviors engaged by a loyal customer such as co-production of goods and services, and as mentor to new customers that can be explored in greater details. Moreover, this paper did not examine the attitudinal components of brand loyalty and the types of mediators as well as moderators to brand loyalty such as satisfaction, trust, service quality, commitment, and personal characteristics. Lastly, the paper illustrated the model/framework through a simple empirical study that was conducted on a single service product-market, with limited sample size, and in a single country. As such, readers must be cautious with any generalizations. Future research will address these issues in order to provide a more holistic view of the brand loyalty construct.

REFERENCES
3. I consider myself to be a loyal patron of this restaurant.

2. I tell other people about my positive experiences in this restaurant. (positive word-of-mouth)

1. When the topic of restaurants comes up in conversations, I would recommend this restaurant. (positive word-of-mouth)


Korean-Standard Service Quality Index: Development and Application
Youjae Yi, Seoul National University, Korea
Jun Youb Lee, Kyunghee Cyber University, Korea

1. INTRODUCTION

The overall level of service quality was rather low in Korea over the past decade. However, recently Korean customers had the increasing opportunities to experience advanced services due to globalization. As they came to have the increasing needs for high quality services, many companies tried to improve service quality to strengthen competitiveness. There is an increasing need for service quality measurement that reflects Korean conditions.

In an effort to meet the needs for new service quality measurement, we have developed the Korean Standard-Service Quality Index (KS-SQI). The purpose of this study is to provide a brief description of the KS-SQI model. In the paper we wish to develop an index of service quality that can be applied to various services, to apply the service quality index to various services in Korea, and to confirm consequences of service quality improvement from the viewpoints of company and customers.

2. MODEL DEVELOPMENT: KS-SQI

Background

Much research on service quality has employed the SERVQUAL model developed by Parasuraman, Zeithaml, and Berry (1985, 1988, 1991, 1993). The SERVQUAL model posits five dimensions of service quality (tangibles, reliability, responsiveness, empathy, assurance) and employs 22 items for measurement.

Although the SERVQUAL model has been used widely in the field (Asubonten et al. 1996, Babakus and Boller 1992), several researchers have raised conceptual issues with the model (e.g., Brown, Churchill and Peter 1993, Cronin and Taylor 1992, 1994). Furthermore, there were a few problems in employing the SERVQUAL model in Korea. The dimensions were rather too abstract and general for the general public. Also, it has often been claimed that the SERVQUAL model needs more emphasis on outcome quality (cf. Gronroos 1984). In developing a new model, we have thus adjusted the model by considering the Korean conditions and bolstering the outcome dimension.

Procedures

Based on a series of pre-tests we changed the names of SERVQUAL dimensions with easy expression, and we added more outcome quality dimensions to the SERVQUAL model. We came up with a new measurement model that has ten dimensions in all.

This model was then tested with a preliminary field survey. Correlations between items were scrutinized so that highly correlated items were integrated and unclassified items were eliminated. As a result, ten dimensions of the initial model were reduced to eight dimensions.

Figure 1 illustrates these changes and describes the new model. We named the model as KS-SQI considering KS (Korean Standard) mark that is a symbol of Korean quality certification. The “tangibles” dimension is renamed as “physical evidence” dimension, whereas “empathy” dimension was divided into two dimensions: “receptiveness” and “accessibility”.

Model Description

The new model has a total of eight dimensions, and these dimensions are briefly described below.

It has 4 dimensions of outcome quality: primary needs fulfillment, unexpected benefits, contract performance, and creativeness.

- Primary Needs Fulfillment
  - Fulfillment of primary needs that customers hope to get through the service
  - Ex) in the restaurant industry: taste of food

- Unexpected Benefits
  - Additional service offers that customer did not expect.
  - Ex) in the restaurant industry: a gift for customer’s birthday celebration

- Contract Performance
  - To keep its promise when a service company promises to do something
  - Ex) punctuality, to do what was said exactly, to perform the service right the first time

- Creativeness
  - To offer differentiated service or to develop a unique service
  - Ex) in the tourism industry: a new course for tour

In addition to the outcome quality dimensions, the KS-SQI model has 4 dimensions of process quality: receptiveness, credibility, accessibility, and physical evidence. Definitions and examples of these dimensions are as follows.

- Receptiveness
  - Employee’s kindness to help customer and provides quick service
  - Ex) a quick response to the customer’s request

- Credibility
  - Service provider’s fidelity and honesty, preparation against dangerous situations?
  - Possession of necessary technology and knowledge to serve its customer
  - Ex) physical and psychological safety

- Accessibility
  - Accessibility and ease of contact
  - Ex) convenient time and place to visit a service site

- Physical Evidence
  - Physical facilities, equipments and employee appearance that reflect service quality well
  - Ex) building, Internet homepage, uniform, etc.

Methods

To test the KS-SQI model, we have conducted interviews and a field survey. Data were gathered from personal interviews conducted at four department stores in Seoul, Korea. A total of 255 usable questionnaires were collected. The 56% of respondents were men.
Measures
Each dimension was measured with two items related to the service quality of department stores. A 7-point scale format (1=strongly disagree, 7=strongly agree) was adopted in the survey. These items are as follows.

**Primary Needs Fulfillment**
The _ _ _ department store provided services that I want. I could shop what I want in the _ _ _ department store.

**Unexpected Benefits**
I was impressed with unexpected service (birthday card, gift etc.) I received from the _ _ _ department store. The _ _ _ department store provided extra services.

**Contract Performance**
The _ _ _ department store did exactly as promise. The _ _ _ department store provided service within promised time.

**Creativeness**
The _ _ _ department store provides a unique service. The _ _ _ department store reflects customer needs in response to the changeable environment.

**Receptiveness**
Employees of the _ _ _ department store are never too busy to respond to my request. The _ _ _ department store gives me individual attention.

**Credibility**
I can trust employees of the _ _ _ department store. The _ _ _ department store tries to make customers feel safe.

Accessibility
The _ _ _ department store is located in a convenient area. The _ _ _ department store has operating hours convenient to all customers.

Physical Evidence
The _ _ _ department store’s physical facilities are suitable for the service. Employees of the _ _ _ department store are neatly appearing.

Results
A confirmatory factor analysis (CFA) was conducted to test the KS-SQI model. Figure 2 shows the results of CFA. The results of CFA support the measurement model and the KS-SQI measurement model is empirically confirmed.

We have also compared alternative weighting schemes of the measurement model. We compared the overall fit of the simple mean model with that of the weighted mean model in regression analysis. In the result the simple mean model yields the best fit. Therefore, the KS-SQI adopts the simple mean model in computing the overall index measure.

3. MODEL APPLICATION I: CONSEQUENCES OF SERVICE QUALITY

Hypotheses
We expanded the KS-SQI measurement model to a model on consequences of service quality (cf. Zeithaml, Berry and Parasuraman 1996). Conceptually, we proposed that service quality has impacts on business performance and people’s happiness. Figure 3 illustrates the conceptual model of consequences of service quality.
The conceptual model posits relationships among perceived service quality, customer satisfaction, business performance, and people’s happiness. Perceived service quality is expected to have a positive effect on customer satisfaction (Iacobucci, Ostrom and Grayson 1995). Business performance often consists of customer acquisition and retention (Rust and Zahorik 1993, Yi 1990), and these variables are affected by customers’ intention to repurchase and to spread positive word-of-mouth, which can be defined as service loyalty.

The service quality is also expected to enhance subjective quality of life and people’s general happiness; that is, the higher service quality is, the higher consumption life and people’s happiness (Clarkson and McCrone 1998, Huxley and Warner 1992). Thus, service quality will have effects on subjective quality of life indirectly.

We made three hypotheses from the conceptual model of consequences of service quality. Besides, one might say that customer satisfaction is critical for service loyalty but not for subjective quality of life. As subjective quality of life is affected mainly by economic conditions, family and social status, the effects of customer satisfaction may be relatively low. We proposed H4 that customer satisfaction will have a stronger effect on service loyalty than on subjective quality of life.

H1 Service quality is positively related to customer satisfaction.
H2: Customer satisfaction is positively related to service loyalty.
H3: Customer satisfaction is positively related to subjective quality of life.
H4: The effect of customer satisfaction on service loyalty is greater than that on subjective quality of life.

Methods
The conceptual model and hypotheses were tested with a field survey of department stores in Seoul, Korea. A quota-sampling frame was employed to ensure the representative sample of the population.
Measures
Service quality (SQ) had two measures: general service quality and KS-SQI. General service quality was measured by asking respondents about the perception of overall service quality with a 7-point scale. The KS-SQI was operationalized as a mean of 16 items for 8 dimensions, which can be seen as formative indicators. Customer satisfaction was assessed with an overall satisfaction measure. Service loyalty measures were repurchase intention and word of mouth. Subjective quality of life measures were consumption life improvement and quality of life improvement.

Results
Overall, the results of LISREL8 provided strong support for the hypotheses. The overall fit of the model was very good: \( \chi^2 (9) = 8.99 \) (p=0.44), GFI=0.99, AGFI=0.97, RMR=0.012. Figure 4 shows the results of structural model analysis.

The paths regarding service quality, customer satisfaction, service loyalty and subjective quality of life were examined to test H1-H3. The path coefficient from service quality to customer satisfaction was positive and significant: 0.95 (t=13.02), supporting H1. Customer satisfaction had a positive and significant effect on service loyalty: 0.93, t=16.01, and H2 was supported. The effect of customer satisfaction on subjective quality of life was 0.66, which was also significant (t=8.80) and provided support for H3.

H4 states that the path from customer satisfaction to service loyalty is greater than the path from customer satisfaction to subjective quality of life. The path from CS to loyalty is 0.93, whereas the path from CS to quality of life is 0.63. The results seemed to support the prediction of H4.

A formal test of H4 was then conducted with the chi-square difference test. The baseline model was the model with free parameters for both paths, as illustrated in Figure 4. The restricted model introduced the restriction that the two paths are equal by imposing the equality constraint in the model. The difference in chi-square values between the two models can be used to test whether the two paths are statistically different or not.

The restricted model gave the following result: \( \chi^2 (10) = 19.78 \), whereas the baseline model gave the following result: \( \chi^2 (9) = 8.99 \). The chi-square difference was 10.79, which was statistically significant (p<.01). The chi-square difference test provided support for H4, suggesting that the path from CS to loyalty is greater than that from CS to quality of life.

4. MODEL APPLICATION II: NATIONAL SURVEY
We applied the KS-SQI to various service industries in Korea. KSA (Korea Standard Association) measured the service quality in a number of service companies in various industries with KS-SQI every year from 2000. KSA increased the number of companies and respondents in the survey each year. Only 57 companies in 14 industries were used in 2000. In 2003, however, 42 industries, 177 companies and 35,400 respondents participated in the survey. Table 1 summarizes the number of companies, industries, and respondents in the KS-SQI national survey.

The KS-SQI score increased every year: 54.8 in 2000, 55.1 in 2001, 59.6 in 2002, and 59.0 in 2003. Nevertheless, the service quality level of Korean service industry is still low, which is below .60. Figure 5 shows these findings.

As Figure 6 illustrates, the scores of process quality dimensions are higher than those of outcome quality dimensions. The highest dimension is ‘receptiveness,’ while the lowest is ‘unexpected benefits.’

The scores of ‘unexpected benefits,’ and ‘receptiveness’ dimensions increased every year. Nevertheless, the scores of the other dimensions fluctuated for last 3 years. Figure 7 shows these findings.

Table 2 summarizes the KS-SQI scores by industry. One can see that the score of golf country club is the highest (66.98). The scores of hotel, electronics service center and family restaurant are
TABLE 1
Companies and sample size of KS-SQI national survey

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
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<tr>
<td>Companies</td>
<td>14 industries</td>
<td>22 industries</td>
<td>36 industries</td>
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<td></td>
<td>57 companies</td>
<td>94 companies</td>
<td>150 companies</td>
<td>177 companies</td>
</tr>
<tr>
<td>Sample Size</td>
<td>8,550 respondents</td>
<td>14,100 respondents</td>
<td>22,500 respondents</td>
<td>35,400 respondents</td>
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</table>

FIGURE 5
KS-SQI score

* The final scales are converted to 100 point range

FIGURE 6
KS-SQI scores by dimension–2003

Outcome Quality

Process Quality
rather high: 66.14, 63.34, 62.71, respectively. On the other hand, the scores of financial services such as credit card, capital, and life insurance are rather low: 55.35, 52.85, 52.59, respectively.

5. CONCLUSION

We have developed and applied a new measurement model of service quality in Korea. The results suggest that the new measurement of service quality (KS-SQI) can be reliably used in theory and practice. The KS-SQI model employs 8 dimensions reflecting both outcome and process.

This study also provides a better understanding of consequences of service quality improvement. Service quality has a strong influence on customer satisfaction and indirect effects on business performance and people’s happiness via customer satisfaction. We have also found that the effect on business performance is stronger than that on people’s happiness.

National surveys have been conducted with the KS-SQI model since 2000. Several interesting findings arise from these surveys. In general, service quality is rather low, all below 60. There is variation in service quality scores across industries. Service quality tends to be high in leisure and well-being service industries, such as country club, hotel, family restaurant, electronic service, etc. On the other hand, service quality seems to be low in financial service industries, such as bank, insurance and credit card. Service quality level also varies by KS-SQI dimension. Process quality tends to be higher than outcome quality. Among the eight dimensions of KS-SQI, ‘unexpected benefits’ is the lowest.

6. REFERENCES


TABLE 2
KS-SQI scores by industry–2003

<table>
<thead>
<tr>
<th>Rank</th>
<th>KS-SQI</th>
<th>Industry</th>
<th>Rank</th>
<th>KS-SQI</th>
<th>Industry</th>
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<tr>
<td>1</td>
<td>66.98</td>
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<td>Cinema</td>
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Perceived Risk and Risk-Reduction Strategies for High-Technology Services
Hyun Kyung Kim, Yonsei University, Korea
Moonkyu Lee, Yonsei University, Korea
Mi Jung, TNS Korea

ABSTRACT
Consumer perceptions of risk in purchase decisions have been dealt with extensively in the literature, since such perceptions accompany all purchases to some degree and influence buying behavior. This study identifies risk types and risk-reduction strategies relevant to high-technology services such as online banking, online ticket reservations, and mobile education. It also compares and contrasts risk-takers and risk-avoiders in terms of their risk-handling strategies. Study results are discussed in terms of both theoretical and practical implications.

INTRODUCTION
In our digital age, technology is changing at a dazzling speed. New goods and services are pouring into the market at an unprecedented rate and a product developed yesterday is obsolete today (Higgins and Shanklin 1992). Every day we encounter diverse high-technology products and services that offer new and dramatic benefits (Moore 1999). Nevertheless, consumers are often reluctant to use these new technologies. Innovative goods and services can jeopardize a comfortable status quo or go against the grain of their belief structures (Lunsford and Burnett 1992; Moore 1991). In other words, consumers perceive high risks in purchasing high-tech products. Accordingly, they adopt risk-reduction strategies to diminish the possibility or the consequences of loss through a purchase. It would therefore benefit marketers of high-tech goods and services to understand the relationships among types of perceived risk, risk-reduction strategies, and consumer attitude toward risk. Such an understanding would help them enhance the attractiveness of their products/services to non-purchasers (Mitchell and Greatorex 1993) and to increase repeat purchases and loyalty by building consumer confidence (Jarvenpaa, Tractinsky, and Vitale 2000).

Undeniably, perceived risk has been discussed extensively in the literature over the last 40 years. However, most of the relevant studies are limited or out-of-date, having failed to reflect recent social, cultural, economic, and technological changes. Moreover, it is likely that consumers will adopt different risk-reducing behaviors for different perceived risks. Although some studies do address the relationship between risk perception and risk-reducing behavior, they often deal primarily with consumers’ information-search behaviors and confine themselves mostly to physical goods. The present study will focus on intangible risks, discern the specific risks consumers perceive in the purchase of high-tech services, and distinguish them from the perceived risks of purchasing low-tech services. It will also examine how risk-reduction strategies differ between high-tech and low-tech purchases. Finally, the study will conduct a more segmented analysis on how risk perception and risk-reduction strategies vary with technological level of services and consumer attitude toward risk. Although this study will focus on service risks, it will first review the perceived risks involved in purchasing physical goods, which most existing literature deals with.

THEORETICAL BACKGROUND
Perceived Risk
Definition of Perceived Risk. Consumer perceptions of risk in the context of the purchase decision-making have been widely dealt with in the past literature since they accompany all purchases to varying degrees and influence buying behavior (e.g., Bauer 1960; Bettman 1973; Cox 1967; Cunningham 1967; see Mitchell 1999 for a review). Bauer (1960) defines perceived risk as the consumer’s feeling of uncertainty about the consequences of transactions. In other words, perceived risk is a subjective concept, distinct from objective risk. Since Bauer, perceived risk has been conceptualized in various ways, although the models are generally of two sorts: (a) risk as uncertainty (Bauer 1960; Cox 1967; Taylor 1974) and (b) risk as expected loss (Bettman 1973; Cunningham 1967; Kogan and Wallach 1964; Peter and Ryan, 1976; Roselius 1971; Stone and Winter, 1987).

Dimensions of Perceived Risk. Various studies have tried to identify different dimensions of perceived risk. Jacoby and Kaplan (1972) identify five types of risk: financial risk, performance risk, psychological risk, physical risk, and social risk. Time risk is proposed as another form of perceived risk (Brooker 1984; Mitchell and Greatorex 1993; Roselius 1971; Stone and Gronhaug 1993; Zikmund and Scott 1977). Zikmund and Scott (1977) also suggest that loss of future opportunity is a perceived risk for certain products.

Many recent studies are concerned with the perceived risks associated with online shopping. These studies show that consumers perceive higher risks online than offline because the Internet is open and complex in nature and the technology beyond the control of users (Rose, Khoo, and Straub 1999). Jarvenpaa and Todd (1997) identify personal and privacy risks specific to online shopping (e.g., improper disclosure and use of private information). Cases (2002) identifies delivery risk regarding product delivery, payment risk concerning disclosure of credit card information on the Internet, and source risk related to the credibility of the website.

Several other studies have examined resistance to innovation, i.e., consumer unwillingness to purchase products of a newly developed technology. According to Ram and Sheth (1989), barriers to innovation diffusion are of two sorts, functional and psychological. In a similar vein, Higgins and Shanklin (1992) identify four major types of perceived risk that are specific to technology and can prevent purchase: (a) fear of technical complexity, (b) fear of rapid obsolescence, (c) fear of social rejection, and (d) fear of physical harm. In addition, Robertson and Gatignon (1986) propose that consumers are reluctant to purchase innovative products because of their lack of knowledge about the products and because of high expected costs and risks. Mick and Fournier (1998) find through surveys and in-depth interviews that consumers have mixed reactions to new technologies, believing that these technologies offer more control, new benefits, and greater efficiency, but at the same time that they cause chaos and are prone to obsolescence. For the purposes of our study, these “paradoxes of technology” can be viewed as a type of perceived risk, in the sense that they involve consumer expectations of loss.

Risk-Reduction Strategies
Consumers are known to rely on risk-reduction strategies to reduce perceived risks when the purchase decision is very important but the information available to them is incomplete. Roselius (1971) describes a risk-reduction strategy as a tool used by a seller or a consumer to reduce the consumer’s perceived risk. He identi-
fies 11 such strategies: endorsements, brand loyalty, brand image, private testing, store image, free samples, money-back guarantees, government testing, shopping, expensive models, and word-of-mouth communications. Other studies also indicate such strategies as extensive search for more information (Akaah and Korgaonkar 1988), endorsement (Schiffman and Kanuk 1998), purchase of a cheaper brand, special offers, and use of information on the package or consumer magazines (Greatorex and Mitchell 1994).

Sheth and Venkatesan (1968) argue that a consumer’s choice of risk-reduction strategy depends on the uncertainty regarding the product or on the consumer’s experience with the brand. Mick and Fournier (1998) identify strategies consumers use to cope with their contradictory attitudes to technology (or so-called “paradoxes of technology”), with the stresses associated, and consequently, with purchasing and using high-tech goods and services. The risk-reduction strategies they cite include (a) pre-acquisition avoidance strategies, (b) pre-acquisition confrontative strategies, (c) consumption avoidance strategies, and (d) consumption confrontative strategies.

Dimensions of Perceived Risk and Risk-Reduction Strategies

Roselius (1971) identifies four types of loss: (a) hazard loss, (b) ego loss, (c) financial loss, and (d) time loss. He examines their relationships with the 11 risk-reduction strategies listed earlier. He finds that there is a clear preference order in risk-reduction strategies. For all four types of loss, brand loyalty and major brand image are the most effective in reducing consumer perception of risk. In addition, Locander and Hermann (1979) examine the relationships between information-seeking behaviors and five products that involve different levels of performance risk and social risk. They find that consumer level of confidence has a significant influence on information-searching behaviors for all products. In Mitchell and Boustanis’s study (1993), non-purchasers appear to perceive fewer risks than purchasers do; however, no significant difference is found between the two groups in terms of risk-perception factors or the usefulness of risk-reduction strategies.

Derbaix (1983) also examines the relationships between risk dimensions and risk-reduction strategies, finding that it varies with product type. Brand loyalty is the preferred strategy for non-durable experience goods, money-back guarantee and store image for durable experience goods, and shopping for search goods. In the case of financial loss, consumers prefer the money-back guarantee for non-durable experience goods and reputation for search goods.

In a similar vein, Greatorex and Mitchell (1994) examine the usefulness of 14 risk-reduction strategies for services in terms of four types of loss, and find that brand loyalty is the most effective, the recommendation of celebrities and the advice of salespersons the least effective. They also find that risk-reduction strategies can vary depending on the type of service. Their study has a limitation, however, in the sense that it analyzes the priorities of risk dimensions and of risk-reduction strategies separately; thus, it fails to indicate which risk-reduction strategy is the most effective for a particular risk dimension. Mick and Fournier (1998) find that pre-acquisition avoidance strategies, such as ignoring information about certain technological products, refusing to buy a specific technological product, and delaying the purchase of a product, appear to be useful in handling risks. But they suggest that the effectiveness of risk-reduction strategies may vary across the types of technological paradox.

In the context of online shopping, on the other hand, Cases (2002) examines the dimensions of perceived risk and risk-reduction strategies. She identifies four types of information source (i.e., product, remote transaction, Internet, and website), and analyzes the relationships between eight dimensions of perceived risk and 15 risk-reduction strategies in terms of the types of information source. She finds that privacy risk, source risk, and payment risk related to the security of the Internet and to the credibility of websites are all perceived to be high; the most effective risk-reduction strategy appears to be the provision of payment security. To cope with performance risk, consumers tend to rely on exchange and money-back guarantees; to handle social risk, they depend on word-of-mouth communications and exchange guarantees.

RESEARCH PURPOSES

The findings of the past studies on the relationships between perceived risk dimensions and consumer risk-handling strategies seem to be confusing, and sometimes contradictory to each other. Therefore, the main idea of this study is threefold: (a) to find out what types of risk consumers perceive in making purchase decisions and how they cope with the risks, (b) to determine what types of risk-handling strategy are the most effective for reducing what types of risk, and (c) to examine service differences and individual differences in the relationships between risk types and risk-reduction strategies. As stated earlier, this study focuses on services rather than on physical goods. There are two moderating variables that are examined in the study. The first one is a service characteristic. Specifically, the technological level of service (i.e., high-technology versus low-technology services) are investigated. The second one is consumer attitude toward risk (i.e., risk-taking versus risk-averse). Thus, the present research attempts to find out how the relationships between risk dimensions and effective risk-coping strategies vary across high-tech vs. low-tech services and across risk-takers vs. risk-avoiders.

METHODOLOGY

Pilot Study

To determine categories of high-tech service for analysis, and to develop questionnaire items that would measure perceived risks and risk-reduction strategies for those services, we conducted in-depth interviews with 20 respondents ranging in age from 20 to 50.

Selection of Service Categories. Three categories of service were selected by a pretest a la Higgins and Shanklin (1992) and O’Regan & Ghobadian (2003): (a) online vs. conventional banking, (b) online vs. conventional ticket reservations, and (c) mobile vs. conventional education services. Online and mobile services were classified as high-tech services, and conventional services as low-tech.

Developing Measurement Items. Jacoby and Kaplan’s work (1972) is probably one of the most widely accepted models of perceived risk. However, it is clear now that consumers of high-tech services would perceive risks which are new to their model; these perceptions might underlie consumer resistance to innovation and paradoxical attitudes towards technology. We conducted in-depth interviews, therefore, to identify aspects of high-tech and low-tech services from which to extract meaningful risk dimensions. Aspects identified include the advantages and disadvantages of using the service, expected risks of purchase, reasons for reluctance to purchase, and negative feelings. Interviewees were also asked, for both high-tech and low-tech services, about risk-reduction strategies; in other words, what strategies they would use to reduce a given risk. The results of the pretest, together with the results of past research, shaped the main study.

Main Study

Data Collection. A survey was conducted with a convenient sample of 402 respondents, ranging in age from their 20’s through their 50’s. A total of 381 valid questionnaires were used in the final
analysis. Fifty-seven percent of respondents were males, 43% females. Respondents in their 20’s constituted 57% of the sample; 18.1% were in their 30’s, 3.6% in their 40’s, and 9.7% in their 50’s or over.

Research Procedure. Respondents were asked to read brief instructions about a specific service and, with that service in mind, to assess statements about perceived risks and risk-reduction strategies. The first part of the questionnaire consisted of items for a manipulation check of technology-level variables. The second part included six items to measure attitude toward risk. These items were drawn from Griffin, Babin, and Attaway (1996) and checked and modified by marketing professionals. The third part consisted of questions to identify and assess risk-reduction strategies. Each respondent answered questions for two services.

RESULTS

Reliability and Manipulation Checks

A manipulation check was performed prior to analysis. The reliability coefficient of the three items proposed to measure technology level was 0.93. As expected, responses for high-tech services scored significantly higher than those for low-tech services (M=4.85 vs. 2.40, respectively; t=19.95, p<.01). Measurement of attitude toward risk also proved to be reliable, with a coefficient of 0.80. Thus, a median split was used in dividing the sample into two groups. Specifically, 179 respondents with a mean rating higher than 3.5 were classified as risk-takers, and 202 with a mean of 3.5 or less were categorized as risk-avoiders.

Dimensions of Perceived Risk

The perceived risks involved in purchasing services were measured with 38 questions. The responses were not well classified in the first factor analysis, so a second analysis was run after exclusion of four questions that showed similar loadings in all factors, had loadings that were too low, or were impossible to interpret when involved in certain factors. The second procedure adopted principal component analysis. Eight factors were identified as a result: operational risk, privacy risk, socio-psychological risk, performance risk, communication risk, financial risk, obsolescence risk, and cognitive risk. All eight factors showed a reliability coefficient greater than 0.72. Table 1 shows the results of the analysis.

Differences in risk perception in relation to the technological level of service (high-tech vs. low-tech) and consumer attitude toward risk (risk-taker vs. risk-avoider) are presented in Table 2. Consumers perceived higher operational, privacy, performance, communication, and cognitive risks for high-tech than for low-tech services. Risk-avoiders perceived higher operational risk than risk-takers did; no significant difference between the two groups was detected in regard to other types of risk.

Risk-Reduction Strategies

Analysis was conducted of risk-reduction strategies in purchasing high-tech services. Results showed that the preferred strategies were major brand name (M=5.55), brand loyalty (M=5.25), ease of exchange and refund (M=5.25), retention of receipts (M=5.23), credibility of stores or websites (M=5.21), purchase of goods or services that suit purchasing goals (M=5.19), word-of-mouth (M=5.14), easy access to stores (M=4.98), frequent use by acquaintances (M=4.93), learning how to use (M=4.83), and limiting price range (M=4.82). Although 30 items pertaining to risk-reduction strategies were included in the survey, only those 11 strategies that reached statistical significance are cited in the results.

Relationships Between Risk Dimensions and Risk-Reduction Strategies

Pearson correlation coefficients were calculated to analyze the relationships between risk dimensions and risk-reduction strategies. Only the 11 meaningful items were examined for risk-reduction strategies. The results are shown in Table 4. For operational, performance, and financial risks, ease of exchange and refund showed the highest correlation, while credibility of stores or websites and brand name were the most heavily used strategies for privacy and obsolescence risks.

With regard to low-tech services, frequent use by acquaintances showed the highest correlation with operational and privacy risks, while brand loyalty (or choosing a credible provider) was the most frequently used strategy for reducing financial and obsolescence risks. For high-tech services, diverse risk-reduction strategies were used for all risk dimensions (see Table 5).

DISCUSSION

This study analyzed the associations between perceived risks and risk-reduction strategies, as moderated by technological level and consumer attitude toward risk. The results show that consumers perceive eight dimensions of risk: operational risk, privacy risk, socio-psychological risk, performance risk, communication risk, financial risk, obsolescence risk, and perceptual risk. Moreover, risk dimensions and risk-reduction strategies vary across the technological level of the service and the consumer attitude toward risk.

The results of the current study have good research implications. As mentioned earlier, existing literature has some limitations in the sense that risk-reduction strategies and risk dimensions were analyzed separately and important mediators ignored. This study provides a comprehensive model of consumers’ risk perceptions and their coping behaviors, which will serve as a solid basis for future studies in this field.

In addition, the findings of the study have some practical implications. If the dimensions of risk perceived by consumers and their risk-reduction strategies can be understood and predicted, marketers will be able to establish far more effective plans, and will be able to maximize profits through successful resource allocation. Furthermore, customized marketing strategies, based on consumers’ perceptions of risk and corresponding risk-reduction strategies, will not only stimulate initial purchases but also induce more repurchases. Additionally, as this study addresses both service and consumer characteristics, it provides useful guidance for future segmentation studies or positioning strategies, thus helping marketers to develop effective communication strategies for each market segment and to establish an intimate long-term relationship with consumers.

The current research opens up several avenues for future studies in this area. More sophisticated quantitative analyses should follow up on this exploratory study. Future research should identify and examine moderating variables other than technological level.
### TABLE 1
Dimensions of Perceived Risk: Factor Analysis Results

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operational (α = .887)</strong></td>
<td>The service may not be compatible with what I have been using.</td>
<td>.755</td>
<td>10.442</td>
<td>30.713</td>
<td>30.713</td>
</tr>
<tr>
<td></td>
<td>I won’t be able to make the most of the service because it is too high-tech.</td>
<td>.751</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I may not be able to use all the functions that the service offers.</td>
<td>.732</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>In order to use the service, I will have to buy something additional.</td>
<td>.702</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I think this service offers many unnecessary functions.</td>
<td>.700</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>It seems hard for me to understand how to use the service.</td>
<td>.691</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>It will be hard for me to use this service because I do not have the required</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>skills or devices.</td>
<td>.627</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Privacy (α = .923)</strong></td>
<td>I am worried that my private information may be disclosed or used for other</td>
<td>.906</td>
<td>2.954</td>
<td>8.688</td>
<td>39.401</td>
</tr>
<tr>
<td></td>
<td>purposes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>There is a strong possibility that personal information will be disclosed.</td>
<td>.881</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I feel uncomfortable giving my credit card number online.</td>
<td>.846</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Socio-</strong></td>
<td>I am afraid that people I respect might think that I am too naive.</td>
<td>.829</td>
<td>2.628</td>
<td>7.728</td>
<td>47.129</td>
</tr>
<tr>
<td><strong>psychological (α = .780)</strong></td>
<td>I am worried how others will think of me when I make a wrong choice.</td>
<td>.784</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other people may think I am a show-off.</td>
<td>.689</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I might feel isolated from my friends if I don’t have or use this service.</td>
<td>.491</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I feel tense or uncomfortable when I think about buying or using this service.</td>
<td>.454</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Performance (α = .839)</strong></td>
<td>The performance of the service might not be as good as expected.</td>
<td>.813</td>
<td>2.120</td>
<td>6.237</td>
<td>53.366</td>
</tr>
<tr>
<td></td>
<td>I have doubts about the reliability and credibility of this service.</td>
<td>.737</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Glitches or errors (e.g., website system errors) are likely to occur.</td>
<td>.736</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I doubt the performance of the service will meet my expectations.</td>
<td>.598</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communication (α = .852)</strong></td>
<td>I don’t think I will get quick responses to my questions about the service.</td>
<td>.839</td>
<td>1.467</td>
<td>4.315</td>
<td>57.681</td>
</tr>
<tr>
<td></td>
<td>I don’t think I will get adequate responses to my questions about the service.</td>
<td>.790</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I may encounter difficulties communicating with the service provider.</td>
<td>.747</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>It will be hard to make sure that payment is made properly.</td>
<td>.439</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Financial (α = .750)</strong></td>
<td>The service fee (or cost, price, etc.) is too high.</td>
<td>.731</td>
<td>1.238</td>
<td>3.642</td>
<td>61.323</td>
</tr>
<tr>
<td></td>
<td>If I take potential costs into account, this service is likely to cause a financial loss.</td>
<td>.722</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The performance of the service may not be worth the money I spend on it.</td>
<td>.673</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The cost of repairs might cause a financial loss.</td>
<td>.662</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Obsolescence (α = .725)</strong></td>
<td>Services with improved functions are likely to be on the market soon.</td>
<td>.813</td>
<td>1.114</td>
<td>3.277</td>
<td>64.600</td>
</tr>
<tr>
<td></td>
<td>Cheaper services may be on the market soon.</td>
<td>.802</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The service may be outdated soon, and then its value will decline.</td>
<td>.613</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cognitive (α = .826)</strong></td>
<td>The service seems to be too complex for me to use.</td>
<td>.573</td>
<td>1.067</td>
<td>3.137</td>
<td>67.737</td>
</tr>
<tr>
<td></td>
<td>I won’t be able to use this service properly because I can’t catch up with the development of recent technology.</td>
<td>.573</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I will have difficulty using this service because it is different from the existing services with similar functions.</td>
<td>.512</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>It will take too much time to learn how to use the service.</td>
<td>.428</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 2
Risk Dimensions as a Function of Technological Level and Consumer Attitude

<table>
<thead>
<tr>
<th>Risk</th>
<th>Technological Level</th>
<th>Consumer Attitude Toward Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High-tech</td>
<td>Low-tech</td>
</tr>
<tr>
<td>Operational</td>
<td>3.93</td>
<td>2.98</td>
</tr>
<tr>
<td>Privacy</td>
<td>5.36</td>
<td>3.56</td>
</tr>
<tr>
<td>Socio-psychological</td>
<td>2.77</td>
<td>2.83</td>
</tr>
<tr>
<td>Performance</td>
<td>4.29</td>
<td>3.60</td>
</tr>
<tr>
<td>Communication</td>
<td>4.26</td>
<td>3.35</td>
</tr>
<tr>
<td>Financial</td>
<td>3.93</td>
<td>3.79</td>
</tr>
<tr>
<td>Obsolescence</td>
<td>4.42</td>
<td>4.43</td>
</tr>
<tr>
<td>Cognitive</td>
<td>3.50</td>
<td>2.88</td>
</tr>
</tbody>
</table>

### TABLE 3
Risk-Reduction Strategies as a Function of Technological Level and Consumer Attitude

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Technological Level</th>
<th>Consumer Attitude Toward Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High-tech</td>
<td>Low-tech</td>
</tr>
<tr>
<td>Major brand name</td>
<td>5.60</td>
<td>5.51</td>
</tr>
<tr>
<td>Brand loyalty</td>
<td>5.31</td>
<td>5.19</td>
</tr>
<tr>
<td>Ease of exchange and refund</td>
<td>5.40</td>
<td>5.09</td>
</tr>
<tr>
<td>Retention of receipts</td>
<td>5.20</td>
<td>5.26</td>
</tr>
<tr>
<td>Credibility of stores or websites</td>
<td>5.36</td>
<td>5.04</td>
</tr>
<tr>
<td>Frequent use by acquaintances</td>
<td>5.24</td>
<td>5.13</td>
</tr>
<tr>
<td>Word-of-mouth</td>
<td>5.27</td>
<td>5.00</td>
</tr>
<tr>
<td>Easy access to stores</td>
<td>4.33</td>
<td>5.67</td>
</tr>
<tr>
<td>Services that suit purchasing goals</td>
<td>5.04</td>
<td>4.81</td>
</tr>
<tr>
<td>Learning how to use</td>
<td>5.07</td>
<td>4.85</td>
</tr>
<tr>
<td>High Internet security</td>
<td>5.18</td>
<td>3.57</td>
</tr>
</tbody>
</table>
and attitude toward risk. An immediate extension of the study would be a comparison analysis between physical goods and intangible services in terms of risk types and risk-reduction strategies. Also, more research is needed on the mediating processes by which risks are handled and reduced by certain strategies.

Future research should be conducted in an effort to enhance the generalizability of the current findings. Since the data were collected from a convenience sample in this study, the study results could be applicable only on a limited basis. Respondents of diverse characteristics should be selected in a more systematic way in future studies for a higher level of external validity of results.

### REFERENCES


### TABLE 5
Correlations Between Risk dimensions and Risk-Reduction Strategies as a Function of Technological Level (Items Showing Differences)

<table>
<thead>
<tr>
<th></th>
<th>High-tech Service</th>
<th>Low-tech Service</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operational</strong></td>
<td>Major brand name (.169*)&lt;sup&gt;<em>&lt;/sup&gt; Services that suit purchasing goals (.257**)&lt;sup&gt;</em><strong>&lt;/sup&gt; Learning how to use (.285</strong>)</td>
<td>Frequent use by acquaintances (.199**)&lt;sup&gt;***&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Privacy</strong></td>
<td>Brand loyalty (.204**)&lt;sup&gt;<em><strong>&lt;/sup&gt; Word-of-mouth (.195</strong>)&lt;sup&gt;</em><strong>&lt;/sup&gt; High Internet security (.478</strong>)&lt;sup&gt;***&lt;/sup&gt;</td>
<td>Frequent use by acquaintances (.152*)&lt;sup&gt;***&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Socio-</strong></td>
<td>—</td>
<td>Word-of-mouth (.159*)&lt;sup&gt;***&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>psychological</strong></td>
<td>Frequent use by acquaintances (.177*) Services that suit purchasing goals (.190**)&lt;sup&gt;***&lt;/sup&gt;</td>
<td>—</td>
</tr>
<tr>
<td><strong>Performance</strong></td>
<td>Word-of-mouth (.184*)&lt;sup&gt;<em><strong>&lt;/sup&gt; Frequent use by acquaintances (.209</strong>)&lt;sup&gt;</em><strong>&lt;/sup&gt; Retention of receipts (.266</strong>)&lt;sup&gt;**<em>&lt;/sup&gt; Learning how to use (.154</em>)</td>
<td>—</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>—</td>
<td>Brand loyalty (.157*)&lt;sup&gt;<em><strong>&lt;/sup&gt; Major brand name (.204</strong>)&lt;sup&gt;</em>**&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Financial</strong></td>
<td>—</td>
<td>Credibility of stores or websites (.191*)&lt;sup&gt;<em><strong>&lt;/sup&gt; Brand loyalty (.250</strong>)&lt;sup&gt;</em>**&lt;/sup&gt; Retention of receipts (.164*)</td>
</tr>
<tr>
<td><strong>Obsolescence</strong></td>
<td>Ease of exchange and refund (.302**)&lt;sup&gt;<em><strong>&lt;/sup&gt; Word-of-mouth (.256</strong>)&lt;sup&gt;</em><strong>&lt;/sup&gt; Frequent use by acquaintances (.239</strong>)&lt;sup&gt;<em><strong>&lt;/sup&gt; Services that suit purchasing goals (.214</strong>)&lt;sup&gt;</em>**&lt;/sup&gt; Learning how to use (.148*)</td>
<td></td>
</tr>
<tr>
<td><strong>Cognitive</strong></td>
<td>Learning how to use (.173*)&lt;sup&gt;***&lt;/sup&gt;</td>
<td>—</td>
</tr>
</tbody>
</table>

* p<.05, ** p<.01, *** p<.001

---


TABLE 6
Correlations Between Risk dimensions and Risk-Reduction Strategies as a Function of Consumer Attitude Toward Risk (Items Showing Differences)

<table>
<thead>
<tr>
<th>Risk dimension</th>
<th>Risk-taker</th>
<th>Risk-avoider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational</td>
<td>Frequent use by acquaintances (.222**)</td>
<td>Major brand name (.210**)</td>
</tr>
<tr>
<td></td>
<td>Retention of receipts (.160*)</td>
<td>Services that suit purchasing goals (.248**)</td>
</tr>
<tr>
<td></td>
<td>Limiting price range (.228**)</td>
<td></td>
</tr>
<tr>
<td>Privacy</td>
<td>Brand loyalty (.187**)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Word-of-mouth (.210**)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frequent use by acquaintances (.222**)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Services that suit purchasing goals (.195**)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Limiting price range (.154*)</td>
<td></td>
</tr>
<tr>
<td>Socio-psychological</td>
<td>Frequent use by acquaintances (.156*)</td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>Frequent use by acquaintances (.194**)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Limiting price range (.197**)</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>Ease of exchange and refund (.306**)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Word-of-mouth (.232**)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Comparison shopping (.211**)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frequent use by acquaintances (.184*)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Retention of receipts (.150*)</td>
<td></td>
</tr>
<tr>
<td>Financial</td>
<td>Services that suit purchasing goals (.217**)</td>
<td></td>
</tr>
<tr>
<td>Obsolescence</td>
<td>Credibility of stores or websites (.208**)</td>
<td>Comparison shopping (.171*)</td>
</tr>
<tr>
<td></td>
<td>Retention of receipts (.193*)</td>
<td>Major brand name (.259**)</td>
</tr>
<tr>
<td></td>
<td>Easy access to stores (.236**)</td>
<td>Frequent use by acquaintances (.226**)</td>
</tr>
<tr>
<td>Cognitive</td>
<td>Limiting price range (.156*)</td>
<td></td>
</tr>
</tbody>
</table>

* p<.05, ** p<.01, *** p<.001


I. INTRODUCTION

Recent trends in public administration emphasize quality management, citizen orientation and performance results (Alford 2002; Heinrich 2002; Kadir et al. 2000; Laszlo 1997; Rowley 1998; Wisniewski 2001). Korea is not the exception. For example, Seoul City, the capital city of Korea, has assessed citizen satisfaction annually since 1996 and it has reported the survey results to the public via mass media. Seoul City has offered monetary incentives to the several top organizations by using the citizen satisfaction scores every year.

However, the annual citizen satisfaction survey has its limitations since it has been used like a beauty contest. The survey measures, for instance, could hardly assess the citizen’s long-term attitude toward a certain public service or provide information about the quality dimensions requiring improvement. It is difficult to compare sub-indices across industries because of inconsistent measures. Thus, there is a need for more appropriate criteria for public service quality which will provide accurate analyses of status quo, suggest ways for effective improvement, and capture the relationship between service quality and city performance from a macro perspective. We also need a system that allows one to compare indices, dimension scores, and component scores across industries. On this background, we have developed a new model of service quality in the public sector and named the model as Seoul Service Index (SSI).

There are several objectives in developing a new quality model for the public sector service. First, the model should facilitate broad understanding and easy adoption for an immediate institutionalization of the quality management system in the public sector in Seoul. Second, we need a model that guides the way of obtaining the world-class public service of Seoul City by considering various international quality criteria. Third, the model should be useful as an instrument for diagnosing and solving the quality problems for each public service organization by developing internal indices for organizations as well as external ones for their customers (citizens). Fourth, the model should give a comprehensive view by integrating relationships among internal quality management, citizen’s perceived quality, and macro results of city performance.

II. MODEL DEVELOPMENT

Framework

SSI consists of two quality indices. One is SSPI (Seoul Service Potential Index), and the other is SSQI (Seoul Service Quality Index). SSPI assesses back-stage quality or the potential for future SSQI, which represents the level of quality management inside the public institution. SSQI is the citizen’s perception of public service quality, which can be restated as on-stage quality. SSQI is based on the concept of perceived service quality (Parasuraman, Zeithaml, & Berry 1988) that is delivered at every service encounter and constitutes the total experience. SSQI is an instrument for observing the symptoms of the current state of service quality and providing information on which dimensions of quality need improvement. In contrast, SSPI detects the underlying problematic dimensions of quality, which citizens cannot perceive or evaluate directly. SSPI indicates the potential to be an excellent quality organization in the future.

The SSI model integrates the consequences of public service quality from the macro perspective. Undoubtedly, the ultimate goal of public administration is citizen loyalty and citizen happiness. Thus, the model should incorporate the ultimate goal as the construct of city performance (Anderson et al. 1994; Berman and Wang 2000; Bernhardt et al. 2000; Grapentine 1999; Wagenheim 1991). By incorporating city performance measures, the SSI model breaks the myopia of existing quality criteria for the public sector. The framework of the SSI model is shown in Figure 1.

SSPI Model

We reviewed existing quality criteria in both private and public sectors. There are various quality awards and models in many countries. We had reviewed the Malcolm Baldrige National Quality Award, the President Award, and the modified model of the Malcolm Baldrige National Quality Award for the County of Los Angeles (Harwick and Russell 1992) in USA. The Deming Award and Total Integrated Management (Azhashemi and Ho 1999) checklists had been reviewed for understanding the Japanese quality criteria. The EFQM Excellence Model (Eskildsen, Kristensen, and Juhl 2002; Sandbrook 2001) and the Charter Mark criteria were reviewed for understanding the European way of quality management. Besides, Canadian Quality Criteria for Public Sector, the Service Excellence Award in Singapore (SEA) were also reviewed. Many quality criteria were found to be modifications or specifications of the Malcolm Baldrige National Quality Award. In Korea, the KS-SQI model sponsored by Korean Standards Association proposes five drivers of service quality (Yi and Lee 2001). As Seoul City used several criteria in diagnosing and analyzing public organizations’ performance in 2001 and 2002, we also reviewed these criteria developed by Seoul City.

Most of the criteria mentioned above have enablers (or drivers) and results. As SSPI is defined as quality drivers in the present study, we extracted enablers from various models and categorized them initially into ten categories on the basis of similarity in conceptual definition and measurement while considering the characteristics of public institutions. These ten categories were named as components of SSPI. After all models were scrutinized, four upper constructs were also developed that can embrace all ten categories. These four constructs were named as dimensions of SSPI. Each dimension was designed to reflect two or three components. To ensure the careful and logical model building of SSPI, 22 experts in the relevant areas were asked to verify the model. The final hierarchical model of SSPI is shown in Figure 2.
and Oliver 1994). Considering the characteristics of public service, such as protection of minority, citizen safety, distribution equality, etc., we added a new dimension of social quality. Thus, SSQI has four dimensions of Process, Outcome, Servicescape, and Societal Quality. We expect that these four dimensions can be applied to any type of public service.

Sub-components of each dimension were then developed by investigating, collecting and categorizing various quality components and measures in the literature including the KS-SQI model developed in Korea (Yi and Lee 2001). The SSQI model consists of four quality dimensions and ten components with multiple measures. The final hierarchical model of SSQI is presented in Figure 3. **CP Model**

The last stage is the development of city performance dimensions. After reviewing public administration research, we finally found out the most appropriate aspects of city performance: Citizen Loyalty and Citizen Happiness. In the private sector, quality service companies are rewarded with customer satisfaction and loyalty such as positive word-of-mouth, advocacy, and patronage (Yi and La 2004). With the similar rationales, it can be argued that
the public service institutions’ performance should be evaluated as Citizen Satisfaction and Citizen Loyalty (Alford 2002; Donnelly 1999; Sureshchandar et al. 2001; Wilson and Collier 2000; Wisniewski 2002). Citizen Satisfaction could be viewed in the macro perspective so that the CS concept could be extended to Citizen Happiness. The sub-components of Citizen Happiness were developed to be Subjective QOL (Quality Of Life) and Feeling of Happiness. We developed ‘Advocacy of Seoul City Policy’ and ‘Intention to Reside in Seoul’ as the components of the Citizen Loyalty dimension and ‘Subjective QOL’ and ‘Feeling of Happiness’ as the components of the Citizen Happiness dimension. The final hierarchical model of SSQI is presented in Figure 4.
III. MODEL TEST

1. Method

We tried to develop at least two measures for each construct. For the test of SSPI, evaluation sheets were developed that can be assessed by experts based on the field research, observations and documents. For the test of SSQI and CP, citizen survey questionnaires were developed. Measures included one item for ‘overall perception’ in addition to several items for ‘attributes perception.’ We selected representative, mutually exclusive, and industry-specific attributes. Subjective weights on dimensions and components were also measured. In sum, we developed 43 items for SSPI and 58 items for SSQI and CP.

Finally, 22 experts including public officials and professors were recruited for the verification of the models of SSPI, SSQI and CP. A citizen survey was conducted for two public services of subway and civil affairs administration. The sample consisted of 200 citizens for subway and 220 citizens for civil affairs administration. All the questions were measured with 7-point scales.

2. Results

Exploratory factor analysis and confirmatory factor analysis were conducted. The results showed that each dimension had two or three components and each component had one or two measures. All the path coefficients were acceptable, and model fit indices of the CFA looked very satisfactory: $\chi^2(121)=271.54$, the non-normed-fit index (NNFI)=.95, the comparative fit index (CFI)=.93, and the standardized root mean-squared residual (SRMR)=.07. Taken together, the findings indicated that there was a satisfactory fit between the proposed model and the data (Bagozzi and Yi 1988).

Next, an analysis of causal relationships among constructs was conducted. The entire structural model was run for the total sample of subway and civil affairs administration. The results are presented in Figure 7. Overall, path coefficients and model fit indices look satisfactory.

IV. THE FIRST YEAR RESULTS

SSI Scores

The first-year survey was conducted for 7 industries in the public sector in Seoul metropolitan city: civil affairs, public health centers, buses, municipal hospitals, cleaning, water supply and subway. SSI scores were calculated by the following formula: 

$$SSI = \frac{6}{10} SSQI + \frac{4}{10} SSPI$$

putting more weights on SSQI than on SSPI following experts’ suggestions. SSQI analysis was conducted for all the 7 industries, and SSPI analysis was conducted for the first 5 industries. Thus, SSI scores were calculated for 5 industries. Figure 8 shows the scores of SSQI, SSPI, and SSI for five industries.

Causal Relationships

We analyzed causal relationships between SSQI and CP in each industry. The path coefficients and overall model fit indices for each industry look satisfactory.

We then compared the relative importance between the link of SSQI-Citizen Loyalty and the link of SSQI-Citizen Happiness. Chi-
square difference tests were conducted for seven industries. The results showed that there were no significant chi-square differences between the paths for subway, cleaning, buses and public health centers. However, significant chi-square differences between the paths were found for municipal hospitals, water supply and civil affairs administration, in which SSQI had more impact on Citizen Loyalty than on Citizen Happiness. Figure 9 shows the results for municipal hospitals, water supply and civil affairs administration.

We also compared the SSQI-CP relationship across industries. The results are shown in Figure 10. Public health centers had the highest SSQI but the lowest SSQI-CP relationships. Buses had the lowest SSQI but the moderate level of SSQI-CP relationships. Subway had very low SSQI but the highest SSQI-CP relationships. These results suggest that improving service quality in some industries can enhance city performance relatively more than in other industries.
V. DISCUSSION

Contributions

This study has a lot of managerial contributions for public administrators. First of all, if the SSI model is institutionalized in the public sector, constructive competition in pursuit of high service quality will be facilitated. Second, this model will promote service-focused management in the public sector. Third, it enables one to conduct causes and effects analysis via the link of ‘SSPI-SSI-CP.’ Fourth, the SSI model can be used as a managerial tool for diagnosis and treatment at each organization. Fifth, this model will enhance the effectiveness and efficiency of quality improvement efforts. Sixth, public institutions will acquire citizen trust via the feedback system of the SSI model. Seventh, it provides the goal-oriented assessment system.

This study also suggests several theoretical implications. First, it extends the measurement model because the SSI model was developed based on the extensive literature review, contents analysis, meta-analysis, and case analysis. Second, this study also deepens the structure of the measurement model because we developed a three-level hierarchical model of public service quality that delineates structural relationships among constructs. Third, this study enhances the availability of the model across industries, because the model has common dimensions and components adaptable to every industry. Thus, easy, reliable and consistent comparison across industries could be conducted. Fourth, an investigation into service capacity will be possible because the SSPI model is expected to measure back-stage quality drivers. Finally, as one can analyze service impact via the virtuous feedback circle of ‘SSPI-SSI-CP,’ one could investigate the individual service impact and directions for further improvements in a more rigorous way.

Limitations and Future Research

Some limitations of this study should be mentioned. First, we need more concrete and industry-specific items in measures. Second, the number of surveyed industries needs to be increased. The first-year survey was limited to seven industries, but there is a need for extensive research in most of public industries. Third, there is a need for enhancing the participation of each institution. To facilitate the documents submission and cooperation of institutions, we need publicity of the SSI model and education programs. Lastly, an investigation into the link between SSPI and SSQI could not be conducted in the first year because it was assumed that SSPI indicates potentials for future SSQI. If data are cumulated annually, analyses of the direct link between SSPI and SSQI will be possible.

REFERENCES


Service Quality at Hospitals
Sungjin Yoo, Inje University, Korea

ABSTRACT
This study examines the determinants of consumer satisfaction (CS) with hospitals and clinics using SERVPERF and whether there are differences across institutions. Several interesting results are found. First, the major determinants of customer satisfaction at clinics are aspects related with ‘tangibles’ and ‘empathy’ dimensions of services. Secondly, the factor related with ‘reliability’ is important determinant of CS at hospitals. Finally, CS has a significant effect on word of mouth (WOM) and patronage for clinics, whereas CS has a significant effect on WOM but not on patronage for hospitals.

INTRODUCTION
Nationwide, income increased significantly during the 1980s and 1990s. This phenomenon has led to the boom for more concern for well-being, health. The value and lifestyles of Korean is changing dramatically from perspective of survival to enjoying life. So now quality of life (QOL), healthy food, Yoga, diet and health training are trends in Korea and the key word for these symptoms is well-being. Significant portion of TV programs and books are assigned to well-being or health-related stuff. High expectation toward health and well-being has led to demand for high quality medical services

Furthermore, competition in medical services is increasing among domestic hospital and clinics. The number of doctors is increasing rapidly nowadays. In the next 15 years, the number of doctors will be almost doubled, so the managers of hospitals and clinics are concerned with intense competition due to the oversupply of doctors. So they are now more interested in improving service quality and customer satisfaction to make a long-term relationship with customers and attract new customers. Researchers have to provide them with insightful solutions with theoretical and strategic implications. So, there is more need for industry-based researches in service quality studies. There are some researches in service quality of medical services. However, there are few researches on the comparison between hospitals & clinics in terms of service quality.

THEORETICAL BACKGROUND

Service Quality
The definition of quality has different meanings without accordance among scholars and managers. Parasurman, Zeithaml & Berry (1988) proposed SERVQUAL model. In SERVQUAL model, PZB made conceptualization and measurement of service quality. PZB (1994) states that their focus group interview has captured not only the attributes of service quality but also the underlying psychological process by which consumers form service quality judgments. Essentially, on the basis of their focus group findings, PZB (1988) concludes that service quality judgments comprise of five underlying attributes that consumers evaluate on the basis of the expectancy-disconfirmation paradigm (Oliver 1980). The five dimensions or factors of service quality are tangibles, reliability, responsiveness, assurance, and empathy. The definitions of five dimensions are as follows:

- **Tangibles**: Appearance of physical facilities, equipment, personnel, and communication materials
- **Reliability**: Ability to perform the promised service dependably and accurately
- **Responsiveness**: Willingness to help customers and provide prompt service
- **Assurance**: Knowledge and courtesy of employees and their ability to convey trust
- **Empathy**: Caring, individualized attention the firm provides its customers

The five SERVQUAL dimensions, by virtue of being derived from systematic analysis of customers’ rating from hundreds of interviews in several service sectors, are a concise representation of the core criteria that customers employ in evaluating service quality. As such, it is reasonable to speculate that customers would consider all five criteria to be quite important. In fact, PZB (1988) asked users of credit-card, repair-and-maintenance, long-distance telephone, and retail banking service to rate the importance of each SERVQUAL dimension and they found that all five dimensions were considered critical.

Cronin & Taylor (1992) proposed SERVPEF model. They insist on that service quality is determined by performance only. The authors investigated the conceptualization and measurement of service quality and the relationship among service quality, consumer satisfaction, and purchase intentions. They suggested the current operationalization of service quality confounds satisfaction and attitude. Hence, they tested an alternative method of operationalizing perceived service quality and the significance of the relationships among service quality, consumer satisfaction, and purchase intentions. They suggested that the performance-based measure of service quality may be an improved means of measuring the service quality construct, and service quality is an antecedent of consumer satisfaction. Consumer satisfaction has a significant effect on purchase intentions, and service quality has less effect on purchase intentions than does consumer satisfaction.

Service Quality in Medical Services

Cronin and Taylor (1994) revealed that patient satisfaction and healthcare service quality are two empirically different constructs, contrary to the existing healthcare marketing literature. A model for distinguishing between the two is provided. Study results suggest that healthcare managers can dispense with the SERVQUAL service quality measurement scale and concentrate on the SERVPERF scale instead.

Four models for measuring healthcare service quality were examined to determine their efficacy when applied to dental practices (McAlexander, Kaldenberg, and Koenig 1994). The four models were the SERVQUAL method that measures consumer service expectations and perceptions of the performance of the healthcare provider, a weighted SERVQUAL model, a SERVPERF model measuring performance only, and a weighted SERVPERF model. Research results indicate that the SERVPERF model is superior to the SERVQUAL model for measuring the provision of dental healthcare services. Dental healthcare consumers’ perceptions of quality were heavily influenced by provider performance assessments.

Customer Satisfaction (CS)

I defined customer satisfaction in this study as the emotional state that occurs as a result of a customer’s interaction with the firm over time (Anderson, Fornell, and Lehman 1994; Crosby, Evans, and Cowles 1990)
There are two types of definitions that differ in term of emphasizing either as an outcome or as a process. Some definitions construe CS as an outcome resulting from the consumption experience. These definitions include: “the buyer’s cognitive state of being adequately or inadequately rewarded for the sacrifices he has undergone” (Howard and Sheth 1969); “an emotional response to the experience provided by, associated with particular products or services purchased, retail outlets, or even molar patterns of behavior such as shopping and buyer behavior, as well as the overall marketplace” (Westbrook and Reilly 1983); and “the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer’s prior feelings about the consumption experience” (Oliver 1981).

Consumer satisfaction has also been defined as “an evaluation rendered that the consumption experience was at least as good as it was supposed to be” (Hunt 1977), as “an evaluation that the chosen alternative is consistent with prior beliefs with respect to that alternative” (Engel and Blackwell 1982) and as “the consumer’s response to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product after its consumption” (Tse and Wilton 1988). These definitions suggest that an evaluation process is an important element underlying CS. This process-oriented approach, as compared to the outcome-oriented approach, seems useful in that it spans the entire consumption experience and points to an important process which may lead to CS with unique measures capturing unique components of each stage. This approach seems to draw more attention to the perceptual, evaluative, and psychological process that combine to generate CS. The process approach has been adopted by many researchers.

Relationship between Service Quality & CS

Service quality has been described as a form of attitude, related but not equivalent to satisfaction, that result from the comparison of expectations with performance (Bolton and Drew 1991; Parasuraman, Zeithaml, and Berry 1988). Bolton and Drew (1991) suggest that service quality and satisfaction are distinct constructs. The best explanation of the difference between the two is that perceived service quality is a form of attitude, a long-run overall evaluation, whereas satisfaction is a transaction-specific measure (Bitner 1990; Bolton and Drew 1991; Parasuraman, Zeithaml, and Berry 1988). PZB (1998) further suggest that the difference lies in the way disconfirmation is operationalized. They state that in measuring perceived service quality the level of comparison is what a consumer should expect, whereas in measures of satisfaction the appropriate comparison is what a consumer would expect.

This distinction is important to managers and researchers alike because providers need to know whether their objective be to have consumers who are satisfied with their performance or to deliver the maximum level of perceived service quality. PZB (1988) proposed that higher levels of perceived service quality result in increased consumer satisfaction.

Consequences of CS

Word-of-Mouth

Word-of-mouth seems to have an important impact on consumer responses for several reasons. First, since it involves face-to-face communication, it might have a communication. Word-of-mouth communication may contain concrete information based on vivid experience incidents. Second, it is originated by non-firm, non-marketing sources, and it is likely to be perceived as more credible than other communications from marketers. Third, word-of-mouth can be more damaging since it is communicated to many others. An important determinant of word-of-mouth seems to be consumer satisfaction or dissatisfaction. Thus, researchers have examined word-of-mouth as one of the consequences of CS with a consumption experience.

Richins (1983) examined negative word-of-mouth by dissatisfied consumers (telling others about their unsatisfactory experience) and identified variables that distinguish this response from others, such as switching brands, stopping patronage of the store, or making a complaint. The results indicated that negative word-of-mouth occurred when the problem was severe, and when the retailer’s responsiveness to complaints was negatively perceived. It was also affected by attributions of the dissatisfaction; more negative word-of-mouth was made when blame for the dissatisfaction was attributed to the retailers.

A review by Weinberger, Allen, and Dillon (1981) regarding research investigating the impact of negative information on consumers lists few studies that investigate negative word-of-mouth. Consumers seem to give more weight to negative information and non-marketing sources of information in evaluations than to positive information and marketing information. Further, word-of-mouth communication literature has focused on opinion leaders and diffusion of innovation.

Patronage

Newman and Werbel (1973) noted that dissatisfied consumers are less likely to repurchase the brand than satisfied consumers. One study reported that from 30% to more than 90% of dissatisfied consumers did not intend to repurchase the brand. Oliver (1980) hypothesized that CS influences attitude, which in turn affects repurchase intention. Results supported this view in that CS had a positive effect on attitudes. These positive attitudes were found to increase patronage or purchase intention, which is consistent with the Fishbein model. Many studies have found that CS influences patronage as well as post-purchase intention. This implies that CS is likely to increase repeat purchase behavior and brand loyalty and to reduce brand switching.

It was also found that those dissatisfied consumers who made a complaint about their dissatisfaction reported higher repurchase intentions than those who did not complain, even if their complaints were not satisfactorily handled. This finding implies that firms should encourage dissatisfied consumers to voice their complaints rather than switching to other brands. The act of giving consumers opportunities to complain seems to be important for a firm’s positive image and sales.

METHODS

Research Model

The research model of this study can be summarized just like Figure 1. Factors such as tangibles, reliability, responsiveness, assurance, empathy that are five factors of SERVQUAL, influence CS. Consequences of CS are word of mouth (WOM) and patronage.

The Sample

I obtained data from inhabitants who have the experience of clinics and hospitals. I used interviewed survey and gathered data using convenience sampling in the periods from Oct. 1, to Oct.14, 2003 in Seoul and Busan area. I obtained responses from 200 people (clinics 100; hospitals 100).

Measures

I used SERVQUAL 22 items for the measurement of tangibles, reliability, responsiveness, assurance, empathy. I used for this study 10-point Likert-type scale.
RESULTS

Study 1 (Clinics)
TABLE 1 shows that tangibles and empathy among 5 SERVQUAL factors have significant effects on customer satisfaction in clinics.

TABLE 2 shows that customer satisfaction (CS) in clinics has a significant effect on word of mouth (WOM).

TABLE 3 shows that customer satisfaction (CS) in clinics has a significant effect on patronage.

Figure 2 is summary of study 1 (clinics). Among 5 SERVQUAL dimensions, tangibles and empathy has a significant effect on CS, and CS has significant effects on WOM and patronage.

Study 2 (Hospitals)

TABLE 4 shows that only reliability among 5 SERVQUAL factors have significant effects on customer satisfaction in hospitals.

TABLE 5 shows that customer satisfaction (CS) in hospitals has a significant effect on word of mouth (WOM).

TABLE 6 shows that customer satisfaction (CS) in hospitals does not have a significant effect on patronage.

Figure 3 is summary of study 2 (hospitals). Among 5 SERVQUAL dimensions, only reliability has a significant effect on CS, and CS has significant effects on WOM, but not on patronage.

This study examined the determinants and consequences of customer satisfaction with clinics and hospitals and there are some differences according to different medical institutions. Specifically, we extended the target of the research to medical services applying SERVQUAL to the clinics and hospitals. In clinics, the determinants of CS are aspects related with the tangibles, empathy. In hospitals, the determinants of CS are aspects related with the reliability. In clinics, WOM and patronage are positively influenced by CS. In hospitals, WOM is positively influenced by CS but patronage is not. So, determinants and consequences of customer satisfaction are different according to different medical services type.

Strategic Implications (Clinics)
The appearance of physical facilities, equipment and parking space are important factors. The quality of building and interior of clinics are very important especially to the new customers. Parking space or convenience of the parking might determine success or failure of the clinics. Convenient location is also important to improve profits. Usually customers of clinics are inclined to visit clinics that are located close to their houses or offices. Convenience of location can improve the accessibility of patients and ease of contact.

Doctors have the tendency to use medical terms to patients, but we hardly understand the meaning. To improve customer satisfaction,
### TABLE 2
CS on WOM (Clinics)

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>T-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOM</td>
<td>.723</td>
<td>10.361**</td>
<td>.000</td>
</tr>
</tbody>
</table>

R² = .523, Adjusted R² = .518, F=107.358**  
*P<.05, **P<.01

### TABLE 3
CS on Patronage (Clinics)

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>T-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patronage</td>
<td>.777</td>
<td>12.215**</td>
<td>.000</td>
</tr>
</tbody>
</table>

R² = .604, Adjusted R² = .600, F=149.204**  
*P<.05, **P<.01

### FIGURE 2
Results of Study 1 (clinics)

![Figure 2](attachment:image_url)

### TABLE 4
Regression Results for Study 2

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>T-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td>.125</td>
<td>1.505</td>
<td>.136</td>
</tr>
<tr>
<td>Reliability</td>
<td>.307</td>
<td>2.19*</td>
<td>.037</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>.019</td>
<td>.136</td>
<td>.892</td>
</tr>
<tr>
<td>Assurance</td>
<td>.215</td>
<td>1.649</td>
<td>.103</td>
</tr>
<tr>
<td>Empathy</td>
<td>.137</td>
<td>.986</td>
<td>.327</td>
</tr>
</tbody>
</table>

R² = .564, Adjusted R² = .536, F=20.064**  
*P<.05, **P<.01
they should keep customers informed in language they can understand and they should listen to customers. The doctors have to clearly and kindly explain the causes and process of the illness. The doctors in clinics have to be expert not only in medical knowledge but also in communication. And, the clinics continuously have to devote themselves to know customers and their needs.

Strategic Implications (Hospitals)
In hospitals, reliability only has the critical impact on customer satisfaction among 5 SERVQUAL factors. Reliability means ability to perform the necessary medical services dependably and accurately. To improve reliability in hospitals, I can recommend these things; first, recruit qualified doctors and nurses. The patients who visit hospitals might probably suffer more serious illness that can’t be treated or difficult to treat in clinics. So, compared to clinics, the knowledge or expertise of doctors and staffs in hospitals must be better than that of doctors and staffs in clinics. Performing the service by the promised time and accuracy of the bills are important. Cost compared with competing hospitals is important factor.

TABLE 5
CS on WOM (Hospitals)

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>T-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOM</td>
<td>.806</td>
<td>13.48**</td>
<td>.000</td>
</tr>
</tbody>
</table>

R² = .650, Adjusted R² = .646, F=181.897

*P<.05, **P<.01

TABLE 6
CS on Patronage (Hospitals)

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>T-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patronage</td>
<td>.114</td>
<td>1.140</td>
<td>.257</td>
</tr>
</tbody>
</table>

R² = .013, Adjusted R² = .003, F=1.298

*P<.05, **P<.01

FIGURE 3
Results of Study 2 (hospitals)

REFERENCES


A product recommendation model (Ansari, Essegaier, and Kohli 2000) is a key tool in customer relationship management (CRM). An effective recommendation model contributes to the CRM goal of customer expansion by offering high-valued products to promising regular customers. When regular customers purchase multiple products from the same company, long-term customer retention is likely to be stronger because of customers’ increased benefits and high switching costs.

This research develops a product recommendation model based upon the principle that customer preference similarities stemming from prior response behavior is a key element in predicting their current product purchase. The proposed product recommendation model is dependent upon two complementary methodologies: joint space mapping (placing customers and products on the same pick-any scaling map) and spatial choice modeling (specifically, the autologistic model (Besag 1974)). Briefly stated, spatial choice models (Bronnenberg and Mahajan 2001; Bronnenberg and Sismeiro 2002) assume that choices made by one customer are positively correlated with choices made by other customers with similar preferences. Using a joint space map based upon past purchase behavior, a predictive model is calibrated in which the probability of product purchase depends upon the customer’s relative distance to other customers. This approach allows the analyst to predict a given customers’ purchase probability using the model in which the purchase probability depends upon purchase behavior of similar customers. In this paper, the proposed product recommendation model considers only a single target product, reducing the model objective to finding most promising customers who will buy the given target product. An empirical analysis of this single-product recommendation model compares the proposed autologistic (AL) model along with three reasonable benchmark models—(1) the principal components (PC) logit model, (2) Moore-Winer (MW) model (Moore and Winer 1987), and (3) collaborative filtering (CF) (Herlocker, Konstan, and Riedl 1999). In the analysis, the autologistic model provides excellent predictions relative to the three benchmark models for a customer database of an insurance firm.

This study is intended to provide a database marketer with a new tool for identifying promising customers. From a methodological perspective, we demonstrate how ideas from spatial statistics can be used to develop a model that links customer similarity to choice behavior. In particular, the approach promises to be very effective in capturing the effects of variables that drive choice behavior, but are not explicitly included in the customer database available to the researcher. For example, variables such as lifestyle, psychographics, financial resources, and product features often determine choice behavior, but are typically absent from a firm’s database. As long as a psychometric map can be created in which locational proximity is related to product preference, the suggested methodology allows the analyst to construct a model that implicitly contains more information about customer behavior than is apparent from the available data. The current model is limited to predict customer purchases of only a single target product. In future research, it would be worthwhile to generalize the single-product model to construct a multiple-product recommendation model that allows the researcher to integrate product similarity to deal with a multiple-product recommendation case. Eventually, exploring a further generalization of the extended multiple-product model is suggested for future research to incorporate temporal dynamics, particularly for repeatedly purchased products. In brief, the final model will be able to deal with three dimensions of purchases—(1) customer similarity, (2) product similarity, and (3) temporal dynamics.

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Asymmetric Consumer Learning and Inventory Competition
Vishal Gaur, New York University, U.S.A.
Young-Hoon Park, Cornell University, U.S.A.

ABSTRACT
We develop a model of consumer learning and choice behavior in response to uncertain service at the marketplace. Learning could be asymmetric, i.e., consumers may associate different weights with positive and negative experiences. Under this demand model, we consider a non-cooperative game between two retailers competing on the basis of their service levels. Our model yields a unique pure strategy Nash equilibrium. We show that the inventory game is analogous to a Prisoners’ Dilemma, and that asymmetry in consumer learning has a significant impact on total industry profits and inventory levels. When retailers have different costs, it also determines the extent of competitive advantage enjoyed by the lower cost retailer.

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A Simultaneous Approach to Constrained Multiple Correspondence Analysis and Cluster Analysis for Market Segmentation
Heungsun Hwang, HEC Montreal, Canada
Byunghwa Yang, University of Michigan, U.S.A.
Yoshio Takane, McGill University, Canada

EXTENDED ABSTRACT

A common practice for cluster-based market segmentation is to first uncover a low-dimensional representation of variables (e.g., the first few principal components) with data reduction techniques such as principal components analysis, factor analysis, or multidimensional scaling, and to subsequently use cluster analysis to identify a set of segments based on the low-dimensional data (Arimond & Elfessi, 2001; Furse, Punj, & Stewart, 1984; Green, Shaffer, & Patterson, 1988; Sheppard, 1996). This two-step sequential or tandem approach (Arabie & Hubert, 1994) has been advocated for substantive reasons (see Green & Krieger, 1995).

Despite its popularity, many authors have warned about a critical problem which is inherent to the tandem approach. Specifically, there is no guarantee that the low-dimensional representation of the data obtained in step one are optimal for subsequently identifying segmentation structures because data reduction is carried out with no reference to cluster analysis (Arabie & Hubert, 1994; Chang, 1983; DeSarbo, Jedidi, Cool, & Schendel, 1990; De Soete & Carroll, 1994). This suggests that preliminary data reduction may mask or distort the true segmentation structures in the original data. Green and Krieger (1995) offer empirical examples which support the legitimacy of this concern. Similarly, Vichi and Kiers (2001) present a simulation-based example in which tandem analysis failed to identify correct segments in the context of principal components analysis. Technically, this problem stems from the fact that each step of the tandem approach involves a different optimization criterion (i.e., one criterion for data reduction and another for cluster analysis) and that these criteria are addressed separately.

As a solution to the problem, the combined use of data reduction and cluster analysis in a single framework has been recommended (Bock, 1987; DeSarbo, Howard, & Jedidi, 1991; De Soete & Carroll, 1994; Heiser, 1993; van Buuren & Heiser, 1989; Vichi & Kiers, 2001). In essence, this amounts to obtaining a low-dimensional representation of variables and classifying cases into a set of segments simultaneously. More technically, this involves combining the two different optimization criteria into a single one. This simultaneous approach ensures that low-dimensional data are optimally chosen in such a way so as to facilitate the identification of segments.

Nevertheless, in the simultaneous approach, it is not uncommon that the low-dimensional data are often difficult to interpret so that the resultant segments become difficult to characterize. To enhance the interpretability of low-dimensional data, one may utilize additional information or prior knowledge on the data. One can incorporate such additional information in the form of linear constraints (Böckenholt & Böckenholt, 1990; Nishisato, 1984; Takane & Shibayama, 1991; Takane, Yanai, & Mayekawa, 1991; ter Braak, 1988; van Buuren & de Leeuw, 1992; Yanai, 1986, 1998). By imposing constraints on data, one may simplify the interpretations of the obtained solutions because the data to be analyzed are already structured by the constraints (Böckenholt & Böckenholt, 1990). From a more technical perspective, one may obtain more reliable parameter estimates if imposed constraints are consistent with the data (Hwang & Takane, 2002).

In this paper, a new tool for market segmentation is proposed. The method is designed to simultaneously provide a low-dimensional representation of categorical variables and to classify cases into a set of segments. It is also designed to allow one to impose linear constraints on variables so as to facilitate the interpretations of solutions. More specifically, it involves the combination of (1) constrained multiple correspondence analysis (Hwang & Takane, 2002; van Buuren & de Leeuw, 1992) for obtaining a constrained low-dimensional data with (2) the k-means algorithm (MacQueen, 1967) for identifying segments.

In this paper, an optimization criterion that combines the criterion for constrained multiple correspondence analysis and that for the k-means algorithm in a single framework is presented. An alternating least squares algorithm (de Leeuw, Young, & Takane, 1976) is developed to minimize the optimization criterion for parameter estimation. By analyzing data collected on clothing brands and attributes, the authors empirically demonstrate that the method affords a flexible and parsimonious graphical display of segmentation structures inherent in multivariate categorical data. Although the contribution of the proposed method to the segmentation literature is largely technical, its important implications for consumer researchers and practitioners are also discussed.

REFERENCES


ABSTRACT

Using pure single-source data, this paper provides evidence for the existence and magnitude of long-term advertising effects across FMCG product categories. Furthermore, we focus on the difficulties that arise for well-established brands when new products are introduced into the market and product innovations take place. Our research shows that such occurrences drastically alter the relationship between share of voice and share of market in any given FMCG market, hence making it pivotal for marketers to focus on such relationships in order to maintain market position.

ADVERTISING ELASTICITIES

In theoretical economics, the question “what is optimal advertising?” has an elegant answer (Dorfman and Steiner, 1954; Rasmussen, 1957; 1977; Palda, 1969). If we term the price of the product p, the variable costs per unit c, the quantity sold Q and the total advertising spending A, then in the optimal situation, the following condition should be met:

\[ E_A = \frac{A}{(p-c)Q} \]  \hspace{1cm} (1)

where \( E_A \) is the advertising elasticity, \( Q \) is the quantity sold, and \( A \) the amount spent on advertising.

The problems with this simple formulation are first and foremost:

(I.) It describes a condition that has to be met in the optimal situation, and not a formula that can be applied in any simple, mathematical optimization procedure.

(II.) The problems involved in estimating the advertising elasticity are many and varied, and in the long history of marketing, reliable estimates of advertising elasticities are few.

To estimate ‘optimal advertising’ as a condition to be met in the optimal situation (I) disregards some of the real complexities associated with studying advertising effectiveness: In estimating advertising elasticity, one must somehow take into account the dynamic nature of advertising, that is, the short-term, medium-term and long-term effects of advertising spending. This is not easily done. Also, the problem formulation (I) disregards all the dynamic influences of other marketing activities, such as price, product change, distribution etc.

The difficulties in estimating advertising elasticity derive from some of these issues. Particularly in the real world, it is difficult to find data where other factors besides advertising are stable or at least quantified in a meaningful way, so that estimates can be made. Furthermore, it is difficult to define the proper period of time to be studied (month, budget year, other?), and subsequently take into consideration the influence of advertising in previous periods, as well as the influence of the present advertising in future periods. These issues are discussed thoroughly in most marketing texts (Kotler, 1987; Peters and Olsen, 1996); in this particular context, Palda (1969) is an important contributor.

Therefore, some valuable observations can be made:

1. It can be shown that in the optimal situation, advertising elasticity should be less than one, suggesting that if the data in any way indicate advertising elasticities greater than one, it also suggests under-spending on advertising (Rasmussen, 1957).

2. When the advertising demand function takes on a very special form, namely:

\[ q = e^{cA} \]  \hspace{1cm} (2)

the advertising elasticity remains constant. In principle, the equations can be solved. This, however, is rarely the case, and certainly never with an S-shaped demand function.

3. It follows that for the practical policy of keeping advertising as a fixed percentage of sales to be optimal, this would require advertising elasticity to remain constant over a longer interval.

However, it may be that the advertising demand function in a certain interval around the level of actual advertising spending may be approached with a type (2.) advertising response function. Then if, in the first case, the advertising budget fulfills the conditions proposed in type 1, it would also do so within a certain range of smaller or larger sales quantities with advertising as a fixed percentage of sales.

SHORT- AND MEDIUM-TERM ADVERTISING EFFECT AND SINGLE-SOURCE DATA

In recent years, the access to electronic, single-source data on consumers’ exposure to advertising and their purchasing behavior has given the marketer new possibilities of estimating effects of advertising for FMCGs. However, for a number of reasons, these data have rarely been used for calculating advertising elasticities in any direct way (Broadbent, 2001). Rather, more simple measures have been used. Jones (1992) introduces the concept of STAS (Short-term Advertising Strength), defined as

\[ \frac{\text{Sales to consumers exposed to ads}}{\text{Sales to all consumers exposed to ads}} \div \frac{\text{Sales to consumers not exposed to ads}}{\text{Sales to all consumers not exposed to ads}} \]  \hspace{1cm} (3)

This measure, and its applicability, has been discussed in many contexts (Jones, 1995, 1997; Broadbent, 2001; Hansen and Hansen, 2001). As suggested by its name, short-term advertising strength is a measure of the short-term effects of advertising. Other researchers have used different ways of cross tabulating the data—some have looked at the number of days between exposure and subsequent purchase (McDonald, 1997); others have studied sales after exposure one day prior to a purchase, two days prior to a purchase, etc. (Roberts, 1998; McDonald, 1997). Others again have worked with more refined statistical models, such as the logit model.
LONG-TERM EFFECTS OF ADVERTISING

Advertising effects are not limited to the sum of short- and medium-term effects. Even longer-term effects may exist, and may be important in their own right for the advertising planning and advertising budgeting. Such effects may be observable in the case of brands where advertising has been terminated, but having been advertised strongly in the past, maintain important market positions. These effects may be thought of as the ability of brands that have been well advertised in the past to obtain premium prices and/or sustain market shares with reduced marketing expenditures. Such effects are particularly observable with brands that have been on the market for an extended period of time. Even though the expectation of such effects may be a major determinant for budget sizes in connection with new introductions, studies attempting to quantify long-term effects tend to concentrate on brands of a longer standing.

Here, the concept of share of market, relative to share of voice, has been an important tool. Underlying all work on share of voice/share of market is the assumption that somehow the share of market, which a particular brand obtains, relates to the brand’s share of the total amount of advertising in the product category. However, several issues have to be settled regarding the definitions of share of voice and share of market before meaningful analyses of available data can be carried out.

Share of market may be measured in terms of share of volume, share of purchases, or share of units purchased. As shown by Jones (1989) and Buck (2001), relationships that can be established are not particularly sensitive to the specific choice of share of market measure. More important is the definition of what exactly constitutes the market. In many product areas, competition may exist between brands, normally assigned to different product markets. The fact remains that any given FMCG market consists of a wide variety of very different brands. Buck (2001) shows the average share of market structure for 26 FMCG categories (Table 1).

Over the years, the structure of Buck’s data has changed across a number of categories. Since 1975, the market share of private labels has grown from 16.4% to 28.6%, resulting in the loss of market shares for all other types of brands in these categories. When studying share of voice versus share of market, very different results emerge, depending upon whether all brands, only brands that are advertised for or all brands except private label brands are included in the study (Jones, 1989; Buck, 2001). The exclusion of private labels may have an important effect in periods where their share of the total market is increasing. In this instance, brands that are advertised are losing market shares, not so as a result of their advertising policy, but rather of the structural changes in the retail market.

The definition of the share of voice should be considered thoroughly also. Share of voice may be measured in terms of share of budget, and in terms of share of exposures. To the extent the different advertisers pay different prices for the same advertising space, the choice of measure becomes important. Moreover, when studies that include a broader variety of media (for instance, both...

<table>
<thead>
<tr>
<th>Position in category</th>
<th>1999 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand leader</td>
<td>32.6</td>
</tr>
<tr>
<td>No. 2 brand</td>
<td>14.3</td>
</tr>
<tr>
<td>Other brands (each&gt;2%)</td>
<td>17.8</td>
</tr>
<tr>
<td>Other brands (each&lt;2%)</td>
<td>6.8</td>
</tr>
<tr>
<td>Private label</td>
<td>28.6</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>
television and print) are carried out, the number of exposures such as GRPs (or TRPs) may not be useful, since they may have different meanings in different media settings.

Major published studies have concentrated on three important relationships.

- **Share of voice vs. share of market**
- **Share of voice minus share of market, relative to share of market**
- **Changes in share of voice vs. changes in share of market**

In one of the earliest and most frequently quoted studies, John Philip Jones focuses on the first two measures. Based on data on 1096 international brands, collected by Jones in 1989, and elaborated upon in Broadbent (1989), a relationship appears between share of market (measured as turnover) and share of voice (measured in terms of advertising spending). On average, Jones’ data show larger market shares associated with larger shares of voice. In analyzing the data, Jones also introduces the Advertising Intensiveness Curve. The basic data are shown in Table 2. The advertising intensiveness curve based on Jones’ data is shown in Figure 1.

These findings suggest that, on average, larger brands can get away with spending less on advertising, while smaller brands and new brands, trying to get a foothold in the market, have to invest more than average on advertising. A number of individual differences exist for different product categories, and external factors such as the use of promotions, introduction of new brands and heavy retail brand activities influence this basic relationship in the individual markets.

Another major study is published by Buck (2001). Buck uses Taylor Nelson/Sofres’ Super panel data on market shares, and data on advertising spending from their Market Intelligence data. Here, the share of market is measured in terms of number of purchases, and advertising in terms of gross advertising spending (disregard-
Data are collected for individual years, the first being 1975 and the last 1999. In this study, only the first and the second largest brands are looked at within 26 different FMCG categories. The rest of the market is seen as one artificial "third brand". The basic relationship established for 1975 is shown in Figure 2. The 1999 data appear very similar.

The existence of an advertising intensiveness curve is also suggested in the data as shown in Table 3. Also, in Buck’s data, a relationship between changes in share of market and changes in share of voice is suggested. This is shown in Table 4. It appears that brands that have been growing during the 4-year period from 1995 to 1999 on average had a larger share of voice–share of market.

In spite of their agreeing results, each of the studies discussed here has its own characteristics. Jones’ 1989-data is static in the sense that the relationship between share of voice and share of market is studied in a particular year. Since one may argue that in some cases the relationship results from product managers’ decisions to change advertising budgets depending upon how their brand is performing, part of the relationship reported may be ascribable to advertising budgets being adjusted to market share and not vice versa.

The Buck studies rely upon relatively few brands, and therefore it does not enable us to draw complete pictures of the development of advertised brands in individual markets. Also, in all studies, data analyses are carried out at an aggregate level. Total advertising is compared with market share for whole markets. In most published studies, authors have rarely been allowed to identify data on an individual brand level; and to overcome these weaknesses, the present study was developed.

### DATA FOR THE PRESENT STUDY

The AdLab database used here is a diary based single-source panel database, originally developed by Carlton Independent Television, and collected in the UK by Taylor Nelson in the period 1985-1990 (Hansen & Hansen 2001). The panel consisted of app. 1,000 households, and data were collected on a week-to-week basis.

---

**FIGURE 2**

SoV vs. SoM 1975. (Buck, 2001)

**TABLE 3**

SoV and SoM averages for brands grouped by size (excluding private label shares). (Buck, 2001)

<table>
<thead>
<tr>
<th></th>
<th>1975</th>
<th>1999</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Brands</td>
<td>Brands</td>
</tr>
<tr>
<td></td>
<td>&lt;28 % share</td>
<td>&gt;28 % share</td>
</tr>
<tr>
<td>Average SoV– SoM</td>
<td>+ 2.4</td>
<td>- 2.5</td>
</tr>
<tr>
<td>Average SoV / SoM</td>
<td>1.2</td>
<td>0.9</td>
</tr>
<tr>
<td>% Investment brands</td>
<td>43</td>
<td>43</td>
</tr>
</tbody>
</table>
The fact that this is the case makes these particular kinds of brands of little or no use to us in the analyses, keeping in mind that we want to examine the relationship between positive shares of voice and positive shares of market. Therefore, we adjusted the data by removing brands that have “no voice” as well as brands that did not have their own brand name in the purchase diary (brands registered as “Other brands” are excluded). Thus, an adjusted share of market is calculated where “the market” now consists of only those brands that have positive shares of voice. Following this necessary adjustment, it was a straightforward task to plot share of market as a function of share of voice, and then apply a regression analysis to establish a best fit of a function to describe the relationship between share of voice and share of market. Similarly, the Advertising Intensiveness Curve (share of voice minus share of market related to the share of market) can be analyzed.

### Analysis and results

First, to get a general idea of how the Advertising Intensiveness Curve works and what it says about the relationship between Share of Voice (SoV) and Share of Market (SoM), we will write the formula for the AIC, as we found it in these data:

\[
\text{SoV} - \text{SoM} = \alpha \cdot \text{SoM} + \text{Const} \quad \text{(AIC)}
\]

From this follows that

\[
\text{SoV} = (1 + \alpha) \cdot \text{SoM} + \text{Const}
\]

When Share of Market changes, either positively or negatively, the resulting change in Share of Voice becomes:

\[
\Delta \text{SoV} = (1 + \alpha) \cdot \Delta \text{SoM}
\]

where \(\alpha\) denotes the slope of the Advertising Intensiveness Curve, as found in the linear regression analyses of the data.

Because \(\alpha\) is generally assumed to be negative, we can make a few notes on how the slope of the fitted Advertising Intensiveness Curve influences the need for advertising when share of market is changed. In general, the steeper the slope, i.e. the more negative the \(\alpha\), the less you need to gain shares of voice when you gain shares of market. Correspondingly, the steeper the slope of the Advertising Intensiveness Curve, the less possible it will be to save on shares of voice when you lose market shares.

Our original data from the AdLab database covers 48 different brand categories (for a complete list of categories, see appendix I). Of the total number of 444 brands in the 48 categories, 530 brands or brand constellations were excluded, due to the before mentioned lack of voice or unclear brand definitions. 314 brands were left in 45 categories, representing a total number of purchases of 1,017,798, and a total of 154,784 TV insertions in the period 1986-1989.

Each brands’ share of market was calculated, relative to the other advertising brands in the same product category. Figure 3
Table 5 shows the significance and the estimates of the coefficients in the linear regression model. As can be seen, the linear regression model explained 34.7% of the total variance in the data.

The regression analysis shows that the relationship between share of market and (share of voice-share of market), proposed by John Philip Jones, also exists in these single-source data on FMCG products. On average, brands with smaller market shares evidently keep a share of voice above their share of market, while brands with larger shares of market have relatively smaller shares of voice in general. Furthermore, it shows that on average a brand should keep a share of voice equal to its share of market when its market share is around 14% of the total market related to advertising brands.

The sensitivity of a change in share of market on share of voice can be calculated as

\[ \Delta \text{SoM} = 1 \Rightarrow \Delta \text{SoV} = (1 - 0.418) \times 1 = 0.582 \]

This indicates that an increase of share of market with 1 percentage point should correspond to an increase in share of voice of 0.582 percentage points in order to keep up with the rest of the market.

At the same time, a decrease in market share of 1 percentage point corresponds to a decrease in share of voice of 0.582 percentage points.

**High voice and low voice product categories.**

Our hypothesis was that the level of voice in a certain product category would influence both the slope and the constant of the Advertising Intensiveness Curve. In order to determine what can be said to be a high level of voice, respectively a low level of voice, we therefore applied a separating rule to the data.

Among the 45 examined brand categories, the level of voice varied from category to category—the highest level was found in the...
"breakfast cereal" category, with a total number of TV advertisements of 24,468 in the 4-year period. At the other end of the scale was the product category "packet soup". In this category, only 146 TV ads were reported in the total 4-year period. The average number of TV ads in the categories was 3,400. We separated the total brand categories into high voice categories—those above 3,400 TV ads—and low voice categories—those below 3,400 TV ads.

Then we applied standard linear regression to the two new datasets—the results are summarized in Tables 6 and 7 below.

Both models explain a significant amount of the variance in the data sets. 26.7% of the variance is explained in the product categories with a high level of voice, while 40.2% of the variance is explained in the product categories with a relatively low level of voice.

From the coefficients, it can be seen that there are significant differences between the Advertising Intensiveness Curves in the two different types of voice levels. Both the constants, i.e. the intersection of the AIC with the share of voice-share of market axis, and the slopes of the Advertising Intensiveness Curves seem to depend on whether the market has a high or a low level of total voice.

Figure 4 illustrates how high and low voice, respectively, alters the position of the Advertising Intensiveness Curve.

The black line is the linear regression line representing the best fit of the total data set. The white line represents the best fit of the brands in the categories with a relatively high level of voice, while the dotted black line represents the best fit of the data from the categories with a relatively low level of voice.

As noted earlier, a steeper slope of the Advertising Intensiveness Curve indicates both advantages and disadvantages. In Figure 4, the steepest curve arises among the product categories with a relatively low total advertising budget. The effect of this is that when a brand increases its share of market in a market with low voice, it does not have to increase its share of voice as much as the brand situated in a market with a relatively high voice. In this case, the brand in a low-voice market would have to increase its share of voice with app. 0.51 times the increase in market share whereas the brand in a high-voice market would need to increase its share of voice with app. 0.70 times the increase in market share. The reason for this could very well be the fact that in a high-voice type of market, it is much more important to follow the norm in the market—when the brand increases in market share, it must also increase its share of voice to a larger extent than in low voice markets.

This seems to imply that brands that operate in high voice markets do not have the same opportunities of making profits from increasing market shares by reducing their advertising budgets as the brands that operate in less voice intensive markets.

On the other hand, the fact that the constant is relatively higher in the analysis of the low voice markets seems to imply that when introducing new brands (which per definition have small market

<table>
<thead>
<tr>
<th>TABLE 6</th>
<th>Regression analysis, high level of voice</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=164</td>
<td>Non-standardized Coefficients</td>
</tr>
<tr>
<td>Model</td>
<td>B</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>2.585</td>
</tr>
<tr>
<td>SoM High level of voice</td>
<td>-.303</td>
</tr>
</tbody>
</table>

Dependent Variable: Sov-SoM High level of voice

<table>
<thead>
<tr>
<th>TABLE 7</th>
<th>Regression analysis, low level of voice</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=150</td>
<td>Non-standardized Coefficients</td>
</tr>
<tr>
<td>Model</td>
<td>B</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>10.094</td>
</tr>
<tr>
<td>SoM Low voice cat</td>
<td>-.488</td>
</tr>
</tbody>
</table>

Dependent Variable: Sov-SoM Low level of voice
Turning the focus to the type of competition in markets, we set up a rule to separate the data into two different categories of markets, oligopoly and competitive markets. In our analysis, we chose to separate the brand categories in such a way that an almost equal amount of brands fell into the two categories. Our selection rule for the oligopoly category was that the two leading brands combined should hold more than 45% of the total market, including those brands with no voice. The result of applying this rule was that 27 product categories with a total of 146 brands were classified as oligopoly markets, while the remaining 18 product categories, with a total of 168 brands, were classified as competitive.

Linear regression analyses were carried out on these two new sub-groups of the AdLab database. The result of the analyses is shown in Tables 8 and 9.

In this case, both models also explain significant amounts of the variance, 22.6% and 44.7%, respectively. Oddly enough, there does not seem to be any significant differences in the slopes of the two models, so the two Advertising Intensiveness Curves can be said to be parallel. The difference between the two market types appears in the level of the curves. The Advertising Intensiveness Curve for oligopoly markets lies above the one for competitive markets.

This has some important implications for brands that are situated in oligopoly markets. First of all, when new brands are introduced into an oligopoly market, they need to hold a higher share of voice than new brands introduced into more competitive types of markets. Secondly, smaller brands in oligopoly markets also need to keep relatively higher shares of voice, perhaps forced to do so in order to compete with the dominating market leaders.

The effect of this is underlined by the fact that in oligopoly markets, on average, a brand needs to hold a market share of 18.5% when share of voice equals share of market, while the same measure for brands situated in competitive markets is 10.7%.

### SHARE OF VOICE AND SHARE OF MARKET IN INDIVIDUAL MARKETS

To carry out more detailed analyses on how individual categories have developed, and particularly to focus on related changes in share of voice and share of market, it was necessary to concentrate on markets with at least three advertised brands and on markets where the total share of market held by the advertised brands was relatively stable in the period of analyses. Particularly, this last issue implied that markets with penetrating retailer brands should be excluded from the analyses. Based upon these criteria, the following analysis was carried out on 34 product categories, covering approximately 314 brands.

Of the 34 markets, 29 markets showed a clear, positive correlation between share of voice and share of market. Among

### TABLE 8
Regression analysis, Competitive type markets

<table>
<thead>
<tr>
<th></th>
<th>Non-standardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>4.620</td>
<td>1.099</td>
<td>4.203</td>
</tr>
<tr>
<td>SoM comp</td>
<td>-431</td>
<td>.062</td>
<td>-.476</td>
<td>-6.966</td>
</tr>
</tbody>
</table>

a Dependent Variable: SoV-SoM competition

### TABLE 9
Regression analysis, Oligopoly markets

<table>
<thead>
<tr>
<th></th>
<th>Non-standardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>8.014</td>
<td>1.288</td>
<td>6.222</td>
</tr>
<tr>
<td>SoM oligopoly</td>
<td>-433</td>
<td>.040</td>
<td>-.668</td>
<td>-10.779</td>
</tr>
</tbody>
</table>

a Dependent Variable: SoV-SoM oligopoly

shares) into a low voice market, you need to start up on a higher level of voice than in the high voice market.

### Oligopoly and competitive markets

Turning the focus to the type of competition in markets, we set up a rule to separate the data into two different categories of markets, oligopoly and competitive markets. In our analysis, we chose to separate the brand categories in such a way that an almost equal amount of brands fell into the two categories. Our selection rule for the oligopoly category was that the two leading brands combined should hold more than 45% of the total market, including those brands with no voice. The result of applying this rule was that 27 product categories with a total of 146 brands were classified as oligopoly markets, while the remaining 18 product categories, with a total of 168 brands, were classified as competitive.

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these, 26 had an advertising intensiveness curve with a negative slope. Of the 29 markets, where data for more than one year exist, 15 markets showed a more or less positive correlation between changes in share of voice and changes in share of market.

RESULTS

Breakfast cereals

The first category that we analyzed was the breakfast cereal category, where data exist on the purchasing of and advertising for 26 brands over a 4-year period. One single producer of different kinds of cereals, the Kellogg Company, heavily dominates the category. This producer alone holds a total market share of more than 60% in the UK market. The dominating brand is Kellogg’s Cornflakes, with a market share in 1986 of around 24%. The second largest brand, measured on market share, is Weetabix, produced by the leading British producer of breakfast cereals, Weetabix Ltd. At the beginning of the 4-year period, this brand holds a share of market of around 19%.

An analysis of the data showed that both leading brands under-spent on advertising every year in the 4-year period. This is illustrated in Figure 5. This is possible, because in the past both the Kellogg Company and Weetabix have invested heavily in building strong brands in the market, and now this investment is paying off. Whereas smaller brands in the breakfast cereal category are forced to advertise more than their share of market would suggest, these large established brands are able to sustain their dominating positions in the market with a relatively small investment in advertising.

Our analysis of the Kellogg Company portfolio of brands showed that, in the 4-year period, a number of new brands from this producer were introduced into the market. In order to get a foothold in the market, the producer was forced to uphold a large advertising spending relative to the share of market of these brands. This overspending on advertising both in 1988 and 1989 is shown in Figure 6. The overall result for the producer is an increase in total market share, from 64.2% in 1986 to 66.6% in 1989. At the same time, an increase in share of advertising can be found. In 1986, the Kellogg share of total TV advertising in the breakfast cereal category was 73%. This compares to 77.5% in 1989.

Overall, although the Kellogg company was spending more on advertising in the 4-years, relative to the total share of market of the Kellogg brands, large differences exist between brands, and our analysis suggests that the larger, established brands of the company are in a sense paying for the introduction of new brands into the market, simply by being able to sustain significant, large market shares with relatively small advertising budgets. By redirecting advertising spending to new products, the Kellogg Company is able to broaden the market and the customer base, maintaining market position of the leading brands, without significantly increasing the total spending on advertising.

The complete picture of the breakfast cereal category is shown in Figure 7. The figure shows the Advertising Intensiveness Curve for the category, and supports the theory that smaller brands need to overspend on advertising, while larger, well-established brands can afford to under-spend while still maintaining their dominating positions in the market.

Figure 8 shows that advertising in general seems to work in the product category. The positive relationship between changes in share of voice and share of market indicates that an increase in the spending on advertising, relative to total advertising spending in the product category, will in general lead to a fractional increase of market share.
Chocolate bars

The same picture of a positive relationship between changes in share of voice and share of market can be found in the data on a number of other product categories. Although the magnitude of advertising effectiveness varies from category to category, they all seem to indicate that on some level advertising works.

The chocolate bar category is dominated by one large brand, Mars, which holds an around 30% market share. An analysis of data from a 3-year period, depicted in Figure 9, shows the positive relationship between changes in share of voice and share of market, but as it appears, the relationship is not as clear as in the breakfast cereal category.

Again, the Advertising Intensiveness Curve drawn from data in this particular category shows that, in general, smaller brands need to overspend on advertising in order to maintain their market shares, while larger brands (in this category particularly Mars) can profit from being large, and maintain their leading position in the market while, relatively speaking, under-spending on advertising.
Automatic washing powder

Another example is found in the automatic washing powder category. In this case, the positive connection between changes in share of voice and share of market seems clearer than in previous examples, indicated by the steepness of the tendency line, see Figure 11.

Again, the category is dominated by one large brand, Persil Automatic, which holds around 30% of the market. There is some indication of this brand under-spending too much during the 4-year period, since it loses significant market shares from 1986 to 1989, see Figure 12.

This category gives an example of the fact that it is important to get an accurate estimate of how much it is possible for a producer to under-spend without losing market shares. The measure is in a sense a dynamic one, since the introduction of new products may drastically alter the competitive situation in any given market over a relatively short period of time, and at best render previous estimates inaccurate; at worst completely worthless.

The next category analyzed is an example of this.

Canned soup

Figure 13 shows the relationship between changes in share of voice and share of market in the canned soup product category. The relationship is a different one in this category as can be seen by the negative slope of the tendency curve. This would indicate that, in general, increasing the relative share of advertising for a brand in
FIGURE 10
Advertising Intensiveness Curve, chocolate bar category.

FIGURE 11
Changes in share of voice and share of market, automatic washing powder.

FIGURE 12
Advertising Intensiveness Curve, automatic washing powder.
this category will lead to a loss of market share for that particular brand. However, the explanation for this seemingly negative relationship lies in the development of the market in the years analyzed.

At the beginning of the period, the brand Heinz Standard held a market share of nearly 90%, and was therefore completely dominating this particular product category.

Then, Heinz decided that it was time to innovate the category, and introduced a number of more specified brands with particular tastes, appealing to particular target audiences. These new products were heavily advertised for a short period of time, but as they quickly became popular and gained significant market shares, advertising for these new products almost seized. Still, they continued to grow in market share. This resulted in the leading brand, Heinz Standard, losing market shares, even though Heinz continued to advertise their leading brand to the consumers. This is the explanation for the negative relationship between changes in share of voice and share of market, which can be observed in Figure 13.

The lesson to be learned from this is that although in most cases there seems to be a positive relationship between changes in share of voice and share of market over time, some markets may show different, market-specific patterns of behavior.

**Household cleaners**

This product category gives yet another example of how product innovation in a particular market can significantly alter the relationship between changes in share of voice and share of market, see Figure 14.

In the period of time covered by the data, a significant change from powder cleaning products to liquid cleaners occurred in the UK. The fast growing popularity of this new, innovative line of products resulted in liquid cleaners increasing in market shares faster than their share of voice increased. At the same time, advertising for the leading powder cleaner was almost doubled, and still it lost almost a third of its market share, not being able to advertise its way out of trouble.

A change in product types and successful innovations can alter the relationship between changes in share of voice and share of market, and seemingly render advertising useless for brands under pressure.

**The effect of truly great advertising**

Finally, in analyzing the data, we found an example of how great advertising can influence the Advertising Intensiveness Curve in a product category. In the product category packet margarine, only two products were advertised, Stork and Krona.

In the mid 1980s, Stork was very successfully promoted with a long running and award-winning advertising campaign, the result of which can be seen in Figure 15. Although the smaller of the two leading brands, Stork was still able to cash in on a very successful, prize-winning advertising campaign, by under-spending on advertising, and still raise the market share from 26.6% in 1986 to 38.4% in 1989. The question then is, would it have been possible for Stork to achieve an even better market share with more advertising?

**CONCLUSION**

Although there are vast differences across product categories, larger brands generally tend to have the ability to under-spend on advertising without the loss of market power and dominance, see Figure 16.

Still, as several examples have shown, larger brands cannot under-spend too much without being punished on market share. Since this measure is a dynamic one, constant analyses of the market are needed to insure that the amount of advertising invested in the brand is the correct one in relation to the role the brand is supposed to play in the market.
Innovations in the market place and extremely successful advertising campaigns for competitive brands distort the Advertising Intensiveness Curve, and thereby distort the measures needed to sustain a brand's position in the market. Therefore, attention must also be directed towards such issues when decisions are being made for investments in advertising.

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FIGURE 16
Average share of voice-share of market in %-points, related to the average market share of the brand (300+ brands in 34 categories of FMCG products).

![Diagram showing average share of voice-share of market in %-points, related to the average market share of the brand.]

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EXTENDED ABSTRACT

Many practitioners and academics alike presume that satisfaction leads to loyalty and because loyal consumers are less costly to do business with, revenues increase; and this, in turn, leads to higher profits (Yeung and Emnew 2001). Despite the intuitive appeal of this claim, results from past studies on the effects of satisfaction on performance have tended to be mixed and often conflicting. Bernhardt et al. (1999) attribute this phenomenon to a reliance on cross-sectional data (e.g., Rust and Zahorik 1993; Rust, Zahorik, and Keingham 1995; for notable exceptions, see Anderson, Fornell, and Lehmann 1994; Bernhardt et al. 1999). The primary purpose of this paper is to empirically demonstrate systematic links between customer satisfaction, loyalty, and annual revenue in a longitudinal and causal manner.

In essence, the proposed model hypothesized an indirect link between satisfaction and revenue with loyalty as a mediator of this relationship. Five manifest variables measured across 83 US companies were used: Customer satisfaction in 1994 (CS_94), loyalty in 1994 (Loyalty_94), as well as three measures of annual revenue from 1994 to 1996 (Rev_94, Rev_95, and Rev_96). Customer satisfaction and loyalty scores for the 83 companies were measured on the basis of the American Customer Satisfaction Index (Fornell et al. 1996).

Latent growth curve modeling (Meredith and Tisak 1990) was applied to this data. The model was first estimated under a covariance structure framework. However, a Heywood case appeared after estimation (see Bollen, 1989) and rendered respecification problematic. In order to avoid the improper solution encountered in the previous analysis, the use of Partial Least Squares (PLS, Wold 1966, 1973) was entertained. When compared to covariance structure analysis, PLS estimation has been presented as the method of choice for predictive purposes (see Jöreskog and Wold 1982). It has been also strongly recommended as a method for estimating Consumer Satisfaction Index (CSI) models because it is not subjected to the strict assumptions about data which underlie the use of covariance structure analysis (Fornell 1992; Fornell and Cha 1994). The major limitation of PLS lies perhaps in that it does not solve a global optimization problem for parameter estimation (Fornell and Bookstein 1982; Jöreskog and Wold 1982). This means that there exists no criterion consistently minimized or maximized to determine the estimates of model parameters. The lack of a global optimization criterion makes it difficult to evaluate the overall goodness of fit of the specified model. On the other hand, one of the principal objectives of using latent growth curve models is to choose an optimal temporal pattern of change on a longitudinal variable (McArdle and Bell 2000). To decide on the optimal pattern of change over time, it is necessary to look into the overall goodness of fit of the specified latent growth curve model. This also allows for comparisons among competing models involving different temporal patterns. Thus, PLS may not be an attractive alternative for latent curve modeling because of the difficulty of assessing overall model fit.

Next, it was decided to estimate the model with Generalized Structured Component Analysis (GSCA) (Hwang and Takane in press), a recently proposed method for path analysis with latent variables. GSCA was developed as an alternative to PLS. It defines latent variables as linear combinations of observed variables as in PLS. However, unlike PLS, it provides a global least squares optimization criterion, which is consistently minimized to obtain parameter estimates. The method thus enables the calculation of an overall measure of model fit called EV (Explained Variance) while fully maintaining all the advantages of PLS such as less restricted distributional assumptions, no improper solutions, and unique latent score estimates. As such, GSCA was deemed a suitable alternative to both covariance structure analysis and partial least squares for fitting the specified latent curve model.

GSCA estimation revealed that the specified model fitted the data quite well. Nevertheless, for a more rigorous model evaluation procedure, the specified model was compared to two alternate models: One assumed no time-specific trend or stability, and the other assumed a quadratic trend of change across the three measures of annual revenue. In both alternate models, loyalty had direct effects on all temporal patterns in annual revenue and customer satisfaction had a direct effect on loyalty. After an examination of the goodness-of-fit indices, it was difficult to ascertain whether the linear-trend model was most appropriate because the two alternate models also fitted the data well. Hence, further evaluation appeared necessary so as to ascertain whether the three models were significantly different with respect to their goodness of fit.

Next, the mean differences in EV, the goodness of fit measure, were compared between the fitted models. EV is an absolute index that directly provides certain information about the closeness between the data and a hypothesized model; and this enables comparisons. It was found that there was a significant mean difference between the stability and linear-trend models while there was no significant mean difference between the linear-trend and the quadratic-trend models. This indicated that the linear-trend model was most appropriate because the two alternate models: One assumed no time-specific trend or stability, and the other assumed a quadratic trend of change across the three measures of annual revenue. In both alternate models, loyalty had direct effects on all temporal patterns in annual revenue and customer satisfaction had a direct effect on loyalty. After an examination of the goodness-of-fit indices, it was difficult to ascertain whether the linear-trend model was most appropriate because the two alternate models also fitted the data well. Hence, further evaluation appeared necessary so as to ascertain whether the three models were significantly different with respect to their goodness of fit.

In sum, the latent growth curve model estimated by GSCA demonstrated that satisfaction positively impacts financial performance (annual revenue) over time through loyalty. In fact, loyalty appears to play a pivotal role in the model and it is clear that both satisfaction and loyalty are closely related as indicated in Oliver (1999).

To conclude, this study rejoins a few others that have used longitudinal data in an effort to demonstrate the impact of satisfaction on economic and financial performance measures. However, some unique contributions delineate it from others. In particular, a causal approach (latent curve modeling) was adopted here and this appears to have finally provided robust and convincing evidence for the widely held, but seemingly anecdotal, beliefs of practitioners and academics. Moreover, the recently proposed method of GSCA (Hwang and Takane, in press) did a good job at circumventing some of the problems associated with the analysis of covariance structures as well as PLS.
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Measuring Status Orientations: Scale Development and Validation In the Context of a Transitional Economy

Thi Tuyet Mai Nguyen, National Economics University, Vietnam
Kwon Jung, KDI School of Public Policy and Management, Korea
Siok Kuan Tambyah, National University of Singapore, Singapore

EXTENDED ABSTRACT

The desire for status is an important motivation for many aspects of consumer behavior (Eastman et al., 1999; Mason, 1981; Veblen, 1989). This paper focuses on developing and validating the scales measuring status orientations in Vietnam, a transitional economy. Transitional economies (TEs) refer to countries which are “going through a period of transition from a planned economy, where consumption was prescribed, to a market economy, where consumers are free to pursue their acquisition fantasies” (Lascu et al., 1994). This global shift in the countries that represent nearly one-third of the world’s population (such as China, Vietnam and Eastern European countries) has generated a great interest in various fields of research, including marketing and consumer behavior (e.g., Batra, 1997; Cui and Liu, 2001).

In TEs like Vietnam, the move towards an open-market economy has led to significant changes in all aspects of society, including fundamental changes in societal values and lifestyles (Nguyen, Jung, Lantz, and Loeb 2003; Shultz, Pecotich, and Le, 1994). Studies have suggested that economic reforms or doi moi have eroded the traditional value systems that were premised on a centrally planned and subsidized economy (Boothroyd and Pham 2000; Fforde 1997; Hoang 1999; and Toyama 2001). In addition, the modern influences brought about by doi moi tended to coexist with many of the values, attitudes and behaviors that are associated with the traditional Vietnamese culture (e.g., Shultz, Pecotich and Le, 1994).

The consumption behaviors related to status orientation is an important emerging phenomenon in TEs. However, there seems to be no clear conceptualizations and measures of status orientations that are relevant to the context of TEs like Vietnam where significant differences in consumers’ perceptions of status/status symbols exist before and after the transition. In this study, we examine the nature and type of status symbols in the past (before doi moi) and at present in Vietnam, and develop and validate scales measuring the status orientations of Vietnamese consumers. We employ the conceptualization of status orientation as consumers’ orientation toward emphasizing symbols of status and the attainment of higher status. The two sub-constructs, traditional status orientation and modern status orientation, respectively refer to consumers’ orientation toward emphasizing traditional status symbols (before the economic transition) and modern status symbols (at present).

The procedure for developing measures suggested by Churchill (1979) and the scale development paradigm recommended by Gerbing and Anderson (1988) were employed in developing and validating the status orientation scales. First, for the purpose of generating items of status symbols, 27 personal interviews with consumers and experts in the field, two focus groups (in Hanoi and Ho Chi Minh City), an open-ended survey questionnaire administered to 30 consumers, and an extensive literature review provided the initial checklists of more than 80 items. After dropping redundant, ambiguous and other faulty items from the initial screening, the 24 remaining items in these checklists were subjected to further refinement through a survey of more than 100 consumers in Hanoi and Ho Chi Minh City. We used the final checklists of 20 status symbols to develop the corresponding scales of traditional status orientation and modern status orientation. An 11-item scale measuring traditional status orientation focused mainly on duc’s aspects such as devoting one’s life for the benefit of the country and the people, leading a simple and clean life regardless of fame and wealth, and caring for others more than for oneself. The 9-item scale measuring modern status orientation, on the other hand, emphasized being rich and wealthy, having a high-income earning ability, owning luxury products, and having a wide relationship network. These 20 items were then judged by several experts regarding the content validity.

In this study, four data sets were collected for the purposes of item purification and validity assessment. Specifically, with the first data set (Sample 1), the 20 scale items were subjected to further purification through examining item-total-correlations and exploratory factor analysis. Reliability and social desirability tests were also performed. Seven items were dropped. The remaining 13 items were then subjected to another exploratory factor analysis, confirmatory factor analysis for additional item refinement and unidimensionality assessment, with another data set obtained from a more heterogeneous sample (Sample 2). Three more items were dropped during the item elimination process. The resulting scales (5 items for traditional status orientation and 5 items for modern status orientation) were assessed for nomological validity (Sample 2), discriminant and nomological validity (Sample 3), and cross-validation (Sample 4). Reliability of the scales was assessed using Coefficient Alpha and Construct Reliability.

The research results showed that both traditional status orientation and modern status orientation are distinct components of the construct of ‘status orientations’. In addition, these two components were not bipolar and they could coexist in each individual. The final scale (five items measuring traditional status orientation and five items measuring modern status orientation) demonstrated adequate and stable reliability and validity.

Acknowledgement

The authors would like to thank Associate Professor Prem Shamdapan and Professor Kau Ah Keng for their useful comments during this research project. Special thanks go to Merlin Sant Fund for their financial support.

REFERENCE


The Role of Cultural Orientation in Bargaining under Incomplete Information: Differences in Causal Attributions
Ana Valenzuela, San Francisco State University, U.S.A.
Joydeep Srivastava, University of Maryland, U.S.A.
Seonsu Lee, Wonkwang University, Korea

EXTENDED ABSTRACT

With the growing trend in the globalization of business activities, there has been a significant increase in the frequency of cross-cultural business interactions (Triandis, Kurowski, & Gelfand, 1994). As economies become more interconnected, it is critical to understand the influence of culture on all aspects of organizational behavior including bargaining and negotiations. The main purpose of this research is to examine the role of cultural orientation on bargaining outcomes. The general premise, following the recent literature in cultural psychology, is that many judgments and decisions are the result of cognitive processes that are culturally imposed (e.g., Chiu, Morris, Menon & Hong, 2000; Menon, Morris, Chiu & Hong, 1999). The rationale is that exposure to different ecological factors and social structures perpetuates different cultural values and ideals and thus certain judgment “biases” are likely to be more prevalent in one culture than another (Triandis, 1995).

Specifically, this research adds to the literature on bargaining and cross-cultural psychology by examining how cultural orientation affects bargaining behavior and outcomes in situations characterized by the absence of objective referents and standards against which to judge potential outcomes (White & Neale, 1994). The cultural psychology literature suggests that cultural attributions are culturally dependent (e.g., Choi, Nisbett, & Norenzayan, 1999) and thus systematic differences in bargaining outcomes across cultures may be due to differences in the causal attributions for opponents’ behavior (Shafir, Simonson, & Tversky, 1993). This research extends this line of inquiry to a bargaining context and attempts to link causal attributions to bargaining outcomes. We use ultimatum bargaining as the setting to study the role of cultural orientation (e.g., Buchan, Croson & Johnson, 2004). Two experiments demonstrate that subjects from Western cultures (e.g., United States) have a tendency to seek causal explanations for an opponent’s behavior in terms of individual personality traits. In contrast, subjects from Eastern cultures (e.g., Korea) are more likely to recognize that an opponent’s behavior may be dictated by other-oriented traits but only where the external constraints are made salient.

Consider a one-sided incomplete information ultimatum situation where the responder is uncertain but the proposer knows the total amount available for division. Uncertain about the total amount available for division and thus unable to assess the fairness of an offer, a primary concern of the responder is about the relative share or proportion of the total amount that a proposer’s offer represents (e.g., Camerer & Thaler, 1995; Croson, 1996). Given the uncertainty, there is also a natural inclination to develop a causal explanation for an opponent’s behavior (Blount, 1995) which then determines whether or not an offer is accepted. It is proposed that when situational constraints are not made salient or when there is no additional information about the proposer’s situation to discount personality attributions, bargainers in both cultures are likely to attribute the proposer’s offer to personality traits (Krull et al., 1999). However, making the situational constraints salient or accessible allows bargainers to draw upon their implicit theories that differ across cultures. In that case, bargainers in Korea are more likely to recognize the power of situational constraints as they draw upon the implicit theory that an individual’s behavior is shaped by situational factors and will, therefore, be more sensitive to situational constraints in their causal attributions of an opponent’s behavior (Choi & Nisbett, 1998).

Recent research in cultural psychology suggests that interdependent self-construals, characteristic of collectivistic societies, predict implicit trait beliefs to some extent (Church et al., 2003). This implies a belief in traits or trait-relevant behavior but in terms of traits associated with other-oriented or self-sacrificing values. Similarly, Menon et al. (1999) showed that implicit theories of groups or collectives vary between Western and East Asian cultures. In other words, cultural orientation may not only affect the importance given to personality characteristics compared to situational constraints in one’s inferences of others’ behavior, but may also affect the importance given to individuals compared to group dispositions.

Experiments 1 clearly demonstrate differences in behavioral outcomes across Korean and U. S. responders. Subjects were assigned the role of responders in a one-sided incomplete ultimatum game. Responders were told that the individual assigned the role of the proposer had to make decisions either independently or within a group context. Results show that while there are no differences in ultimatum bargaining outcomes across cultures in an individual context, cultural differences between bargainers in Korea and U. S. emerge in the group decision context. In Western cultures, the prevalent thinking is that individuals can shape group behavior and individuals are primarily responsible for their behavior even in a group context (e.g., Chiu et al., 2000). In East Asian cultures, the thinking is that individual behavior is shaped by the group and that conformity to group norms or directives are responsible for an individual’s behavior in a group context (Menon et al., 1999). Therefore, in an incomplete information bargaining situation, Korean responders, when facing a relatively low offer, are more likely to discount the influence of the group on the individual’s decision relative to U. S. responders. As a consequence, acceptance rates are significantly higher for Korean than U. S. responders. Further, Experiment 2 shows that differences in causal reasoning mediate the influence of cultural orientation on bargaining outcomes when the decision of how much to offer is made in a group context.

Together, the results indicate that there are boundary conditions to the influence of culture on judgment and decision making. In other words, there are certain conditions under which cultural differences are manifested supporting the more recent, dynamic view of the influence of cultural orientation (Briley et al., 2000; Choi & Nisbett, 1998). In our context, penalization of apparent competitive (or unfair) intent seems to be a universal phenomenon as ultimatum bargainers from both U. S. and Korea exhibit the fundamental attribution error. However, when there is accessible information that can be used to discount the personality based attributions, cultural difference emerge. In particular, Korean bargainers are more likely to recognize and acknowledge alternative reasons for observed behavior, which tend to correct the initial tendency to seek causal explanations in terms of personality dispositions (e.g., Choi & Nisbett, 1998).
REFERENCES


EXTENDED ABSTRACT

Consumer assertiveness refers to standing up for one’s right without infringing upon those of others and consumer aggressiveness involves the use of verbal and nonverbal noxious stimuli to maintain one’s rights (Richins 1983). These two constructs have primarily been studied in Western cultures (Richins and Verhage 1987). For example, it is argued that the notion of assertiveness/aggressiveness is embedded in traditional Western cultures (Fornell 1979). However, little is known about how these constructs operate among consumers in Eastern cultures. This study thus aims at filling in this gap by suggesting culture as an antecedent of consumer assertiveness/aggressiveness.

Impact of National Culture: The Hofstede’s (1990) cultural dimension of individualism-collectivism refers to societies in which the ties between individuals are loose and people tend to have an independent view of the self versus societies in which one’s identity tends to be much more connected to the social network and people tend to have an interdependent view of the self (Aaker and Maheswaran 1997). Because independent self is dominant in an individualist culture while interdependent self is dominant in a collectivist culture, one may expect that members of an individualist culture (US) are more independent while members of a collectivist culture (Thai) are more interdependent. Because individualists focus on independence and clear communication while collectivists emphasize relationships, it follows that US participants will be (a) more assertive and (b) more aggressive than their Thai counterparts.

Impact of Culture-Associated Self-Construal: Since people with independent self-construal (INDSC) strive to be unique, achieve their own goals, express themselves and are direct in their expression (Kiatyama 1991), they are likely to be assertive in their interaction with retail sales people; otherwise, these important characteristics cannot be realized. In addition, aggressiveness allows a consumer to construct oneself according to one’s own repertoire of thoughts, feelings and actions. As a result, it is posited that independent self-construal will positively influence (a) Consumer Assertiveness and (b) Consumer Aggressiveness. Interdependent self-construal (INTSC), on the other hand, influences a consumer to act in an appropriate manner, avoid hurting other people’s feeling and be indirect. Being assertive and aggressive would hinder the achievement of these characteristics. As a consequence, it is expected that INTSC will negatively influence (a) consumer assertiveness and (b) consumer aggressiveness.

Consumer Susceptibility to Interpersonal Influence (CSII) reflects a need to identify with or enhance one’s image in the opinion of significant others, the willingness to conform to the expectations of others, and/or the tendency to learn about products and services by observing others or seeking information from others (Bearden, Netemeyer and Teel 1989). Because CSII is positively correlated with motivation to comply with the expectations of others (Bearden et al. 1989), it is less likely that a person who likes very much to buy what his/her close friend recommends is assertive and aggressive. As a consequence, it is expected that CSII will negatively influence their level of assertiveness and aggressiveness. A number of studies (e.g., Huff and Alden 1998; Lee 2000) showed that social normative factors have stronger influence on consumers with INTSC (vs. INDSC). It is thus expected that INTSC will positively influence SCII. Based on the last two hypotheses, we thus expect that CSII will mediate the impact of INTSC on assertiveness and aggressiveness.

A survey research was conducted with 83 American business undergraduates and 134 Thai business undergraduates. National culture was represented by the US and Thailand as proxies for individualist and collectivist culture, respectively.

Self-Construal was measured with twenty-nine items from Leung and Kim’s (1997) self-construal scale. Consumer Assertiveness was measured with 15 items from Richins (1983). Consumer Aggressiveness was measured with six items from Richins (1983). CSII was measured with twelve items from Bearden et al. (1989).

The results indicated that as expected U.S. participants were more independent than their Thai counterparts and that Thai participants were more interdependent. Further it was confirmed that INDSC positively influenced consumers’ level of assertiveness and aggressiveness, while INTSC negatively affect them when nationality and gender are controlled for. The study also found that as expected CSII mediated the negative impact of INTSC on assertiveness at least among the U.S. participants. However, the hypothesized mediating role of CSII on the negative impact of INTSC on aggressiveness was not supported. Instead the results seem to indicate that CSII work as a mediator on the positive impact of INTSC on consumer aggressiveness. At a national level, the mediation role of CSII was partially obtained. That is, the apparent differences in assertiveness between the two countries (higher assertiveness in the U.S. [vs. Thai] sample) may be explained by CSII. However, CSII did not mediate the impact of nation on aggressiveness. Thus, there seems to be some evidence to support our argument that CSII provides a mechanism through which INTSC makes an impact on assertiveness/aggressiveness tendencies of consumers.

Our study has some managerial implications for retailers operating at cross-cultural arena. International retailers should not equate lack of assertiveness or aggressiveness of their local customers as a signal of approval for certain practices of their retail sales people. MNC’s entering new international markets should train their local sales people and managers to make them aware of cultural differences in consumer interaction styles. This type of concerted effort will help them take advantage of their strength gained in their home countries and prevent them from falling into pitfall.

This study, nevertheless, is not immune to limitations, which suggest avenues for future research. Individualism was the only cultural dimension examined in this study. Future research may explore other dimensions such as power distance, uncertainty avoidance and short- versus long-term orientation (Hofstede 1990). Further, our study included only two nations as exemplars of...
individualist and collectivist cultures. Future study may include several nations simultaneously or more replication studies with other exemplars of individualist-collectivist cultures. To this end, the authors invite others to expand the role of culture on consumer retail interaction style.

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Joseph Chen, Millward Brown Goldfarb, Canada
May Aung, University of Guelph, Canada
Lianxi Zhou, University of Guelph, Canada
Vinay Kanetkar, University of Guelph, Canada

ABSTRACT

This study is an investigation of the mediating effect of acculturation dimensions on the relationship between Chinese identification and conspicuous consumption of ethnic Chinese consumers in Canada. The primary objective of this study was to develop a theoretical framework to achieve an in-depth understanding of Chinese consumers’ emphasis on conspicuous consumption. The research site selected for this study was Toronto, Canada. A survey questionnaire was used and 254 ethnic Chinese respondents participated. The results revealed a strong relationship between Chinese identification and conspicuous consumption. The study also found English language usage and English Canadian mass media exposure as mediators of acculturation. Managerial implications and future research are also discussed.

INTRODUCTION

In Asia, luxury products convey the importance of status and face giving in Asian culture. Before the Asian crisis of 1997-1998, East Asia and Southeast Asia were the largest luxury goods market in the world (Wong and Ahuvia 1998). Luxury goods companies regard Asia as the area of greatest importance. Louis Vuitton-Moët Hennessy, for example, sells over half of its production to Asians, as do many other cognac and luxury goods companies (Schutte and Ciarlante 1998). Conspicuous consumption is also true for Chinese consumers who put a strong emphasis on luxury brands. Particularly, they prefer products that have symbolic connotations. To date, not many studies have been conducted to understand the crucial role of conspicuous consumption for the Chinese consumer segment, in particular the ethnic Chinese consumers in other host cultural environment.

In Canada, Chinese immigrants account for 3.7 percent of the population according to the Census 2001 data. The majority of these Chinese immigrants live in the metropolitan centers of Canada. In Toronto (GTA), Canada’s largest city, about nine percent of the population is Chinese. (i.e. 435,685 of 4,647,960 residents) The uniqueness of Chinese consumers in Canada is not expected to vanish as newcomers “melt” into Canadian society. Rather, Canadian society’s growing acceptance of a multicultural social mosaic may help Chinese Canadians retain their cultural characteristics (Lee and Tse 1994). This study hopes to provide insights about the importance of Chinese Canadians as a consumer group in a multicultural society. Specifically, this study focuses on conspicuous consumption (Mason 1981, Veblen 1925), Chinese identification and acculturation dimensions (Laroche 1998).

RESEARCH OBJECTIVES AND CONCEPTUAL BACKGROUND

This study focused on Chinese immigrants’ identification with their original culture and the influence of host cultural traits on their consumption behavior in a multicultural society. This study aimed to fill the gap in the literature with a pragmatic development of a framework for understanding the conceptual relationships of acculturation, Chinese identification and conspicuous consumption.

Specifically the primary objectives of this research were:

1. To examine the relationship between Chinese identification and conspicuous consumption.
2. To examine the mediating effect of acculturation dimensions on the relationship between Chinese identification and conspicuous consumption.

Ethnic identification is defined as “the retention or failure to lose aspects of an individual’s culture of origin”. This retention of the culture of origin is expressed through attitudes, values or behaviors (Laroche, Kim, Hui and Tomiuk 1997:35). McCracken (1986) views consumption as partially a cultural phenomenon and supports the idea that cultural variables such as ethnic identification can be strongly linked to consumer behavior. Based on the ethnic identification concept, a person’s strong ties with his or her original culture exert important influences over the person’s behavior. Some studies looked at the impact of ethnic identification on consumption. Most findings in this framework indicate that the strength of ethnic identification has a positive correlation with ethnic product consumption (Chung and Fisher 1999; Deshpande, Hoyer and Donthu 1986). However, one also needs to take into account the changes in ethnic values over time.

Acculturation is often defined as a linear, bi-polar process through which individuals give up their traditional cultural values and behaviors and their ethnic identities as they take on the values and behaviors of the dominant social structures (Duan and Vu 2000). Berry (1990) has identified four modes of acculturation associated with different levels of adoption of the host culture based on two considerations, first, the extent to which the individual or group feels a sense of identification with the culture of origin, and second, the need to relate to the host culture. The four modes of acculturation are:

1. Integration: the acculturating individual adopts some of the host culture while at the same time holding on to his/her own culture (and helping to change gradually the nature of the host culture).
2. Separation: the acculturating individual shuns interactions with the host culture while trying to maintain his/her original culture.
3. Assimilation: the acculturating individual adopts the host culture over time while gradually forgetting his/her original culture.
4. Marginalization: the individual feels rejected by the host culture but has no desire to maintain the culture of origin.

However, Chung (2000) indicated that acculturation modes are not mutually exclusive, and they may change over time and over different periods.

1 The authors thank the two anonymous ACR reviewers’ helpful comments on a previous draft of this paper.
There are very few studies that looks at the effect of acculturation on Asian consumers’ perceptions toward the purchase of conspicuous products. 

Conspicuous consumption is not a recent phenomenon and can be described as a universal phenomenon. There is evidence of such behavior in the earliest societies. The economic extravagances and excesses of many individuals and social groups have been well documented (Mason 1981). Yet, it is probably more prevalent in cultures that stimulate materialism. Veblen (1899) proposed that conspicuous consumer sought to impress others with his wealth in order to win their esteem and thus, hoped to maintain or improve his social status. Mason (1981) proposed that conspicuous consumption is concerned primarily with the ostentatious display of wealth. Motivated by a desire to impress others, it is a form of consumption inspired by the social rather than economic or physiological utility of products.

Chung and Fischer (2001) studied Hong Kong consumers and their conspicuous consumption behavior in Canada. The researchers mentioned Hong Kong as a society where conspicuous consumption rules and they wanted to find out if this consumption behavior would still be transparent among Hong Kong people who have immigrated to Canada. Their study failed to support the notion that conspicuous consumption is related to a person’s ethnicity. They later argued that fashion consciousness might not be appropriate to measure for conspicuous consumption or at least for Hong Kong Chinese. To date, there is no other research that proposed a model to validate the mediating effect of ‘acculturation’ toward the relationship between ‘conspicuous consumption’ and Chinese ‘ethnic identification’.

RESEARCH FRAMEWORK

This study proposes a model that encompasses the following components:

1. Ethnic Identification: Chinese Identification and Attachment
2. Conspicuous consumption (Ostentation, materialism, and status consumption).
3. Acculturation (English language use, English Canadian mass media exposure, English Canadian social interaction and English Canadian identification and attachment)

The model for ‘Chinese identification and attachment’, ‘acculturation’ and ‘conspicuous consumption’ is depicted in Figure 1.

The focal point of the model is to test the mediating effect of ‘acculturation’ dimensions on the relationship between ‘Chinese identification’ and ‘conspicuous consumption’. The independent variable is ‘Chinese identification’ and the dependent variables are ‘conspicuous consumption’ dimensions. The mediating variables are the ‘acculturation’ dimensions. In this model, arrows show the direction of the postulated influence indicating causality between components. The model assumes that there is a one-way flow of causation.

HYPOTHESES

The following hypotheses are addressed in this study:

H1: There is a significant direct relationship between ‘Chinese identification and attachment’ and ‘conspicuous consumption’ for Chinese consumers in Canada.

H2: There is a significant mediating effect of the English language use on the relationship between ‘Chinese identification and attachment’ and ‘conspicuous consumption’: the higher the usage of the English language, the less the ethnic Chinese identifies with Chinese culture and the lower their propensity for conspicuous consumption.

H3: There is a significant mediating effect of English Canadian mass media exposure on the relationship between ‘Chinese identification and attachment’ and ‘conspicuous consumption’: the higher the exposure to English Canadian mass media, the less the ethnic Chinese identifies with Chinese culture and the lower the propensity for conspicuous consumption.

H4: There is a significant mediating effect of English Canadian social interaction on the relationship between ‘Chinese identification and attachment’ and ‘conspicuous consumption’: the higher the level of social interaction with English Canadians, the less the ethnic Chinese identifies with Chinese culture and the lower the propensity for conspicuous consumption.

H5: There is a significant mediating effect of English Canadian identification and attachment on the relationship between ‘Chinese identification and attachment’ and ‘conspicuous consumption’: the higher the level of at-
attachment to English Canadian culture, the less ethnic Chinese identifies with Chinese culture and lower the propensity for conspicuous consumption.

In this study, it was expected that the acculturation and ethnic identification model is linear. However, this expectation is somewhat speculative, as some researchers found acculturating groups might not always follow the traditional acculturation model, in some instances the acculturating group tends to over-acculturate (Wallendorf and Reily 1983, and Penaloza 1994).

RESEARCH METHODOLOGY

This study was undertaken in the multiethnic metropolis of Toronto, Canada. It is the largest city in Canada and is home to almost half a million ethnic Chinese consumers. Some of the world’s top luxury brand companies Cartier, Louis Vuitton, Prada, Chanel and Gucci can be easily sourced in Toronto. Therefore, it is an ideal city for this research study. This study applied the drop and collect survey technique. A response rate similar to that for a face-to-face survey can usually be achieved with this technique (Benard 1994).

A purposive sampling was used for this research. Although purposive sampling may introduce some bias to the study and limit the external validity, a random sampling would be unlikely to produce a sufficient number of ethnic Chinese Canadian respondents across Canada. Half of the respondents were professionals and the other half were students. Ethnic Chinese consumers from Taiwan who reside in Canada were gathered from the four Taiwanese cultural organizations in Toronto and a total of 254 subjects participated in the study.

The Questionnaire and the Data Analysis

The questionnaire included scales representing the Chinese Canadian acculturation dimensions, Chinese Canadian identification and attachment, and conspicuous consumption. The acculturation and ethnic identification scales were adopted from Laroche, Kim and Tomui (1998) and comprised of 21 items (4 dimensions) and 9 items (1 dimensions) respectively. The measurement for conspicuous consumption contained three different components. The first component was adopted from Marcox, Filiatrault and Cherion (1997). The second component, the materialism scale was adopted from Richins and Dawson (1992). Materialism Success represents the use of possessions as an indicator of success in life, which corresponds to the third component of conspicuous consumption described in the literature review. The third component, a scale measuring conspicuous consumption was adopted from Eastman, Goldman, and Flynn (1999).

The questionnaire was subjected to a two-stage pre-test. The Statistical Package for Social Science (SPSS Version 10.0) was used to conduct the statistical analysis. Factor analysis was first conducted to reduce the number of scale items to factors representing those items.

RESULTS

A total of 254 surveys were collected from Chinese Canadians. The response rate was approximately 99% of distributed surveys. The survey respondents consisted of 46.5% students and 48% professionals. Most respondents were born in Taiwan. Sixty-three percent of the respondents had lived in Canada for more than six years. Fifty three percent of the sample were male.

Chinese Identification and Conspicuous Consumption

The first hypothesis was supported. The first regression analysis of Chinese identification was found to be influential and significantly explained 4.2% variance of ostentation (standardized Beta=0.214, p<0.000), 2.7% variance of materialism (Standardized Beta=0.175, p<0.000) and 2.3% variance of status (standardized Beta=0.165, p<0.000). Refer to Table 1 for simple regression results for Chinese identification.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Beta</th>
<th>Intercept</th>
<th>Adjusted R square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ostentation</td>
<td>0.214***</td>
<td>32.526</td>
<td>0.042</td>
<td>12.11</td>
</tr>
<tr>
<td>Materialism</td>
<td>0.175***</td>
<td>47.413</td>
<td>0.027</td>
<td>7.923</td>
</tr>
<tr>
<td>Status</td>
<td>0.165***</td>
<td>23.833</td>
<td>0.023</td>
<td>7.044</td>
</tr>
</tbody>
</table>

* P<0.05 **P<0.01 ***P<0.001

Mediating Effect of Acculturation Dimensions

First regression analysis was performed to examine the effect of Chinese identification on acculturation dimensions (Baron and Kenny 1986). Next, second, third and fourth regression analyses were performed to test for mediation effect. Equation 1 regressed conspicuous consumption (dependent variables: 1. ostentation, 2. materialism and 3. status) on Chinese identification (independent variable). Next, regression analysis was performed on each of the three conspicuous consumption dimensions on both Chinese identification and each of the acculturation dimensions (mediators). Equation 2 was on English language use, equation 3 was on English...
The third hypothesis was partially supported by a significant influence of English media on the relationship between Chinese identification and ostentation. The significant mediating effect supported the original notion. These findings suggest that Chinese consumers who use more English language identify more /with Chinese culture and tend not to show off their wealth as a form of conspicuous consumption.

The third hypothesis was again partially supported. In Step 1, Chinese identification explained 2.7 percent of the variance for English Canadian media use in Step 1 (standardized Beta=0.15, p<0.001). In Step 2, Chinese identification explained: 1) 4.2 percent of the variance in ostentation (standardized Beta=0.214, p<0.001), 2) 2.7 percent of the variance in materialism (standardized Beta=0.175, p<0.001) and 3) 2.3 percent of the variance in status (standardized Beta=0.165, p<0.01). With the addition of English Canadian media use in Step 3 among the three conspicuous consumption measures, only ostentation was affected by English Canadian media use (standardized Beta=0.207, p<0.001). English Canadian media use holds the conditions of the three steps only for ostentation. The effect of Chinese identification on ostentation is less in Step 3 than in Step 2 (standardized Beta=0.214, p<0.001). This indicates that English Canadian media use mediates the relationship between Chinese identification and conspicuous consumption.

The third hypothesis was partially supported by a significant influence of English media on the relationship between Chinese identification and ostentation. The findings indicate the original notion that Chinese consumers who have less exposure to English media would identify more with Chinese culture and place more emphasis on conspicuous consumption.

Hypothesis four was not supported. In step 1, Chinese identification explained 2.4 percent of the variance for English Canadian social interaction (standardized Beta=-0.168, p<0.001). In Step 2, Chinese identification explained: 1) 4.2 percent of the variance in ostentation (standardized Beta=0.214, p<0.001), 2) 2.7 percent of the variance in materialism (standardized Beta=0.175, p<0.001) and 3) 2.3 percent of the variance in status (standardized Beta=0.165, p<0.01). However, in Step 3 English Canadian social interaction did not predict the three conspicuous consumption measures. As a result, hypothesis four was not supported.
### TABLE 2.2
Multiple Regression Analysis (N=254)
Regression Analysis 2: Ostentation (Conspicuous Consumption)

**Dependent Variable: Ostentation**

<table>
<thead>
<tr>
<th>Mediating Effect of Acculturation</th>
<th>Equation 1</th>
<th>Equation 2</th>
<th>Equation 3</th>
<th>Equation 4</th>
<th>Equation 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese identification</td>
<td>0.214***</td>
<td>0.207***</td>
<td>0.212***</td>
<td>0.233***</td>
<td>0.210***</td>
</tr>
<tr>
<td>English language use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Canadian media use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Canadian social interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R square</td>
<td>0.042</td>
<td>0.064</td>
<td>0.081</td>
<td>0.05</td>
<td>0.051</td>
</tr>
<tr>
<td>F value</td>
<td>12.11</td>
<td>9.604</td>
<td>12.154</td>
<td>7.666</td>
<td>7.781</td>
</tr>
</tbody>
</table>

*Note: Standardized regression coefficients are shown.*

+ P<0.10; *P<0.05; **P<0.01; ***P<0.001

### TABLE 2.3
Multiple Regression Analysis (N=254)
Regression Analysis 3: Materialism (Conspicuous Consumption)

**Dependent Variable: Materialism**

<table>
<thead>
<tr>
<th>Mediating Effect of Acculturation</th>
<th>Equation 1</th>
<th>Equation 2</th>
<th>Equation 3</th>
<th>Equation 4</th>
<th>Equation 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese identification</td>
<td>0.175***</td>
<td>0.190***</td>
<td>0.170***</td>
<td>0.181***</td>
<td>0.173***</td>
</tr>
<tr>
<td>English language use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Canadian media use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Canadian social interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>47.413</td>
<td>42.535</td>
<td>49.662</td>
<td>44.967</td>
<td>41.728</td>
</tr>
<tr>
<td>Adjusted R square</td>
<td>0.027</td>
<td>0.028</td>
<td>0.027</td>
<td>0.024</td>
<td>0.026</td>
</tr>
<tr>
<td>F value</td>
<td>7.923</td>
<td>4.661</td>
<td>4.49</td>
<td>4.165</td>
<td>4.33</td>
</tr>
</tbody>
</table>

*Note: Standardized regression coefficients are shown.*

+ P<0.10; *P<0.05; **P<0.01; ***P<0.001
TABLE 2.4
Multiple Regression Analysis (N=254)
Regression Analysis 4: Status (Conspicuous Consumption)

<table>
<thead>
<tr>
<th>Mediating Effect of Acculturation</th>
<th>STEP TWO</th>
<th>STEP THREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese identification</td>
<td>0.165**</td>
<td>0.183**</td>
</tr>
<tr>
<td>English language use</td>
<td>0.091</td>
<td></td>
</tr>
<tr>
<td>English Canadian media use</td>
<td>0.106+</td>
<td>0.009</td>
</tr>
<tr>
<td>English Canadian social interaction</td>
<td>0.009</td>
<td></td>
</tr>
<tr>
<td>English Canadian identification</td>
<td>0.049</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>23.833</td>
<td>19.662</td>
</tr>
<tr>
<td>Adjusted R square</td>
<td>0.023</td>
<td>0.027</td>
</tr>
<tr>
<td>F value</td>
<td>7.044</td>
<td>4.572</td>
</tr>
</tbody>
</table>

Note: Standardized regression coefficients are shown.
+ P<0.10; *P<0.05; **P<0.01; ***P<0.001

Hypothesis 5 was not supported. This hypothesis further noted that the higher the Chinese consumer identify and has an attachment to the English Canadian culture, the Chinese consumers identify less with Chinese culture and have a lower propensity to conspicuously consume. In Step 1, Chinese identification did not affect English Canadian identification. In Step 2, Chinese identification explained: 1) 4.2 percent of the variance in ostentation (standardized Beta=0.214, p<0.001), 2) 2.7 percent of the variance in materialism (standardized Beta=0.175, p<0.001) and 3) 2.3 percent of the variance in status (standardized Beta=0.165, p<0.001). In Step 3, English Canadian attachment did not predict the three conspicuous consumption measures and the significant levels for all of them are over the recommended 0.05 levels. As a result, hypothesis 5 was not supported.

DISCUSSION
The findings provide support to previous findings about the relationship between ethnic identification and conspicuous consumption (Laroche, Kim and Tomiuk 1998). This compliments existing literature, which presents that conspicuous consumption is practiced heavily and holds cultural meanings among East Asians (Schutte and Ciurlante 1998; Wong and Ahuvia 1998; Piron 2000).

Chinese Identification and Conspicuous Consumption
As expected, a relationship was found between Chinese identification and conspicuous consumption. The findings further indicate that the Chinese consumers who identify more with Chinese culture are more likely to practice conspicuous consumption. Existing literature also suggests that conspicuous consumption is a part of Chinese culture. A qualitative study conducted by (Chen and Aung 2003) indicated that the concept of face, collectivism, power distance and competitiveness are Chinese cultural orientations that motivate conspicuous consumption among Chinese consumers. This study further supports the notion that conspicuous consumption is a part of the Chinese culture and it is a way of life shared by this particular group of consumers.

Acculturation
Chinese identification was found to be positively related to conspicuous consumption. Nevertheless, the two acculturation dimensions mediated the relationship between Chinese identification and ostentation. Specifically, English language use and English Canadian media are mediators of ostentation. The results indicate a lower usage of the English language and a lower exposure to English mass media would increase Chinese identification and conspicuous consumption. It may be that the Canadian multicultural policy encourages immigrants to preserve their original culture. In most ethnic communities, especially Chinese communities in Toronto, immigrants have access to services such as ethic television stations, Chinese shopping malls, Chinese community centers and Chinese restaurants. Chinese consumers who are more attuned with Chinese culture can speak only Chinese and can gain exposure to Chinese media to feel more “Chinese” and thus preserving their culture. The results support ethnic affirmation identified by Berry (1986) that immigrants would choose to retain their original culture values and reject behaviors typical of their new cultural environ-
ment. This kind of behavior can last for years as acculturation may take much longer than one would expect (Lee and Tse 1994).

The results also indicate that English Canadian social interaction and English Canadian identification are not mediators. Chinese consumers’ social interaction with English Canadians and their identification with the Canadian culture generally have no impact on their conspicuous consumption behavior. However, there is a positive correlation of English language usage on English social interaction and English Canadian identification. The results also support the bi-level model of immigrant adaptation that immigrants can acquire traits of the host culture while maintaining traits of their original culture (Laroche, Kim and Tomuikit 1997).

The findings clearly demonstrate that the relationship between Chinese identification and conspicuous consumption is extremely robust. English language usage and mass media exposure as mediators of acculturation are consistent with findings from other studies (Kliven 1987; O’Guinn & Meyer 1974). Overall, the traditional assimilation mode of acculturation should not be used to study Chinese immigrants in Canada as the Canadian multicultural society allows immigrants to preserve their home culture. Therefore, the separation mode and integration mode of acculturation could be better models to examine immigrant consumers in Canada.

**MANAGERIAL CONTRIBUTIONS**

This study also provides invaluable managerial contributions for the marketing of multinational luxury durable brands, and hedonic companies who have domestic operations in Canada. It showed that Chinese consumers place significant emphasis on conspicuous consumption. The findings indicate that the Chinese Canadian consumer segment could be a lucrative consumer market for luxury brand companies. However, the marketing strategy adopted for the Chinese Canadian market needs to be different from those in the traditionally affluent Anglophone consumer markets.

As a result, consumer products and durable goods companies should work closely with vendors in the Chinese-Canadian community to effectively sell their products. Marketers should take advantage of local marketing to customize their offerings to the consumers in these neighborhoods.

**REFERENCES**


The Foreign Model Effect and Its Interaction with Product Type in Catalog Home Shopping:
Moderating Role of Ethnic Identification
Dong-il Lee, The Catholic University of Korea, Korea
Ji-Hyun Lee, Seoul National University, Korea

ABSTRACT
Consumer behavior is a cultural phenomenon. Most previous research shows an increase in the effectiveness of marketing communication when the congruity of marketing communication and consumer’s cultural values are enhanced. On the contrary, use of foreign models is a prevailing phenomenon in East Asia even in the non-store selling. In this study, the foreign model effect is defined as “the negative effect on the effectiveness of marketing communication when the audience and the models are ethnically different.” The purpose of this study is to explore the interaction effect of foreign model use with product type and the moderating role of ethnic identification. As a result of an experiment with a 181-student sample, it is shown that the foreign model effect is not immediate, but emerges when combined with product characteristics. And the moderating role of ethnic identification requires a deeper understanding of the cultural context of the focal society.

INTRODUCTION
Consumer behavior is a cultural phenomenon. Most previous research shows that marketing communication effectiveness increases when the congruity of marketing communication and consumer’s cultural values increases (Brumbaugh 2002; Deshpande, Hoyer, Wayne and Donthu 1986; Forehand and Deshpande 2001). On the contrary, use of foreign models is a prevailing phenomenon in East Asia (Neelankavil, Mummalaneni and Sessions 1995). This practice is obviously contrary to most of previous research and understanding of general marketing communication strategies. Furthermore, use of foreign models in catalog home shopping is almost everywhere in the fashion industry in the East Asian region, including Korea, Japan, and China. In this context, cultural congruity is more important because consumption is a direct expression of the consumer’s self-concept. Comparing Korean catalogs with Japanese ones, the Japanese approach to this problem is rather unique. They use foreign models only when the product is innerwear (i.e. a private product), whereas Korean catalog sellers use foreign models for almost every product. Thus, the primary purpose of this paper is to compare the effectiveness of the Korean approach (Foreign Models across Almost Every Product) and the Japanese approach (Foreign Models by Product Type).

Our second objective is to explore the logical explanation for the use of foreign models using the ethnic identification concept (Deshpande, Hoyer, Wayne and Donthu 1986). The ethnic identification is defined as “people’s enduring association with their ethnic background.” (Stayman and Deshpande 1989). Researches have found that the strength of ethnic identification affects the consumers’ responses to the marketing communication such as the amount of attention to the ethnic information, attitude toward the advertising and product, and purchase intention (Deshpande, Hoyer, Wayne and Donthu 1986; Hirshman 1981). So the consumers’ response such as foreign model effect will be different by the strength of ethnic identification.

LITERATURE REVIEW
The Foreign Model Effect
Most previous research shows that matching the ethnicity of the audience and the model/spokesman enhances the marketing communication effectiveness such as attitude toward the advertising and products, perceived targetedness, overall quality and purchase intention (Forehand and Deshpande 2001; Brumbaugh 2002). In this study, the foreign model effect is defined as “the negative effect on the marketing communication effectiveness when the audience and the model are ethnically different.” From these observations, the immediate negative effect of the use of the foreign model is easily predicted. But the wide use of foreign model in catalog home shopping in East Asia is obviously against this prediction.

Previous researches on the ethnic model effect have been conducted in the United States, where the dominant cultural consent is based on multiple ethnicities. In this kind of society, one of the competing cultures has the position of the dominant culture and others are positioned as the subculture. This dominant culture/subculture characteristic influences the consumers’ responses depending on the cultural membership of the owner’s position. From this point of view, membership owners of the dominant culture do not show distinctiveness to the model’s ethnicity, whereas the membership owners of the subculture do show favorable responses to the model of their own subculture (Brumbaugh 2002). This fact is supported in areas of southern African, where the size of the race determines the dominant cultural and subcultural memberships (Grier and Deshpande 2001).

The foreign model effect cannot be isolated from the background society, where the individual’s cultural values are embedded. A possible explanation of the wide use of foreign model in East Asian market is based on the unique historical experience of this region. In the 20th century, the concept ‘foreign culture’ meant ‘westernization’ (i.e. modernization in East Asia) (Neelankavil, Mummalaneni and Sessions 1995; Muller 1992; Wang and Chan 2001; Mindy and McNeal 2001). The use of foreign models in Asia is a communication strategy that aims at the utilization of halo effect in the country-of-origin. A favorable image is transferred to the product through the foreign model (Watson and Wright 2000). Thus, the foreign model effect cannot be considered without understanding the cultural background of the society.

In East Asia, social formation is rather homogenous. In other words, almost every society consists of a single ethnicity and has the strong heritage of single culture. But in the process of modernization of the society, there exists a mixture of diverse cultural components from various cultural backgrounds in East Asia. For example, LaFromboise, Coleman and Gerton (1993) argues that there exists a biculturalism (i.e. Asian and Western) in everyday life in Hong Kong, and the residents of Hong Kong realize their ethnic and cultural membership only when primed by cultural symbols. Moreover, a previous study in the global consumer culture reveals that global consumer culture positioning exists independently from local and foreign positioning (Alden, Jan-Benedict, Steenkamp and Batra 1999). From this point of view, the immediate foreign model effect cannot exist because Asian consumers do not distinguish foreign models from their own culture in everyday life. Recent research on the ethnic model effect has focused on the interaction between the immediate foreign model effect and the strength of ethnic identification.

1The authors appreciate the two anonymous ACR reviewers’ helpful comments on a previous draft of this paper.
between foreign model use and the priming condition (ethnic self awareness: Forehand and Deshpande 2001) or social context (Forehand, Deshpande and Reed 2002).

Other research implies that when the product is highly culture-dependent (i.e. food) or the usage situation is social (i.e. tools), the use of foreign model is inappropriate (Neelankavil, Mummalaneni and Sessions 1995). It is logical that main effect of foreign models does not appear without considering interaction with other variables such as product type.

**Interaction Effect of Foreign Model and Product type**

We are focusing product type as an interaction factor because there were observations that the probability of the foreign model effect decreases with specific products (Neelankavil, Mummalaneni and Sessions 1995). Various effects of foreign culture have been studied along with such concrete product types as cosmetics, electronic appliances, tools, and so on (Hong, Muddersisoglu and Zinkhan 1987; Neelankavil, Mummalaneni and Sessions 1995; Young 1996; Zhang and Neelankavil, 1997) as well as consumer goods-durable goods (Lin 2001), hedonic product-utilitarian product (Leclerc, Bernd and Dube 1994), products’ culture-of-origin (Gurhan-Canli and Maheswaran 2000; Young 1996) and so on.

A study on the product type and use of foreign models in East Asia suggests that the probability of foreign model use increases in the case of cosmetics to utilize the halo effect of a foreign culture. But this effect does not exist in the case when the product is electronic appliances and tools (Neelankavil, Mummalaneni and Sessions 1995). Typically, these products have the characteristics that the uses are observed socially. Thus, it is necessary to consider the interaction of foreign model use and the social context of product usage.

In the case of apparel home shopping in Japanese catalogs, foreign models are shown only in the presentation of innerwear (i.e. the product consumed privately), whereas almost all outer garments are presented on the domestic models (i.e. Asian models). It seems that this approach could successfully avoid the foreign model effect in the negative direction, if the interaction effect exists. In summary, even though the main effect of foreign model use will not appear, it will be shown in the interaction effect with the products’ private/social dimension.

**H1:** The foreign model effect will be significant when the focal product is social.

**Ethnic Identification as a Moderator of the Foreign Model Effect**

In this study, it is argued that the main effect of foreign model use is not immediate. This phenomenon is influenced by the emergence of the global culture. This process is widely supported by acculturation (Seitz 1998) and cultural assimilation (D’Rozario and Choudhury 2000).

A previous study on ethnic groups’ responses to marketing communication identifies two groups along with the ethnic identification (Deshpande, Hoyer and Donthu 1986). Ethnic identification is an enduring state of membership in which individuals regard themselves as belonging to a specific ethnic group. In the study of Hispanic residents in the United States, it is empirically tested and supported that SEI (Strong Ethnic Identification) group members are different in the way of their responses to marketing communication and more favorable toward the product in the advertisement with a Hispanic spokesman than are the WEI (Weak Ethnic Identification) group members (Deshpande, Hoyer and Donthu 1986).

So it is plausible that ethnic identification plays the role of the moderator in the interaction effect of foreign model use and the product types. In other words, SEI group members will show a direct response of foreign model effect (i.e. a negative response toward the foreign model), whereas WEI group members will not show a direct response but an interaction effect.

**H2:** The foreign model effect is moderated by ethnic identification. In other words, main effect of foreign model use appears when the ethnic identification is strong.

**RESEARCH METHODOLOGY**

**Experiment Design and Pilot Test**

In this study, the ethnicity of models (Asian/Caucasian) and product type (social/private) factors are considered as exogenous variables. So, a 2X2 experiment is designed. The clothes are picked for the target product. This is rather natural because the clothes are frequently presented with the model in catalog selling in catalog home shopping. Furthermore, it is easy to validate the cultural effect with the clothes because it is highly culture-dependent (Neelankavil, Mummalaneni and Sessions 1995) and easy to be operationalized as the private/social dimensions (innerwear/garment).

We designed the stimuli so that 2 different products (clothes for males and females) are presented in a one-page catalog. And we fixed the price by bundling products, the amount of information and country-of-origin (Korea) to control gender, information, price and country-of-origin effect. Each pictorial was collected from actual catalogs and Internet stores and adjusted graphically for the equivalence of the product. The final stimuli for the experiment are shown in Figure 1. Each respondent is exposed to one of four stimuli.

To check the equivalence of the different products, a pilot test was conducted. Five experts in the clothing industry were selected to judge the similarity/dissimilarity in the following dimensions; value for money, quality, stylishness and popularity for four products within the same category (garment and innerwear). To cover the real purpose of the study, stimulus without models in Figure 2 was provided. The results were coded so that similarity is 1 and dissimilarity is 0. We calculate the similarity conformity by averaging all similarity scores along judgment dimensions. The similarity conformity for overall judges was 80%. Because most of the judges agreed on the similarity of the presented products, experiments were conducted.

**Procedure and Data Collection**

The experiment was conducted for about 15 minutes. During the experiment, participants were randomly assigned one of four stimuli (Caucasian model posing for garment (FS), Asian models for garments (FP), Asian models for innerwear category (DS) and Asian models for innerwear (DP)). Each stimulus was followed by a supplementary survey. The purpose of the study was disguised as “the effectiveness comparison of catalog layout,” because the ethnicity problem is a highly sensitive issue. Participants were blocked not to notice difference of the stimuli.

First, participants were asked to evaluate the layout, image of the catalog, and model attractiveness to elaborate the information processing with the catalog. And then marketing effectiveness variables and other related variables were measured. Ethnic identification was measured for the last item to minimize the disclosure of the issue, which could influence other measures.

At two Korean Universities, 181 undergraduate and graduate students participated as part of a class requirement. All participants were ethnically Asian, 1 from the United States, 1 from Kyrgyzstan, 12 from China, and the rest were from Korea. The two participants...
from the United States and Kyrgyzstan were ethnically Korean, and the participants from China had stayed in Korea at least 6 months. Because the topic was dealing with the Asian ethnicity problem, the international students were included in the sample. Male \((n=78)\) and female participants \((n=103)\) were distributed evenly across the experiment conditions to control the gender effect. The number of participants across the stimuli conditions was almost even \((n(FS)=45, n(DS)=46, n(FP)=46, n(DP)=44)\).

**Measures and Manipulation Check**

For the marketing communication effectiveness variables, attitude toward the catalog media \((Am)\), attitude toward the product \((Ap)\), targetedness, overall quality of the product \((OQ)\), and purchase intention \((PI)\) were measured referring to similar studies (Forehand and Deshpande 2001; Leclerc, Bernd and Dube 1994). First, five seven-point semantic differential items were used to assess attitude toward the catalog media and attitude toward the product, respectively. These items were anchored with “bad”/“good,” “dislike”/“like,” “useless”/“useful,” “uninformative”/“informative,” and “unpleasant”/“pleasant.” Each average score across these five measures was calculated to provide an overall rating of each attitude \((\alpha(Am)=0.8131, \alpha(Ap)=0.8058)\). The following measure assessed whether the participants felt targeted by the catalog by asking the participants to rate how much they believed the catalog was “intended for me” (seven-point scale). Overall quality and purchase intention were measured by seven-point semantic differential scales “poor quality”/“excellent quality” and “I will never buy it”/“I will absolutely buy it,” respectively.

For the manipulation check, self-model similarity and product characteristics were measured. Participants were asked whether they felt the model is similar to themselves (nine-point scale). And seven-point “disagree”/“agree” scales were used for the statements of “this product is social,” and “this product is private.” A T-test shows that the average self-model similarity score of Asian models \((M=3.63)\) is significantly higher than that of Caucasian models \((M=3.03; p=.037)\). And for the product characteristics score, scores of garment \((M\text{(social product)}=4.04; M\text{(private product)}=4.04)\) and that of innerwear \((M\text{(social product)}=3.39; M\text{(private product)}=4.58)\)
were significantly different (for social product \( p = 0.003 \), for private product \( p = 0.003 \)).

The final question was the measure of the participant’s strength of ethnic identification. The strength of the participant’s ethnic identification was measured on a nine-point scale anchored with “very weakly” and “very strongly” to the question of “How much do you identify yourself as an Asian?” because all the respondents were ethnically Asian (Deshpande, Hoyer and Donthu 1986). The use of a nine-point scale for this measure is helpful because people disproportionately indicate strong as opposed to weak identification with their group (Forehand and Deshpande 2001).

RESULTS
The Foreign Model Effect and its Interaction Effect with Product Type

Our first hypothesis is that the main effect of the foreign model effect will not appear directly because of the existence of biculturalism and that the effect will appear when considered with the product type (private product/social product). Results form the two-way ANOVA shows that this hypothesis is supported. Table 1 shows the results.

As predicted, no main effect of foreign model effect was significant. Among the main effects, only the purchase intention by the product type is significantly different (F(private product)=2.974; F(private product)=2.634). The reason for this result is perhaps because the experiment was conducted in a classroom setting, which could be easily interpreted as public place. So, some of the participants faced the difficulty of decision-making on “private product” in a social setting.

Contrary to the main effect, the interaction effect emerged along attitude toward the product (Ap), targetedness, and purchase intention (PI). Even though the interaction effect was not shown in attitude toward the catalog media and overall quality, the interaction of the model’s ethnicity and the product type made a significant foreign model effect in the attitude toward the product (Ap), targetedness, and finally purchase intention (PI).

Cell means show that the marketing effectiveness increases when the Asian model (domestic model) matched with the garment, whereas these effects disappear in the case of innerwear (private product). In summary, these results support the Japanese approach of the catalog industry: a domestic model with the social product and a foreign model with the private product.

Moderating Role of Ethnic Identification on the Foreign Model Effect

If the strength of the ethnic identification plays the moderating role on the foreign model effect discussed above, two groups of significantly different ethnic identification show quite different types of foreign model effect. In our second hypothesis, we proposed that the main effect emerges in the SEI group in the direction of strong foreign model effect based on the results of the previous study on ethnic identification (Deshpande, Hoyer and Donthu 1986).

To validate our hypothesis, the total sample was divided into two groups, the SEI group (n=57) and the WEI group (n=58). Samples with median (7 point) removed to show clear results. The total mean (S.E.) is 6.78(1.58), whereas the mean (S.E.) for the SEI group is 8.42(0.50), and that for the WEI group is 4.98(0.98). Two-way ANOVA results are shown in Table 3.

As expected, the main effects of foreign model use emerged, but in the opposite group. Moreover, respondents in the WEI group show favorable responses toward the domestic model (M(domestic)=5.187; M(domestic)=5.252, M(Targetedness(domestic)=5.857, M(Targetedness(domestic)=5.324; M(Pi(domestic)=5.075, M(Pi(domestic)=5.348). This result is obviously contrary to the result of the previous study (Deshpande, Hoyer and Donthu 1986), which reports that the SEI group shows more purchase intention toward the product in advertising with same ethnicity and more favorable attitude.

So, we checked the differences in model attractiveness and self-model similarity between two different EI groups. But there were no significant differences between two groups in the model factors. For model attractiveness, the mean for the SEI group was 4.28(S.E.=1.41) and mean for the WEI group was 3.96(S.E.=1.61) \((p = 0.267)\), and for self-model similarity, the mean for the SEI group was 3.54(S.E.=2.04) and the mean for WEI group was

| TABLE 1 |
| ANOVA Results (Total Respondents) |
| | FME | PE |
| | F | p | F | p | F | p |
| AM | 1.309 | 0.254 | 1.003 | 0.318 | 1.510 | 0.221 |
| AP | 1.026 | 0.313 | 1.262 | 0.263 | 2.999* | 0.085 |
| Targetedness | 2.515 | 0.115 | 0.046 | 0.830 | 7.793** | 0.006 |
| OQ | 2.114 | 0.148 | 0.046 | 0.831 | 0.952 | 0.331 |
| PI | 1.432 | 0.233 | 3.556* | 0.061 | 5.279** | 0.023 |

FME: Foreign Model Effect
PE: Product Type Effect

* \( p<0.10 \)
** \( p<0.05 \)
Thus, we concluded that this result is not due to the model manipulation failure, but from the difference in cultural background of this study from the previous study.

**Role of Ethnic Identification in an Ethnically Identical Society**

Recent research shows that the member of the dominant culture is insensitive to the cultural source and non-source cues whereas the member of subculture is significantly sensitive to the ethnically matching cues (Brumbaugh 2002). And it is shown that the SEI group shows strong foreign model effects. Deshpande, Hoyer and Donthu (1986) studied the Hispanic residents in the cultural context of the United States. It should be noted that the United States is a fundamentally multiple ethnicity society whereas most East Asian countries are not. So the minority ethnic groups in the United States regard the multiple cultural context (or dominant Caucasian cultural context) as the dominant one whereas the most

### TABLE 2
Cell Means (S.E.) (Total Respondents)

<table>
<thead>
<tr>
<th></th>
<th>FS</th>
<th>FP</th>
<th>DS</th>
<th>DP</th>
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</thead>
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<td>AM</td>
<td>4.94(0.15)</td>
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<td>5.30(0.15)</td>
<td>4.96(0.15)</td>
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<td>AP</td>
<td>5.12(0.13)</td>
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<td>Targetedness</td>
<td>2.82(0.24)</td>
<td>3.61(0.26)</td>
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<td>3.14(0.24)</td>
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<td>OQ</td>
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<td>2.86(0.20)</td>
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### TABLE 3
ANOVA Results (Ethnic Identification Groups)

<table>
<thead>
<tr>
<th></th>
<th>Strong Ethnic Identification</th>
<th>Interaction Effect</th>
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<tr>
<td></td>
<td>Main Effect</td>
<td>Interaction Effect</td>
</tr>
<tr>
<td>FME</td>
<td>FME</td>
<td>PE</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>P</td>
</tr>
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<td>AM</td>
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<td>OQ</td>
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<tr>
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<td>0.942</td>
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</table>

<table>
<thead>
<tr>
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<th>Weak Ethnic Identification</th>
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<tr>
<td></td>
<td>Main Effect</td>
<td>Interaction Effect</td>
</tr>
<tr>
<td>FME</td>
<td>FME</td>
<td>PE</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>P</td>
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<tr>
<td>AM</td>
<td>3.519*</td>
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<td>AP</td>
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<tr>
<td>PI</td>
<td>8.320**</td>
<td>0.005</td>
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</tbody>
</table>

FME: Foreign Model Effect
PE: Product Type Effect
* p<0.10
** p<0.05

3.59(S.E.=1.69) (p=.903). Thus, we concluded that this result is not due to the model manipulation failure, but from the difference in cultural background of this study from the previous study.
TABLE 4
Cell Means (S.E.) (Ethnic Identification Groups)

<table>
<thead>
<tr>
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<th>Strong Ethnic Identification Group</th>
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<tr>
<td></td>
<td>FS</td>
<td>FP</td>
<td>DS</td>
<td>DP</td>
</tr>
<tr>
<td>AM</td>
<td>4.94 (0.15)</td>
<td>4.97 (0.15)</td>
<td>5.30 (0.15)</td>
<td>4.96 (0.16)</td>
</tr>
<tr>
<td>AP</td>
<td>5.12 (0.13)</td>
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<td>5.48 (0.13)</td>
<td>5.11 (0.14)</td>
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<tr>
<td>Targetedness</td>
<td>2.82 (0.24)</td>
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<td>3.84 (0.23)</td>
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<tr>
<td>OQ</td>
<td>3.52 (0.16)</td>
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<td>3.72 (0.16)</td>
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<td>PI</td>
<td>2.66 (0.18)</td>
<td>2.73 (0.18)</td>
<td>3.29 (0.18)</td>
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<table>
<thead>
<tr>
<th></th>
<th>Weak Ethnic Identification Group</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FS</td>
<td>FP</td>
<td>DS</td>
<td>DP</td>
</tr>
<tr>
<td>AM</td>
<td>4.63 (0.28)</td>
<td>4.68 (0.30)</td>
<td>5.62 (0.26)</td>
<td>4.78 (0.24)</td>
</tr>
<tr>
<td>AP</td>
<td>4.79 (0.22)</td>
<td>4.95 (0.24)</td>
<td>5.47 (0.21)</td>
<td>4.94 (0.19)</td>
</tr>
<tr>
<td>Targetedness</td>
<td>2.77 (0.45)</td>
<td>3.64 (0.49)</td>
<td>3.87 (0.42)</td>
<td>3.47 (0.39)</td>
</tr>
<tr>
<td>OQ</td>
<td>3.38 (0.29)</td>
<td>3.18 (0.31)</td>
<td>4.07 (0.27)</td>
<td>3.59 (0.25)</td>
</tr>
<tr>
<td>PI</td>
<td>2.54 (0.28)</td>
<td>2.18 (0.31)</td>
<td>3.53 (0.26)</td>
<td>2.59 (0.21)</td>
</tr>
</tbody>
</table>

Asians in the East Asian countries regard a relatively single unified cultural context as their cultural consent. So the SEI group in the United States has strong membership in the subculture whereas the SEI group in East Asian countries has the status of cultural consent. As a result, contrary to the cases in the United States, the WEI group in East Asia is loosely connected with the society’s cultural consent.

Our conjecture is that members of loose connection with the society’s cultural consent consistently perceive the cultural conflict with the dominant cultural background and, as a result, elaborate their positions of ethnic identity. In this situation they are highly likely to be ethnically primed when exposed to a spokesman or model of their own ethnicity. It is reported that ethnic self-awareness, the momentary state of felt ethnicity leads to the immediate ethnic responses such as the foreign model effect (Forehand and Deshpande 2001; LaFromboise, Coleman and Gerton 1993). As a result both the SEI group in the United States and the WEI group in East Asian country like Korea shows an immediate foreign model effect. So when applied to the ethnically identical societies of East Asia, it is important to consider the referent cultural context of the society.

**DISCUSSION AND FUTURE DIRECTION**

This study demonstrates that use of a foreign model in a specific situation could be a risky means of influencing consumers’ perceptions and attitudes. First, we have shown that the foreign model effect does not appear in an immediate fashion. Second, when combined with the context the focal product is used (especially when the product characteristic is social), the interaction effect of foreign model use and the product type emerges. Third, the emergence of the immediate foreign model effect is associated with the consumer’s ethnic identification. But it is noted that contrary to the observations in a multiple ethnicity society such as the United States, the WEI group in ethnically identical societies such as in the East Asia region could show an immediate foreign model effect.

In the context of non-store selling, the content of catalog shows everything. It should be noted that choosing to use foreign culture could result in marketing communication effectiveness. In fact, it is plausible that when the consumer needs information about the social consequences of the consumption, providing relevant cues could help the consumer process the purchase-related information easily. As a result, marketing communication effectiveness increases.

It is necessary to mention the internal limitations of this study. Because of the cost constraints, we could not use the same model for each product type. So model factor could impose a limitation on internal validity. And although we used one kind of layout (model in product left, product right up, product information right down), this factor could reduce the internal validity of the focal experiment variable. This problem could be overcome by using multiple stimuli in experimental design. For example Leclerc, Bernd and Dube(1994) employed this kind of remedy. And it is noted that the referent cultural background should be considered in following study. So for the generalization of the results of our study, it is necessary to conduct international comparative study across the East Asian countries.

Research on foreign model use should explore further how the foreign model is integrated with other product information such as foreign language or foreign branding. It is noted that use of the foreign languages is prevalent in printed advertising and catalog in East Asia (Neelankavil, Mummalaneni and Sessions 1995). But the interaction effect combining both factors has not been empirically researched. The previous research fails to show the empirical relationship between the two factors (Neelankavil, Mummalaneni and Sessions 1995). In this study clothing is chosen for empirical research. But in other product areas, the foreign model effect has not been explored yet.
With deeper understanding of foreign cultural cues and their effective usage, it is possible to manage non-store selling techniques, including recently emerging Internet stores.

REFERENCES


(1992), “Standardization vs. Specialization: An
Net Generation: the Growing Dominant Consumer Group in Network Society

Seong-Yeon Park, Ewha Womans University, Korea
Eun Mi Lee, Ewha Womans University, Korea

I. INTRODUCTION

The Internet, a network of networks connecting the computers of the world and users everywhere, has grown very rapidly. In Korea more than sixty-five% of the population aged six and older use the Internet at least once a month (KRNIC 2003). Men are more frequent users than women (71.7% to 59.2%), and youths aged 6-19 represent the highest user group (94.8%). Although Internet usage rates decrease with age, 94.5% for 20-29, 80.7% for 30-39, and 51.6% for 40-49 age groups, the fastest growing segments are the older age groups with the 40-49 and 30-39 age groups experiencing a gain of 12.3% and 11.3% respectively. These figures clearly show that the Internet is not the exclusive property of teenagers and twenty-somethings any more (KRNIC 2003).

Other data show that Korea is one of the most advanced nations in IT usage. Korea has the second highest rate of Internet usage in the world, a very high rate of high-speed access and nearly universal use of advanced mobile communications equipment such as text messaging and email capable cell phones (International Telecommunications Union 2003). Korean companies like LG and Samsung are leading the way in developing protocols for advanced mobile access capabilities.

Thus, the use of computers and the Internet has become an integral part of consumers’ daily lives in Korea, and studying resultant changes in consumers’ buying behavior may provide a window on future changes in other industrialized countries that are just behind the curve in terms of Internet and IT use. The current article is an empirical study of the Net Generation (originally the Network Generation)–a consumer group that appeared with the widespread use of the computer and the Internet.

The term Net Generation was first used in Tapscott’s “Growing Up Digital: The Rise of the Net Generation” (1997). Since then, the Net Generation has become an ever-growing consumer group, and thus has been drawing a lot of attention from both practitioners and scholars. Industries such as mobile and digital products, games, beauty and fashion are aggressively using marketing strategies targeting the Net Generation.

Tapscott (1997) defines the Net Generation as those born after 1977, the first generation to grow-up surrounded by digital media. Computers and other digital technologies, such as digital cameras and cell phones, are commonplace to the Net Generation. Nevertheless, there is some doubt as to whether the Net Generation in Korea is the same as the Net Generation in America because values, consumer behavior patterns, and social and cultural backgrounds differ from country to country even though they both grew-up surrounded by digital technology (Gim and Yu 2000).

The Net Generation was born in an affluent time and is making use of the digital revolution and is inter-networking. Even those people in their thirties and forties can also be part of the Net Generation if they use and are skilled at inter-networking. In addition, Net Generation consumers are highly involved with their computers and the Internet and skillful in their use. They are also skilled at using mobile and digital products, and they have ever-increasing purchasing power.

Despite the attractiveness of this group to marketers and their importance as a harbinger of future consumer behavior, there has been little academic research and attempts to understand them. Moreover, as Net Generation was defined for America without considering various characteristics, there has been no clear and consistent definition or criteria in defining the Net Generation.

Korea, however, differs in many ways from America in terms of diffusion rate, advancement of technology, values, consumer behavior patterns, and social and cultural differences. Also, over the last seven years Internet has rapidly spread beyond the age groups who represented the overwhelming percentage of users in 1997. Today, there are many people outside the narrowly defined age category who exhibit attitudinal and behavioral characteristics once reserved for a narrowly defined age group. For this reason, it is reasonable to use a richer, more behavior based method to classify the Net Generation by such diverse characteristics as their Internet usage and buying behavior, mobile Internet experience, commitment to the Internet, lifestyles, and demographic characteristics.

Therefore, this paper classifies consumers according to Internet usage behavior, then, identifies the definite and meaningful Net Generation through synthetic investigation of behavioral, psychological, demographic characteristics, and lifestyles of the classified clusters.

II. THEORETICAL BACKGROUND

2.1 Definition of the Net Generation

Classification of generations is different in each country. America divides generations into before baby boom generation (born 1946 before), baby boom generation (born between 1946 and 1964), X generation (born between 1965 and 1976) and Net Generation. Therefore, Tapscott (1997) considered the Net Generation as children who started to learn about the computer, who are now in their twenties, and who are accustomed to using the Internet.

In Korea, the Net Generation is also generally defined as those born after 1977. Gim and Yu (2000), however, argued that an age-based definition is less accurate and useful than a behavioral conceptualization. They suggested that the Net Generation in Korea is the group who are skilled in inter-networking (using such digital technologies as computer games and online chatting) regardless of age.

2.2 Previous Studies of the Net Generation

Tapscott (1997) wrote about how the Net Generation is learning to communicate, work, shop, and play in profoundly new ways. Walsh, et al. (1999) defined the Net-Powered Generation as those 16 to 22 and suggested that successfully marketing to them requires strategies emphasizing utility, speed, a balance between cutting-edge technology and ease-of-use, and the basics before the extras.

Other researchers focused on psychological and consumption characteristics (Kang 1998; Gim and Yu 2000, Sung, Jang, and Kang 2000; Yu and Gim 2001; Lee 2001). Kang (1998) suggested that the Net Generation is accustomed to communication via emotions instead of cognitions and affect takes precedence over logic. Sung, Jang, and Kang (2000) proposed that the formation of the Net Generations’ social identity could be observed in the use of digital media. They discovered that adopting digital media drove them into deeper involvement in social relationships.

Lee (2001) analyzed the inclination of networking, individualism, materialism and attitude toward advertisement using ethnographic methods to draw the attributes of the Net Generation.
The data were analyzed with the Latent Gold package and SPSS to classify consumers according to the most frequently visited sites. For data analysis, Latent Class (LC) cluster analysis was used to account for consumer choice probability into account (which is difficult to do in simple cluster analysis and factor analysis), thus providing objective statistical data for determining size and the number of clusters (Kim and Lee 2001). Cluster 1 is composed of 26% of respondents who visit the sites of news (53%), finance and stocks (68%), and business (53%). They are predominantly business users. Cluster 2 (26%) is composed of users who frequently visit sites of e-mail, community, shopping, information search, employment, beauty and fashion. Cluster 3 (24%) is composed of hedonistic users who frequently visit sites where they play games, chat, listen to music, watch movies, and use adult sites. Cluster 4 (15%) consists of generally passive users who rarely visit any sites except those categorized as “others.” Finally, cluster 5 (10%) comprises the most active users who visit almost all of the Internet sites categorized.

According to the research, members of the Net Generation spend a comparatively large amount of time using the Internet, at least 2 to 4 hours a day, and they have a negative attitude toward Internet advertising, and they do not trust Internet shopping malls. In addition, the Net Generation of Korea differs from its counterparts in America in that Koreans have more of a group tendency than individualism. Yu and Gim (2001) argued that the Net Generation tends toward impulsive and innovative consumer behavior. Woo (2000) conducted cluster analysis on middle and high school students Internet usage, lifestyles, buying patterns, and attitudes about advertising. Results indicate three clusters, an Immersion group, an Entry group and an Unconcerned group. Cheil Communication’s (1999) survey found that members of the Net Generation are fashion oriented, curious about new things, and satisfied with their present lives. They are also sensitive to advertising and consider their personal computers as necessities of their lives so they can interchange information with each other. Korea Research Center (2000) investigated fashion lifestyles with 745 subjects in the study. Net Generation members exhibited cognitive-dominant buying behavior, low advertising response rates and high fashion awareness and involvement.

Nevertheless most of the extant research accepted Tapscott’s simplistic, age-based definition without filtering, and no clear and consistent behavioral definition or criteria has emerged to define the Net Generation. Also, much of the existing work has been descriptive research conducted by practitioners with narrowly focused agendas. There has been a particular dearth of empirical academic research in this area. Thus, the purpose of the current research is to help close the gap in the literature by conducting an empirical analysis to identify key behavioral, psychological, and demographic characteristics of Net Generation and alternative archetypes.

### III. METHODOLOGY

This study had a convenience sample of 660 people ranging in age from teenagers to fifty-somethings in Seoul, Korea. A total of 628 usable responses were obtained: 32 questionnaires were discarded because more than half of the questions were left blank or we felt the respondents did not answer the questionnaire sincerely.

The questionnaire employed 7-point Likert scales (1=strongly disagree, 7=strongly agree) and nominal scales. The questionnaire consisted of the Internet usage behavior, Internet shopping behavior, mobile Internet usage behavior, and lifestyles of consumers.

For data analysis, Latent Class (LC) cluster analysis was used to classify consumers according to the most frequently visited sites. The data were analyzed with the Latent Gold package and SPSS v.10.

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### IV. RESEARCH RESULTS

#### 4.1 Respondents’ Demographic Profiles

The demographic profiles of the respondents are as follows: The sample consists of 48.3% female and 51.3% male. In age distribution, 10s (25.2%), 20s (32.5%), 30s (30.4%), and over the 40s (16.6%) represent the whole sample. The respondents tended to be well educated: 5.1% were undergraduate students and 56.2% had earned undergraduate degrees. Student (45.1%), office worker (16.9%), professional (9.7%), and housewife (7.2%) represent the majority of the sample.

#### 4.2 Cluster Analysis

Table 1 shows BIC, AIC, CAIC values according to the number of clusters. AIC statistics show the smallest value in the 5 clusters, and BIC & CAIC statistics show the smallest value in the 4 clusters. Overall results of 5 clusters are similar to 4 clusters. But a reduction error that reveals the estimation rate of class membership shows the highest accurate prediction of over 80% in the 5 clusters. Therefore, 5 clusters were selected as the most representative number of clusters.

Table 2 shows the result of cluster analysis according to Internet usage behavior. The “cluster size” category represents the size of each cluster. The activity categories reveal the relationship of Internet usage behavior with each cluster as a conditional probability. For example, the probability of visiting e-mail related sites is 27% among the respondents belonging to the first cluster. LC cluster analysis takes consumer choice probability into account, thus providing objective statistical data for determining size and the number of clusters (Kim and Lee 2001). Cluster 1 is composed of 26% of respondents who visit the sites of news (53%), finance and stocks (68%), and business (53%). They are predominantly business users. Cluster 2 (26%) is composed of users who frequently visit sites of e-mail, community, shopping, information search, employment, beauty and fashion. Cluster 3 (24%) is composed of hedonistic users who frequently visit sites where they play games, chat, listen to music, watch movies, and use adult sites. Cluster 4 (15%) consists of generally passive users who rarely visit any sites except those categorized as “others.” Finally, cluster 5 (10%) comprises the most active users who visit almost all of the Internet sites categorized.

#### 4.3 Characteristics of the five clusters

Cross tab analyses were conducted with demographic characteristics, Internet usage behavior, Internet buying behavior, mobile Internet usage behavior, and lifestyles across 5 clusters to
illustrate the specific characteristics of each of the 5 clusters. The lifestyle measures consist of eight factors: fashion life, food life, shelter life, leisure life, buying/consumption life, one’s values, Internet usage, and advertising/entertainment/media behavior (Park 1996, 2000). The results show that all clusters have significant differences across the variables.

In the Internet usage behavior category, cluster 5 (41.7%) uses the Internet for the longest hours among the 5 clusters (over three hours per day) and cluster 4 (32.4%) is the group who uses the Internet for the least hours (less than 30 minutes). In e-mail related behavior, cluster 1 mostly uses the company’s domain (28.4%), and cluster 4 has a much higher ratio of non e-mail users (10.5%) than the other groups.

In community activity, clusters 2, 3 and 5 use the Internet community almost everyday, while clusters 1 and 4 hardly use the community (only one or two times a month). All clusters utilize the bulletin board for community information.

There were differences in the usage frequency of chatting and messenger services across the clusters. In general, clusters 2, 3 and 5 have a high frequency and time of chatting and messenger services, while clusters 1 and 4 have a low frequency of those.

In mobile Internet usage, clusters 1 and 4 have low usage/experience rates of 32% and 19% respectively, while clusters 2, 3 and 5 have high usage/experience rates of over 50%. All of the clusters use bell sound and e-mail services most frequently. Cluster 1, 4 and 5 use high degree of news service and stocks and finance services, and cluster 2 uses background image service highly.

In Internet buying behavior, clusters 1, 2 and 5 have higher average buying experience, frequency, and amount of purchasing than clusters 3 and 4. Though cluster 1 has high buying experience through the Internet, they use the Internet shopping mainly for business instead of their personal needs or wants. On the other hand, despite cluster 3 having high mean scores in most Internet activities, they have low purchasing experience. The reason of low Internet purchasing experience is due to their demographic characteristics. That is, cluster 3 is the youngest cluster, more than half are teenagers and over 30% are in their twenties and they are primarily composed of students. Therefore, cluster 3 represents a latent purchasing power group whose members will likely convert to heavy buyer status when they gain economic power.

The reasons given for Internet shopping are fairly consistent across groups. Most of the clusters select low prices and saving time as the most important reasons for Internet shopping. On the other hand, most of the clusters choose invisibility of the products, the insufficiency of product information, and the reliability of the sites as the reasons of not buying from Internet. Cluster 1 and 2 are concerned about the possibility of personal information release. Cluster 4 responded that the insufficiency of enjoyment kept them from making purchases.

In terms of lifestyles clusters 2, 3 and 5 are fashion oriented, Western and convenience food seekers, impulsive shoppers, celebrity worshippers, and they enjoy sociable leisure activities. Clusters 1 and 4 do not exhibit the previously described characteristics and enjoy self-fulfilling leisure activities rather than sociable leisure activities. In addition clusters 2, 3 and 5 have a higher degree of involvement with the Internet than clusters 1 and 4.

### 4.4 Identifying the Net-Generation

Cluster 1, which was named the Business Purpose group, is a married male dominant cluster mainly in their thirties and forties, through the Internet, they use the Internet shopping mainly for business instead of their personal needs or wants. On the other hand, despite cluster 3 having high mean scores in most Internet activities, they have low purchasing experience. The reason of low Internet purchasing experience is due to their demographic characteristics. That is, cluster 3 is the youngest cluster, more than half are teenagers and over 30% are in their twenties and they are primarily composed of students. Therefore, cluster 3 represents a latent purchasing power group whose members will likely convert to heavy buyer status when they gain economic power.

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### 4.4 Identifying the Net-Generation

Cluster 1, which was named the Business Purpose group, is a married male dominant cluster mainly in their thirties and forties,
mainly composed of office workers and professionals and the group has a high number of university graduates (53.3%). They have relatively low Internet usage and frequently use their company’s domain (28.4%) in using e-mail. They passively participate in Internet community, chatting and messenger services, and mobile Internet usage and are dissatisfied with bad connections, slow speeds, and communication expense in using the Internet.

In terms of Internet buying behavior, they have relatively high Internet buying experience, buying frequency, and amount of purchasing and do Internet shopping to buy products and services. In addition, even though it is not a significant effect, they have a lot of experience buying office and stationary products. They do Internet shopping frequently, but their purpose is mainly for business. They are not aesthetically oriented, do not like Western and convenience food styles and are planned shoppers. Also, they enjoy self-fulfilling rather than sociable leisure activities and have the lowest degree of involvement and fun seeking behavior with the Internet.

Cluster 2 was named the Regular User group. It is a young (teenagers-20s), female dominant cluster mainly composed of students. They use the Internet at a mid-level and have a relatively high usage in community, chatting and messenger, and mobile Internet. In Internet buying behavior, they have relatively high Internet buying experience, buying frequency, and amount of purchasing. They do Internet shopping for convenience of delivery and don’t buy because of insufficiency of product information. They are concerned about the safety of using the Internet to make purchases. In lifestyles, they have Western and convenience oriented eating habits. In addition, they are heavily involved in equal opportunity issues and opposed to traditional family values and have a low degree of fun seeking behavior with the Internet.

Cluster 3 was named the Hedonic Involvement group. It is the youngest cluster. More than half are teenagers and over 30% are in their twenties. This group is primarily composed of students. Cluster 3 has high Internet usage in general (community, chatting and messenger, and mobile Internet and so on). In Internet buying behavior, they have lower than average purchasing experience, purchasing frequency, and amount of purchasing. They frequently visit Internet shopping sites for events and free gifts. In lifestyles, they like Western and instant foods most and have the worst eating habits among the 5 clusters. They usually enjoy leisure activities with friends and they are heavily impulsive shoppers. In addition, they are active celebrity followers and TV watchers, hedonic and fun seekers, and they have the highest degree of involvement with the Internet.

Cluster 4 was named the Passive User group. It is a cluster primarily consisting of females in their thirties and females and males in their forties. They are primarily composed of married people and have a high number of housewives, sales persons, and small business owners. They are the most passive group among the five clusters in Internet related activities. They have the highest ratio of people who do not have e-mail addresses, they do not participate in Internet community activities or use mobile Internet, chatting and messenger services. Cluster 4 has relatively low Internet purchasing experience, purchasing frequency, and amount of purchasing. In lifestyles, they are health-conscious and are opposed to convenience products (Western and instant foods), societal change (the sexual revolution, equal opportunity issues and the increasing divorce rate) and hedonistic values (impulse buying and celebrity worship). They are the only cluster that has aesthetic senses and orientation regarding shelter life. Also, they enjoy self-fulfilling leisure activities rather than sociable leisure activities, and have the lowest degree of involvement with the Internet.

Cluster 5 was named the Active Involvement group. It is a group comprised of more than half males in their twenties or thirties. This male dominated group has the highest mean score in most Internet activities, such as e-mail, community, chatting and messenger, and mobile Internet. In addition, this group has the highest rate of Internet purchasing experiences, frequency, and amount of purchasing, and they do Internet shopping because of the variety of products. They frequently eat convenience and Western food, engage in social activities, exhibit high advertising elasticities and report a high degree of involvement with the Internet.

According to the integrated results, clusters 2, 3 and 5 can be identified as the Net Generation.

V. CONCLUSIONS

Due to its preeminent ranking in terms of high speed Internet access (International Telecommunication Union 2003), Korea has drawn a lot of interest from Internet marketing and e-commerce researchers from all over the world. This study analyzes the important Internet user group, Net Generation, using a large sample of Korean Internet users.

Despite the attractiveness of this group to marketers and its importance as a harbinger of future consumer behavior, there has been little academic research and no clear and consistent definition or criteria for defining the Net Generation or describing its key behavioral characteristics. Therefore, this paper uses Latent Class cluster analysis to classify consumers according to Internet usage behavior, then, identifies the definite and meaningful Net Generation through synthetic investigation of Korean consumers’ lifestyles, Internet usage and buying behavior, the use of mobile Internet usage, and demographic characteristics.

The results show five clusters of Internet users: Hedonic Involvement group, Active Involvement group, Regular User group, Business Purpose group, and Passive Usage group. Three similar clusters of strong Internet characteristics, Hedonic Involvement, Active Involvement, and Regular Internet User group, comprise the Net Generation.

The Net Generation has strong Internet involvement and commitment, contains a youth dominated demographic profile, mostly teenagers to early thirties, intensive use of Internet, e-mail, chatting and messenger services, and engages in a full range of activities in Internet community. More than half of them have used mobile Internet services. In terms of Internet buying behavior they are not only very experienced in making actual purchases, but also visit Internet shopping sites. In lifestyles, they are fashion oriented, Western and convenience food seekers, heavily impulsive shoppers, and celebrity worships.

In contrast to the three clusters of the Net Generation, the other two clusters, the Business Purpose group and the Passive User group, show very different characteristics. They passively participate in Internet related activities. In lifestyles, they enjoy self-fulfilling leisure activities and have a low degree of involvement with the Internet.

According to the results, the Net Generation is an important and growing consumer group. Although simplistic definitions confine it to people born after 1977, the current study found that people into their thirties exhibited Net Generation characteristics. The results thus suggest broadening the definition or using cognitive age or behavioral characteristics rather than birth-year-based definitions. And the results show the possibility of segmentation within the Net Generation. Even though the Net Generation in general shows similar characteristics in terms of Internet behavior and demographics, their motivation, behavior and lifestyles are diverse. That is, the Net Generation is heterogeneous, and segmen-
tation based on the current study’s cluster analysis can be a useful marketing strategy.

In addition, it is very important to manage the Net Generation well because they are skilled at using Internet, mobile and digital products, and have purchasing power. This study attempts to provide a foundation for future Net Generation research and improve the efficiency of companies using e-commerce by providing a framework for more effective advertising and marketing strategies that target the Net Generation.

REFERENCES

Lee and DDB (2000), Digitography –Lifestyle Analysis of the Net Generation, Lee and DDB.
ABSTRACT

The objective of this paper is to theoretically clarify, and to make propositions, on the role and impacts of immersion in the consumer behaviour on a merchant website. Through the results of focus group interviews, we explain how virtual-social interactions between consumers and Internet virtual agents affect major Web behaviours such as visit duration, repeated visit, as well as generation of word of mouth.

INTRODUCTION

Since one decade the world is facing a new and revolutionary manner in which people shop: Internet shopping. For consumers, it is clearly recognized that internet offers many opportunities to facilitate shopping, mainly utilitarian shopping. Indeed, searching information and purchasing product are considered as easier due to greater product information availability and access, possibility of multi-attribute product comparisons, shopping at home 24h/24 and 7d/7 and so on (Alba et al., 1997; Szymanski and Hise, 2000; Coupey, 2001).

What about experiential shopping? Even if internet could have a dual personality (Childers et al., 2001)—i.e., a “cold” media due to its informational architecture (Boulaire and Balloffet, 1999) as well as a potential hedonic environment due to some hedonistic aspects (Korgaonkar and Wolin, 1999), today technological advances in interactive techniques (for instance, 3-D product manipulation, personification in avatar) considerably broaden the extent to which internet could be also exploited for experiential shopping (Helmé-Guizon, 2001, Jeandrain and Limbourg, 2002; Diesbach, 2003).

The relevance of such hedonistic dimension in understanding the consumer behaviour is highly important in a very large variety of consumption contexts, as the seminal work of Holbrook & Hirschman 1982, Holbrook (1986, 1994), Csikszentmihalyi 2000a, and so on (Picard, 1998; Picard and Klein, 2001).

More specifically in the internet context, for consumers, these advances open the door to using virtual reality (and thus immersions) as a new means of experiencing products, in particular in the case of immersive virtual reality devices (such as data gloves and head-mounted displays). The availability of 3D software, etc., progressively allow consumers to use virtual reality (Picard, 1998; Picard and Klein, 2001).

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More specifically in the internet context, for consumers, these advances open the door to using virtual reality (and thus immersion) for their “everyday” online experience. As a consequence, the more immersive, hedonic aspects of internet could be found to play an equal role than its instrumental ones in predicting online shopping attitudes (Childers et al., 2001; Diesbach 2001). However, to our knowledge only few pieces of research have investigated in an experiential perspective how the consumer deals with interactive interface (e.g., Meuter et al., 2000), and more specifically with immersive interactive interface (e.g., Grigorvici, 2003). Given the wide variety of website types (i.e., utilitarian- or experiential-oriented websites) and purposes (e.g., purchase, immersion), it is critical to understand how consumers feel about them (Meuter et al., 2000).

Our research aims at building a model integrating consumer’s immersion in an online consumer behavior perspective. For doing so, our objective is twofold. First, we attempt to study the contribution of spatial and of social immersion in the specific case of merchant website. Second, the notion of autonomous agent is introduced as an ambient cue in order to deeper analyze the social counterpart of immersion in our perspective. Practically, after epistemologically positioning our research, we will precise the notions of merchant website, spatial and social immersion and autonomous agent. Then, an integrative model will be explained and justified. We will conclude by proposing insights for future research.

EPISTEMOLOGICAL PRELIMINARY

It appears that the huge expectations of the late 1990’s in term of internet-based service, commerce and general business development were not met: it is proposed that a number of professionals and academics may have not considered the internet phenomena properly, sometimes ignoring that consumer still needed online stimuli, services, feelings they were to experience off-line (Diesbach 2002). The internet as a tool has been and still is bringing important paradigmatic and theoretical questions (e.g., Hoffman & Novak, 1996; Helmé-Guizon, 2001).

Some authors may propose to totally renew a number of basic postulates of the traditional consumer behaviour approach to understand the “new” consumer and hence propose a paradigmatic revolution under a number of aspects (e.g., Hoffman et Novak, 1997). Some authors also strongly focus in their analysis on a reduced set of characteristics, specific to electronic interfaces, which may ignore important variables for having a full picture of how satisfaction, retention, may be generated online. For example a number of scholars in Marketing, and ergonomists, in the late 1990’s do focus mainly on downloading speedness and navigation “ease” (e.g., Nilsen, 1997). Some authors nevertheless highlight, without detailing them, the possible importance of other (eg affective) cues (Chen & Wells 1999, Lynch et al 2001, Ladwein 2001). A renewed vision of Internet as a tool may make affective reactions relevant, particularly in considering the shopping experience online, as proposed by Helmé-Guizon, 2001.

The key question is hence: « do we properly consider, approach internet as a tool, a technology, and as a social phenomena ? »

It can be assumed that such was not the case, due to the failure of so many e-business and particularly e-commerce operators in the 2001-2002. It is proposed by Wind & Mahajan (2002) in their...
speak with the operator
create a virtual agent managed from a server by a sales clerk, which
a virtual agent with synthetical, i.e., a fully-pre-programmed-base
categories suggest that a website may be an excellent marketing and
sales oriented tool even if it does achieve, or even propose, selling
online. In this sense the function of such site would nevertheless be
captured by the definition of the e-marketing as conceptualised by
Vernette & Dubois (2001).

We propose that a website may be considered as a « merchant website » even if it does not sell, as soon as it helps making the
consumer enter in a process that will prepare him/her to a possible,
future purchase—such purchase can therefore take place on-line, or
off-line—or even if it takes part into a process of information search,
products comparison, or loyalty enhancement, post-purchase prob-
lem resolution, etc., that is any functionality that could normally be
performed by employees and contact persons in a traditional outlet
or service encounter (Babin & al. 1995, Babin & al. 1999; Bitner
1990, 1992). The fact a transaction is not proposed, or not realized
on-line, does not exclude the electronic interface from the purchase
process. For instance if giving advices for making a present may be
considered as a first step towards purchasing (Babin et al. 1994 ;
Sirieux et Dubois, 1999), so is it in an online context (Diesbach,
2003).

Actually consumer may visit websites, in a pre-purchase process,
for three main reasons: 1) surfing for utilitarian motives; 2)
navigating for hedonistic motives with a purchase intention; and 3)
navigating for hedonistic motives without a purchase intention.
Those three behaviours are called utilitarian navigation—brows-

We believe that the frontier is not always very clear between
different kinds of navigations, as was shown by several focus

groups organized in 2002 and 2003, and therefore the proposed

enlarged (not definitive as we will see) definition of a merchant
website makes sense. Is there also a clear frontier between an
outlet and a media?

If such distinction may be clear enough in traditional com-
merce and communication, it may not hold true on-line: Ducoffe
(1996) shows that a number of website content and design charac-
teristics (eg text, graphics, even musics) are actually considered as

advertising elements by most consumers. Therefore an informa-
tional or content site with a strongly promotional orientation may be
viewed as an advertising site. In our vision such a site may be
considered as a “merchant website” even if it is more content, image
or relation enhancement-oriented because it prepares purchases.

Last, in order to propose a typology of “merchant websites” we
will consider two variables: the degree of integration of the site into
the actual or future purchase process, and the cognitive/affective

nature of information.

A typology by Daras & Diesbach (2002) records the different
degrees into which a website may integrates itself into an actual
purchase process (figure 1). First, websites may establish a relation-
ship with the consumer at many different steps of the company-
customer relationship. Second, information may be more cognitive
or affective by nature, and may require more or less cognitive
processing—and processing awareness (Clore & al. 1994; Forgas
1995; Pham Cohen & Pracejus, 2001). A number of works related to
the Affect-as-information framework show the relevance of such
approach and the different impact strength and speedness of such
information, on attitude and purchase intention. A merchant website
may provide both kinds of information through textual, graphical
(animated or fixed) musical, or even in the future through olfactory
or tactile information. In such approach, the quantity of informa-
tion, its complexity, its more affective or cognitive nature as
proposed by Pham & al. (2001), are important cues that will
determine the way such information is processed through the
interactive media (Stevenson & al. 1999; Bruner & Kumar, 2000;
Ariely, 2000; Pham & al. 2001). It must be recorded that our use of internet and other electronic interfaces through their emotional potential is still limited, but is dramatically increasing. Technology makes it possible to propose far more sensorial and/or affective cues in online communication than have been done so far.

Second, a site may have an important role in the product or service marketing and commercial policy (Kapferer, 2002; Diesbach, 2003). Our second dimension will therefore take into consideration how deeply the site is integrated in the purchase process preparation and/or realization. On an extremity we may find pure content or image sites with no possible online purchase functionalities (eg. Sites like Shiseido.com for cosmetics, Hermes.com for luxury goods, or Traserfrance.com for diving watches, Porsche.com and Alfaromeo.com for sport cars); on the other extremity we may find purely selling sites, pure-players (exclusively online selling dedicated corporations) or online channel of multi-channel companies, such as Chateauonline.com or Idealwine.com for wines, Amazon.com for books, music and other consumer goods, for which on-line selling is really the key reason for existing.

We then propose a typology of merchant websites, that is not to be opposed to the 6 mono-functional categories of Hoffman & al. (1995), but that rather highlights a complementary, bi-dimensional typology (figure 2), along a two dimensional continuum. It consists of:

- the nature of the offered information, highlighting its affective vs its cognitive characteristic;
- the level of integration of the website into the purchase preparation or realization.

Towards a final, global definition of a merchant website: relation with the concept of service

The frontier between those different website missions in a merchant context may sometimes be rather problematic to underline. Internet may be seen as a mean of providing data, emotions, an experiential or social experience, a space for building a relationship with a brand, with a product/service provider, or with other customers. For example tourism sites such as Virtualtourist.com as well as Worldisaround.com provide information for preparing a travel, a real experience of discovery in itself (they are a content, i.e. an utilitarian, and also experiential websites). They also provide the option of informational and social, friendly contacts with other tourists who may answer questions, but even establish personal contacts with the user, as was tested. Therefore, if we consider the navigation on the site as a period of time in which the customer directly interacts with the firm or the provided service, through its capacity to deliver information and generate emotions in a marketing perspective, a merchant site also works like a service encounter in the meaning conceptualised by Bitner (1990), and deepened by Mohr & Bitner 1990, Bitner (1992) and Meuter & al. (2000).

For example let us consider another major field of application for internet uses such as banking. In 2003, 36% of the North Americans use internet for banking operations: in Europe the use rate varies from 11% (Italy) to Norway (45%) at the end of 2002 (JDNet Solutions). Where to set up a frontier in term of website service functionalities, between service offerings such as accounts consulting, transfer or payment orders? Those banks sites may not be seen as merchant sites in the traditional meaning; they nevertheless allow a company to provide a (paid or free) service, and probably to increase customer loyalty (even for non internet-based operations if the customer prefers for any reason, a man-to-man contact for a number of decisions). Such sites then deliver services, participate into building loyalty, increasing operations (off-line and
online), hence preparing a possible purchase, even for services the sites do not sell.

In a traditional context of service encounter, space conception as well as social interactions are crucial for building the very service itself, building satisfaction and generating approach behaviours (Booms & Bitner, 1982; Mohr & Bitner, 1991; Bitner, 1992). We can logically assume that similarly in a service encounter online, design elements, particularly their social components, and more specifically such elements as virtual agents, will be of a crucial importance in creating approach behaviours, through the emotional reactions and the feeling of a social relationship.

As such the model of Bitner (1992)6 seems to be applicable to the online context: design factors and any elements participating to the social interaction, more specifically a virtual agent, should be of a major importance in constructing the service encounter and in driving customer approach behaviours. We therefore propose a new definition and will call “merchant website”:

- spatial immersion, also called “telepresence”,
- and social immersion called “social presence”.

In being telepresent, first, individuals feel their presence in the virtual environment and no more (or less) in the immediate physical one (Steuer, 1992). Without developing this point we highlight the similarity of such concept with the one of Flow, proposed by Csikszentmihalyi (1996, 1975-2000b, 1990), and integrated in the model of consumer behaviour elaborated by Hoffman & Novak (1996).

Second, individuals respond to a virtual stimuli just as they would do in the (non “virtual”) reality (Lombard and Ditton, 1997). For instance, they could have the impression of « really » manipulating a product in a virtual store and would thus adopt the same behaviors as in physical stores. On the other hand, if individuals could be self-included in a virtual environment in being spatially present in there (Witmer and Singer, 1998), they could also perceive this immersion when communicating with other beings (living or synthetic ones). Those in turn appear to also exist in the mediated world and seem to “really” react with individuals. The individual

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6Elaborated in particular integrating in a service encounter the framework proposed by Mehrabian et Russel (1974), and conceptualizing in such context a revised proposition of approaches & avoidance behaviours.

7Objective immersion has to be differentiated from subjective one. Objective immersion could be defined as “the degree to which a virtual environment submerges the perceptual system of the user in virtual stimuli” (Biocca, 1992, P. 10) and thus characterizes a property of the technology. The more the system captivates the senses and blocks out stimuli from the physical world, the more the system is considered immersive. An ideal immersive virtual reality is one where the totality of inputs to the participant’s senses is continually supplied by the computer-generated displays (Slater and Usoh, 1995). However, in our research, immersion has to be understood only in the sense of subjective immersion.

8ISPR is the International Society for Presence Research (http://www.temple.edu/ispr/index.htm)
does not anymore differentiate between human-human interaction and human-virtual being interaction. The virtual “being” is perceived as part of the mediated world, and as being able to interact with humans, which leads to the creation of ("as if" social, or para-social relationships (Lombard and Ditton, 1997; Donath, 2001a).

Spatial immersion and service encounter: a positive relationship?
The concept of telepresence becomes crucial for understanding the individuals’ behaviour in a mediated environment, such as Internet (Lombard and Ditton, 1997; Steuer, 1995) in the sense that this notion captures a global subjective experience. Moreover, if facilitating the experience of immersion is an explicit goal—for instance—in the entertaining sector (Cassel & al., 2000), it is also the case for commercial uses of such experience (e.g., a mall in a MUD9’s).

In order to be immersed in a “space”, an environment—a real space as well as a virtual one—the user has to appropriate such space, i.e. to transform and personalize it (Belk, 1988; Boulaire and Mathieu, 2000; Carù and Cova, 2003). For example the empirical study by Cassel and colleagues (2000) is a good illustration of spatial appropriation by children in the case of games.

For doing so, three steps have to be followed (Carù and Cova, 2003):

1. nesting: the user makes his nest in isolating a part of the space which results more familiar;
2. exploring: the user locates more places and thus increases his territory;
3. and, finally marking: the user personalizes the space in symbolically labelling it.

After these three steps, the individual has phenomenologically extended her/his self to this new space10 in controlling it (Belk, 1988).

Intuitively, consumers experimenting telepresence are more likely to consider such experience as entertaining, and sometimes very compelling (Green, 1998), which could lead to more exploration of the virtual space, that means more time spent in the virtual store (Lombart and Jeandrain, 2003; Diesbach 2003). The link between telepresence and the notion of service encounter should thus be obvious. The more the individual is telepresent on a website, the more s/he is likely to stay and to desire to be in contact with the company and/or the service, which is particularly interesting in considering the telepresence affective impacts on the consumer behaviour. For instance, Boulaire and Mathieu identify the concept of telepresence as one of the hedonic dimensions of affective engagement to a website (2000). E-surfing (i.e. to navigate for hedonic purposes without intention to buy online, Lombart and Jeandrain, 2003), often associated to immersion in a website (Helmé-Guizon, 2001), is also linked to positive affect, and more specifically to surprise and arousal (Wolfmünberger and Gilly, 2001).

Social immersion—the concept, virtual agents and service encounter: a positive relationship?
First let us approach the concept of virtual agent. A number of definitions have appeared, mainly in the literature in Artificial Intelligence (AI) and in Computing sciences (e.g., Blumberg 1996; Anastassakis, Panayio & Ritchings, 2001; Burgoon & al., 2000; Cooke & al. 2002; Cassel & Bickmore, 2000; Cassel & Nakano 2001; Bickmore 2003, etc.). A virtual agent is first, a piece of software, that performs tasks, with a varying level of autonomy (such concept would deserve in itself a number of pages to be explained). Most of the authors highlight some important specificities of the agent, such as: the function of supporting the interface (PC, website, etc.) user, anthropomorphic appearance i.e. visibility. Such visibility refers to the fact that the software is embodied in a mediated interface, e.g. a PC screen, in order to give the user the feeling he/she is interacting with a being, living or synthetic one. We focus on the cases of agents being used for an experiential, more social, and pleasant, navigation and therefore think the embodied agent is more relevant for us. A synthetic definition is therefore proposed for a new concept: an Internet Virtual Agent or IVA is a virtual agent, that is a piece of software, accessible via a website on internet, that is embodied (i.e. it is made visible), and that speaks to the user. It can make movements (e.g. illustrative movements), move inside the site, listen to the instructions of the user (written ones, clicks, or sometimes oral instructions), in order to perform a number of predetermined tasks that helps the user during his/her navigation."

An interesting literature in marketing shows that the nature and quality of the interaction with a sales or a contact person in a service encounter or an outlet, has a very important impact on consumers beliefs, on image formation (for the brand or the institution), and on attitude or behaviour (Mohr & Bitner, 1990; Bitner, 1992; Baker & al. 1992; Babin & al. 1994; Babin & al. 1999). For instance Baker & al. show that social factors impacts the service and merchandise perceived quality, and through them, the image of an outlet. Bitner (1992) proposes that the social interaction with a contact person impacts the consumer approach/avoidance (i.e. to stay, explore, come back, recommendation) behaviours.

It is suggested that most basic patterns of behaviour in a traditional merchant or service context may also exist on internet (Helmé-Guizon 2001, Wind & Mahajan 2002), and therefore that we may find such kinds of behaviours on internet when a user is exposed to an IVA.

Do human being react in front of an agent as they would do in the reality?
We would certainly believe not. But actually a number of major findings in robotics, i.e. machine-man interaction, and in computing sciences, show that people largely behave as they would do with a human being when they interact with a virtual being. Reeve & Nass (1996) show that a human user attributes human qualities to an electronic tools he/she interacts with. Burgoon & al. (2000) even find out that he/she can happen to joke with it; they also show how interaction impacts the beliefs, i.e. the fact an IVA has a real power of persuasion, just as a human being. Donath (2001a, 2001b) shows that most of the modalities in human-human communication should be valid in human-virtual agent communication. Empirical results show how the interface is perceived as more attractive and persuasive when inhabited by an agent (Cassel & al. 2000; Takeuchi & Naito, 2002; Diesbach 2003). That is, the same way as it occurs with a man-man interaction, an IVA is likely to generate more (or less) involvement, positive (or negative) emotional reactions, which may in turn strongly impact stickiness or positive emotion + time spent (Cassel & al. 2000; Diesbach 2003) on the interface, and even influence the choice (Takashi & al. 2000; Bengtsson & al. 2001). Such phenomena, observed in a non merchant context, are very likely to also occur in a merchant context—“merchant” in the wide meaning previously defined. As a conclusion all those theoretical and empirical results lead us to...
consider as most likely that an IVA will impact the user’s emotional reaction, particularly his/her feeling of immersion, his/her beliefs and behaviours.

**RESEARCH MODEL**

Consistently with the proposed definition of a merchant website we have proposed, with the conception of a service encounter as proposed by several researches by Bitner, considering that a media, a service encounter or a virtual outlet may be merchant websites; keeping in mind the bi-dimensionality of the information that a site may provide, and its impact on consumer behaviour; last, applying such framework to the case of IVAs (internet virtual agents) the following research propositions are formulated (figure 3):

- P1: online navigation may generate an intense level of immersion;
- P2: emotional, particularly surprising or stimulating design elements of a website may reinforce such feeling of immersion;
- P3: a virtual agent is a particularly adapted case of design element (of a site) for enhancing feelings of immersion (in its two dimensions, that is, social presence, as well as tele-presence);
- P4: the feelings of immersion should positively influence the appropriation behaviours in a merchant context;
- P5: feelings of immersion should positively influence approach behaviours towards a merchant site (see hereafter), either directly (P5a) or via the appropriation behaviours (P5b);
- P6: the global design of a virtual agent (including its voice (audio design), non-verbal behaviour, movements, and not only its “shape” or visual fixed design) is likely to impact the positive reactions of the internet user;
- P7: Such emotional reactions in turn may act as moderators between the feelings of immersion and the appropriation;
- P8: In turn, the emotional reactions to the IVA may impact the feelings of immersion on the site (loop effects);
- P9: emotional reactions should influence approach/avoidance behaviours as conceptualised by Bitner (1992: i.e. stay, affiliate, return, recommend), as we adapt them to the Internet context, that is:
  - The duration of the visit on the website;
  - The intention to interact with the virtual agent (contact person) of the website;
  - The intention to interact with a real contact person of the company represented by the website;
  - The intention to return to the website and to recommend it to other users.

We summarize hereafter the expected relationships in a research model.

**DISCUSSION**

The objective of our paper was to demonstrate the relevance of immersion for understanding the consumer behaviour in an online, merchant context. First we have defined the concept of a merchant website, taking into account the actual existing sites, and observed online behaviours.

Second we have proposed and illustrated a typology of merchant websites that takes into account the nature and variety of provided information, and the degree of integration of the navigation on the site, into the final (possible) act of purchase.

Third we have clarified the concepts of immersion, and shown its relevance in an online context.

Last, the concept of virtual agent, and of internet virtual agent (IVA) was introduced, redefined, and specified to the internet, merchant (in the large adopted acceptation) context. All those concepts have then been related into a global framework. It is based on the model of consumer behavior proposed by Bitner (1992). Finally a model is proposed, together with a number of research propositions.

This paper helps clarifying the complex interplay between affect and consumer behaviour, and why/how observed results related to the presence of virtual agents might be explained. It also
deeps into the conceptualisation of a merchant website, proposing a more rigorous and wider definition. Last, it proposes a typology of merchant websites that, we believe, helps better describing the multi-functionality of merchant sites as observed in the reality.

The next steps of our research will consist of testing, step by step, all the proposed hypothesis and research proposals.

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The Effect of Scarcity Message on Consumer’s Purchase Intention in the Internet Shopping Mall

Yunkyoung Bae, Hankuk University of Foreign Studies, Korea
Sukeyu Lee, Sungkyunkwan University, Korea

ABSTRACT

The purpose of this study is to examine the effect of scarcity messages on the consumer’s purchase intention in an Internet shopping mall. Specifically, we explore the effect of a scarcity message on the consumer’s purchase intention using the product involvement and consumer’s product knowledge as moderators. The results show that a scarcity message is more effective than a non-scarcity message on the consumer’s purchase intention in the Internet shopping mall. And the effect of a scarcity message on the consumer’s purchase intention is found to be moderated by product involvement and consumer’s product knowledge. Furthermore, the effect of scarcity message on the consumer’s purchase intention is found to effective when the level of product involvement or consumer’s product knowledge is low. This study gives the implication that Internet shopping mall companies should consider the level of product involvement and consumer’s product knowledge when they use the scarcity message.

INTRODUCTION

There is a growing interest in how consumers respond to persuasion attempts by marketers and how various persuasion tactics impact their behavior (Friestad and Wright 1994). Scarcity claims, one of the persuasion tactics, have a powerful impact on consumer’s purchase behavior. Because the items and opportunities appear more attractive as they become less available (Lynn, 1991). The scarcity heuristic is demonstrated by the results of a consumer preferences study conducted by many researchers (Bozzolo and Brock, 1992; Fromkin, 1968, 1970, 1971; Kelman, 1953; Knishinky, 1982; Lynn, 1989, 1991, 1992; Verhallen and Robben, 1994, West, 1975). But prior researches limit our understanding of the scarcity effect.

The purpose of this study is to examine (1) the effect of scarcity message on a consumer’s purchase intention in the Internet shopping mall, (2) whether a consumer’s level of involvement and product knowledge moderate the effect of a scarcity message on his/her consumer’s purchase intention. The result of this study can add further insights into the usefulness of scarcity claims as a means of developing persuasion tactics.

THEORETICAL BACKGROUND

Scarcity

With scarcity operating powerfully on the worth assigned to things, it should not be surprising that compliance professionals have a variety of techniques designed to convert this power to compliance. Cialdini (1985) classified the scarcity message into two types: the message with quantity limit, and the message with time limit. Quantity limit is a tactic in which the customer is informed that products or services exist in a limited supply that cannot be guaranteed to last for long (i.e., “limited number offer”, “100EA only sale”). Time limit is a “deadline” technique in which an official time limit is placed on the consumer’s opportunity to get what is being offered (i.e., “last three days”, “one-week-only sale”). Thus, consumers are told that unless they make an immediate purchase decision, they will have to buy the item at a higher price, or they will not be able to purchase it at all.

In a study by Knishinsky(1982), wholesale beef buyers who were told of an impending imported beef shortage purchased significantly more beef when they were informed that the shortage information came from the importer’s “exclusive” contacts. Furthermore, in a study on the effect of scarcity on perceived monetary value, identical Nabisco brand cookies were sold to groups of people with differing reports on their availability and scarcity. The people who got only two cookies rated them as more desirable to eat, more attractive, and expressed a willingness to pay a higher price for the product than did the people who received an abundant supply of the identical cookies (Worchel, Lee and Adewole, 1975). Apparently, the fact that item was scarce made it more valued and desirable.

The principle of scarcity appears to draw its power from three sources.

First, items that are difficult to obtain are nearly always more desirable than those that require little effort (Lynn, 1992). Thus, the scarcity of an item alone provides a frequently accurate cue as to that item’s desirability (Cialdini, 1993; Ditto and Jenmott, 1989). This allows scarcity to be employed as a heuristic cue in decision-making.

The second mechanism that fuels the principle of scarcity is the unrelenting desire to preserve freedom of choice. Protecting freedom is the centerpiece of Psychological Reactance Theory (Brehm and Brehm, 1981). According to the theory, whenever our freedoms are limited or threatened, the need to retain those freedoms makes us want them (as well as the goods and services associated with them) significantly more than before.

Third, according to the prevailing heuristic account, scarcity is considered to be a cue to value, such “what is rare is good” (Cialdini, 1993; Lynn, 1992) or “what is scarce is extreme” (Ditto and Jenmott, 1989). Cialdini (1993) used terms such as “automatic influence”, “click-whirr responding,” and “brain clouding arousal” to characterize the knee-jerk “mindless” responsiveness of persons to scarcity information.

Elaboration Likelihood Model

The Elaboration Likelihood Model(ELM) (Petty and Cacioppo, 1986) of persuasion tells us the processes yielding to a persuasive communication and strength of the attitudes that result from those processes. In an advertising context, the model holds that the process responsible for ad effectiveness is one of two relatively distinct routes to persuasion.

The first route to persuasion is known as the “central route” involves effortful cognitive activity. When elaboration likelihood is high, individuals focus their attention on message relevant ad information.

The other route to persuasion is known as the “peripheral route”. When elaboration likelihood is low, individuals do not think much about message content; instead, they use non-content elements associated with the message (i.e., peripheral cues) as a basis for attitude formation. Peripheral cues can be the number of message arguments, source characteristics, music, affective reactions generated by the ad etc.

Whether an individual will follow the central or peripheral route to persuasion is determined by the likelihood of elaboration,
which, in turn, is influenced by the individual’s motivation and ability to process.

**HYPOTHESES**

A large number of researchers proved the effect of a scarcity message in off-line.

This study examines the effect of scarcity message on the consumer’s purchase intention in the Internet shopping mall. And we explore the effect of a scarcity message on the consumer’s purchase intention using the product involvement and consumer’s product knowledge as moderators.

The overall outline of our conceptual framework is presented in figure 1.

**The effect of a scarcity message in the Internet shopping mall**

If consumers are presented with an interesting item in the Internet shopping mall, they can purchase with a single click. The ease of on-click purchasing can foster impulse buying. Scarcity messages bolster the impulse-buying atmosphere because of the added sense of urgency. Therefore, scarcity messages in the Internet shopping mall will be more effective than non-scarcity message.

Based on this discussion, the hypotheses of this study are as follow:

H1-1: The scarcity message with time limit on consumer’s purchase intention in the Internet shopping mall will be more effective than non-scarcity message.

H1-2: The scarcity message with quantity limit on consumer’s purchase intention in the Internet shopping mall will be more effective than non-scarcity message.

**The moderating effect of product involvement**

The quality of the argument contained in a message has had a greater impact on persuasion under conditions of high rather than low involvement (Petty and Cacioppo, 1979; Petty, Cacioppo, and Heesacker, 1981). On the other hand, peripheral cues such as the expertise or attractiveness of a message source (Chaiken, 1980; Petty, Cacioppo, and Goldman, 1981; Rhine and Severance, 1970) have had a greater impact on persuasion under conditions of low rather than high involvement. In sum, under high involvement conditions, people appear to exert the cognitive effort required to evaluate the issue-relevant arguments presented, and their attitudes are a function of this information-processing activity (central route). Under low involvement conditions, attitudes appear to be affected by simple acceptance and rejection cues in the persuasion context and are less affected by argument quality (peripheral routes).

Thus, the vital implication of the ELM for advertising messages is that different kinds of appeals may be most effective for different audiences. A person who purchases a high involvement product may scrutinize the product-relevant information presented in an advertisement. On the other hand, a person who purchases a low involvement product will not expend the effort required to think about the product-relevant arguments in the ad, but may instead focus on the product-irrelevant information.

Scarcity messages may be peripheral cues, because of the product-irrelevant information. So, the effect of scarcity messages on a consumer’s purchase intention will be greater when product involvement is low rather than high.

Based on this discussion, the hypotheses of this study are as follow:

H2-1: The effect of scarcity messages with time limit on consumer’s purchase intention will be greater when product involvement is low than when product involvement is high.

H2-2: The effect of scarcity messages with quantity limit on consumer’s purchase intention will be greater when product involvement is low than when product involvement is high.

**The moderating effect of consumer’s product knowledge**

People become more able to think about issue-relevant information when they have more consumer knowledge (Alba and
The Effect of Scarcity Message on Consumer’s Purchase Intention in the Internet Shopping Mall

Hutchinson, 1987). Knowledge is only effective, however, when it is inaccessible (Brucks, 1985). When knowledge is low or inaccessible, people rely on simple cues (Brucks, 1985). Knowledge may also interact with the mode of information presentation. For high knowledge consumer, the attraction effect decreases when information is presented numerically but increases when information is presented verbally (Sen, 1998).

Consumer’s knowledge can also influence the way people process information. Experts (those with more product knowledge) tend to engage in more detailed processing when there is an incongruity between the headline and the body copy of a message (Sujan, 1985). Experts are also more likely to process a message in detail when given only attribute information, while novices are more likely to do so when given benefit information (Maheswaran and Sternthal, 1990). Experts elaborate on messages in an evaluative manner, whereas novices tend to process message more literally (Maheswaran and Sternthal, 1990).

According to ELM, whether an individual will follow the central or peripheral route to persuasion is influenced by the individual’s motivation and ability to process. The consumer’s knowledge is engaged in an individual’s ability to process. Therefore, high knowledge consumers may pay attention to product-relevant information (central cues), while low knowledge consumers focused on product-irrelevant information (peripheral cues).

Scarcity messages may be peripheral cues rather than central cues. Therefore, the effect of scarcity messages on a consumer’s purchase intention will be greater when the consumer’s product knowledge is low than when the consumer’s product knowledge level is high.

Based on this discussion, the hypotheses of this study are as follow

H3-1: The effect of scarcity messages with time limit on the consumer’s purchase intention will be greater when the consumer’s product knowledge is low than when the consumer’s product knowledge level is high.

H3-2: The effect of scarcity messages with quantity limit on consumer’s purchase intention will be greater when the consumer’s product knowledge is low than when product knowledge level is high.

Our hypotheses are displayed in figure 2.

METHOD

Design and Procedure

A group of 294 subjects participated in the 3x2x2 experiment manipulating scarcity message type (message with time limit/message with quantity limit/non-scarcity message), product involvement (high/low) and consumer’s product knowledge (high/low).

The design and stimuli are summarized in table1. Two papers were prepared for the study. The first contained the advertising stimuli and the second contained the variables’ measures. Subjects were asked to read an advertisement for the product (laptop computer or hair drier), and then to indicate their purchase intention for the product.

Manipulations and Stimuli

Involvement. Product involvement was measured by ten items from the Personal Involvement Inventory (PII) proposed by Zaichkowsky (1985). Although the original Personal Involvement Inventory consisted of twenty, seven point semantic differential items, subsequent research (Babakus, 1992) has found that a reduced set of items sufficiently measured the involvement construct.

Consumer’s product knowledge. Previous studies have used both subjective and objective measures to assess the knowledge levels of consumers. The knowledge assessment for this study used subjective measures that included estimates of familiarity (Park and Lessig, 1981), experience (Punj and Staelin, 1983).

Purchase intentions. Purchase intentions for specific product were measured by the two, seven point Likert type items of 1) It is probable that I would buy a product, 2) It is likely I would buy a product (Mackenzie, Lutz, and Belch, 1986). These statements were anchored by Strongly Agree (7) to Strongly Disagree (1).

RESULTS

Analyses were conducted T-test and ANOVA (scarcity message: high vs. low involvement, high vs. low of level consumer’s product knowledge).
Manipulation Checks

*Involvement.* Product involvement was measured by ten items from the Personal Involvement Inventory (PII) proposed by Zaichkowsky (1985). Cronbach’s alpha was 0.9388 and the table 2 presents that the involvement was manipulated successfully.

*Consumer’s product knowledge.* Product knowledge was measured using five items collected from Park and Lessig (1981) and Punj and Staelin (1983) (/?=.8640). A median split on the summed knowledge scores resulted in 119 HKCs and 175 LKCs. The difference between the scores for the HKCs (M=5.21) and the LKCs (M=2.48) was significant (p<.0001).

The effect of scarcity message in the Internet shopping mall  
Hypothesis 1-1 posited that the scarcity message with time limit on consumer’s purchase intention in the Internet shopping mall would be more effective than the non-scarcity message. As predicted, the consumer’s purchase intentions to the scarcity message with time limit were more positive than those to the non-scarcity message (see TABLE 3). The result of a ANOVA yielded a significant main effect for scarcity message (see TABLE 4).

Hypothesis 1-2 predicted that the scarcity message with quantity limit on consumer’s purchase intention in the Internet shopping mall would be more effective than the non-scarcity message. As expected, the consumer’s intention index to the scarcity message with quantity limit was greater than those to the non-scarcity message (see TABLE 3). The result of a ANOVA yielded a significant main effect for the scarcity message (see TABLE 5).

Therefore, hypothesis 1-1 and 1-2 are supported.

The moderating effect of product involvement  
Hypothesis 2-1 posited that the effect of a scarcity message with time limit on consumer’s purchase intention would be greater when product involvement was low rather than when product involvement was high. From table 6 we see that the consumer’s purchase intentions to the scarcity message with time limit were more positive when product involvement was low rather than when

<table>
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<th>TABLE 1</th>
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<tr>
<td>Product category</td>
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<td>Hair drier (low involvement product)</td>
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<th>TABLE 3</th>
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<tr>
<td>Message types</td>
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<tr>
<td>The scarcity message with time limit</td>
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<td>Non-scarcity message</td>
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<tr>
<td>The scarcity message with quantity limit</td>
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<tr>
<td>Non-scarcity message</td>
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</table>
product involvement was high. As table 4 indicated the result of a ANOVA yielded significant interaction effect (scarcity message * Involvement).

Hypothesis 2-2 predicted the effect of a scarcity message with quantity on consumer’s purchase intention would be greater when product involvement was low than when product involvement was high. From table 6, we see that the consumer’s purchase intentions to scarcity message with time quantity were more positive when product involvement was low rather than when product involvement was high. As table 5 indicated that the result of a ANOVA yielded significant interaction effect (scarcity message * Involvement).

Therefore, hypothesis 2-1 and 2-2 are supported.

**The moderating effect of consumer’s product knowledge**

Hypothesis 3-1 posited that the effect of a scarcity message with time limit on consumer’s purchase intention would be greater when consumer’s product knowledge was low than when consumer’s product knowledge level was high. From table 7, we see that the consumer’s purchase intentions to a scarcity message with time limit were more positive when product involvement was low rather than when product involvement was high. As table 4 indicated that the result of a ANOVA yielded significant interaction effect (scarcity message * Involvement).

Hypothesis 3-2 predicted the effect of a scarcity message with quantity limit on consumer’s purchase intention would be greater when consumer’s product knowledge was low than when product knowledge level was high. From table 7 we see that the consumer’s purchase intentions to a scarcity message with time quantity were more positive when product involvement is low than when product involvement is high. As table 5 indicated that the result of a ANOVA yielded significant interaction effect (scarcity message * Involvement).

Therefore, hypothesis 3-1 and 3-2 are supported.

**DISCUSSION**

A large number of researchers proved the effect of a scarcity message in off-line. But this study presented that the effect of a scarcity message in Internet shopping and that the effect of a scarcity message on the consumer’s purchase intention using the product involvement and consumer’s product knowledge as moderators. The results revealed in this study extend the findings of these studies that scarcity and purchase intention are related.

This experiment showed that 1) a scarcity message is more effective than a non-scarcity message on a consumer’s purchase intention in the Internet shopping mall, 2) the effect of a scarcity message on a consumer’s purchase intention is greater when product involvement is low than when product involvement is high, 3) the effect of a scarcity message on a consumer’s purchase intention is greater when consumer’s product knowledge level is low than when a consumer’s product knowledge level is high.

The results have implications for research on the effect of scarcity messages.

First, we find that the scarcity message is effective on-line as well as off-line. Second, the results of the study reveal that the effects of a scarcity message were moderated by involvement or consumer’s product knowledge. A practical implication of our study is that the scarcity message is effective in the low involvement or the low level of consumer’s product knowledge. Furthermore, Internet shopping mall companies should consider involvement and consumer’s product knowledge level when they use a scarcity message.

The results of this study have the following limitations.

First, the results are based on twenties or thirties samples. Second, the effect of scarcity messages was measured in just the consumer’s purchase intention. Further research should explore consumer’s brand attitude or attitude toward advertisement when consumers read information that includes a scarcity message. Further studies on the difference between the effects of on-line and off-line advertising will be needed.

**REFERENCES**


### TABLE 5

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### TABLE 6

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### TABLE 7

<table>
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</table>
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THEORETICAL BACKGROUND

Repeated exposure is one of the key issues in advertising as most consumers have a chance to be exposed to an advertisement more than once but the advertisement rate is usually proportional to the exposure frequency. Therefore the magnitude and conditions of repeat exposure have been studied by numerous researchers in the field. In measuring the effectiveness of advertising, two variables are considered in principle: awareness, attitude, and selection along with the consumer choice process (Nedungadi, Mitchell, and Berger 1992). The wear out effect, decreasing effectiveness of repeated exposure, was reported by Grass and Wallace (1969) with data from field experiments in which they measured the consumer’s level of attention to the commercial based on CONPAAD (Conjugately Programmed Analysis of Advertising) procedure developed by Lindsley (1962). Apart from inverted ‘U’ shaped negative repeated exposure impacts on brand attitude (Cacioppo and Petty 1979; Calder and Sternthal 1980), repeated advertising exposure has been shown to provide positive effects on the consumer choice process. It is reported to increase accessibility of the brand (Ray and Sawyer 1971; Sawyer and Ward 1979), information about the brand and brand attitudes (Berger and Mitchell 1989). Especially the positive effect of repeat exposure on brand awareness is reported by Nedungadi, Mitchell, and Berger (1992) in mixed choice condition where subjects are given brands to choose. Our repeated exposure probability function is based on above previous findings that explain positive but marginally decreasing effects of repeat exposure on the consumer’s level of brand awareness.

DATA

Data are from advertising post-test survey results conducted by a New York based marketing research company. This company measured the performance of advertising by surveying individuals who had not been exposed to the advertisement (control group) in addition to those who had been exposed. Visitors of a site where the target advertisement is posted are tracked by cookies. In this way, the company systematically measures various variables of interest including the number of exposures, then surveys these individuals by intercepting on the Web. Survey responses are collected from exposure and control groups to examine the performance of the concerned advertisement. In our data set, we focus on the brand awareness that is answered in Boolean (“Have you heard about brand X?” “Yes/No”) and the number of exposures to the advertisement. Data for three advertising campaigns were selected, with 2,720 respondents (1,809 in the exposure condition). These three campaigns are considered successful as there was a significant difference of brand awareness level between control and exposure groups (difference for brand A is 18.4%, for brand B is 22.5%, and for brand C is 16.3%).

ANALYSIS AND RESULTS

Due to the limited numbers of observations for repeat exposure and its variation across campaigns, we proceed to assess the impact of repeat exposure on advertising performance in a 2-level hierarchical model (Raudenbush and Bryk 2002). At first we analyze the impact at the individual level (level 1) and aggregate it at the campaign level (level 2).

In this model, the exposure frequency (EXPOTREQ) is designed at the key independent variable to explain its impact on “Brand awareness” (coded binary as P). As the awareness is a binary observation (“have heard of” or “not have heard of”), a Logit link is applied to estimate the coefficients of the model instead of the identity link.

The model is composed of 2 levels (See Table 1). As the random effects are not significant enough to be integrated into the model, this brand awareness function can be composed of the intercept (-1.36766) and the positive effect slope of repeat exposure (.040338). The probability function of aware Brand X will be

\[
\text{Prob} \left( Y=1/B \right) = \frac{1}{1+\exp(1.36766 - 0.040338 \times \text{expofreq})}
\]

Graph 1 illustrates its functional form.

LIMITATIONS

Our analysis holds some limitations. First, it may not be appropriate to generalize this functional form to all types of Internet brand performance measures. As this analysis is based only on a field post-test performance survey, additional results of similar performance survey measures will be necessary to confirm these findings. Secondly, our assumption of the Logit functional form needs to be tested. We adopt this Logit form as previous research results show only limited findings of repeat exposure of positive but marginally decreasing effect (Grass and Wallace 1969). In further research, this Logit form needs to be tested with more data points. Finally, the possible effects of other factors should be considered in future work. As we focus only on the repeat exposure effect on brand awareness, we do not incorporate possible factors that could influence this repeat exposure awareness function. To get a more precise functional form, additional covariates of both the campaign and individual levels needs to be integrated.

REFERENCES


TABLE 1

Level-1 Model
Prob(Y=1|B)=P
Log[P/(1-P)]=B0 + B1*(EXPOFREQ)

Level-2 Model
B0=G00 + U0
B1=G10 + U1

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GRAPH 1
Awareness and Repeat exposure

Kill Two Birds with One Soap: The Multifinality Pursuit and the Need for Closure

Woo Young Chun, University of Maryland, U.S.A.
Arie W. Kruglanski, University of Maryland, U.S.A.

EXTENDED ABSTRACT

The present studies investigate the influence of need for cognitive closure (Kruglanski & Webster, 1996) on the multifinality pursuit (Chun et al., 2004; Kruglanski et al., 2002), that is, a desire for achieving multiple goals by using a single means. Although “Killing two birds with one stone” sounds like an eminently rational strategy, especially in the domain of product consumption, its degree of implementation may depend on individual differences in need for closure. Across a broad range of goals and means, the present findings support our theoretical predictions that the multifinality pursuit of individuals high in need for closure would result in the use, preference, and choice of multifunctional over unifunctional products.

Our first study taps differential multifinality beliefs espoused by high and low need for closure individuals. Investigating participants’ preferences for proverbs, it is found that individuals high (vs. low) in need for closure exhibit a significant preference for the pro-multifinality proverb of ‘killing two birds with one stone’ over an anti-multifinality proverb enjoining individuals not to run after ‘two hares’, lest neither will be caught. These initial findings begin to demonstrate that for high need for closure individuals, the pursuit of multifinality may represent an explicit maxim of one’s conduct, providing guidelines for choices, preferences and activities.

The findings of our second study show that high (vs. low) need for closure individuals’ pursuit of multifinality affects their use of means or products in real life contexts. Specifically, in this research individuals high in need for closure reported that they were using computers to achieve more goals than did individuals low in that need, even though these two groups did not differ in the amount of time spent with computers nor in their frequency of computer use.

Our subsequent studies went on to examine whether individuals high (vs. low) in need for closure pursue multifinality even when it involves a sacrifice in the quality of goals (Study 3), or when it comes at a particularly high price (Study 4). Study 3 found that when the number of goals that could be achieved by choosing a camera was in conflict with the quality that the camera promises, the preference of individuals high (vs. low) in need for closure was more heavily influenced by the number of goals rather than by the quality factor. Specifically, high (but not low) need for closure individuals tended to prefer a multifunctional camera over the unifunctional one even if the unifunctional camera guaranteed a better quality of pictures than the multifunctional camera. Study 4 extended this finding to the situation wherein the pursuit of multifinality was in conflict with economic considerations. Specifically, it was found that individuals high (vs. low) in need for closure have a greater tendency to choose the multifunctional cellular phone even if it comes at a substantially higher cost. These results suggest that individuals high (vs. low) in need for closure are likely to pursue multifinality, even when its efficacy or rationality are limited by other considerations, such as those of quality or of price. That is, the rationality of the multifinality pursuit may be bounded by people’s epistemic motivation, the need for closure.

Finally, Study 5 completes our investigation by demonstrating that individuals high (vs. low) in need for closure prefer a single multifinal means over a number of unifinal means affording the attainment of the same number of goals. Specifically, Study 5 finds that high (vs. low) in need for closure individuals are likely to use a single means (i.e., one soap) to fulfill two goals (i.e., washing both their face and body), instead of using two different means for the same number of goals (i.e., a facial cleanser for washing face and a soap for washing body). Of additional importance, these preferences were qualified by the gender of users: Females were more motivated to take care of their skin and hence they were relatively low in need for closure due to their ‘fear of invalidity’ (Kruglanski, 1989) in regard to cosmetic products as compared to males. Therefore, we found that females were more likely to use two different products regardless of individual differences in need for closure, whereas males’ use of products for their face and body depended on individual differences in need for closure. Males low in need for closure were likely to use two different products for washing face and body, while males high in need for closure were likely to choose and use a single soap for both these goals.

Taken together, these results illustrate that high (vs. low) need for closure individuals’ pursuit of multifinality is a robust phenomenon applicable across a variety of situations including the preference of proverbs (Study 1) and cameras (Study 3), the use of computers (Study 2) and soap (Study 5), and the choice of cellular phones (Study 4). It is also important to note that our hypotheses appear to hold true in everyday life contexts as well as in the lab. Indeed, results obtained from Studies 2 and 5 in particular suggest that the pursuit of multifinality may be an underpinning precept guiding high (vs. low) need for closure individuals’ judgments and behaviors in diverse everyday situations pertinent to consumer behavior.

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_____, and Donna M. Webster (1996). Motivated closing of the mind: “Seizing” and “freezing”. Psychological Review,
The Impact of Inconsistent Word of Mouth on Brand Attitude
JunSang Lim, University of Alabama, U.S.A.
Sharon E. Beatty, University of Alabama, U.S.A.

ABSTRACT
This paper attempts to uncover how inconsistent word of mouth including both positive and negative information is processed and how it influences consumers’ attitude, attitude certainty and association between attitude and purchase intention. The findings of this study revealed that the individuals who are exposed to inconsistent word of mouth about an unfamiliar brand have a neutral attitude when compared with the individuals who are exposed to consistent word of mouth and that they are, however, more certain about the formed attitude and show stronger association between attitude and purchase intention. The relationships between inconsistent word of mouth and attitude certainty and between inconsistent word of mouth and attitude-purchase intention consistency appear to be moderated by ambivalence and tolerance-of-ambiguity.

INTRODUCTION
Word of mouth refers to “informal communication directed at other consumers about the ownership, usage, or characteristics of particular goods and services and/or their sellers” (Gremler, Gwinner, and Brown 2001, p.44). Consumers frequently rely on word of mouth to collect information related to consumption or develop attitudes toward brands or make purchase decisions (Sundaram and Webster 1999). The importance of word of mouth in the marketplace is well recognized because of the role it plays in shaping consumers’ attitudes and purchase behaviors (Bickart and Schindler 2002; Herr, Kardes, and Kim 1991).

Previous research has examined the unique characteristics of word of mouth which differentiate it from formal communication methods (Silverman 1997), the reasons why word of mouth is more accessible than other types of information (Herr, Kardes, and Kim 1991), and the extent to which the effectiveness of the word of mouth is affected by several factors, such as characteristics of word of mouth receivers and providers, and various situational factors (Lau and Ng 2001). Word of mouth has been studied both as an input into consumer decision making and as an outcome of satisfaction or dissatisfaction. The study area of word of mouth has been extended from physical goods to service products (Bansal and Voyer 2000) and to the internet context (Bickart and Schindler 2002).

Such studies have undoubtedly expanded our understanding of word-of-mouth communications. There are, however, other aspects of word-of-mouth communications that remain unexplored. One unexplored issue is how consumers respond to inconsistent word of mouth, which includes both positive and negative information. Most word of mouth research considers positive and negative word of mouth separately. This research assumes that consumers will not be exposed to positive and negative word of mouth simultaneously. But in the real marketplace consumers are frequently exposed to word of mouth containing both positive and negative information about brands.

Thus, to fully understand word of mouth, it is necessary to research how inconsistent word of mouth influences consumers’ brand attitude. Although inconsistent word of mouth is not well explored, the effect of how incongruity between product information and the retrieved product category schema on consumers’ information processing has been studied (Meyers-Levy and Tybout 1989; Sujan 1985; Sujan, Bettman, and Sujan 1986). Schema based information processing theory focuses on the inconsistency between the established product schema in memory and new information, and suggests that new information is evaluated on the basis of individual items if there is no relevant category in memory or if new information is inconsistent with the available category. Inconsistency in the content of new information is not well considered in this theory. Therefore, schema based information processing theory does not give clear answers to the following questions: when consumers are exposed to inconsistent word of mouth about an unfamiliar product category for which they did not have a well developed schema, how is inconsistent word of mouth processed and how does it influence brand attitude?

To look at the impact of inconsistent word of mouth on consumers’ brand attitude in this situation, this paper reviews the literature to understand 1) how inconsistent word of mouth may be processed, 2) how inconsistent word of mouth may affect brand attitude, and 3) whether or not individual difference factors may affect the relationship between inconsistent word of mouth and brand attitude.

INCONSISTENT WORD OF MOUTH AND BRAND ATTITUDE

Two-sided messages
Two-sided messages is a heavily researched topic in the persuasion literature. Two-sided messages can be regarded as inconsistent information in that a two-sided appeal contains non-favorable claims as well as favorable claims; thus, the findings of two-sided message research might provide insights into how inconsistent information is processed, and how it is related to consumers’ brand attitude.

Two previously developed theories, attribution theory and inoculation theory, explain how two-sided messages are processed and why they are more effective than one-sided messages. According to inoculation theory, when consumers are exposed to two-sided appeals, they attend more and are more motivated to process the appeals, and mild attacking arguments tend to strengthen cognitions. In turn, the increased cognitive responses positively affect attitude toward the ads and brands (Lang, Lee, and Zwick 1999; Crowley and Hoyer 1994). Attribution theory assumes that when consumers are exposed to advertisements they try to attribute claims in advertising either to the advertiser’s desire to sell a product or to the actual characteristics of a product. The inclusion of less favorable information in advertising leads the receiver of the messages to often conclude that the advertiser is telling the truth. This enhanced perception of advertiser credibility, in turn, strengthens beliefs regarding the advertised positive attributes (Hastak, and Park 1990).

Based on these theories, several studies suggest that two-sided messages tend to induce greater motivation to attend to and process the information (Pechmann 1992; Lang, Lee, and Zwick 1999). Thus, it has been hypothesized and tested that the increased attention, motivation, and cognitive processes positively influence the strength of attitude and purchase intention (Crowley and Hoyer 1994). However, the empirical results about the relationships between two-sided messages and attitude or purchase intention have been mixed. Kamins and Marks (1987) report that attitudes formed on the basis of two-sided messages are more persistent than attitudes...
based on comparable one-sided messages. But the findings of Pechmann (1992) do not support this relationship. Empirical studies have also produced mixed results regarding the impact of two-sided messages on purchase intentions. The two-sided messages are positively connected to purchase intention in Etgar and Goodwin (1982), Kamins (1989), Kamins, Brand, Heoke, and Moe (1989), but the results of Kamins and Marks (1987) are not significant.

Researchers have hypothesized that two-sided messages (inconsistent information) lead to more favorable attitudes and stronger purchase intentions. However, empirical findings are not consistent with these hypotheses. From the findings of two-sided messages, we can say that inconsistent information will be processed more intensively than consistent information. But it is not clear that inconsistent information processes result in more favorable attitudes and stronger purchase intentions. In contradiction to previous perspectives, Hastak and Park (1990) noted that the predicted advantages of two-sided messages on attitude may be relatively weak; thus, they suggested that two-sided messages do not necessarily result in more favorable attitudes. Nowlis, Kahn, and Dhar (2002) argue that the responses of people who are exposed to inconsistent information go to the middle point in the bipolar attitude measurement scale because favorable evaluations caused by positive information are neutralized by negative information. Thus, we are in favor of these latter perspectives in drawing up the hypothesis below:

H1: Individuals who are exposed to inconsistent word of mouth about an unfamiliar brand will have a neutral attitude when compared with individuals who are faced with consistent (positive or negative) word of mouth about an unfamiliar brand.

Attitude structure

It has been traditionally assumed that attitude structure is unidimensional. Positive and negative components of an attitudinal evaluation are linked together so that an increase in one will lead to a decrease in the other. This implies that an attitude target is not evaluated simultaneously as both positive and negative (Lavine, Thomsen, Zanna, and Borgida 1998). People, however, have two separate evaluation dimensions for positive and negative information, and these separate evaluation spaces are not linked to each other. Thus, positive and negative evaluative responses toward a single object can occupy separate dimensions. It is possible that one can have both positive and negative evaluations toward the same object (Cacioppo and Berntson 1994; Priester and Petty 1996). A coexistence of a positive and a negative evaluation in the underlying attitude structure refers to attitudinal ambivalence (Kaplan 1972; Bargh, Chaiken, Govender, and Pratto 1992). It is reasonable to think that when people are exposed to a mixture of positive and negative information toward an object, they will have higher attitudinal ambivalence toward the object than when they are exposed to either only positive or only negative information. Thus, word of mouth, including both positive and negative information, will induce inconsistency in the attitude structure.

H2: Individuals who are exposed to inconsistent word of mouth about an unfamiliar brand will experience higher attitudinal ambivalence when compared with individuals who are faced with consistent (positive or negative) word of mouth.

How is the inconsistent word of mouth, which induces ambivalence, processed and how is it related to brand attitude? Based on several perspectives, we believe that inconsistent word-
of-mouth messages positively affect attitude-intention consistency and attitude certainty, which refers to the degree to which an individual is confident that his or her attitude toward an object is correct (Pomerantz, Chaiken and Tordesillas 1995, p.1132). One reason behind these positive relationships is that inconsistent word of mouth is more likely to be processed systematically rather than heuristically (Jonas, Diehl, and Bromer 1997). According to the heuristic-systematic model, human beings usually try to save cognitive energy while processing information; however, they do not merely tend to save cognitive resources by such heuristic processing but they also desire a certain level of confidence in their own judgment or attitude (Chaiken 1980; Maheswaran and Chaiken 1991). If an individual seeks more confidence, he or she must process information through systematic processing. When customers are faced with inconsistent word of mouth, heuristic processing alone is not sufficient to reach a certain level of judgmental confidence in the matter of the overall evaluation of the object (Jonas, Diehl, and Bromer 1997). Thus, inconsistent word of mouth tends to evoke systematic processing and inconsistent messages are carefully evaluated. Thus this tends to increase the attitude certainty and the consistency between the attitude and behavioral intentions.

The attitude accessibility model also provides support to the idea that inconsistent word of mouth leads to greater attitude certainty and a stronger link between behavioral intention and the attitude. According to the attitude accessibility model, attitude activation is the first step for attitude to guide behavior (Bargh, Chaiken, Govender, and Pratto 1992). Once activated, the attitude influences behavior toward the attitude object. The likelihood that a person’s attitude will be activated is primarily determined by the strength of the association in memory between an attitude object and an evaluation (Lavine, Borgida, and Sullivan 2000). The brand mentioned in inconsistent word of mouth and one’s attitude will be closely associated in memory because inconsistent word of mouth is carefully and intensively processed; thus, the brand attitude is more accessible and is more strongly linked with behavior intention.

H3: Individuals who are exposed to inconsistent word of mouth about an unfamiliar brand will show higher attitude certainty and stronger association between attitude and purchase intention when compared with individuals who are faced with consistent (positive or negative) word of mouth.

Individual difference (moderating variables)

Two-sided message research assumes that humans automatically assign more attention and motivation to two-sided messages. Attitude structure work also assumes that people are spontaneously motivated to make sense of inconsistencies in order to arrive at an overall judgment (Srull and Wyer 1989). But not all individuals exposed to inconsistent information have the same need to make sense of these inconsistencies. Nowlis, Kahn, and Dhar (2002) note that individuals faced with inconsistent information choose the middle point in the bipolar attitude measure and that there are two possible reasons for this selection. One reason is that the individual truly has a neutral attitude without intensive processing. The other reason is that the individual has a combination of positive and negative view point toward the object and chooses the neutral point as a result of carefully processing the information. Thus, the degree of ambivalence may differ among individuals even though the individuals are exposed to the same inconsistent word of mouth. Thus, the effects of inconsistent word of mouth on attitude certainty and on association between attitude and purchase intention may be moderated by ambivalence.
H4: Individuals who are exposed to inconsistent word of mouth about an unfamiliar brand and have high ambivalence will have higher attitude certainty and a stronger association between attitude and purchase intention than individuals who have low ambivalence.

Tolerance-of-ambiguity may also moderate these relationships. Tolerance-of-ambiguity refers to the way an individual perceives and processes unfamiliar and ambiguous information and incongruent cues (Furnham 1994; Norton 1975). Ambivalence and tolerance-of-ambiguity are similar but different concepts. Ambivalence is caused by external stimuli and is context specific while tolerance-of-ambiguity is person’s general and internal trait like personality and is context free. So even though the probability is high that individuals with low tolerance-of-ambiguity feel high ambivalence when exposed to inconsistent word-of-mouth, it is also possible that they feel less conflict and thus, show low ambivalence.

How a person copes with ambiguous information affects information processing (Schaninger and Sgiclimpfiga 1981). Tolerance-of-ambiguity is also related to several cognitive and behavioral dispositions, such as seeking certainty and avoiding ambiguity, inability to allow for the coexistence of positive and negative features in the same object, and resistance to rehearsal of ambiguous stimuli (Furnham and Ribhester 1995). When individuals with low tolerance-of-ambiguity are exposed to inconsistent word-of-mouth, they will tend to experience stress and try to avoid ambiguity and to reach more certain judgment toward the mentioned object. Thus, individuals with low tolerance-of-ambiguity may be more likely to be motivated to carefully evaluate the inconsistent and ambiguous information than individuals with high tolerance-of-ambiguity (Nowlis, Kahn and Dhar 2002).

H5: Individuals with low tolerance-for-ambiguity, who are exposed to inconsistent word of mouth about an unfamiliar brand, will have higher attitude certainty and a stronger association between attitude and purchase intention than will individuals who have high tolerance-of-ambiguity.

RESEARCH METHOD

Individuals (n=167, male=91, female=76) recruited from undergraduate classes at the University of Alabama were randomly assigned to one of three manipulated word-of-mouth conditions. To minimize the effect of individuals’ prior attitude and purchasing experience and to control for levels of involvement, Sundaram and Webster (1999) suggest two standards: the product selected for the study 1) should not be previously purchased by respondents and 2) is likely to be purchased in the future. Through a pretest and sets of interviews, a big flat-panel plasma TV and four attributes (the quality of picture, the quality of sound, the easiness of set up, and the ease of use) were selected for the study. A fictional brand name, “Z-Canvas”, was used to meet the suggested standards. Individuals were told to think as if they are in the process of buying a new big flat-panel TV and collecting information on several brands by visiting retail stores and web sites and by scanning advertisements. A brief introduction of a 41” flat-panel TV fictional brand was provided to individuals.

Four attributes were mentioned positively (positive word of mouth) or negatively (negative word of mouth) in the provided scenario to manipulate word of mouth. For inconsistent word-of-mouth condition, two of the four attributes had positive levels and two had negative levels. Two important attributes, the quality of picture and sound, were not mentioned positively or negatively at the same time; so four combinations of attributes were randomly used for inconsistent word-of-mouth condition (see table 1 for manipulations for word-of-mouth).

The individuals who were assigned to one of the three word-of-mouth conditions read a scenario describing the word-of-mouth situation and then completed a questionnaire, which consists of overall attitude toward the brand, purchase intention, attitude certainty, ambivalence, tolerance-of-ambiguity, and items for manipulation checks. The overall attitude toward the brand (4 items) and purchase intention (1 item) were measured based on Gresham, Bush, and Davis’s (1984) scales. Kaplan’s (1972) measure of ambivalence was employed. Pomerantz, Chaiken and Tordesillas’s (1995) two self-report items were used to measure attitude certainty. The 20 items developed by MacDonald (1970) were used for the tolerance-of-ambiguity measure.

Manipulation checks

To determine the effectiveness of the word-of-mouth messages manipulation, individuals were asked to rate the word-of-mouth messages on a 7 point scale where 1=extremely negative and 7=extremely positive. Individuals in the positive word-of-mouth condition positively rated the messages (x=6.08), and individuals in the negative condition negatively rated the messages (x=2.26). Individuals in the inconsistent word-of-mouth condition rated the messages neither positively nor negatively (x=4.25). Thus, the mean values suggest that the three types of word-of-mouth were effectively manipulated. To evaluate the perceived realism of the scenarios, individuals were asked to answer the question ‘I believe the situations described in the scenario can actually happen in real life’ using a 7 point scale where 1=strongly disagree and 7=strongly agree. A resulting mean score of 5.98 suggested that the individuals considered the scenarios to be very realistic. Individuals were then asked to respond to the item ‘Are you familiar with the Z-Canvas flat-panel TV brand’ using a 7 point scale, and the mean value indicated that individuals were unfamiliar with the brand (x=1.23).

The validity and reliability of multiple item measures, such as involvement, attitude, and attitude certainty were checked by exploratory factor analysis and Cronbach’s alpha (see Table 2), and the mean values of these variables were used for manipulation checks and further analysis. To check whether individuals have a similar level of involvement, Ratchford’s (1987)’s three item involvement measure was used. Most individuals had high involvement (x=5.75).

Next, ANOVA was used to see whether the three word-of-mouth groups (positive, negative, and inconsistent word-of-mouth) were different in ‘the perceived realism of the scenarios’, ‘involvement’, and ‘familiarity’. The results of analyses showed that there was no difference among the three groups (see Table 3).

HYPOTHESIS TESTING

The mean values of attitude in the three conditions were compared to assess Hypothesis 1. The three mean values were different (F(2,164)=55.853, p<0.001), and as expected, examination of the means indicated that individuals in the inconsistent word-of-mouth condition had a neutral attitude (x=4.521) when compared with individuals in the positive condition (x=4.595) and with those in the negative condition (x=3.156). Thus, Hypothesis 1 was supported (see Table 4 for details).

Individuals in the three conditions had significantly different levels of ambivalence (F(2,164)=30.578, p<0.001). Further, examination of the means revealed that the individuals in the inconsistent condition had a higher level of ambivalence than those in the positive or negative conditions, who had a similar level of ambivalence, which supports Hypothesis 2 (see Table 4 for details).
Individuals in the three conditions were also different in terms of attitude certainty \((F (2,164)=32.411, p<0.001)\). The mean difference analysis indicated that individuals in the consistent conditions had lower levels of attitude certainty than those individuals in the inconsistent condition. Those in the inconsistent condition also showed stronger association between attitude and purchase intention \((r=0.304, p=0.017)\) than those in the positive condition \((r=0.182, p=0.193)\) or those in the negative condition \((r=0.135, p=0.334)\). Fisher’s \(z\) transformation was used to investigate whether these correlations were different. The results revealed that the three correlations were not different (inconsistent–positive \((z'=0.674, p=0.25)\), inconsistent-positive \((z'=0.92, p=0.18)\), and positive-negative \((z'=0.24, p=0.405)\)). Thus, Hypothesis 3 was only partially supported.

Hypothesis 4 addressed whether ambivalence moderates the effect of inconsistent word of mouth on attitude certainty and the association between attitude and behavior intention. The mean value of ambivalence \((X=2.024)\) was used to divide individuals in the inconsistent word-of-mouth condition into two groups. The attitude certainty scores were different between the high and low ambivalence groups \((t=6.044, p<0.001)\), and individuals with high ambivalence \((X=4.763)\) were more certain about their attitude than individuals with low ambivalence \((X=3.61)\), and also showed stronger association between attitude and purchase intention. Two correlations \((r=0.531\) for high ambivalent individuals, \(r=0.126\) for low ambivalent individuals) were different \((z'=1.445, p=0.074)\). Thus, the data support Hypothesis 4 (see table 5 for details).

| TABLE 1 |
| Manipulations for Word of mouth |

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<tr>
<td></td>
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| TABLE 2 |
| Results of Exploratory Factor Analysis and Reliability Test |

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<td>-0.043</td>
<td>0.006</td>
<td>0.766</td>
<td></td>
</tr>
<tr>
<td>Attitude 4</td>
<td>0.941</td>
<td>0.016</td>
<td>0.006</td>
<td>0.886</td>
<td></td>
</tr>
<tr>
<td>Involvement 1</td>
<td>-0.017</td>
<td>0.606</td>
<td>-0.153</td>
<td>0.390</td>
<td>0.732</td>
</tr>
<tr>
<td>Involvement 2</td>
<td>0.007</td>
<td>0.926</td>
<td>-0.006</td>
<td>0.857</td>
<td></td>
</tr>
<tr>
<td>Involvement 3</td>
<td>0.049</td>
<td>0.568</td>
<td>0.194</td>
<td>0.363</td>
<td></td>
</tr>
<tr>
<td>Attitude Certainty 1</td>
<td>0.020</td>
<td>0.058</td>
<td>0.846</td>
<td>0.719</td>
<td>0.780</td>
</tr>
<tr>
<td>Attitude Certainty 2</td>
<td>0.091</td>
<td>-0.040</td>
<td>0.759</td>
<td>0.586</td>
<td>0.639 (p&lt;0.001)</td>
</tr>
<tr>
<td>Eigenvalues</td>
<td>3.265</td>
<td>1.559</td>
<td>1.384</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of variance</td>
<td>36.274</td>
<td>17.326</td>
<td>15.382</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Maximum likelihood extraction method with varimax rotation.

Individuals in the three conditions were also different in terms of attitude certainty \((F (2,164)=32.411, p<0.001)\). The mean difference analysis indicated that individuals in the consistent conditions had lower levels of attitude certainty than those individuals in the inconsistent condition. Those in the inconsistent condition also showed stronger association between attitude and purchase intention \((r=0.304, p=0.017)\) than those in the positive condition \((r=0.182, p=0.193)\) or those in the negative condition \((r=0.135, p=0.334)\). Fisher’s \(z\) transformation was used to investigate whether these correlations were different. The results revealed that the three correlations were not different (inconsistent–positive \((z'=0.674, p=0.25)\), inconsistent-positive \((z'=0.92, p=0.18)\), and positive-negative \((z'=0.24, p=0.405)\)). Thus, Hypothesis 3 was only partially supported.

Hypothesis 4 addressed whether ambivalence moderates the effect of inconsistent word of mouth on attitude certainty and the association between attitude and behavior intention. The mean value of ambivalence \((X=2.024)\) was used to divide individuals in the inconsistent word-of-mouth condition into two groups. The attitude certainty scores were different between the high and low ambivalence groups \((t=6.044, p<0.001)\), and individuals with high ambivalence \((X=4.763)\) were more certain about their attitude than individuals with low ambivalence \((X=3.61)\), and also showed stronger association between attitude and purchase intention. Two correlations \((r=0.531\) for high ambivalent individuals, \(r=0.126\) for low ambivalent individuals) were different \((z'=1.445, p=0.074)\). Thus, the data support Hypothesis 4 (see table 5 for details).
TABLE 3
Summary of Manipulation Checks

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Means</th>
<th>Standard Deviations</th>
<th># of Sample</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PWOM</td>
<td>1.321</td>
<td>0.471</td>
<td>53</td>
<td>1.970</td>
<td>0.143</td>
</tr>
<tr>
<td>Familiarity</td>
<td>NWOM</td>
<td>1.226</td>
<td>0.423</td>
<td>53</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IWOM</td>
<td>1.164</td>
<td>0.373</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Involvement</td>
<td>PWOM</td>
<td>5.774</td>
<td>0.526</td>
<td>53</td>
<td>2.053</td>
</tr>
<tr>
<td></td>
<td>NWOM</td>
<td>5.623</td>
<td>0.743</td>
<td>53</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IWOM</td>
<td>5.853</td>
<td>0.546</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scenario realism</td>
<td>PWOM</td>
<td>5.906</td>
<td>0.883</td>
<td>53</td>
<td>2.013</td>
</tr>
<tr>
<td></td>
<td>NWOM</td>
<td>5.830</td>
<td>1.014</td>
<td>53</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IWOM</td>
<td>6.164</td>
<td>0.916</td>
<td>61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was no mean differences among three word-of-mouth conditions.

TABLE 4
Summary of ANOVA Results

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Means</th>
<th>Standard Deviations</th>
<th># of Sample</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudea</td>
<td>PWOM</td>
<td>5.495</td>
<td>1.001</td>
<td>53</td>
<td>55.853</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>NWOM</td>
<td>3.156</td>
<td>1.086</td>
<td>53</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IWOM</td>
<td>4.521</td>
<td>1.303</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambivalenceb</td>
<td>PWOM</td>
<td>1.208</td>
<td>1.199</td>
<td>53</td>
<td>30.578</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>NWOM</td>
<td>1.660</td>
<td>1.159</td>
<td>53</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IWOM</td>
<td>3.049</td>
<td>1.532</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude Certaintyc</td>
<td>PWOM</td>
<td>3.481</td>
<td>0.519</td>
<td>53</td>
<td>32.411</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>NWOM</td>
<td>3.293</td>
<td>0.696</td>
<td>53</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IWOM</td>
<td>4.328</td>
<td>0.912</td>
<td>61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. The significant mean differences: Positive-Negative (p<0.001), Inconsistent-Positive (p<0.001), Inconsistent-Negative (p<0.001)
b. The significant mean differences: Inconsistent-Positive (p<0.001), Inconsistent-Negative (p<0.001)
c. The significant mean differences: Inconsistent-Positive (p<0.001), Inconsistent-Negative (p<0.001)

TABLE 5
Summary of t-test Results

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Mean</th>
<th>Standard Deviations</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Certainty</td>
<td>High ambivalence</td>
<td>4.763</td>
<td>0.836</td>
<td>6.044</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Low ambivalence</td>
<td>3.609</td>
<td>0.476</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude Certainty</td>
<td>Low Tolerance of ambiguity</td>
<td>4.686</td>
<td>0.971</td>
<td>3.967</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>High Tolerance of ambiguity</td>
<td>3.846</td>
<td>0.544</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hypothesis 5 addressed whether tolerance-of-ambiguity moderates the effect of inconsistent word of mouth on attitude certainty and the association between attitude and intention. Individuals exposed to inconsistent word of mouth were divided into high and low tolerance-of-ambiguity groups at the mean (mean value of tolerance of ambiguity (X=7.16) was used). And then attitude certainty scores in the two groups were compared. Attitude certainty was different between the high and low tolerance-of-ambiguity groups (t=3.967, p<0.001). Individuals with low tolerance-of-ambiguity were more certain about their attitude than high tolerance-of-ambiguity individuals. Further attitudes are strongly associated with behavioral intentions for low tolerance individuals (r=0.526), while the correlation of individuals with high tolerance-of-ambiguity (r=0.241) was considerably lower. However, the two correlations were not different (z=1.029, p=0.157). So Hypothesis 5 was only partially supported (see table 5 for details).

DISCUSSION

It has been noted that word-of-mouth is closely related to brand attitude, and the findings of this study reaffirm this argument because attitudes of the individuals in the positive word-of-mouth condition were more favorable than attitudes of those in the negative word-of-mouth condition. It has also been suggested that inconsistent information will stimulate additional cognitive processing, and this assumption was used to support a belief that inconsistent information would lead to more favorable attitudes. But past findings did not support this statement. Thus, we hypothesized here that individuals who are exposed to inconsistent word of mouth would have a more neutral attitude than individuals exposed to positive or negative word of mouth because the positive evaluations would be counterbalanced by negative evaluations. This is exactly what we found.

Even though the additional cognitive processing caused by inconsistency in word of mouth did not lead to more favorable attitudes, the results of this study shows that it does affect other aspects of attitude. Positive and negative messages in inconsistent word of mouth occupy separate evaluation dimensions and do cause individuals to have ambivalent feelings. It is not easy for individuals to combine incongruent messages and to judge the brand mentioned using word-of-mouth messages. So each message is more likely to be systematically processed, and as a result of this intensive process a neutral attitude is chosen. Thus, individuals exposed to inconsistent word of mouth are more likely to be confident about their attitude, and the formed attitude tends to be closely related to their purchase intentions. If only the traditional bipolar attitude scale is used to look at the effect of inconsistent word of mouth on brand attitude, important characteristics of attitude will be disregarded. Measurements for strength of attitude as well as a traditional attitude measurement should be used to catch important additional information about consumers’ attitude.

It might be said that individuals will automatically assign more cognitive energy to process inconsistent word of mouth. However, the findings of this study demonstrated that even if individuals are exposed to the identical inconsistent word of mouth, they can have different levels of ambivalence. Individuals with high ambivalent feelings tend to pay more attention to and be more motivated to process inconsistent word of mouth while individuals with low ambivalence will not do so. As a result, individuals with high ambivalence have higher levels of attitude certainty and consistency of attitude and purchase intention.

Individuals’ cognitive personality traits (tolerance-of-ambiguity) also influence how inconsistent word of mouth is processed. Individuals are different in terms of how they cope with inconsistent information because they have different levels of allowance for the coexistence of positive and negative information in an object; thus, the amount of cognitive energy that an individual puts into processing inconsistent word of mouth will be different. It was expected that the effect of inconsistent word of mouth on attitude certainty and the consistency between attitude and intention would be moderated by tolerance-of-ambiguity. As predicted, individuals with low tolerance-of-ambiguity were more certain about their attitude formed by inconsistent word of mouth. But the difference between the correlations of high and low tolerance-of-ambiguity groups was not significant. This might be attributable to the characteristics of tolerance-of-ambiguity. Tolerance-of-ambiguity is a personality variable and may not reflect exactly how much the individuals felt ambiguity in this specific situation.

Limitations and future research: Several variables related to the processing of inconsistent word-of-mouth were controlled for in this study. For example, brand familiarity was controlled for by selecting a fictitious brand name. But brand familiarity may influence the relationships between inconsistent word of mouth and brand attitude. Sundaram and Webster (1999) noted that the relationship between word of mouth and brand evaluation is moderated by brand familiarity and that brand familiarity enhanced the brand attitude and purchase intention. Thus future research might examine how word of mouth (positive, negative, and inconsistent) and brand familiarity (high and low) influence consumers’ brand evaluations and the strength of attitude. Individuals’ involvement was also manipulated to be high. But individuals’ involvement influences the way that congruent or incongruent information is processed (Maheswarn and Chaiken 1991). Future research might examine whether the relationship between types of word of mouth and the attitude strength is moderated by involvement. This study considers only equal amounts of positive and negative information for inconsistent word of mouth. There are, however, lots of possible combinations of good and bad information. Thus, it is meaningful to study how the valence of positive and negative in word of mouth is related to attitude toward brands. In this study, the scenario provided information for only one brand to individuals, and the degree to which individuals elaborate and process the messages was not actually measured. In reality a consumer is likely to be exposed to multiple brands during a typical information search and may receive positive word-of-mouth about one brand and negative word-of-mouth communication for another brand. This can impact how consumers evaluate brands in their choice set. Therefore, it is more realistic for future research to consider word-of-mouth for more than one brand and employ measures of the cognitive elaborating process to confirm whether it is the inconsistent information that is truly causing the effects obtained.

REFERENCE


APPENDIX

Measurements

Attitude
What is your overall attitude toward Z-CANVAS 42” flat-panel TV brand?

<table>
<thead>
<tr>
<th>Unfavorable</th>
<th>1-2-3-4-5-6-7</th>
<th>Favorable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dislike</td>
<td>1-2-3-4-5-6-7</td>
<td>Like</td>
</tr>
<tr>
<td>Negative</td>
<td>1-2-3-4-5-6-7</td>
<td>Positive</td>
</tr>
<tr>
<td>Bad</td>
<td>1-2-3-4-5-6-7</td>
<td>Good</td>
</tr>
</tbody>
</table>

Purchase intention
All things considered, what is the chance that you might purchase Z-CANVAS 42” flat-panel TV on one of your next several trips to a store?

<table>
<thead>
<tr>
<th>Very Low</th>
<th>Very High</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2-3-4-5-6-7</td>
<td></td>
</tr>
</tbody>
</table>

Attitude Certainty
How likely are you to change your opinion about Z-CANVAS 42” flat-panel TV?

<table>
<thead>
<tr>
<th>Very often</th>
<th>Not Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2-3-4-5-6-7</td>
<td></td>
</tr>
</tbody>
</table>

How sure are you that your opinions about Z-CANVAS 42” flat-panel TV are right?

<table>
<thead>
<tr>
<th>Not Sure</th>
<th>Strongly Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2-3-4-5-6-7</td>
<td></td>
</tr>
</tbody>
</table>

Ambivalence (Formula: $A_p + |A_n| - |A_p + A_n|$

The purchase of Z-CANVAS 42” flat-panel TV is $(A_p)$

<table>
<thead>
<tr>
<th>Not at all good</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1-2-3-2-3</td>
<td></td>
</tr>
</tbody>
</table>

The purchase of Z-CANVAS 42” flat-panel TV is $(A_n)$

<table>
<thead>
<tr>
<th>Not at all bad</th>
<th>Very bad</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1-2-3-2-3</td>
<td></td>
</tr>
</tbody>
</table>

Tolerance of ambiguity

<table>
<thead>
<tr>
<th>False</th>
<th>True</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A problem has little attraction for me if I don’t think it has a solution.

I am just a little uncomfortable with people unless I feel that I can understand their behavior.

There’s a right way and a wrong way to do almost everything.

I would rather bet 1 to 6 on a long shot than 3 to 1 on a probable winner.

The way to understand complex problems is to be concerned with their larger aspects instead of breaking them into smaller pieces.

I get pretty anxious when I’m in a social situation over which I have no control.

Practically every problem has a solution.

It bothers me when I am unable to follow another person’s train of thought.

I have always felt that there is a clear difference between right and wrong.

It bothers me when I don’t know how other people react to me.

Nothing gets accomplished in this world unless you stick to some basic rules.

If I were a doctor, I would prefer the uncertainties of a psychiatrist to the clear and definite work of someone like a surgeon or X ray specialist.

Vague and impressionistic pictures really have little appeal for me.

If I were a scientist, it would bother me that my work would never be completed (because science will always make new discoveries).

Before an examination, I feel much less anxious if I know how many questions there will be.

The best part of working a jigsaw puzzle is putting in that last piece.

Sometimes I rather enjoy going against the rules and doing things I’m not supposed to do.

I don’t like to work on a problem unless there is a possibility of coming out with a clear-cut and unambiguous answer.

I like to fool around with new ideas, even if they turn out later to be a total waste of time.

Perfect balance is the essence of all good composition.
APPENDIX (CONTINUED)

Manipulation Check

Realism of the scenarios
I believe the situation described in the scenario can actually happen in real life.

Disagree Agree
1——2——3——4——5——6——7

Word-of-Mouth
The friend’s opinion about the Z-CANVAS flat-panel TV is

Extremely Negative Extremely positive
1——2——3——4——5——6——7

Familiarity
Are you familiar to Z-CANVAS brand?

Unfamiliar Familiar
1——2——3——4——5——6——7

Involvement
Purchasing a big flat-panel TV is a very important decision.

Disagree Agree
1——2——3——4——5——6——7

Purchasing a big flat-panel TV requires a lot of thought.

Disagree Agree
1——2——3——4——5——6——7

If I choose a wrong brand, I will lose a lot.

Disagree Agree
1——2——3——4——5——6——7

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EXTENDED ABSTRACT

In the present study family brands are regarded as a category (Boush, 1991). As a category, family brands can evoke schematic evaluations of the brands without detailed attribute information. The present study examined how to change these schematic beliefs consumers have on family brands at a categorical level and proposes that the typicality of a product type in which incongruent information is presented plays an important role in inducing schematic changes on family brands.

This study defined typicality somewhat differently from the previous studies on schema change: typicality was applied to a product type and the pattern of incongruent information was manipulated separately from typicality. In the studies of schema change, the pattern of incongruent information (dispersed vs. concentrated) has been one of the major variables and has also determined the typicality of a sample. That is, when incongruent information is dispersed across samples, each sample is regarded as typical. When incongruent information is concentrated in a sample, the sample is regarded as atypical. This definition of typicality was because group membership has been determined by the characteristics of the group members. Thus typicality has been determined by the degree to which the group members share the group characteristics.

In the present study, however, we use well-known family brands as stimuli. Participants know which product is typical of which brand without any feature information. Adopting Boush’s view (1993), family brands are regarded as a category and some product types are perceived as more typical of the brand than are others. For example, a TV or a walkman is much more representative of Sony than is a notebook or a telephone.

In our study, typicality is defined somewhat differently from the previous studies; typicality is applied to a product type and the pattern of incongruent information is manipulated separately from typicality. Previously, group membership has been determined by the characteristics group members had. Thus typicality has been determined by the degree that group members shared the group characteristics. In the present study, however, we use well-known family brands as stimuli. Participants know which product is typical of which brand without any feature information. Adopting Boush’s view (1993), family brands are regarded as a category and some product types are perceived as more typical of the brand than are others. For example, a TV or a walkman is much more representative of Sony than is a notebook or a telephone.

In study 1, we examine the proposition that family-branded products vary along a continuum in the extent to which they are typical of the brand and brand categories have prototypical products. Then, in study 2, we show the effects of typicality of a product type on schema change. Both in study 1 and 2, the status of a family brand (a high vs. low quality brand) is expected to make a difference.

The results of study 1 show that various product types are different in representing the family brands. In addition, people know more about the product types of a high quality brand and the typicality of product types is more differentiated in the high quality brand (e.g., Sony) than in the low quality brand (e.g., Sanyo). Confidence in the quality judgments is also higher for Sony than for Sanyo.

In study 2, we compare two family brands by three products and present incongruent information in three different ways. In the typical condition, three products are all from the typical product type of Sony (e.g., walkman). In the atypical condition, three products are all from the atypical product type of Sony (e.g., telephone). In the mixed condition, three products are from three different product types, which differ in typicality (e.g., walkman, VCR, telephone). Because there is not a salient typical product type of Sanyo in study 1, we manipulate typicality of product types in regard of Sony. The amount of incongruent information is kept constant across the conditions and it is dispersed evenly among three products.

Because people have high confidence in their judgment on a high quality brand, we reason that schema on a high quality brand would be difficult to change. And this would be especially so, if incongruent information is presented in a typical product type of the brand. Because people’s beliefs in a high quality brand are rather firm, people would resist incongruent information presented in a typical product type of the brand. Therefore, to induce schema change in a high quality brand, it would be more effective to present incongruent information either in an atypical product type of the brand or across different product types. On the other hand, beliefs in a low quality brand are not as strong as those in a high quality brand and they would be easier to change. Therefore, it would be more effective to provide incongruent information in the product type which is perceived as relatively typical of a low quality brand, if any, or the product type which is perceived as atypical of a high quality brand.

Results confirm our predictions. First, schema change occurs differently depending on the status of family brands in the market. For Sony, schema changes either in the atypical condition or in the mixed condition. In the typical condition, there is no change. For Sanyo, however, schema changes when incongruent information is presented in the telephone, which is the typical product type of the brand, but the atypical product type of Sony.

The results suggest that for a low quality brand to change schema it needs to build up a typical product type and enhance the quality of it. This may provide an explanation for ‘silver bullet effects’, which have been observed occasionally in the real market, but rarely supported in the empirical studies. The reason might be that in the real market a product not only provides incongruent information but also is established as a typical product type of the brand, while in the experiments a product provides incongruent information only.

Consumers may engage either in category-based processing or in attribute-based processing when they encounter various products of family brands.

REFERENCES


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Feeling Happier When Paying More: The Role of Promotional Framing of Prices and Counterfactual Thinking in Consumer Affect

Sukki Yoon, University of Illinois at Urbana-Champaign, U.S.A.
Patrick T. Vargas, University of Illinois at Urbana-Champaign, U.S.A.

EXTENDED ABSTRACT

Abstract
Counterfactual thinking (i.e., imagining of alternatives to reality) can guide consumers’ behaviors, thoughts, and feelings. In Experiments 1 and 2, we demonstrate that the effects of upward and downward counterfactual thoughts generated by the presence of categorical cutoff points in price-cut promotions are sufficiently strong to cause a satisfaction reversal: those consumers who objectively pay more money feel better than those who pay less for the same product. In Experiment 3, we further demonstrate that the strength of CFT effects on consumer affect deteriorate as one’s purchase outcome moves away from a given categorical cutoff point.

Consumers seek better deals. This tendency seems to be the essential reason why we are bombarded with promotional strategies in the modern retailing environment. Frequently used pricing tactics are “buy two, get one free” or “spend $100, get 20% off.” One common objective of the retailers offering this form of conditional price-cut deal is to increase sales volume. Consumers buy a greater amount, but in return, they get a superior deal value: a lower unit cost. From a psychological perspective, this deal-seeking behavior (i.e., getting more for the same price or paying less for the same amount) is apparently a rational choice. However, consumers often exhibit non-rational behaviors. For example, deals with restrictions (e.g., “limit three per customer”) are found to increase product sales more than the same deals without such restrictions (Inman, Peter, & Raghubir, 1997). Requiring customers to spend a certain dollar amount as a qualification for a discount is one common type of restriction, which consumers may or may not react to rationally. In any case, however, not having such a restriction (e.g., “30% off all purchases”) rather than having one (e.g., “spend $100, get 30% off”) is obviously a better deal for consumers.

Imagine a person who plans to buy a $90 bookcase. While walking in the store, she notices a sign that says, “spend $100, get 30% off.” She will have to ponder for a moment to decide whether she will adhere to her original plan, therefore buying a bookcase and paying $90, or will buy an additional item or two in order to exceed the $100 cutoff point so that she can get a discount. She might also think, “if the cutoff line were $90, I could get 30% without unnecessary purchases.” This kind of ‘what if’ thinking—the process of imagining of alternatives to reality, or of comparing ‘what is’ with ‘what might have been’—is what psychologists refer to as counterfactual thinking (CFT).

CFT, along with reality, impacts consumers’ behaviors, thoughts, and feelings. Previous research demonstrates that the presence and the direction of CFT amplifies satisfaction and regret (Roeske, 1994; Medvec, Maday, & Gilovich 1995; Medvec & Savitsky 1997). Downward CFT (i.e., thinking about how a purchase outcome could have been worse) is known to help consumers feel better, whereas upward CFT (i.e., thinking about how a purchase outcome could have been better) can have negative consequences. The consumer in the above example engages in upward CFT; however, suppose that the cutoff line for the price cut in the above scenario was set at $80. In this case she would receive the discount without making unplanned purchases, which would in turn lead her to engage in downward CFT (e.g. “I might not have received a discount”).

In the present research, we attempted to demonstrate that the effects of counterfactual comparisons are sufficiently strong to cause those consumers who objectively pay more money feel better than those who pay less for the same product. In Experiments 1 and 2, we sought to provide evidence that the presence of downward CFT (i.e., “I could have paid more”) generated by barely attaining the categorical cutoff point positively influences consumer affect, whereas engaging in upward CFT (i.e., “I could have paid less”) due to just missing the cutoff point has a negative influence. In Experiment 3, we further attempted to demonstrate that the strength of CFT effects on consumer affect would deteriorate as one’s purchase outcome moves away from a given categorical cutoff point. That is, barely making it to the cutoff point or just missing it is anticipated to make more dramatic effects than is completely making it or entirely missing it.

Participants in Experiment 1 were presented with a shopping scenario in which they were faced with two types of price promotions: a categorical cutoff point (“25% off if you spend at least $200”), or no cutoff point (“30% off all purchases”). The discount amounts in these two conditions were deliberately altered (i.e., 25% versus 30% off) in order to observe a satisfaction reversal. The scenario led them to believe that they had to spend a certain amount by adhering to the preplanned shopping list. It was hypothesized that consumers who objectively pay more ($151.39 after 25% off) in the cutoff condition actually would feel better due to their engagement in downward CFT (i.e., “I could have paid more, but I did not”), than those who pay less ($141.30 after 30% off) in the no-cutoff condition. As expected, it was found that people in the cutoff condition felt happier than those in the no-cutoff condition, F (1, 116)=5.08, p<.05. (Figure 1)

In the second experiment, we examined whether upward counterfactual thoughts have a similar effect in an opposite direction. We hypothesized that just missing the cutoff point would have a negative consequence for consumer affect strong enough to cause a satisfaction reversal: people who just miss the cutoff point, though paying less, would feel worse than those who pay more in the no-cutoff condition. As predicted, consumers in the categorical cutoff condition appeared to feel worse on average than their counterparts in the continuous percentage condition, t (100)=−7.55, p<.00. (Figure 2)

In Experiment 3, as expected, a 2 x 3 ANOVA (CFT direction: upward vs. downward X proximity to the cutoff point: close, middle, and far) showed 1) a significant main effect for CFT direction revealing that those who engaged in downward CFT appeared happier on average than their counterparts in the upward cutoff condition, F (1, 305)=117.86, p<.01., and 2) a significant two-way interaction suggesting that the effect of counterfactual thoughts becomes stronger as the purchase outcome approaches the cutoff point, F (2, 305)=4.96, p<.01. (Figure 3)

The findings demonstrated that counterfactual thoughts generated by the presence of a cutoff point influence consumers' feelings in a striking way: paying more can make you feel better, and paying less can make you feel worse. When exposed to conditional price-cut deals, consumers seem to pay more attention to what they achieve rather than how much they save. The
implications for consumer advocacy groups are clear: 1) when a cutoff is set high, consumers may spend more than necessary, whereas 2) when it is set low, consumers may feel overly satisfied.

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ABSTRACT

Nationalistic discourse is often used in advertisements in order to convince consumers to prefer domestic products to foreign products. Since consumer ethnocentrism is contextual upon the product, place, the market and usage and also depends on the intensity of nationalism, patriotism, and propensity to change, success of such advertising message strategies depends on these factors as well as the alignment of actualized meanings of signs and denotations revealed in the advertising with the intentions of advertiser. After analyzing consumer ethnocentrism and related concepts, the actualized meanings of a popular nationalistic ad of a local drink, Cola Turka, are studied.

INTRODUCTION

The concept of “consumer ethnocentrism” derives from the sociological concept “ethnocentrism”, which is used to describe a type of in-group favoritism, i.e. the tendency of people within a group to perceive themselves as superior compared to other people, and is described by Shimp (1984) and Shimp and Sharma (1987) so as to capture the cognitions, affections and normative orientations of the consumers about the appropriateness of purchasing and using foreign-made goods. Ethnocentric consumers are believed to prejudice and contempt foreign goods and prefer domestic goods due to their superiority since it is their “own” product and facilitates investment and employment opportunities; i.e. a healthier national economy. They suppose importing foreign products damage economy and national and socio-cultural identity as well. Domestic goods become signs of “pride and attachment” (Shimp 1984).

CONSUMER ETHNOCENTRISM AND COUNTRY-OF-ORIGIN IMAGE

Consumer ethnocentrism (CE) is conceptualized as a part of a constellation of demographic and socio-psychological influences by Sharma, Shimp, and Shin (1995) and measured with Cetscale (Consumer Ethnocentrism Tendencies Scale) which has obtained much popularity in national and cross-national consumer research since its introduction. The concept is widely researched along with the perceived necessity of foreign products (Sharma, Shimp, and Shin 1995), brand equity, differentiated aspects of the product, the level of consumer involvement (Lantz and Loeb 1996), demographic characteristics and lifestyles of the consumers, the strength of national identity, the intensity of nationalism and patriotism (Balabanis et al. 2001; Brunning 1997; Good and Huddleston 1995; Han 1988; Huddleston, Good, and Stoel 2000; Keillor and Hult 1999; Klein 2002; Kucukemiroglu 1999; Lantz et al. 2002; Lee, Hong, and Lee 2003; Supphellen and Grønhaug 2003; Vida and Dmitrovic 2001; Witkowski 1998).

As Bilkey and Nes (1982) also noted, in addition to the above cited studies, there are many other studies which revealed that older, female, low-income earning and low-educated people tend to be more ethnocentric in their purchase choices between domestic and foreign. Alternatively, Kucukemiroglu (1999) suggested that demographics lack richness when being involved in predicting CE and often need to be supplemented with additional data such as lifestyle segments. He found out that people who are community conscious and manifest family concern tend to be more ethnocentric.

As Lee et al. (2001) also noted, in their theory Shimp and Sharma (1987) did not define the concept as product specific, but as a personality trait governing the individual’s attitude and feeling towards domestic and foreign products.

Lantz et al. (2002) suggest that CE can be regarded as a part of country-of-origin image (COO) which does not directly involve assessment of the product, but is concerned with the consumers’ feelings associated with the home country while the other part is related to product assessment, which is where stereotyping or country image is concerned.

Country-of-origin image embraces CE that focuses on loyalty to domestic products and the morality of purchasing and using foreign products (Shimp and Sharma 1987; Lantz and Loeb 1996; Watson 2000). The country-of-origin image can be defined as the consumer preferences for the products originating from a country and is strictly related to country image. When consumers cannot assess product with intrinsic cues (such as taste, design) extrinsic cues (such as price, brand, country image) may be substituted. Bilkey and Nes (1982) illustrated the findings of several studies which revealed that products originating from developed countries were assessed as having high quality and favorable image when they were compared to the products of less developed countries.

The concept of COO is broadly defined by Askegaard and Ger (1998) and Ger, Askegaard and Christensen (1999) as the contextualized product-place-image (CPPI) concept which is defined in a richer set of connotations. CPPI embraces phenomenon (product), place, market and usage context as important dimensions of its meaning structure. In their model, phenomenon refers to any marketable, tangible or intangible phenomenon and to product specifically, the market context to relative meaning of the phenomenon compared to competitors, and the usage context to the meanings related to the consumption such as specific consumption rituals. They also suggest that COO does not exclusively rely on the place where the product is made, but it also depends on the place where it is invented, designed, produced, etc.

Regarding CE as a part of CPPI, it can also be proposed that CE is a contextualized concept, too; the intensity and magnitude of ethnocentric tendencies change from context to context. Coherent with this suggestion, Balabanis et al. (2001) suggested, CE’s predictive ability of buying intentions varies from country to country. Herche (1992) also found empirical evidence that the predictive validity of the Cetscale was inconsistent across product categories. Witkowski’s study (1998) also revealed that the predictive validity of the Cetscale is not only product specific, but country specific as well. Furthermore, Lee et al. (2003) revealed the importance of the market context; the patriotic and nationalistic attitudes of American consumers have heightened after the terrorist attacks on 9/11, which in turn have raised ethnocentric consumer attitudes.

1The authors would like to thank anonymous reviewers for providing valuable comments.
Additionally, Shimp et al. (1995) suggested that the necessity and importance of the product can moderate ethnocentricity.

**NATIONALISM, PATRIOTISM AND OPENNESS TO CHANGE**

Lantz et al. (2002) suggested that national identity may be the underlying value that motivates a more visible manifestation of nationalism such as an ethnocentric tendency to support a nation economically, through purchase choices. Keilior and Hult (1999) identify national identity as a “set of meanings” owned by a given culture which sets it apart from other cultures and recognize four key components of the concept: the belief structure, cultural homogeneity, national heritage and ethnocentrism. The number of subcultures, different religions, ethnocentric propensity and the adoption level of national heritage affect national identity. However, contrary to the suggestions of Shimp and Sharma (1987), Keilior and Hult (1999) revealed that groups of individuals across several cultures can be sensitive toward their national heritage and cultural homogeneity, but not be particularly ethnocentric in assessment of foreign products.

Since national identity concept contains too much information, people from other nations who do not have enough information about a country or products of that country, may employ stereotypic knowledge in order to make initial assessments. Stereotypes are oversimplified mental representations about an entire group of people, such as an ethnic group, which omit individual differences. They are used to understand and interpret the actions of individuals or the quality of a product with regard to the shared impressions about the sourcing country’s economic, political, cultural characteristics and specific product images. Although stereotypes are also regarded as prejudices about the superiority/inferiority of a group and subjected to discrimination, they also may assist in taking short-cuts in the interest of cognitive efficiency (Hyatt 1992).

Nationalism and patriotism are political attitudes which are reported to influence the magnitude of CE (e.g., Balabanis et al. 2001; Han 1988; Lee et al. 2003). According to Balabanis et al. (2001) patriotism refers to strong feelings of attachment an loyalty to one’s own country, whereas nationalism encompasses extreme commitment in addition to exclusion of others and hostility toward other countries. They found that CE in Turkey is fueled by patriotism and in the Czech Republic by nationalism. Han’s study (1988) revealed that patriotic emotions play a significant role in the product choice and the attitudes toward the product, whereas the cognitive attitude toward products made in different countries played a limited role.

Openness or propensity to change can be defined as the willingness of an individual to alter the status quo, more specifically his/her consumption patterns. Erem et al. (2000) suggest that a society’s openness to change influences the consumption patterns of the individual. Sharma et al. (1995) found a negative correlation between cultural openness and CE. Belch and Belch (1993) proposed that innovative proneness may be regarded as an important factor affecting the consumer receptivity toward foreign products besides CE, patriotism, interest in and experience with foreign cultures, and xenophobia.

**MEANING-BASED PERSPECTIVE IN ADVERTISING RESEARCH**

In addition to contextual differences in findings of previously cited studies there are also several findings that demonstrate inconsistencies with Shimp et al. (1995)’s conceptualization which depends on measurement with Cetscale. For instance, Nijssen, Douglas and Bressers (1999) demonstrated inconsistency of their findings with previous ones; Dutch consumers with strong ethnocentric attitudes are more likely to evaluate German products positively than those with less ethnocentric attitudes. Huddleston et al. (2000) found that ethnocentrism did not influence purchase behavior of Russian consumers, and Good and Huddleston (1995) found that CE was not related to purchase intent of Russian and Polish consumers. Vida and Dmimirovic (2001) also found despite their relatively strong ethnocentric tendencies, less than 10 percent of the Montenegrin respondents deliberately look at product labels with country-of-origin information.

These diversities and sometimes inconsistencies of findings may be attributed to diverse contexts, which are the product (phenomenon), place, market and usage contexts as categorized by Askegaard and Ger (1998) and Ger et al. (1999). It can be suggested that diversities and inconsistencies may arise from varying cultural settings. Venkatesh (1995, p. 5) defined the culture as “what defines a human community, its individuals, and social organizations, along with other economic and political systems” and proposed that “it does not make sense to put different cultures in linearly measured scales under the assumption that in every culture the scale measures the same phenomenon (p.20)”.

Since CE is contextual upon the product (phenomenon), place, the market, and usage and also depends on the intensity of nationalism, patriotism and openness to change, it can be suggested that the meaning-based approach is more appropriate in understanding and interpreting the consumer behavior. In terms of advertising, the actualized meanings of signs and denotations revealed in the ad by the consumer are other factors that have to be researched.

The meaning-based perspective in advertising research emphasizes that the meaning construction cannot be limited to the advertising. Despite the constraints the text sets, the meaning is constructed through a negotiation process where the consumer actively assigns meanings to advertising cues rather than simply drawing information from the ad (Meline 1996). Mick and Buhl (1992) suggested that many actualized ad meanings are a function of consumer’s salient life projects as conjoined by life themes. They defined life themes as profound existential concerns that the individual consciously or unconsciously deals with in his/her mundane life. Life projects are defined as “meanings related to the self and the extended self – including private self, home and family, community and career and nationality- versus meanings associated with others (Mick and Buhl 1992, p.318)”. Furthermore, Meline (1996) proposed that the meanings may also be shared because of common life experiences.

Considering these suggestions and the frequent use of nationalistic cues in advertisements, we aimed to research the actualized meanings of nationalistic ads by means of two very popular ads, the Cola Turka ads. We conducted several focus-group interviews with Turkish consumers of different socio-economic classes, ages and genders so as to examine the actualized meanings of that advertising.

**THE STUDY**

Cola, a specific type of soft drink, is a very well-known product widely accepted as a symbol of modernity, Western consumer culture, and globalization. As Ger and Belk (1996) stated, Coke is the symbol of the glittering consumer paradise widely imagined to exist in the U.S.

Cola wars between Pepsi and Coke have ever been taken place all around the capitalist parts of the world. Both Pepsi and Coke have been conceptualized as symbols of America and as signs of liberal capitalism, modernism, freedom and the creation of the
Consumer Ethnocentrism Portrayed in the Advertisings and Meanings Actualized by Consumers: A Case of Turkey

TABLE 1
Demographic and Socio-economic Characteristics of the Participants

<table>
<thead>
<tr>
<th>Focus Group</th>
<th>N</th>
<th>Age</th>
<th>Gender</th>
<th>Marital Status</th>
<th>Education</th>
<th>Socio-economic level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>11</td>
<td>20-24</td>
<td>Female; 5 Male; 6</td>
<td>Single; 11</td>
<td>University students</td>
<td>Medium-High; 7 Low: 4</td>
</tr>
<tr>
<td>Low-level workers</td>
<td>12</td>
<td>22-48</td>
<td>Female; 6 Male; 6</td>
<td>Single; 2 Married; 10</td>
<td>High; 6 Primary; 6</td>
<td>Medium; 1 Low: 11</td>
</tr>
<tr>
<td>Higher-educated, medium level workers</td>
<td>9</td>
<td>25-42</td>
<td>Female; 5 Male; 4</td>
<td>Single; 5 Married; 4</td>
<td>Graduate; 4 Undergraduate; 5</td>
<td>High; 6 Medium; 3</td>
</tr>
<tr>
<td>Older non-workers</td>
<td>7</td>
<td>47-55</td>
<td>Female; 7 Male–</td>
<td>Single; 3 Married; 4</td>
<td>Undergraduate; 3 High; 4</td>
<td>Medium-High; 5 Low: 2</td>
</tr>
</tbody>
</table>

Despite some unsuccessful launches of cola products, Cola market in Turkey witnessed a considerable competition in July 2003. Ulker Holding launched its new cola brand “Cola Turka” and the ads gained profound attention both locally and globally.

In order to find out the actualized meanings of the Cola Turka advertisings, we conducted focus group interviews with four different groups; students, low level workers, medium-level workers and non-working older people. Students are sampled since they are supposed to be heavy-consumers of Cola products. We also sampled older people since they are cultivated in a culture of the early periods of Turkish Republic which can be associated with the exhortation; “use Turkish”.

Two of the Cola-Turka advertisings were played before the interview. In the ads U.S. actor Chevy Chase plays an American who witnesses weird changes around him. In the first ad he walks through Times Square while a car full of Americans wrapped in a Turkish flag drive by celebrating the victory of the Turkish national football team. He enters a café to have a cup of coffee and a cowboy sitting next to him talks using Turkish words after drinking from a can of Cola Turka. In the second ad, he is seen parking his Griswold-style station wagon at his suburban home, where his wife is preparing a Turkish meal for his parents and children. At the dinner table everyone sings “Take me out to the ball game”. After drinking Cola Turka they begin singing a Turkish-language Boy Scout song. At the end of the ad, he sprouts a mustache. In the ads, people who are shown drinking Cola Turka become Turkish; act as Turkish stereotypes, begin using Turkish words and singing Turkish songs.

The song includes the lines “Its cola is as we know, Its Turka is our Turka” and “After drinking Cola Turka, the famous American dream has become Turkish”.

After seeing the advertisings, four open-ended questions, proposed by Holt and Mulvey (1997) as to cue well-established aspects of ad interpretation, were asked. These were: “What story does the ad tell?”, “How does the ad relate to your life?”, “What does the ad say about the Cola Turka brand?” and “Do you like the ad? Why or why not?”.

Focus-group interviews have been conducted in Izmir, Turkey. Focus group profiles appear in Table 1. All of students and highly educated workers, ten of low-level workers and six of the older participants reported to have consumed Cola Turka at least once. On the other hand only one of the students and elder participants, two of the low-level workers and six of highly educated workers purchase Cola Turka regularly.

The Findings

Most of the participants considered that the Cola Turka advertisings contain signs of nationalism, whereas others identified signs of patriotism. Furthermore, all of them agreed that these signs and denotations surpass the ones about the product (phenomenon). They observed the extrinsic cue of domestic product image easily. Most of the participants observed only one intrinsic cue which is related to its taste/quality which is denoted being similar to the well-known taste and quality of famous cola drinks. Students, low-level workers and elderly people acknowledged the meaning of being an imitation.

Young participants asserted that the utilization of the nationalistic discourse reminds them of the possible competitive disadvantage of the product in terms of quality compared to high-quality global products, Pepsi and Coke.

Most the participants interpreted the ads as to declare a nationalistic orientation and an inclination to diffuse Turkish culture globally. They believe that the date of the launch of the first ad is purposefully selected to encounter the arrest of 11 Turkish soldiers by the U.S. troops across the border in Iraq at the time of Iraq fight, despite the formal denial of the producer. Thus, due to the market context, it is suggested that the ads heighten nationalistic feelings more than patriotic ones. Most of the students, low level workers, elders and some of the higher educated participants...
suggested that the advertising message incorporates an anti-American ideology. So, they got an impression of Turkey’s being in a race with the U.S. which influenced them in a negative way.

However, other participants asserted that it also acknowledges that cola is a symbol of American lifestyle and the ads aim to mingle this “favorable” symbol with Turkish lifestyle; the messages are interpreted as not to reject modernity and the symbol of the American lifestyle, but integrate the Turkish stereotypic features into American people’s mundane life in a sympathetic way. They suggested that the ads recontextualized western modernity with the localness.

In addition to the domestic product image revealed in the ads, the ads are also interpreted to connote the meaning of being marketed globally; except the students, most of the participants deducted the meaning that Cola Turka is exported or is going to be exported to the U.S. They seemed to be proud of it.

Since there is a general fascination with Western, specifically American, life style and goods in Turkey (Ger et al. 1999), it can be suggested that a message strategy which depends on hybridization and artificial westernization may also succeed.

Nationalistic slogans just like “drink Cola Turka or leave the country” and patriotic slogans just like “drink Cola Turka and support the country” are reported to have appeared in society. Consistent with previous research findings (e.g., Bilkey and Nes 1982; Han 1988; Kucukemiroglu 1999; Shimp 1984; Shimp and Sharma 1987; Sharma et al. 1995; Watson 2000; Witkowski 1998), it is reported to be less common among younger participants. On the other hand, contrary to the findings of those researches, working people with low income and education and older people did not appear to have ethnocentric orientation, whereas higher educated and higher income earning participants appeared to be more ethnocentric.

Despite those contrariness to the previous studies’ findings, our findings about the ethnocentric tendencies of the students, low income and older participants are consistent with studies (Gudum and Kavas 1993; Coskun and Altunisik 2001; Erem et al. 2000; Ger et al. 1999; Sandikci and Ger 2002) which revealed that Turkish consumers tend to regard products originated from developed countries (EU, Japan, US) higher in status than domestic products. Ger et al. (1999) suggested that CE does not exist in transitional societies, like Turkey, where social identity, at least partially, clashes with aspirational identity and thus, foreign goods may reign over the local. Erem et al. (2000) also suggested that Turkish people are more open to other cultures, and prone to change and adopt innovations. Supporting these suggestions and Sharma et al. (2001) hypothesis, it can be deduced that due to the transitional nature of Turkish society and the high level of cultural openness, the ethnocentric assessment of domestic versus foreign products tend to be low. Our findings also revealed that, even, older participants, who are cultivated in a patriotic culture, do not reveal ethnocentric attitude within this product, usage and market context.

On the other hand, the findings about ethnocentric tendencies of the highly educated and higher income earning participants are in accordance with Shimp and Sharma’s (1987) hypothesis which is about the perceptions of economic threat from foreign competition. In our study, they seemed to perceive threat to their life and economic livelihood from foreign competition. They are found to be more community oriented as the following interpretation illustrates;

“We encounter the cola drink, which is a symbol of imperialism, with our product. This ad empowers our self-esteem.” (Altug, male, 26)
traditional drink which is made of yogurt and water), but global one and as a symbol of Western consumer culture. So it is not aligned with national identity. They also interpreted the denotations of Cola Turka being similar to the well-known taste and quality of cola drinks so to imitate Pepsi and Coke and suggested preferring original goods rather than imitations.

CONCLUSION
Miller (1997, p.196) suggested that it is advertising, often regarded as a major source of global homogenization, that turns out to be a fierce proponent of localization. In order to imply the meaning of “localness” and convince consumers to prefer their products, nationalistic discourse is often used by local and global companies. Our findings reveal that it might be misleading to base advertising solely on nationalistic cues, especially in transitional societies where social identity is not always positive and desirable. Nationalistic discourse in the ads might remind the audience of the possible competitive disadvantage of the product in terms of quality compared to high-quality global products.

On the other hand, in transitional societies, where aspirational identity is constructed on westernization, a message strategy which incorporates hybridization and artificial westernization may also succeed depending on the contextual factors of product-place image.

Our findings revealed that, in the market of Cola products, the product (phenomenon) appeared to be most important contextual dimension among others; place, the market and the usage contexts. Although Cola Turka’s nationalistic ads has lead to the empowerment of self-esteem and pride, Cola is regarded as a global product and as a symbol of Western consumer culture. So it is not aligned with national identity. Despite the heightened anti-Americanism at that time, in this product context, the nationalistic signs and denotations in the advertising messages do not seem to be actualized by consumers in the direction of advertiser’s intentions.

Our findings also contribute to the literature of consumer ethnocentrism. Contrary to the findings of previous studies, we found that elders and low income earning consumers did not appear to have an ethnocentric orientation, whereas higher educated consumers appeared to be more ethnocentric. Thus, it can be suggested that demographic variables might be misleading in explaining the variance of consumer ethnocentrism. The perceptions of economic threat from foreign competition, propensity to change, cultural openness and other cultural and contextual factors (product, place, market and usage contexts) are found to be more related with consumer ethnocentrism.

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Innovativeness and Mobile Phone Replacement: An Empirical Study in Taiwan
Chih-Chien Wang, National Taipei University, Taiwan
Li-Chuan Wang, ICAT Technology, Taiwan
Yann-Jy Yang, National Chengchi University, Taiwan

ABSTRACT
This study discusses the relation between innovativeness and the replacement of mobile phones, which are a durable product. The proposal idea was that consumer innovators would frequently replace durable products that were still functioning well. Such innovators might purchase new products when the original ones became out of date. That is, such consumers regard these durable products as fashion products. This study conducted a questionnaire survey in Taiwan to verify this proposition. Mobile phones are selected as the target durable product for empirical survey, and domain specific innovativeness scales (DSI) are used to measure consumers’ innovativeness for mobile phones. Several statistical techniques were used, including Pearson correlation analysis, cluster analysis, t-test, ANOVA, and the Structure Equation Model (SEM), and the analytical results demonstrated a positive correlation between consumers’ innovativeness and intention to replace mobile phone. The results of this study showed that durable products might actually be fashion products for innovators. Such consumers may purchase durable products frequently, and form an important market segment that firms should pay increased attention to.

INTRODUCTION
The mobile phone industry seems to have entered a mature stage in many countries, including Taiwan. The number of new mobile phone users, those using mobile phones for the first time, is only increasing slowly. Thus most manufacturers are trying to marketing new models to consumers who already have mobile phones. The market segment involving consumers who are buying new model mobile phones to replace old but still functioning phones is called as the “replacement” market, and becomes crucial once mobile phones are already widespread.

People buy mobile phones for various reasons. The first reason for buying a mobile phone is to use telecommunication services. This reason only applies for those who are not mobile phone users now. Most of them are the first time users. This reason for purchasing new mobile phones is less important than before because of the popularization of mobile telecommunication service.

Another reason for buying a new mobile phone is the loss or breakage of a previously owned one. In this situation, users must buy a new mobile phone if they wish to continue using mobile telecommunication services since they do not own a working mobile phone. However, few people have not yet adopted mobile telecommunication services. Moreover, mobile phones normally are not easily damaged and tend to have quite a long lifetime. Most mobile phone manufactures provide warranties of one year or longer. Such long warranties demonstrate that mobile phones do not break easily, and moreover can be considered a durable product.

The main and fundamental functions, including making and receiving voice calls accurately and clearly, are similar within most new and old mobile phone model. Additionally, mobile phones are relatively expensive. Therefore, mobile phones can be considered a durable product, making it difficult for marketers to attract customers to replace their old mobile phones.

Nevertheless, some people regard mobile phones as fashion products, meaning that some mobile phone purchases are made simply to replace an existing model with a new one.

For those who consider mobile phones to be fashion products, a “cool” mobile phone is extremely important for their daily life. Out of date models of mobile phone are unacceptable to this type of customers. These customers constantly seek new model mobile phones, and view purchasing a new mobile phone as a routine shopping activity. They see mobile phones as similar to clothes or watches. For them, there is nothing strange about owning more than one clothes or watches. Why not owe more than one mobile phones? A key issue facing mobile phone marketers thus is find buyers who consider that mobile phones are a fashion product.

Consumer innovators are the earliest buyers of new products. The role of consumer innovators in diffusion is important because they provide revenue and feedback to firms launching new products. Consumer innovators influence the spread of new products to later buyers via word of mouth, and their rejection of a new product may spell its demise (Foxall, 1984; Gatignon and Robertson, 1991; Kotler, 1994; ch.14). Marketers of consumer merchandises are well aware that one key to the successful introduction of new products is to focus on selling these products to the consumer innovators (Midgley, 1977). Sales to these early buyers represent a positive cash flow development, and early buyers may be heavy users in some product fields (Goldsmith, d’Hauteville, Fillynn, 1998). Successful sales to consumer innovators may achieve market leadership and establish effective barriers to entry that prevent other firms from easily entering the market. Consumer innovators thus represent a key market segment that many marketers are anxious to identify, profile and influence. The chief problem facing marketers thus is how to identify and locate these important consumers.

INNOVATIVENESS AND ITS MEASUREMENT
Roger and Shoemaker (1971) stated that innovativeness was “the degree to which an individual is relatively earlier in adopting an innovation than other members of his social systems” and measured innovativeness based on time-of-adoption. This approach is controversial owing to its potential measurement error in determining when an innovation was introduced. Another conceptualization of innovativeness was developed by Midgley and Dowling (1978) who expressed the notion that innovativeness was “the degree to which an individual is receptive to new ideas and makes innovation decisions independently of the communicated experience of others”. Midgley and Dowling established a cross-sectional method for measuring innovativeness based on “determining how many of a pre-specified list of new products a particular individual has purchased at the time of survey”. This method is also controversial. One criticism is that this method for measuring innate innovativeness as a global personality trait is of limited use in studying innovativeness in a specific domain.

Kirton (1976) designed another approach for measuring innovativeness using 32 five-point scales on which the respondents indicate their behavioral consistency to the specified innovative behaviors over time. The major criticism of the method developed by Kirton (1976) is that large number of items makes it difficult to implement.

Goldsmith and Hofacker(1991) developed the domain specific innovativeness scale, or DSI, to provide a valid and reliable short self-report scale that survey and market researchers can use to measure consumer innovativeness for specific product categories.
DSI has been repeatedly validated for both goods and services. Notably, various studies have demonstrated DSI to be both reliable and valid (Flynn and Goldsmith, 1993a, 1993b; Goldsmith, 1996; Goldsmith and Flynn, 1992,1995; Link, 1995; Goldsmith and Hofacker, 1991).

Comparison with the measurement approaches proposed by Roger and Shoemaker (1971), Midgley and Dowling (1978), Kirton (1976), and Goldsmith and Hofacker (1991) revealed that the last one was suitable for this study in that the focus is on a specify product, mobile phone. This study adopts DSI proposed by Goldsmith and Hofacker (1991) for mobile phone innovativeness and tests the correlation among innovativeness, frequency of purchasing new mobile phones, and intention to purchase mobile phones with new functions. The newest technology being applied in mobile phones at the time of this study was Multimedia messaging Service (MMS). Accordingly, this study measured purchase intention of new model mobile phone with MMS function.

**QUESTIONNAIRE DESIGN AND DATA COLLECTION**

This study conducted a mail questionnaire survey. One-thousand three-hundred and forty members of three Taiwanese professional societies were chosen as subjects, and returned 170 completed questionnaires (response rate, 12.7%). Of the 170 returned responses, 135 were usable responses while 35 were discarded owing to missing date, namely 79.4% were usable questionnaires. The participants comprised 126 males and 39 females, with an average age of 39.32 years old (Standard Deviation, SD.=11.23). The fact that the sampling was not random is not problematic, since this study did not aim to generalize its results to a specific population of interest (Ferber, 1997).

Fashion innovativeness was measured using a five item scale modified from the Domain Specific Innovativeness Scale (DSI) developed by Goldsmith and Hofacker (1991). The questionnaire was written in Chinese. After the DSI were translated into Chinese, item five of DSI, “Generally, I am the last in my circle of friends to know the names of the latest mobile phones,” was deleted because the meaning after translation into Chinese was little different from item six, “I know more about new mobile phones before other people do.” In pre-testing, questionnaire subjects reported too similar between these two items in Chinese.

Additionally, one item scale, “Even if my mobile phone is not damaged or lost, I still frequently replace it with a new one,” was used to measure the frequency of fashion motivated mobile phone purchases. Another two items were used to measure intention to buy new mobile phones with MMS functions, namely: “Supposing my mobile phone was damaged and I needed to buy a new one, I would buy a new mobile phone with MMS function,” and “If I had to buy a new mobile phone, I would choose one with MMS function.”

All these items were measured in seven-point Likert-type scales where 7 represented strongly agree and 1 represented strongly disagree.

**DATA ANALYSIS**

Summed innovativeness scores ranged from 5 to 35, with mean 14.88 (SD=5.83). Coefficient alpha was 0.812, demonstrating good reliability for such a short scale.

To assess the dimensionality of the innovativeness scale, this study performed principal component analysis and found that only one factor was extracted from the five item innovativeness scale if the rule “eigen values should exceed one” was applied. This resembles those in numerous previous studies demonstrating this DSI to be unidimensional (Flynn and Goldsmith, 1993a; 1993b; Goldsmith and Flynn, 1992; 1995; Goerlich, 1996; Link, 1995; Litvin, 1996).

To understand the relation between innovativeness and purchase intention for new mobile phones, several statistical techniques were conducted, including Pearson correlation analysis, cluster analysis, t-test, ANOVA, and Structure Equation Model (SEM). The results of Person correlation analysis showed that the innovativeness was positively related with mobile phone replacement frequency (r=0.55, p<0.05) and the purchase intention for purchase new mobile phone with MMS function (r=0.35, p<0.05).

Additionally, the subjects were divided into two clusters by K-mean cluster analysis based on the DSI score. Seventy subjects (51.9%) scored between 15 and 35, with an average of 19.29 (SD=4.22), and this group was designated “innovators”. Moreover, 65 subjects (48.1%) scored between 5 and 14, with an average of 10.14 (SD=2.84), and this group was designated “followers”. The t-tests indicated a significant difference in average DSI scores (p<0.05) between these two clusters. The average score of mobile phone purchase frequency for innovators was 2.51 (SD=1.47), while for followers the average score was 1.45 (SD=0.75). A significant difference (P<0.05) thus existed between these two clusters. Additionally, significant difference also existed between the intentions of innovators and followers in purchasing mobile phones with MMS function (p<0.05). The intention for innovators averaged 9.15 (SD=3.14) while that for followers averaged 6.88 (SD=3.42). These results demonstrate that the innovators have higher intention of purchasing new mobile phones, and replace mobile phones more frequently compared to followers.

The number of clusters was preset in K-mean cluster analysis. This study conducted additional cluster analysis to explore the possible results if three rather than two clusters were selected. Subjects were divided into three clusters using K-mean cluster analysis according to DSI score. Notably, 33 subjects (24.4%) scored between 19 and 35, with an average of 22.42 (SD=4.20), and were designated “early innovators”; 60 subjects (44.4%) scored between 12 and 18, with an average of 15.21 (SD=1.92) and were designated the “majority”, and 42 subjects (31.1%) scored between 5 and 11 with an average of 8.47 (SD=2.07) and were classified as “late followers.” ANOVA showed a significant difference in average DSI scores (p<0.05) among these three clusters. The average score of mobile phone purchasing frequency for early innovators was 2.91 (SD=1.63), compared to 1.98 (SD=1.16) for the majorities, and 1.31 (SD=0.56) for followers, indicating a significant difference (P<0.05) among the various groups. Besides, significant differences also existed among the intentions of early innovators, the majorities, and late followers in purchasing mobile phones with MMS function (p<0.05). The average intention of early innovators was 9.58 (SD=3.18), compared to 8.17 (SD=3.44) for the majorities, and 6.71 (SD=3.25) for the late followers, indicating a significant difference (P<0.05) among the various groups. The above ANOVA results demonstrate that early innovators have higher intention to purchase new mobile phones and also replace their mobile phones more frequent than the majority and late follower groups.

SEM was also used to analyze the relationship among innovativeness, frequency of replacing mobile phone and intention to purchase a new mobile phone with MMS function. Several indicators were used to assess the adequacy of the SEM model. Values exceeding 0.9 for these indicators suggest a good fit, while values exceeding 0.8 indicate marginal acceptance. The model used here, displayed in Fig. 1, has a Goodness of Fit Index (GFI) of 0.920 and a Normed Fit Index (NFI) of 0.934, indicating a good fit. The Adjusted Goodness of Fit Index (AGFI) is 0.848, exceeding 0.80 and approaching 0.90, and thus is marginally acceptable. More-
over, the Non-Normed Fix Index (NNFI) and Comparative Fix Index (CFI) are 0.942 and 0.961, respectively. Both of these two indices exceed the value of 0.9, which was taken to indicate a good fit. The $\chi^2$ value is 44.389 (p<0.01) and the ratio of $\chi^2$ to degree of freedom is 2.336, exceeding 2.0 and less than 5.0. The $\chi^2$ and $\chi^2$/df ratio also showed good model fitness. Overall, these fit indices exceed acceptable or marginally acceptable levels and demonstrate that the proposed SEM analysis has good fitness.

Figure 1 illustrates the results of SEM analysis. The parameters illustrated in Fig. 1 are 0.744 (p<0.05) and 0.644 (p<0.05), indicating the latent independent variable, innovativeness, is significantly and positively correlated with the dependent variables, frequency of mobile phone replacement and intention to purchase a mobile phone with MMS function.

![Figure 1](image_url)

**FIGURE I**

Relationship between innovativeness and mobile phone purchase

| Significance: * means p<0.05 |
| Fit indices: GFI=0.920; AGFI=0.848; NFI=0.934; NNFI=0.942 |
| $\chi^2=44.389$, p<0.01; $\chi^2$/df=2.336, df=19 |
| RMS Standardized Residual =0.070 |

DISCUSSION

As Hirschman (1980) indicated, “the propensities of consumers to adopt novel products, whether they are ideas, goods, or service, can play an important role” in consumers marketing activities. Innovators contribute significant revenue to sellers when launching new products. Moreover, innovators also influence the spread of new products to later buyers. One key to successful new product introduction is selling to consumer innovators (Midgley, 1977), and these early buyers may be heavy users in some product fields (Goldsmith et al., 1998).

Identifying consumer innovators thus is a key problem for marketers. The Domain Specific Innovativeness scale is one solution to this problem. DSI has been used to measure consumer innovativeness for specific product categories. Previous studies have focused on food (Goldsmith, 2001), clothes (Goldsmith et al., 1999; Goldsmith and Newell, 1997; Fynn and Goldsmith, 1992), wine (Goldsmith et al., 1998), travel services (Fynn and Goldsmith, 1993a) [and so on OR etc.], but not mobile phones. Most previous studies focused on non-durable products or service. This study used DSI to consumers’ innovativeness to mobile phones, a durable product. The results of this study indicated that the concept of innovativeness and the DSI scale could be applied for durable products as well as for non-durable product and services.

From the results of the empirical survey, this study found that innovativeness was positively related to mobile phone replacement frequency and intention to purchase a new mobile phone with new function. Innovativeness thus also exists for durable products. Notably, innovative consumers may buy durable products more frequently than other consumers. For durable product innovators, it is not unusual to purchase new models of durable products to replace old ones even the old ones are still functioning well. Consumer innovators purchase mobile phones more frequently than others, and also are faster to adopt new models of mobile phones. Consumer innovators thus represent an important market segment, particularly when the mobile phone market is maturing and growth is slowing.

As noted previously, mobile phones are a durable product and do not break easily. Once most consumer already own mobile phones, growth in this market tends to slow markedly. However, the mobile phone manufacturing industry is still very healthy. One explanation for this phenomenon is that many consumers treat mobile phones as fashion products and thus replace them frequently, just as for clothing or other consumer products. In this respect mobile phones appear similar to watches. For some consumers, owning more than one watch is not strange thing. Such consumers buy new watch even when their old watches are not broken.

To summarize, mobile phone consumer innovators see mobile phones as fashion accessories and thus replace them frequently. Besides, the concept of innovativeness is adequate for durable goods as well as for fashion goods. This support the idea proposed by Hirschman (1980) that innovativeness is crucial in consumer marketing activities. This importance applies for both durable and non-durable products.

REFERENCE


The Effectiveness of Joint Venture and Local Lifestyle Magazines in China
Flora Fang Gu, The University of Hong Kong, Hong Kong
Kineta Hung, The University of Hong Kong, Hong Kong
David K. Tse, The University of Hong Kong, Hong Kong

EXTENDED ABSTRACT
Advertising professionals have indicated in a survey that a medium’s ability to efficiently reach a specific target audience remains the single most important criterion in media decision (King, Reid, and Morrison 1997). Recent market trends, such as growing market fragmentation and increasing media proliferation further complicate an advertiser’s media decisions. In short, the need to justify better media decisions, in particular, in linking media habit with product or brand choice continues to mount.

Among conventional media, magazine is commonly regarded as the medium that could best pinpoint a specific audience to match the targeted consumers of an advertising campaign. However, because of the relatively inefficient market conditions in China, there is a general lack of target audience information and media decisions are relegated to a circulation-driven function.

The current study argues that there is a need for magazines in China to optimize the media-market match. In 2000, magazines accounted for just 2.7% of the media adspend in China, while magazines enjoyed a share of 12.0% in the U.S. even after excluding business-to-business adspend (Zenith Media 2000/2001). Further, Chinese magazine operators have to rely heavily on circulation as their main source of revenue (Lü 2002). This is in contrast to the U.S., where advertising accounts for almost 60% of the revenue in the magazine industry (Sumner 2001).

Magazines in China can be categorized into local (LC) and joint venture (JV) magazines because of historical and political backgrounds. Our study is designed to include both types of magazines and we examine the effectiveness of these magazines in reaching the emergent segment of hedonic consumers in China, including their usage of products and brands. In short, this is a 2 (magazine: JV versus LC) x 2 (product: value-expressive versus utilitarian) x 2 (brand: local versus foreign) study. Specifically, we hypothesize that relative to LC magazines, JV magazines would be more successful in reaching the segment of hedonic consumers defined in terms of their demographics and psychographics. Further, we propose that magazine readership would indicate the extent to which the consumer would engage in hedonic consumption. Specifically, we hypothesize that relative to LC readers, a significantly higher proportion of JV readers would consume value-expressive products (VEP), given their higher propensity for hedonic consumption. And because utilitarian products (UTP) mainly serve as necessities, we propose no significant difference between the proportions of LC and JV readers who would use UTP.

We also extended our study to examining the consumption of local and foreign brands. To date, foreign brands remain the preferred brands for many consumers in China, especially for fashionable products such as cosmetics and apparel. The Chinese consumer’s passion for foreign brands is lower for utilitarian products, since utilitarian products do not serve a social signaling function. We hypothesize that regarding VEP, a significantly higher proportion of JV lifestyle magazine readers would consume foreign brands of these products than their LC equivalence. Conversely, regarding UTP, there would be no significant difference between JV and LC lifestyle magazine readers in their consumption of foreign/local brands of these products.

The data reported in this research was collected between 1999 and 2001 as part of a larger survey commissioned by China Central Television (CCTV), the largest and the only nation-wide television station in China. The survey involved 48,000 subjects in 15 cities that included the major urban centers of Beijing, Shanghai, and Guangzhou. To ensure that the subjects under investigation had prior experiences with either JV or LC lifestyle magazines, we included in this study only those subjects who have read the selected titles (3 JV, 3 LC) at least once during the past 12 months. This reduces the size of the sample to 4,265, including 1,886 JV readers and 2,379 LC readers. The questionnaire began with questions relative to the subjects’ product and brand consumption habits, followed by questions relative to the subjects’ media habits. The questionnaire ended with questions on the subjects’ demographic and psychographic information.

Results of the study supported the hypotheses outlined earlier. Regarding the profile of magazine readers, JV readers were significantly younger than LC readers. Also, when compared to LC readers, a significantly higher proportion of JV readers were female, better-educated and working in the private sector. As well, JV readers were less conservative and were less into utilitarian buying. Instead, they were more motivated to buy things that could improve their living standard and status. Regarding the consumption of VEP, a significantly higher proportion of JV readers when compared to LC readers have used cosmetics and jeans during the past 12 months. Finally, regarding the consumption of brands, a significantly higher proportion of JV readers have used foreign brands of VEP than LC readers. There were however no significant differences among JV and LC readers’ consumption of foreign or local brands of UTP, as hypothesized. The implications of these findings were discussed.

REFERENCES


ABSTRACT

This paper examines business gift giving characteristics in Vietnam between and within organizations. Gift giving is important for maintaining good relationships between buyers and sellers. In Vietnam, gift giving is also important within the organizational hierarchy and with various public officials in ways that are not typical in Western countries. It is shown that, in general, people working for foreign owned and joint venture firms give more gifts to customers and suppliers, people working at private domestic firms make more gifts to governmental and political/social authorities and people working at state owned enterprises give many intra-organizational gifts, particularly to superiors.

This paper is concerned with the unique characteristics of business gift giving practices in Vietnam. The scope of this paper includes not just gift giving between firms but also gift giving within a firm. Business gift giving has received little attention in academic research and little has been written about the practice in Asian countries. Vietnam was selected for study because as a transitional economy, it is just now becoming the venue for large-scale economic development and attracting the attention of foreign firms. Also, since it is a country with a strong heritage of Confucian principles, gift-giving practices may be expected to differ sharply with Western practices. Finally, since it has been a relatively closed economy until the governmental decision to open up in the late 1980’s, some business practices may be built upon norms of local institutions and tastes that may differ from those of other countries.

CONCEPTUAL BACKGROUND AND PROPOSITIONS

Gift Giving

Vietnam is a transitional economy with a population of about 80 million. Since the 1986 implementation of the policy of ‘Doi Moi’, or ‘opening up’, Vietnam has engaged in significantly greater interaction with businesses from other countries. There are not only more buyer-seller relationships being created domestically, but also more interactions between foreign joint venture partners and others new to the Vietnamese environment. The different types of business organizations, such as state owned enterprises and foreign firms, might have different characteristics in regard to internal norms and their place in the existing cultural environment.

Most existing gift-giving research focuses on consumer-to-consumer gift giving situations with little research focusing on business-to-business gift giving situations. Among the few studies concerned with business gift giving, none have been found to deal with gift giving practices within the organization. It might be expected that the motivations and dynamics of gift giving within and between organizations are very different.

Specifically in regard to Vietnam there is very little published information regarding gift giving in general, much less business gift giving. In terms of the cultural perspective some literature about China and other Asian countries may be relevant. Culturally, there are significant similarities between Vietnam and China because of their close proximity and because of past instances of Chinese influence in Vietnam.

Both China and Vietnam have adopted Confucian principles of conduct that are particularly important in regard to respect for authority within an organization. Confucian philosophy professes respect for those higher in authority whether it is in the family, the nation, or the employer. Respect for the organizational hierarchy can be conveyed through relationship building acts that might include gift giving. So, intra-organizational gift giving may be more typical in Asian cultures than elsewhere.

Ritual occasions for giving gifts are also very important. The Vietnamese New Year celebration of Tet is similar to the Chinese New Year and is an important occasion for building and maintaining social ties. The Tet New Year Holiday includes a very wide range of gift giving events, opportunities and obligations.

The concept of reciprocity is important in the gift-giving context in virtually all cultures. The acceptance of a gift carries the duty to give something in return (Gouldner 1960). The important issue in the business context concerns the nature of the reciprocity. In Vietnam, business gift giving may be a manifestation of commitment to a relationship, an opportunity to elicit an act of reciprocity in the future, or sometimes simply a requirement or obligation to share the success of a good business transaction with co-workers or superiors. In Western cultures exhibiting low context standards of propriety may indicate that the case of an employee giving gifts of money to superiors may be better defined as bribery or possibly extortion. Such strong and provocative terms are not likely to be heard in the Vietnamese context. While much gift-giving may be obligatory, such characterizations may show a poor understanding of the importance of relationships and the importance of gift-giving in a high context culture.

Much Vietnamese business gift giving is done to build and maintain harmonious relationships that may be seen as very similar to the Chinese concept of guanxi. Typically guanxi is thought of in terms of relationship building with a particular sense of reciprocity and increasing commitment (Annamma 2001). On the other hand, it is not universally true that Asian gift giving practices are different from Western practices. Singapore has adopted the view that ‘relationship maintenance’ is not necessarily a fixed cultural norm (Razzaque and Tan 2002). The former Prime Minister Lee Kuan Yew is of the firm belief that some of the things attributed to Asian culture are not necessary and only slow social and economic progress (Lee 2000).

Within the organization, gift giving may be seen as part of the milieu of the social working environment. Zhou and Martocchio (2001) examined how Chinese managers make compensation awards in comparison to American managers. Their conclusion was that Chinese managers: 1) put less emphasis on work performance when making bonus decisions, 2) put more emphasis on relationships with co-workers when making non-monetary decisions, 3) often put more emphasis on relationships with managers when making non-monetary award decisions, and 4) put more emphasis on personal needs when making decisions. Essentially, Zhou and Martocchio (2001) support the proposition that the maintenance of relationships is more important in work settings in China than in Western countries. Their conclusion may hold for Vietnam as well.

To many Westerners and, indeed, to many Vietnamese some gifts are seen as bribery and kickbacks but many gifts are given for
legitimate relationship building or to fulfill a legitimate social obligation. While an interesting area for future research, this paper does not deal with characterizing national cultures in regard to behavioral norms or about redefining the concept of business corruption. This paper deals simply with observing gift-giving practices in the business setting in Vietnam.

**Type of Business Organization**

Corporate cultures often have some effect on business gift giving characteristics. In Vietnam, the type of ownership of the organization may be a relevant characteristic in understanding gift-giving practices. There are three basic types of business ownership in Vietnam: state-owned enterprises, foreign or foreign joint ventures and privately owned (domestic) enterprises. The propositions to be examined in this paper relate the type of firm ownership to the nature of the gift recipient.

There are many state owned enterprises (SOEs) in Vietnam. These are often large organizations and they are criticized as being operated without regard to marketing constraints and market-based criteria for success. If this is true, then decisions about promotion or job assignment may not be made for purely business reasons. In SOEs relationships may be more important in making decisions than other criteria. The maintenance of relationships and sharing the rewards of business success may be an important aspect of life in an SOE.

*Proposition 1:* For SOEs, the norms of behavior for maintaining social relationships require that there is substantial gift giving within the structure of the organization.

A second category of business ownership is the small, privately owned business. Most small businesses are oriented towards the consumer market such as retailers and suppliers of specialty products. Being small, the norms of behavior in regard to the maintenance of relationships may be more informal and personable with parties with whom the firm interacts.

With the informality of these small business organizations the maintenance of relationships through gift giving practices within the organization may be less important than with SOEs. However, active attention to entities outside the organization may be more important. The most relevant relationships that must be maintained are the relationships with government and political/social authorities. In Vietnam governmental and political/social authorities have major influence on business activities.

*Proposition 2:* For privately owned businesses, gift giving is oriented towards the maintenance of relationships with governmental and political/social authorities.

The third category of business is the joint venture, usually made up of a foreign firm and a local partner. While there is an increasing number of wholly owned foreign firms operating in Vietnam, most foreign firms are required to have some portion of local ownership. Many foreign firms have also found that it is easier to conduct business with a local partner. So, for most practical purposes the form of ownership of a foreign firm is a joint venture with a local partner. These firms are often operated using a business model and practices that are typical to more modern international business organizations. It is likely that these firms will have a corporate culture that is similar to international business custom, as contrasted to the more local businesses. The significance of foreign ownership is that the foreign firm often brings with it the norms of behavior and the cultural orientation that existed in the country where it originated, or else norms of a more homogenized multinational character.

*Proposition 3:* For foreign firms and foreign joint ventures, gift giving is oriented towards the maintenance of relationships with customers and suppliers.

**METHOD**

**Sample**

The sample comprises fifty interviewees employed at firms located in and around Hanoi, Vietnam. Interviews lasting approximately 30 minutes were conducted with these individuals. The interviewees were not selected at random; rather they were selected to represent the three types of business ownership discussed above. Twenty-two worked for SOEs, seventeen worked for privately owned firms and eleven worked for foreign firms or foreign joint ventures. Interviewees were mid-to-lower level managers. The average age of the interviewees was 35. Forty nine percent were male and fifty one percent were female.

**Data Collection**

Data collected was primarily qualitative in nature, but interviews were structured enough to make the interviewee’s responses relatively easy to classify for quantitative presentation. Items of information collected include the type of ownership of the interviewee’s employer, the general business category, the respondent’s job position, the recipient of each gift, the type of each gift, the value of the gift, whether the gift is characterized as a personal gift or a company gift, the purpose for giving the gift and the respondent’s opinion about whether or not the gift recipient understood the expected reciprocity associated with the gift.

A coding issue arose about how to count the number of gifts an interviewee reported. Some interviewees reported that they gave certain gifts to an entire class of people such as “doctors” or “our best customers” or “all of the people I work with”. In the case of many gifts to a single class of recipients it would serve no purpose to try to deal with them separately. For purposes of reporting a number of gifts, it serves the purposes of this research to consider these gift sets as a single item. So, the number of gifts reported also includes all gifts to a set of similar recipients.

Interviews were conducted in Vietnamese. Notes from the interviews were transcribed and translated into English. For classifying responses little interpretation was necessary. The ownership structure of the respondents’ employer was clearly expressed and the gift recipient was clearly expressed except in a few cases. For purposes of analysis, ‘gift recipient’ was classified as: 1) government or political authority, 2) customer or supplier and 3) intra-organizational recipient. In order to study organizational dynamics intra-organizational recipients were further classified into three groups based on the gift recipient’s place in the organizational hierarchy: 1) higher than the giver, 2) lower than the giver and 3) equal to the giver.

**RESULTS**

Analysis of the data shows definite patterns in regard to the type of ownership. Many respondents from all three types of business ownership gave gifts to current customers and co-workers, particularly for the Lunar New Year Holiday (Tet). Beyond this, distinctive patterns developed based on type of ownership. Results of gift giving based on type of firm ownership is summarized in Table 1.
In the state owned enterprises gifts were often given to others within the firm hierarchy, particularly those in superior positions. Comments showed that interviewees primarily sought to protect or enhance their position within the firm. These gifts were typically paid from the personal funds of the giver. In contrast, in the case of foreign joint venture or privately owned organizations, when gifts were given within the organization they were more evenly distributed to recipients at all levels of authority.

While many intra-organizational gifts were in the SOE category many were in the foreign joint venture and private firms, as well. Many of these were related to the Tet New Year’s Holiday. Gift giving and the maintenance of relationships appeared to be important in all types of business organizations. Nevertheless, most intra-organizational gift giving occurred in SOEs and the comments support the proposition that it is done due to the norms of the organization.

The gift giving in the foreign joint ventures was similar to that of typical Western firms. Most gifts were for customers and were in the nature of food or small personal items. Foreign firms also made gifts to suppliers, which may not be typical behavior in Western countries.

Privately owned enterprises were largely concerned with remaining in the good graces of public authorities and protecting their relationships with others who had regulatory power over them. Often these authorities were tax offices or the local Communist party officials (People’s Committee). It was very typical for a basket of goods to be given to many people for the Tet Holiday. Other gift recipients included customers, suppliers and many people who had a role in the continuance of the business such as police, and people who maintained the supply of electricity (in the case of a garment manufacturer).

To provide a little more insight into the intra-organizational gift giving, gifts were classified according to the level in the organizational hierarchy between the giver and the receiver. These hierarchical relationships are shown in Table 2. Specifically of interest are the occasions when an interviewee gives a gift to people above him/her in the hierarchy. Of 84 intra-organizational gifts 46 were given to people above the giver. And of these, people working at the SOEs gave more than 50%.

**Gift Giving by Type of Recipient**

Qualitative results relating to the type of business ownership will be presented first. Then the types of gifts and aspects of the motivation and expected reciprocity will be discussed.

The interviewees reported 190 gifts or gift sets with an average of 3.8 per interviewee. Of these 190, ninety-three were intra-organizational, fifty were to customers or suppliers and forty-five were to governmental or political/social authorities and two did not fit any of the categories. The gifts by type of business ownership are shown in Table 1.

### TABLE 1

<table>
<thead>
<tr>
<th>Business Ownership Type</th>
<th>Intra-Organizational</th>
<th>Customer/Supplier</th>
<th>Government or Political Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOE</td>
<td>49 (74%)</td>
<td>9 (14%)</td>
<td>8 (12%)</td>
</tr>
<tr>
<td>Privately Owned</td>
<td>25 (30%)</td>
<td>27 (33%)</td>
<td>31 (37%)</td>
</tr>
<tr>
<td>Foreign JV</td>
<td>19 (49%)</td>
<td>14 (36%)</td>
<td>6 (15%)</td>
</tr>
</tbody>
</table>

Percentage of total for each ownership type is shown in parentheses

### TABLE 2

<table>
<thead>
<tr>
<th>Business Ownership Type</th>
<th>Lower than Giver</th>
<th>Equal to Giver</th>
<th>Higher than Giver</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOE</td>
<td>6 (12.2%)</td>
<td>15 (30.6%)</td>
<td>28 (57.1%)</td>
</tr>
<tr>
<td>Privately Owned</td>
<td>6 (24.0%)</td>
<td>10 (40.0%)</td>
<td>9 (36.0%)</td>
</tr>
<tr>
<td>Foreign JV</td>
<td>3 (15.8%)</td>
<td>7 (36.8%)</td>
<td>9 (47.4%)</td>
</tr>
</tbody>
</table>

Percentage of total for each ownership type is shown in parentheses

In the state owned enterprises gifts were often given to others within the firm hierarchy, particularly those in superior positions. Comments showed that interviewees primarily sought to protect or enhance their position within the firm. These gifts were typically paid from the personal funds of the giver. In contrast, in the case of a foreign joint venture or privately owned organizations, when gifts were given within the organization they were more evenly distributed to recipients at all levels of authority.

In one case the interviewee, the head of a work group in an SOE gave gifts of cash to 1) Head of the Department, 2) Deputy Head of the Department and 3) the Director (highest in the organizational hierarchy). Gifts to the Head of the Department and Deputy Head of the Department are monthly gifts of approximately $34 each. The gifts to the Director are less frequent but average $100.

With regard to a gift to the Head of the Department,

“I want to be at my current position for ages because it brings me much benefit. My Head of Department has the right to send me to other positions that bring a lower income.”
With regard to the Deputy Head of the Department,

“To tell you the truth, this is a kick-back. If I earn some, I have to share with the others. Otherwise, I cannot remain at my present position.”

Another notable characteristic in regard to intra-organizational gift giving concerns the positions in the organizational hierarchy between the giver and the recipient. If the motivation for gift giving were to protect and enhance one’s position in the organization, then the gift giving would be likely to occur with those in higher authority in regard to the giver. There seems to be a clear pattern of this happening, as shown in Table 2.

Table 2 also shows support for the proposition that the practice of using gifts to support one’s position in the organization is more prevalent in SOEs. Interviewees from SOEs gave 57% of their intra-organizational gifts to people higher in the organizational hierarchy compared to 47% for foreign joint ventures and 36% for privately owned firms. Still, the 47% figure for foreign joint ventures is high by many Western standards. This may be due to the small sample size or it may call for further investigation to gain a better understanding.

Customer/Supplier Gifts. Gifts to customers were often similar to the gifts given in Western business situations. For instance, a foreign joint venture pharmaceutical firm gives gifts to doctors to encourage the use of the firm’s pharmaceutical products.

Interviewee #50 gave gifts valued at $34-$67 to doctors: The gifts were given...

“...for the purpose of doctors to write out the prescription to use my company’s medicine. It is an effective marketing method.”

The interviewee described the gifts as: “Pictures, flower vases, necklaces, etc.; the gift depends on the demand and the interest of (the doctors).” Apparently, the salesperson either solicited suggestions from the doctors or the doctors made requests for specific gifts. While pharmaceutical firms in the United States, for instance, usually establish and adhere to specific guidelines, patterns of gift-giving to doctors is not very different.

The more pure motivation to maintain good relationships can be seen in the gifts given to suppliers. The primary motivation for these gifts was simply to maintain positive relations. Gift-giving to suppliers exhibited a sense of reciprocity and relationship building rather than opportunism. In Western cultures, there is likely to be less flow of gifts from buyers to the sellers.

Government and political authorities. The proposition in regard to gifts to governmental and political/social authorities is that privately owned firms would engage in giving to these entities proportionately more than SOEs or foreign joint ventures. Gifts to governmental and political authorities most frequently took the form of gifts to tax authorities, police and the People’s Committee.

Some gifts were public service in nature such as donations to the People’s Committee to buy school supplies. Gifts with a public service intent appear to be an effective means of maintaining good relations with an important political entity and demonstrating good corporate citizenship.

Gifts to tax authorities were mentioned most frequently. The purpose of giving the gift was almost invariably to maintain good relations in terms of avoiding future adverse decisions rather than to avoid paying taxes. Perhaps the good relationship, demonstrated by a thoughtful New Year’s gift, will reduce the likelihood of excess scrutiny in the coming year.

Types of Gift

There was a very broad range of types of gifts. The types of gifts given were often money or items related to the Tet New Year holiday. New Year gifts were most typically food such as fruit and cakes. However, the New Year was also the occasion for making large gifts intended to return value throughout the coming year. Gifts to taxation authorities, police and important customers and bosses were likely to be cash or expensive items. In most Western countries gifts to taxation authorities and police are specifically proscribed and the proscriptions are usually complied with.

Interviewee 43, marketing manager of a foreign telecommunications firm gave such items as a hand phone, camera, imported wine and confections to “decision makers or strong influencers” valued at $200-$340.

Other gifts included such items as lacquer and silk paintings for occasions like arriving or leaving, birthdays and notable life events. Gifts of parties were also common among co-workers or employees below the interviewee in the organizational hierarchy.

Motivation and Reciprocity

Overall, it seems that a clear distinction between work and personal relationships is not so great. In all types of firms there was a lot of gift giving. However, in the case of the SOE, intra-organizational gift giving was often seen as very near to obligatory. Likewise with privately owned firms, the gift giving to government and political/social authorities was considered to be highly advisable to avoid future problems. No interviewee mentioned an element of bribery or extortion in gift giving to these authorities. The motivation was always stated as being to have good relations.

The aspect of reciprocity is sometimes indirect in gift giving. Many interviewees said that the intended reciprocity was understood but that it was uncertain whether the reciprocity would be achieved. Some expressed near certainty while some expressed merely a faint hope.

CONCLUSION

There is a distinctive pattern of business-to-business gift giving in Vietnam based on the type of business ownership. Each of these patterns of gift giving is rational with respect to the social environment in which they occur. Foreign joint venture firms showed gift giving patterns that are similar to firms from Western countries. They offer small gifts to customers and prospective customers such as meals and promotional items. Consistent with local custom, they also give team-supporting gifts such as lunches for office staff. These gifts are from the firm rather than from individuals. These firm sponsored gifts may reflect the fact that the foreign joint ventures have more resources to support such activities.

The predominant pattern among state owned enterprises is personal gift giving in the organizational hierarchy. It was quite common for personal gifts to be given to one, two or more individuals higher in the organization. These gifts were described by one respondent as ‘a kickback’ and by another respondent as
necessary to maintain a good relationship. Gifts were also given to others for events such as birth of children and returning from trips.

Privately owned firms showed a pattern of gift giving to local officials who had the power to facilitate business dealings. These officials were often tax authorities or members of the People’s Committee. These gifts were most frequently described by the interviewees as serving the purpose of ‘relationship maintenance’.

A general finding is that there is a lot of intra-organizational gift giving by all types of firms. The Tet New Year holiday was a major gift giving event. It was mentioned by a large number of respondents as being the motivating event for the gift giving occasion. There appeared to be a greater tendency to give food items for Tet.

The selection of interviewees represents a limitation of this study. The interviewees did not comprise the scope of the whole organization. Particularly in the case of larger firms, it is possible that the interviewees were not involved with gift giving to many entities who received gifts from others in the organization. This study focused on gift giving patterns based on business ownership but the size of the organization is certainly also important.

Firms often have a distinctive corporate culture. This corporate culture carries over to gift giving patterns within and outside of the organization. When doing business in Vietnam the type of business ownership might give some guidance as to the prevailing norms of behavior in regard to gift giving.

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Capturing Moment of Consumption with Smartphone: Case Study from “Capturing Meal and Snack Consumption Scenes among Japanese Female University Students”

Satoshi Hosoe, Keio University, Japan

ABSTRACT

Focusing on data collecting procedures in qualitative research, this paper proposes a new method to capture scenes of ongoing consumption experiences by implementing a combination of ubiquitous communication technology and internet environment. A case study shows the success of a pilot system in recording informants’ activities as “data in progress” which leads to a better understanding of consumer behavior. Text and image data are recorded with “smartphone”, wirelessly transmitted to a database, and used for real-time analysis. Although this system succeeds in gathering micro-ethnographical data of the informants’ diverse consuming experiences, both technological and methodological improvements are still needed.

1. INTRODUCTION

From a postmodern consumer research perspective, consumption is not merely a product selecting process, but an entire experience of selecting, using, and disposing of products. Research on this process should be expanded beyond ordinary commodities to services, events, ideas, people, and even to places. The fundamental concept of postmodern consumer research is to focus on the consumption phenomena (i.e. usage) rather than on the selection of products or brands. This theme has become a focus for recent research due to the recognition that traditional mass marketing approaches are ineffective in analyzing the volatile and fragmented lifestyles of contemporary consumers. Researchers realized that so many minute but important pieces of the consumption experience in our lives are neglected when scrutinizing the product selection process through quantitative research methods.

Along with increasing awareness and acceptance of the postmodern marketing concept, qualitative research methods have also come to the fore. Research methods from other disciplines such as sociology and anthropology have been introduced to consumer research methodology for exploring the individual’s consumption experience. Commonly applied qualitative methods are questionnaire inquiry, in-depth interview, and participant observation. Interpretive studies have also gained strong legitimacy for focusing on the inner experience of consumption, and several unique approaches were created. Methods such as the stereographic photo essay (Holbrook and Kuwahara, 1998) have been tested and put into practice. Some of these qualitative and interpretive research methods are further refined by the use of digital technology. Web-based questionnaires enable researchers to gather a larger number of data with ease. Mailing lists and BBS are used to form an online community, enabling researchers to utilize communication logs for qualitative analysis. The use of compact-sized video cameras and non-linear video editing software facilitate the task of the participant observation.

The impact of the application of digital media to qualitative methods is that it extends the postmodern researchers’ style of viewing the consumption phenomena. Since Morris Holbrook (1995) compared researchers’ characteristics to that of artists in his book “Consumer Research: Introspective Essays on the Study of Consumption”, let us describe our assertion by showing how artifacts influenced artists’ activities. If you look back in history, you will find that artists accepted new technologies as ice breakers for acquiring new inspiration and unleashing new expression. For example, the visual sensation from a running locomotive inspired Turner to a new expression on landscape painting (landscape as a “flowing” spectacle, not a static panorama). Likewise, Beethoven’s composing style was greatly altered when the clavichord evolved into the piano. The methods of interpretation practiced by postmodern consumer researchers are similar to work done by artists mentioned above. Its constitutive aim is in obtaining new inspiration from the target consumption phenomena, and presenting the research output in an innovative style which would have an influential impact on anyone interested in that phenomena. Thus, implementation of new technology, in an appropriate manner, should lead to the development of new research “tools” for their subject of study.

Yet, in many cases, commonly used qualitative research methods are stranded in old media environments, restricting the process of capturing the consumers’ real life activities. For example, questionnaire surveys and interviews often take place in a social or cultural vacuum (e.g. meeting rooms and laboratories), where ordinary human behavior is observed with difficulties. Likewise, these methods are usually designed to gather data before or after actions occur, not while the action is in progress. Thus, traditional research methods lack the ability to capture consumption experience as it is happening in the real world. One of the reasons for this deficiency has to do with the functionality of the media being used. The primary process of data collecting and analyzing is restrained because of mediocre printed questionnaire sheets.

This paper will explore the following questions: is there an alternative approach for exploring “consumption experience” by adapting new technology to existing research methods? If so, how effective is it? How will the analysis and interpretation process done by researchers change by use of these media technology? What will be the merits and demerits of future consumer research style? We search for answers to these questions by designing a ubiquitous mobile communication environment and conducting experimental research to capture the vivid real-life of consumers. Based on the method used in cognitive science referred to as Experience Sampling Method, we enhance its concept by using a multi-purpose cellular phone, “smartphone”, as a research tool. The purpose of this paper is to propose a new “viewfinder” for use in a consumer behavior study by connecting mobile communication technology to an established qualitative research method.

1.1 Key Aspects of Research

1.1.1. Experience Sampling Method

Experience Sampling Method (ESM) is a unique research procedure originally designed by Mihaly Csikszentmihalyi (1975) in his pursuit of Optimal Experience (better known as Flow Experience). ESM is a quasi-naturalistic method that involves signaling informants at random interval throughout the day, often for a week or two, requesting them to report the nature and the quality of their experience.

In a typical procedure of ESM, informants are requested to carry a set of survey sheets and beeping devices during the whole period of research. The beeper is programmed to ring at random times, and whenever the beeper rings, informants fill out the survey sheet writing a brief description of their activities and emotions at that moment.
The most inspiring concept of ESM is that it urges informants to keep a short record of actions and emotional conditions when the actual activity is still in progress. As Russell T. Hurlburt and Christopher L. Heavey indicate in their paper (1996), the significance of ESM lies in “freezing informants’ ongoing experience and writing a brief description of the moment”. This method enables exploration and recording of informants’ daily activity and fluctuation of emotion from a micro-ethnographical point of view. This method is capable of collecting clusters of vivid live recorded “situations” that informants encounter in their daily environment.

1.1.2. Ubiquitous Communication Environment

Over the years, communication style has drastically changed among the Japanese due to broad diffusion of cellular phones. Statistical reports show that more than 60% of the Japanese use multi-purpose cellular phones (or “smartphone”) on a daily basis (2003). Using the typical smartphone equipped with an internet browser application, a built-in digital camera, and colored LCD, the Japanese exchange short text messages and digital photo images with friends, families, and co-workers, while they are at home, commuting on trains, or even at work. There are many web services accessible by smartphone, such as news, weather forecast, and train schedule information. It is not too much to say that these portable devices are becoming part of the fundamental communication infrastructure among the Japanese.

This broad diffusion of the smartphone is creating an environment very similar to that which M. Weiser and others refer to as “Ubiquitous Computing” (M. Weiser, 1991). Ubiquitous computing, or “calm technology”, is a concept indicating a dramatic miniaturization of communication technology so that the devices could be embedded into any surrounding environment and become virtually invisible in our lives. Nowadays, the term “ubiquitous computing” has extended its meaning to “communication technology available under any circumstances, unrestrained in time or space”, which is the actual case among Japanese cell phone users.

From the viewpoint of the consumer researcher and other social science researchers, this widespread usage of ubiquitous communication media indicates a possible alternative research style that will utilize the ubiquitous media environment as an interface to capture human behavior. As a practical matter, mobile communication technology is already being used in other disciplines. For example, fieldworkers’ activities are aided with handheld computing devices and GPS (Pascoe, Morse, and Ryan, 1998). Since the devices are portable, they enable researchers to exchange data under any circumstances and free the research scheme from time and space. If the appropriate system is designed, we will be able to gather data that could be observed by the traditional approach.

2. DEVELOPMENT OF INTERACTIVE EXPERIENCE SAMPLING METHOD

2.1. Overview

(1) The outline of this project is as follows:

- Designed an integrated system of a mobile communication network and a web-based relational database to enhance the concept of ESM.
- Conducted several experimental researches using the prototype system.
- Updated the system according to the results of experimental researches.

(2) The system, Interactive Experience Sampling Method (iESM), is designed for the following purposes:

- “Barge in” with inquiry messages about the informants’ daily activities.
- Capture the informants’ situation as qualitative data by engaging them to describe what they are doing and how they are feeling at the moment with text messages and digital camera images.
- Collect these data in real-time so that the researchers can practice instant or temporal analysis.

(3) The basic architecture of iESM is composed of following media systems:

- Compact wireless communication devices (such as a smartphone or a wireless PDA) are used as data collecting interface.
- Internet servers (such as a SMTP server and a web server) are required to establish communication between observation groups and informants.
- Database application is used for storing, organizing, browsing, and sorting collected data.

The core essence of the system is in appending the use of graphic data and interactivity to ESM by replacing a mediocre questionnaire paper with a multi-purpose cell phone so that consumer researchers can remotely observe consumption experience happening in real world.

2.2. iESM Research Procedure

iESM is usually carried out for a week or two, to capture various daily activities. During the research period, the informants are engaged in recording their experience, and researchers are engaged in temporal analysis and online discussion of the collected data. Research conducted with the iESM system works in one of two ways; either inquiring at random intervals (random inquiry), or requesting informants to transmit data whenever the target consumption experience occurs (spontaneous report).

Random inquiry requests the informant to input and transmit data at unpredictable times. Informants describe their condition and reply to the questionnaire whenever they receive the cue signal from the iESM system. We can not predict when the informants will answer the inquiry since the interval between each cue is decided randomly by the system. As a result, they are more likely to behave in a natural manner. As Csinkszentmihalyi had done in his researches, five to ten cues per day is preferred, depending on the attribution of the informant group.

Spontaneous report is a strategy used when the aim of research is determined to capture specific actions or events. For example, if the researchers are interested in capturing “pattern of music listening” or “usage of community facilities” or “most attractive advertisement on streets”, this strategy is appropriate. The merit of this strategy is that researchers can collect pinpoint scenes of a particular consumption moment.

In either strategy, informants are instructed to do two things at the data collecting phase: describing the nature and the quality of their experience, and documenting the moment via digital photo snapshots. In order to capture the informants’ situation as accurately as possible, the informants are asked to supply the following pieces of information:

- Date and Time (usually logged automatically by the system)
- Place, describing where informant is at the moment.
- Whom the informant is with.
- Brief information on what the informant is doing.
Quality of experience (depending on research theme, particular emotion is measured with 1-5 scale)

Following up this basic information, the informants are requested to answer further questions based on the research theme. The questionnaires are deliberately changed throughout the research period, as determined by the result of online discussions held by the observation group. Informants are also instructed to take at least two snapshots using a digital camera installed on the smartphone: a symbolic picture that represents the informant’s situation, and a picture of themselves.

Each time the informant inputs responses and takes snapshots using smartphone, both text data and image files are immediately stored on a web-based database server located on internet, enabling researchers to view and sort collected data in various ways. Fig.1 is an example of a single record set.

3. CASE STUDY: “CAPTURING MEAL AND SNACK CONSUMPTION SCENES AMONG JAPANESE FEMALE UNIVERSITY STUDENTS”

Several pilot research projects were conducted in order to test the prototype iESM system between 2000 and 2002. The study, “Capturing Meal and Snack Consumption Scenes among Japanese Female University Students” which took place in 2001, is offered as an example for the successful use of the system. The purpose of this research was to study if marketers can seek a new niche market by closely observing female consumers’ daily food choices (such as meals, deserts, and between-meal snacks). Based on the result of this study, a proposal was developed for a confectionary maker in Japan.

3.1. Data collection

The research informants were recruited informally, as the main purpose of experimental research consisted in assessment of the prototype system. 16 female undergraduate students from Prof. Kuwahara’s workshop at Keio University Shonan-Fujisawa Campus were asked to serve as research informants. The average age of the informants was 21. All the informants owned their smartphone. The research took place for 14 days (10/11-10/24, 2001). The project followed the spontaneous reports strategy mentioned earlier. The informants were given instruction to document and transmit their consumption experience every time they eat meals or snacks. The instruction was carefully given at the briefing session which took place two days before the actual research started, giving the informants sufficient time for practicing manipulation procedure.

3.2. Analysis

A trilateral research group formed from members of a confectionary company, a marketing company, and a university was organized to observe and interpret the collected data. During the research period, the role for this observation group was to constantly look over the gathered data and give temporal interpretation comments from each perspective. Since members of this group were located across the Greater Tokyo Metropolitan Area, they constantly exchanged information through an online discussion board included in the iESM system. The observation group viewed the iESM site on a daily basis adding comments on significant data. They also discussed when and how they should modify the questionnaire sets given to the informants.

4. ILLUSTRATIONS

As an example of the raw data discussed by the observation group, here are some illustrations taken from the informants’ documentation.

4.1. Eating Alone

This type of subjective information could not be collected from a traditional paper questionnaire research. Although no conclusive analysis was provided, the observation group was able to discuss this aspect of consumption experience from a variety of angles. Fig.2 and Fig.3 are contrasting for the former depicts breakfast at western style café and the latter shows typical Japanese style dinner with fish and chopsticks. Fig.4 surprises us with the detailed text description reported in a single experience moment. Her written data input by cell phone using 12 small buttons include rich information on her time at the library. With the combination of digital image, the observers can vividly compare the quietness of library hall and the shamefaced informant.

4.2. Food consumption and Friendship

Compared to the previously introduced data where the informants were solitary, here we can see the lively relationship between informants and their friends. Food consumption occurs from ordinary classrooms to the baseball field, and foods (or snacks) seem to serve as bonds for deeper friendship. In most of these data, the images contained informants being surrounded by her friends. Notice how an informant expressively describes her sensation of fullness as “conquering Italy” with the delighted faces in Fig.7. For this party, Italian cuisine is illustrated as a target for ganging up and overcoming. Fig.7 may not include the actual scenes at the table, but it has been reported
shortly after the meal. Therefore the written text seems very explicit. Unlike many self-report diary analysis where the informant writes at the end of the day, this method is capable of collecting self report data that is less biased by time.

4.3. Spending time with boyfriend

Another interesting point that was determined through the research was that in the collected data, having traditional Japanese style dish with boyfriend was rarely observed. Many of the couples were observed having western style dishes such as fast food and pasta. They also did not seem to be spending time together at expensive restaurants, and prefer to go to reasonable priced places or eat at home. Informants’ facial expression varies, from the charming expression shown in Fig.9 to the worried gesture in Fig.10. These data gave the impression to the observers that many of the couples were spending quality time with their loved one.

From this category, one demerit of exploring consumption experience through this approach arises, for giving us a hint that not all situations are recordable as data. Some very intimate situations may have been omitted from being reported. Experience sampling method is weak in capturing “special” or “private” situations, because in such occasions the informants are too preoccupied in their activity.

4.4. Categorized by Action and Events (1) Studying and Eating

Students seem to have hard time listening to lectures and doing their home work, and light meals or snacks serve as a temporary escape from reality. When observing situations related to studying, many of the images showed informants sitting in front of PCs.
advertisement campaign linking web banners and product package design.

4.5. Categorized by Action and Events (2) Eating before, during, and after part-time job

Part-time jobs (called “arubaito” or “baito” in Japanese) take up a great deal of off-campus student time. Although three examples above are reported from different informants, by arraying them in chronicle order, one may find contextual significance. The informants tend to purchase their food at the convenience store when they can not afford time, such as before and after their part-time jobs.

4.6. Categorized by Action and Events (3) Eating while in transit

Since the informants were very skillful in using their cell phones, many of the recorded data captured food consumption during walking, waiting for trains, and even during traveling on train packed with full of people. This type of consumption phenomena, when the consumers are “moving”, could not be observed using the traditional qualitative research methods. Fig.20 shows a comical example of an informant’s embarrassed face while eating on crowded train.

4.7. Viewing Actual Product/Brand

In research using iESM, the questionnaire shown on the informant’s cellular phone is deliberately modified according to the propensity of collected data. The modification of questionnaire was decided through online consultation among observation group members. The research first started with no detailed instructions on what objects must be pictured in each digital image. As the research went on, one marketer complained that data would be worthless if actual product package or brand name can not be viewed. After this comment, the observation group decided to request informants to document the actual product if possible. This request led to collecting various brand figures such as Haagen-Dazs ice cream, Doritos, Diet Coke, Japanese-style cup cake, package of instant Chinese food, and others.

An interesting finding was ascertained when the observation group focused on scenes with a package of yogurt included in the picture, which is partly shown in Fig.21 to Fig.25.

In Japan, yogurt, usually packaged in a small cup or container and sold everywhere, is a symbol of “healthy food” among females. When we picked out the yogurt consumption scenes, we noticed that many of the data showed informant being alone. Perhaps one of the reasons for this is because yogurt is generally eaten as a part
of breakfast, and many of the informants live alone. From the series of images and text data shown on the previous page, the observation group interpreted that yogurt relieves dullness, and might be thought of as a “healing food” or a “comfort food”.

5. GENERAL DISCUSSION

Due to page limitation, only partial data and categorized outputs were introduced in this paper. These examples tend to focus on the external dimension of consumption experience. During the research, several trials were made to explore the internal dimension of experience. For example, the question “how would you express your emotion with single Kanji-Character (Kanji are ideograms, i.e. every character has a meaning and corresponds to a word)” and “what kind of background music would you prefer to add for the moment” were given to informants, resulting into an interesting analysis. The output of these analyses will be presented in future papers.

One marketer who was involved in the online interpreting discussion commented that “it feels very similar to conducting an in-depth interview, except that the target group is spending their ordinary life in their real environment.”

Although this system succeeds in gathering micro-ethnographical data of informants’ diverse consuming experience, both technological and methodological improvements are still needed for its development. To be more practical, the user interface of media devices must be improved. A quicker data transmitting process must be established for more effectively illustrating the natural consumption situation. Due to tremendous amount of both text and graphic data collection, data browsing application must be optimized. Obtaining cooperation from participants is a matter which needs to be seriously considered. To be honest, we were able to conduct this case research by convincing the informants that this was not only a research but also a part-time job for earning extra income (small payment was paid to the informants). A strategy to
motivate informants in sharing their daily life activity as digital data
must be considered.

In conclusion, this pilot study shows that the iESM can be used
to explore the consumers’ real-life experience. Unlike traditional
research methods with traditional research tools, this prototype
media system shows potential of recording consumers’ activities as
“data in progress” which leads to a better understanding of consumer
behavior. Research aided by iESM has three important qualities:
first, the usage of handheld wireless devise such as smartphone
enables researchers to collect data unrestrained to time and space;
next, the collection of image and text data captured in “real time”
generates totally new representations of the consumption
phenomena, and the researcher’s interpretative analysis is stimulated
by browsing, comparing and rearranging this data; third, interactivity
between observer and informants achieves an adaptive research
strategy where the questionnaire is intelligently modified according
to the significance of the gathered data.

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Technologies (2).


The Relationship between Internal Reference Price and Three Aspects of Dealing Patterns:
Frequency, Depth, and Depth Variation
Miyuri Shirai, Yokohama National University, Japan

ABSTRACT
This paper is an extension of Kalwani and Yim (1992) that includes depth-variation in addition to depth and frequency, as factors in dealing patterns that affect the internal reference price. It also investigates the interaction effects among the three factors. Depth-variation indicates whether deals over a certain period are conducted with constant or mixed depths. Results showed that the internal reference price was higher when consumers observed a mixed- rather than a constant-depth pattern. In addition, the depth effect appeared more pronounced when consumers observed a constant- rather than a mixed-depth pattern and when observing a high rather than a low frequency pattern.

INTRODUCTION

The importance of consumers’ internal reference price (IRP) in their purchase decisions has been recognized in a significant number of previous studies (for an early review, see Kalyanaram and Winer 1995). IRP is defined as a standard price stored in consumers’ memories and recalled to evaluate the validity or attractiveness of retail prices. The underlying premise is that consumers judge a retail price comparatively. That is, consumers perceive a retail price as cheap if it is lower than IRP and perceive it as expensive if it is higher. Thus, the higher the IRP, the better the price judgments consumers generate. IRP is not static and is updated as occasions demand since it is formed mainly on prices that individual consumers have observed previously. Accordingly, one series of research regarding IRP has been to investigate marketing tools that influenced it. As a result, some marketing tools have been found to affect IRP. IRP is influenced by advertised reference prices (e.g., Biswas and Blair 1991; Urbany et al. 1988), price discounts (e.g., Diamond and Campbell 1989; Kalwani and Yim 1992), and coupons (Folkes and Wheat 1995; Raghubir 1998).

Although many marketing tools that are capable of influencing IRP have been revealed, the effect of dealing patterns considered over multiple periods has not been fully investigated. Unless price discounts are offered infrequently or a product’s purchase interval is very long, it is important to investigate the effects of deals within a certain period, rather than at one time. Consumers’ tendency to rely on those memories increase in the opposite situation. So far, the only study that focuses on this type of promotion has been that of Kalwani and Yim (1992). They investigated the effect of frequency (1, 3, 5, and 7 discounts) and depth (10%, 20%, 30%, and 40%) of irregular dealing patterns set over 10 weeks. Their experimental results indicated that IRP decreased as the frequency and depth increased; however, the functional relationship between IRP and frequency was sigmoid, but concave for depth. This study, therefore, extends that of Kalwani and Yim by including an additional component to dealing patterns: depth-variation. Depth-variation indicates whether deals over time are conducted with constant depth (constant-depth pattern) or with varied depths (mixed-depth pattern). Given the fact that many products are generally offered with different discount depths over time, this aspect deserves attention and investigation of this effect is considered important.

Also, we hypothesize the interactive effects of these dealing components. The interactive relationship between frequency and depth was not found in Kalwani and Yim’s study. However, we argue that theoretically, it does exist. Similar to Kalwani and Yim, we focus on irregular dealing patterns (i.e., variation in the time between each deal). When regular patterns are offered, consumers can learn them much more easily than irregular ones. This implies that the effect on IRP is more obvious for regular patterns than for irregular patterns. Thus, it is more interesting to focus on irregular patterns whose effects are more uncertain. Besides, irregular patterns were more common, especially for convenience goods.

HYPOTHESES

Here, we consider three aspects of dealing patterns: depth-variation, depth, and frequency. However, as for the main effect, we only present a hypothesis on the effect of depth-variation on IRP. As explained earlier, the main effect of depth and frequency has already been confirmed by Kalwani and Yim (1992). We then present hypotheses about two-way interactive relationships among the three aspects.

Depth Variation

Here we compare two types of dealing patterns: a mixed-depth pattern and a constant-depth pattern. For simplicity, we consider the case where there are two discount depths in the mixed-depth pattern. We assume that the depth in the constant-depth pattern is equal to the average depths in the mixed-depth pattern; this assumption is necessary in order to compare the effect of the two patterns. We also assume that depths in the mixed-depth pattern do not differ largely from the depth in the constant-depth pattern. This treatment allows us to investigate a more pure effect of depth-variation by excluding the effect of depth difference.

If consumers have observed mixed discount prices over time, then IRP will depend on how they take those discount prices into account, i.e., on which discount depth they use as an anchor. The larger discount price might be more salient initially, but we argue that it will be treated more like a special deal and will be downplayed. That is, the larger discount depth will be segregated from normal promotional activities as special events and have less effect on the formation of IRP (similar to the Thaler’s (1985) silver lining principle). Therefore, the smaller discount price will have more weight as an anchor for IRP. For example, if depths of 30% and 40% were observed in the mixed-depth pattern, 30% will be the anchor. For consumers who have seen only one constant discount depth, 35%, the anchor should be constant depth. Since, IRP will be formed on the anchor, IRP is expected to be higher when a mixed-depth pattern was observed rather than a constant-depth pattern. Hence, we propose:

Hypothesis 1: IRP should be higher when the observed dealing pattern is a mixed-depth pattern as opposed to a constant-depth pattern.

Interactive Effects

We first consider the interaction between depth-variation and depth. We argue that the impact of depth varies depending on the depth-variation. In general, consumers can learn simple dealing patterns more easily as opposed to complex ones because the former

1Frequency refers to how often discounts are given in a certain period and depth indicates, in percentage terms, how deep discounts are.
can be described in terms of fewer symbols than the latter (Simon and Kotovsky 1963). Accordingly, we predict that the depth effect on IRP would be larger when consumers observed a constant-depth pattern rather than a mixed-depth pattern because the former is simpler than the latter and consumers are able to generate an extra symbol related to the depth. In other words, the difference in IRP between large and small-depth patterns should be larger for the constant-depth pattern than for the mixed. As demonstrated by Kalwani and Yim 1992, the larger the depth, the lower the IRP. Thus, we expect IRP should be lowest when consumers observed a large and constant-depth dealing pattern. Hence, we present:

Hypothesis 2: The effectiveness of depth will likely be more pronounced when the observed dealing pattern is a constant-depth pattern as opposed to a mixed-depth pattern.

We next consider the interaction between depth-variation and frequency. We argue that frequency should influence the effect of depth-variation on IRP. As consumers observe more deals they become more familiar with them and would better learn the pattern. Cacioppo and Petty (1979) showed that message repetition enhances the opportunity to process the content of information. Also, Simon and Kotovsky (1963) argued that the shorter the pattern, which implies a higher frequency, the easier it is to understand. Thus, the impact of depth-variation on IRP should become larger when a high number of deals are observed as opposed to low. As demonstrated by Kalwani and Yim (1992), the higher the frequency, the lower the IRP. And, as in Hypothesis 1, IRP is expected to be lower for a constant-depth pattern than a mixed. Thus, we predict that IRP will be lowest when consumers observe a high number of deals with a constant-depth pattern. Thus,

Hypothesis 3: The effectiveness of depth-variation will likely be more pronounced when the observed dealing pattern is a high-frequency pattern as opposed to a low-frequency pattern.

We considered the interaction between depth and frequency. This effect was not revealed in Kalwani and Yim (1992). However, we argue that the depth effect should depend on the deal frequency. As discussed in Hypothesis 3, a high frequency of deals enables consumers to better learn about the dealing pattern. Thus, the depth effect should become larger when consumers observed a high rather than a low number of deals. Since IRP decreases as the depth and frequency increases (Kalwani and Yim 1992), we expect that IRP becomes lowest when consumers observed a high number of deals with a large-depth pattern. Therefore,

Hypothesis 4: The effectiveness of depth will likely be more pronounced when the observed dealing pattern is a high-frequency pattern as opposed to a low-frequency pattern.

**METHOD**

**Study Design**

This study was a controlled experiment designed to test our hypotheses. We created a hypothetical shampoo brand, Brand X. The study manipulated the three components of a dealing pattern for Brand X set over 18 weeks and involved 2 (depth-variation) x 2 (depth) x 2 (frequency) full factorial between-subjects design. The two levels of depth-variation were a mixed-depth pattern (two different depths) and a constant-depth pattern (one depth), the two levels of depth were a large pattern (35%) and a small pattern (15%), and the two levels of frequency were a low pattern (two times) and a high pattern (six times). Levels of depth-variation and depth were related so that when the depth-variation was mixed, the two depths were 10% and 20% for the small-depth condition and 30% and 40% for the large. The order of these two discount depths was randomized.

Each subject was randomly assigned to one of the eight treatment conditions. The regular price and container size of Brand X were determined to be consistent with actual levels in the shampoo market, with an average level of JY798 (=US$6.65) and 550ml chosen respectively. Deals were presented as “___ % OFF” in red text.

**Sample and Procedure**

Three hundred and forty three undergraduate students participated in a classroom setting. All the experimental materials were contained in a booklet distributed to each subject. The first page of the booklet provided a general description of the study. It noted that the study concerned supermarket prices and that participants would be exposed to the price of a hypothetical brand of shampoo, Brand X, for 18 consecutive weeks, starting from the following pages. Then they were encouraged to treat the observed prices as if they actually observed them in the store and to deliberate as much as they normally would in a retail store. Finally, a description of Brand X was provided. From the next page of the booklet, the subjects observed each week’s retail price and promotional information (if any) over 18 consecutive weeks. These prices were presented on a separate page for each week, and they were not allowed to go back to the previous pages once they had turned the next page. The final page of the booklet contained questions that measured IRP, their purchase experience for shampoo, brand loyalty, perceived price-expensiveness of the shampoo category, frequency of use a week, and demographics. Subjects turned the pages and answered the required questions at their own pace.

**Dependent Variable**

IRP was operationalized as expected price. Expected price was demonstrated to be one of the common IRPs that consumers used across many products (Shirai 2003). It was assessed by asking subjects to answer the following open-ended question: “Based on the prices you have seen, what do you expect the price of Brand X to be this week?”

**RESULTS**

**Manipulation Checks**

Perception of depth and frequency were evaluated in order to check whether the respective manipulation was successful or not. Both measures were evaluated on a 5-point scale from (1) Very much to (5) Not at all from the following question: “Do you think that the discount depths offered are large?” for the depth and “Do you think that the number of offered deals are high?” for the frequency. T test indicated that perceived depth differed significantly between large and small depth conditions ($T=9.9, p<.0001$). The means score was 2.3 for the large depth condition and 3.4 for the small. Also, T test indicated that perceived frequency differed significantly between high and low frequency conditions ($T=12.2, p<.0001$). The mean score was 1.2 for the high frequency condition and 2.8 for the low. Thus, the manipulation we employed was considered to have worked effectively.

**Analysis**

We conducted ANOVA to test the hypotheses. The first hypothesis predicted that the IRP would be higher for a mixed-depth pattern than a constant-depth pattern. A significant effect was revealed ($F (1, 333)=3.9, p<.05$). The mean value for the constant-
depth pattern was JY 750.8 and for the mixed-depth pattern JY 768. Therefore, Hypothesis 1 is supported. Here, we additionally note that the main effect of depth and frequency were also revealed \((F(1,333)=17.9, p<.0001\) for depth and \(F(1,333)=12.3, p<.001\) for frequency), consistent with Kalwani and Yim (1992). The mean value for the large-depth pattern was JY 741, for the small-depth pattern was JY 777.8, for the high-frequency pattern was JY 744.1, and for the low-frequency pattern was JY 774.7. The depth generated the largest impact, frequency the second, and depth-variation the third.

Hypothesis 2 stated that depth-variation and depth interactively affected IRP. ANOVA showed that the effect was significant \((F(1,333)=6.9, p<.01)\). Figure 1 shows the mean IRP for the different conditions. As predicted, the difference between a small-depth pattern and a large one was larger for a constant-depth pattern than for a mixed-depth pattern. Also, IRP was lowest when the dealing pattern was a large and constant depth. Hence, Hypothesis 2 is supported.

Hypothesis 3 predicted that there was a significant interaction effect between depth-variation and frequency. The ANOVA showed the effect in the predicted direction, but it was not significant \((F(1,333)=1.5, n.s.)\). Hypothesis 3 is not supported.

As predicted in Hypothesis 4, there was a significant interaction effect between depth and frequency on IRP \((F(1,333)=4.7, p<.05)\). Figure 2 shows the mean IRP for different conditions. As predicted, the difference between small and large-depth patterns...
was larger for a high-frequency pattern than a low. Also, IRP was lowest when the dealing pattern was a large-depth pattern with a high frequency of deals.

**DISCUSSION**

This paper investigates the impact of dealing patterns on consumers’ IRP. It essentially expands Kalwani and Yim’s (1992) study that showed the effect of depth and frequency on IRP. In addition to depth and frequency, we focused on another important component of dealing patterns, depth-variation and the interaction effects among the three components as well. Depth-variation refers to whether deals over that time are conducted with a constant depth (constant-depth pattern) or with varied depths (mixed-depth pattern).

Through a laboratory experiment, we found the effect of depth-variation was that IRP was higher when consumers observed a mixed-depth pattern rather than a constant one. Thus, when deals were planned to offer several discount depths with equal frequency over time, consumers had a tendency to use a smaller depth, rather than a larger as an anchor for forming IRP. However, the impact of depth-variation was not as large as depth or frequency. Next, we found two interaction effects (depth-variation vs. depth, depth vs. frequency). The effectiveness of depth was more pronounced when consumers observed the constant-depth pattern than the mixed-depth pattern. Also, the effectiveness of depth was more pronounced when consumers observed a high frequency of deals than low.

Several implications can be derived from these results. First, several depths should be used in dealing patterns if keeping IRP at a higher level is a major concern. Second, the effect of depth becomes more important when planning to offer a constant depth pattern. Third, the effect of depth becomes more important when planning to offer a higher number of deals. Overall, manufacturers and retailers are likely to obtain better responses from consumers when deals are considered over time and when frequency, depth, and depth-variation are considered at the same time.

There are several limitations in this study. First, the study design does not replicate the real world; it has been suggested we employ field survey methodology in future studies. Second, the study did not use actual brands; the use of an actual brand name should lead to further understanding of consumer responses to deals. Third, the study used only student subjects and needed to conduct the same analysis using other population groups. Finally, only one product, shampoo, was examined here and it will be necessary to target more product classes to better generalize the findings.

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The Role of Switching Costs in Technology Commitment: The Case of High Technology Market

Jung Suk Hyun, Cheju National University, Korea
Jae H. Pae, Hong Kong Polytechnic University, Hong Kong

ABSTRACT

Reduced regulation, increased price competition, and diminished consumer loyalty have propelled customer retention and customer relationship management (CRM) to the forefront of marketing concerns. The role of switching costs in customer retention has been posited, but has not been subjected to rigorous empirical testing. Therefore, our main focus is on the factors that influence whether consumers will switch to alternative technologies or stay with an incumbent technology. Based on consumer survey data, we find empirical support for the link between technology compatibility strategies and consumer’s expertise in technology and commitment to a particular technology. Specifically, switching costs are found to be positively associated with technology commitment. Further, the lack of expertise on the part of consumers tends to increase the likelihood that they will rely on an existing technology, rather than switch to a new one.

In the fast-changing and competitive technology market, every firm tries to provide the most advanced version of whatever product they offer. In the computer software market in particular, companies regularly update and upgrade their products in order to encourage a commitment to the technology—the repeated purchase or continuous use of a particular type of technology—on the part of current users, as well as to entice new users. Alternative, the complexity that consumers face when making decisions about which technology to use stems to a large degree from the rapid pace at which technology has advanced and the variety of technology alternatives (Bourgeois and Eisenhardt, 1988; Ryuter et al., 2001; Tushman and Anderson, 1986).

Among the many factors that encourage commitment to a particular technology, one that has received scholarly attention in other contexts is switching costs. ‘Switching costs’ are the psychological, physical, and economic costs that consumers face in switching between technologies (Jackson, 1985). As competition intensifies and the costs of attracting new customers increase, companies are increasingly focusing their strategic efforts on retaining customers (Jones et al., 2000). Obviously, a key component in any customer retention program is satisfaction (e.g., Cronin and Taylor, 1992). However, satisfaction need not be the only strategy (Fornell, 1992). Barriers to customer defection, such as the development of strong interpersonal relationships or the imposition of switching costs, represent additional retention strategies. Despite their potential importance in the retention process, the role of switching costs has received relatively little attention in the field of marketing (Anderson, 1994; Jones et al., 2000, 2002).

The encouraging a commitment to the incumbent technology plays a role in customer retention has been posited (Ryuter et al., 2001), but has not been subjected to rigorous empirical testing. Therefore, our main focus is on the factors that influence whether consumers will switch to alternative technologies or stay with an incumbent technology. Specifically, we attempt to demonstrate the importance of switching costs in the success that corporate technology advancement strategies (such as the promotion of a compatible complementary technology and the pace of technological change) have had in securing commitment to a particular type of technology. We argue, however, that the success of these seemingly disparate strategies actually depends to a significant degree on the same underlying factor, i.e., switching costs. Further, uncertainty caused by the consumer’s lack of expertise also can play a major role in the decision to commitment to a technology. In the process, we hope to provide an integrative framework for understanding at least some of the mechanisms by which technology advancement strategies and the consumer’s technology expertise of the consumer affect technology commitment decisions.

CONCEPTUAL MODEL AND RESEARCH HYPOTHESES

Compatibility of Complementary Technologies

Many of the products are used not in isolation but integrated with one or more complementary products. The value of products and services depends on the number or variety of compatible complementary goods or services (Katz and Shapiro, 1985). For instance, CD players are used with CDs, video game consoles with video games, and computer operating systems with software programs. All of these have one thing in common, namely coexistence: they need each other. Consumers are more likely to purchase items that are either compatible with their existing equipment or likely to be compatible with future products in the same category. When consumers purchase products in the form of components that must be put together, technological compatibility between components becomes a factor in the evaluation of the end product (Kotabe et al., 1996).

Alternatively, compatibility of technology is associated with the cost to the consumer of switching technologies. Complementary goods provide system benefits: the added value to users of the full system. The incremental benefits provided by the whole can be greater than the sum of the benefits of the individual components. System benefits usually increase switching costs (Jackson, 1985; Shapiro and Varian, 1999). Therefore, system benefits and the increased cost of switching between whole systems are effective in keeping consumers committed to the technologies they are currently using. To the extent that the existing-version adopter continues to derive a satisfactory consumption value from the entire system and to the extent that the consumer’s systemwide investment (in complementary products, interfaces, and learning) is neither transferable to the new version nor recoverable from the disposal of the existing version, the consumer will be even more reluctant to switch (Dhebar, 1996). Therefore,

H1: The existence of compatible complementary products will be positively associated with the costs of switching from an incumbent technology.

Pace of Technological Change

High-technology environments are of particular interest to practitioners and scholars alike because their higher rates of change result in greater technological heterogeneity, and because of the implications of increasing uncertainty (Glazer, 1991). In light of the

1Acknowledgement: This research was partially supported by The Hong Kong Polytechnic University Research Fund.
fast-changing and competitive high-technology markets, a particular type of technology would become obsolete very quickly, with implications for marketing strategies and for the evaluation of vendor performance across time or using criteria sensitive to changes in technology (Smith et al., 1999).

The pace of technological change is defined as the rate at which the focal technology and its features are changing (Weiss and Heide, 1993). In recent times, the time interval between successive generations of high technology products has been very short. An extreme example of this is the computer software industry, where firms introduce a series of upgrades at a rapid pace. A prominent case in this sector is Microsoft Corporation which introduces upgrades for its operating system Windows approximately once every two years.

As suggested by Sutton, Eisenhardt, and Jucker (1986), rapid changes in technology make it difficult for buyers to evaluate acquired information in terms of the significance of new technology offerings. This, in turn, gives consumers an incentive to stay with the incumbent technology, even after having collected information about new ones. This prediction is also supported by studies showing that rapid change represents uncertainty because of the time sensitivity of information (Bourgeois and Eisenhardt, 1988). Under such conditions, information gathered at a particular point in time may not remain relevant for long: thus making a decision to buy a new and relatively unknown technology introduces the risk of obsolescence (Eisenhardt, 1989). Consumers are reluctant to switch not because they do not value the improvement, but because early in the life of the existing version, the benefits from switching are not commensurate with the costs of switching (Dhebar, 1996). Hence,

$H2$: The more rapid consumers perceive the pace of technological change to be, the higher their switching costs.

Expertise in Technology

Expertise in a product (or a technology) allows consumers to make better decisions and evaluate options quickly (Alba and Hutchinson, 1987). Consumers gain expertise when they increase their product-related experiences (Burnham, et al., 2003; Park, et al., 1994). As compared to novices, experts are better able to recognize the complexities in a problem and to process information analytically. In a decision to purchase, experts recognize important product attributes, operate from better-established decision criteria, and thus are more capable of making decisions independently. Consumers with more prior knowledge will analyze attributes of quality, beliefs, and judgments about products more quickly than those with less prior knowledge when quality cues are not unexpected (Heiman et al., 2001; Sujan, 1985).

Prior research has examined search efficiency as one of the predictors of consumer search levels (e.g., Brucks, 1985; Ratchford and Srinivasan, 1993). Two important factors influencing search efficiency include a consumer’s knowledge and/or experience about the market and exposure to relevant information during the search process (Ratchford and Srinivasan, 1993). A greater degree of market knowledge and exposure to relevant information will enable the consumer to examine only the appropriate relevant sources of search (and ignore the irrelevant sources), thereby enhancing the efficiency of the search. Search efficiency also makes it easier for the consumer to acquire and process new information (Brucks, 1985).

Therefore, experts will need to expend less effort in learning new technologies, enabling them to adapt new ones more efficiently. As they need less effort to search for information and to assess alternatives, the costs of switching will decline (Kerin et al., 1992). Thus compared to novices, expert consumers find it much easier to search for information, evaluate it, and learn an alternative technology. With this regard, expert consumers will be less reluctant than novices to adopt an alternative technology.

$H3$: Technology expertise will be associated with lower switching costs.

Consequence of Switching Costs: Behavioral Intentions

Switching costs refer to costs expressed as the time, efforts, and financial risk involved in switching from a particular type of technology. Pre-switching search and evaluation costs represent consumer perceptions of the time and effort involved in seeking out information about available alternatives and in evaluating their viability prior to switching (Zeithaml, 1981). Learning also occurs after switching, as consumers adjust to a new alternative. Consumer perceptions of the time and effort needed to acquire and adapt to these new procedures and routines are referred to as post-switching behavioral and cognitive costs. All else being equal, the higher perceived costs of switching should reduce the likelihood that consumers will switch service providers (Anderson, 1994; Jones et al., 2002). Switching costs may be a significant impediment to the adoption of a new technology, acting as a barrier to new entrants by making consumers favor incumbent technologies (Porter, 1980).

High-technology markets are characterized by a high level of uncertainty. Rapidly changing technologies and the absence of relevant information are the main sources of this uncertainty (Heide and Weiss, 1995). This means that the costs and risks involved in switching from a technology will influence the choice behavior of consumers. Therefore, switching costs create dependence and inertia; new technology keeps getting more costly for new consumers, at least in terms of the time required to master it. Consumers’ anticipation of high switching costs gives rise to their interests in maintaining a continuous relationship and commitment to incumbent technologies (Dwyer et al., 1987).

Consumers who develop nontransferable product-specific skills may be unwilling to learn how to use a new product (Alba and Hutchinson, 1987). The effect grows with time, and consumers are forced to commit to incumbent technologies as the costs of switching continue to increase (Kotabe et al., 1996). Further, commitment has been conceptualized in terms of a temporal dimension, focusing on the fact that commitment becomes meaningful only when it develops consistency over time (Moorman et al., 1992). As a result of continuity, consumer turnover may be reduced and a relationship can be maintained (Ganesan, 1995).

$H4$: The costs of switching technologies will encourage commitment to the incumbent technology.

RESEARCH DESIGN

Product

For this study, we chose a personal computer operating system (e.g., MS Windows) as a key product. This is mostly used by individuals and small business. First of all, the personal computer operating system is a well-known and crucial product for computer users. Second, in the network market, a personal computer operating system requires compatibility with other applications software. Third, an operating system can be upgraded, and indeed companies regularly offer upgraded versions. Finally, changing from one operating system to another imposes switching costs.

Questionnaire Development and Data Collection

Measures for the variables were either developed specifically for this study or adapted from prior ones. In cases in which the
measure was developed for this study, the domain of the relevant construct was first specified and the items subsequently developed on the basis of the conceptual definition. The items were then modified on the basis of field interviews, reviews of literature, and discussions with industry observers. The measures were subsequently pre-tested and modified again, if necessary. In cases in which the scale was adapted from prior studies, the wording of the original items was changed so as to make sense to respondents in the present context. Additional, we refined the measure scales throughout the purification procedures. Table 1 shows the items used in this study.

The finalized questionnaire was mailed to 730 computer users in metropolitan areas in Korea. Each individual respondent was contacted in advance by phone to request his/her cooperation; in order to increase the response rate, follow-up calls were made and the participants were reassured that all responses would be kept confidential and that only the aggregate results would be presented. Of the 730 questionnaires distributed, 476 were finally returned with usable data, providing for a 65.2 percent response rate. Among the 476 respondents, 413 (86.8%) were MS Windows users, 44 (9.2%) were Mac OS users, and the remaining 19 (4.0%) were LINUX users. Of the 476 respondents, 356 (74.8%) indicated that they had used a computer for at least three years. All items were answered through a seven-point Likert-type scale ranging from “Strongly Disagree” to “Strongly Agree.”

Nonresponse bias was examined by comparing early with late respondents as suggested by Armstrong and Overton (1977). We defined the early-respondent group as the first 60% of the total respondents that returned the questionnaire earlier than the remaining 40% (late-respondent group). We then compared these two groups based on age, sex, and years of computer used. We performed another comparison between the first 75% early respondents and the remaining 25% late respondents on the same variables. No significant differences between the two groups on these variables were found, suggesting that nonresponse bias was not a major problem.

RESULTS

Measurement Model Results

Consistent with the two-step approach advocated by Anderson and Gerbing (1988), we estimated a measurement model prior to examining the structural model relationships. We used LISREL 8.14 (Jöreskog and Sörbom, 1998) with covariances as the input to estimate the model. The goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI), and the comparative fit index (CFI) values were .92, .89, and .91, respectively, which means that the measurement model fits the data well (Kelley et al., 1996). The parsimony normed fit index (PNFI) value was .73 (minimum acceptance is .60) and the root mean square error of approximation

| TABLE 1 |
| Items and Internal Consistency |

| Items |
| If you are a current user of MS Windows, please answer the questions below. |
| Commitment to a Technology (Coeff. $\alpha=.70$; Comp. Reliability=.70) |
| - I will keep using MS Windows. |
| - If possible, I won’t use MS Windows in the future. (Reverse Coded) |
| - In case both of Microsoft and other firms will produce new products, I will use the new MS Windows. |
| Switching Costs (Coeff. $\alpha=.73$; Comp. Reliability=.73) |
| - It will take time and effort to become comfortable with other O/S systems. |
| - I will have to buy new software/computer to use other O/S systems. |
| - It is complicated for me to use other O/S systems. |
| Compatibility of Complementary Technology (Coeff. $\alpha=.85$; Comp. Reliability=.85) |
| - Various applications software such as spreadsheets, graphics and word processing can currently be used on MS Windows. |
| - There are various hardware peripherals such as soundcards that are compatible with MS Windows. |
| - Various applications software such as spreadsheets, graphics and word processing will be used on the new MS Windows, which will be on the market in the future. |
| - Various hardware peripherals such as soundcards and other components are compatible with the new MS Windows, which will be on the market in the future. |
| Pace of Technological Change (Coeff. $\alpha=.60$; Comp. Reliability=.62) |
| - A three-item, seven-point scale, anchored by No changes taking place and Frequent changes taking place. |
| - Nature of computer technology overall. |
| - Nature of computer operating systems. |
| - Nature of computer application software. |
| Expertise in Technology (Coeff. $\alpha=.85$; Comp. Reliability=.86) |
| - I know many functions of “MS Windows.” |
| - I can work quickly on “MS Windows.” |
| - I can solve computer problems on my own without any service from manufacturers. |
| - I usually advise people on computer-related problems. |
The Role of Switching Costs in Technology Commitment: The Case of High Technology Market

Composite reliability and coefficient alpha provide evidence of internal consistency. Composite reliability is a LISREL-generated estimate of internal consistency analogous to coefficient alpha (Fornell and Larcker, 1981). As Table 1 shows, these two estimates ranged from .60 to .86. To investigate the convergent validity of the scales, we performed a confirmatory factor analysis using Maximum Likelihood (ML) estimation in LISREL 8.14. We have found that all factor loadings from latent constructs to their corresponding measurement items are statistically significant (i.e., $t > 2.0$; minimum $t$-value of the factor loadings is 8.54).

**Structural Equation Model Results**

The first hypothesis posits that compatibility with complementary technology is associated with the costs of switching from an incumbent technology (H1). According to Figure 1, the positive relationship between compatibility with complementary technology and switching costs proves to be robust based on the corresponding coefficients ($\beta = .35; p < .01$). The existence of a variety of compatible complementary products that use existing technology will encourage consumers to maintain their preference for the incumbent technology due to the costs of switching.

H2 is concerned with the impact of the pace of technological change on technology commitment decisions of consumers via switching costs. Specifically, we posit that the pace of technological change will be associated with the costs of switching. Even though the paths show a positive impact, the relationship is not significant ($\beta = .03; n.s.$).

H3 posits that a consumer’s expertise in technology has a negative impact on switching costs. The hypothesis is supported based on corresponding coefficients ($\beta = -.20; p < .01$): if consumers are novices on technology, they tend to rely more on existing technology because of the costs of switching. Last, we have attempted to establish the association between switching costs and its consequence, i.e., commitment to a particular technology. The hypothesis posits that switching costs encourage consumers to stay committed to a particular type of technology (H4). As we have noted in Figure 1, switching costs secure technology commitments ($\beta = .34; p < .01$).

**DISCUSSION AND CONCLUSION**

When consumers have built up large technology-specific switching costs, they tend to commit to incumbent technologies and put less effort into their searches and decision processes. The knowledge that the adoption of new technology is likely to involve nontrivial levels of switching costs creates a disincentive for consumers to search outside the established portfolio and may result in constrained search processes (Jackson, 1985; Shapiro and Varian, 1999).

As switching costs act as an entry barrier against new entrants to the market (Porter, 1980), and these invisible barriers are voluntarily established by consumers, incumbent technologies can easily maintain (or increase) their market shares. As a consequence of their constrained searches, consumers with strong relationships with certain technologies may perceive less change to have taken place in the market than has actually occurred; this in turn lowers their incentives to engage in market searches. The presence of high switching costs therefore tends to buffer consumers from informa-
tion about competing technologies and to show continuous commitment to incumbent technologies.

Unfortunately for new entrants into high-technology markets, the results of this study support the conclusion that where a dominant technology emerges, switching costs may make its position unassailable unless there is a fundamental shift in the technology paradigm. The costs to the consumer of switching from one standard to another can be considerable, not only in terms of having to purchase new software, but also in terms of the difficulty of properly exploiting the new package. Thus, for example, a consumer who switches to a technically superior but unpopular spreadsheet that has a different command set and macro programming language will find it harder, and therefore more costly, to get complementary products. This is because producers of complementary products are likely to concentrate on the more lucrative standard market.

From a managerial perspective, the results of this study raise some issues that have implications for marketing practice. We want to emphasize, however, that these implications should be viewed with some caution because of the descriptive nature of the study and the fact that the results, at this point in time, are based only on a single study. Under this general caveat, the results have implications for the technology advancement strategies both of new entrants to a market and of incumbents. First, compatibility is associated with the costs involved in switching away from incumbent technologies, because of an abundant or varied supply of complementary goods. Firms may influence perceptions of replaceability and the costs of switching not only by producing compatible technology but also by developing specific relationship routines and procedures and “technology-specific learning” (Heide and Weiss, 1995). Therefore, these mechanisms are worth studying in some detail, since they may have very different implications for the strategic behavior of firms involved in the industry. A strategy of advancing compatible technology may be successful in pursuing existing consumers to remain committed to a technology.

As the economy becomes more interconnected, issues of compatibility become more important in industries such as computers, telecommunications, and consumer electronics. The last decade has witnessed a shift from a focus on the value created by a single firm and product to an examination of the value created by networks of firms whose assets are commingled with those of external entities. Thus, managers seeking to expand the strategic reach of a company should quickly address the networks associated with the product. For example, the diffusion of high-definition television has largely depended on the complements network, allowing the television to not only broadcast programming as is commonly cited, but also other forms of digital input, such as those from DVD players (Heller, 2001). The creation of complementary resources (for instance, the greater availability of films in a VHS than in a Beta format) played a crucial role in boosting JVC’s VHS system, which in the end almost completely displaced Sony’s Betamax.

In our hypotheses, we assumed that the pace of technological change might be positively associated with switching costs. This is because the investments of consumers become obsolete under conditions of rapid technological change (Rosenberg, 1982). With technology-specific training, learning tends to grow with time, as consumers become more and more familiar with the existing technology. However, there may also be an effect of declining switching costs. With rapid sequential introductions of a product, consumers tend to get the impression that the improvements are marginal over time and that utility of improved versions will be quickly depreciated by sequential technological progress (Jackson, 1985; Shapiro and Varian, 1999). As MS Windows (a computer operating system) had already been upgraded many times (Windows 1.x, Windows 2.x, Windows 3.x, Windows 95, Windows 98, and Windows 2000), no significant relationship between the pace of technological change and switching costs can be observed.

Interestingly, the results we obtained for technology expertise should serve as a causality tale about the costs of switching in terms of highlighting the conditions under which a consumer’s commitment is likely to be high. Specifically, it is important for producers of incumbent technologies to be aware that the more expert a consumer has in technology the more likely he/she will be switch to a new technology, rather than rely on an existing one. Our findings can be used in guiding the marketing efforts of manufacturers. For example, as evidenced by the result, potential manufacturers of new technology should target expert consumers, because these consumers are more likely to switch to new technologies if they provide better functions.

This article is limited in the following ways. First of all, it suffers from the limitations of all cross-sectional design studies that attempt to observe an inherently dynamic phenomenon, such as technology commitment decisions in high-technology markets. One way of overcoming this limitation is by conducting a longitudinal study, in which consumer decision processes can be followed over time. Further, in the case of the early adoption of a technology (such as the PC vs. the Mac and VHS vs. Beta), the issue of momentum may be involved; once opinion leaders had decided on the PC or VHS in the early stages of the technology, most of the rest of the market followed along, and Mac and Beta were beaten. Once consumers are committed to a technology, then, all else being equal, switching out involves high costs. To recapitulate, there are difficulties with the cross-sectional data used in the current study. This study was conducted only in one country (Korea). In this regard, it can be also worthwhile to run this study in the rest of the world. We will leave these issues as a spur for further research.

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The Role of Innate Consumer Innovativeness in New Product and Service Adoption Behavior: A Longitudinal Reexamination and Empirical Extension

Subin Im, San Francisco State University, U.S.A.
Charlotte H. Mason, University of North Carolina, U.S.A.
Mark B. Houston, University of Missouri-Columbia, U.S.A.

ABSTRACT

Consumer innovativeness research has focused on examining variables useful for identifying innovators due to their significant roles in the diffusion and adoption of new products. Despite continuous efforts, empirical studies have provided mixed support on the relationship between innovative predispositions (called innate consumer innovativeness) and innovative adoption behavior. In order to explain the inconsistent support for the relationship, this study explores the following gaps: (1) are innovative predispositions and behaviors and their relationship persistent over time, (2) do vicarious innovativeness (i.e., communication factors such as advertising, word-of-mouth, and modeling) mediate this relationship, and (3) can we generalize the findings by extending the research into services? We used both longitudinal data (N=296) and cross-sectional data (N=147) from a panel of consumers to provide empirical evidence on these questions. Our study finds that innovative predisposition and adoption behavior did persist over time, while there exists no cross-leg effect between them. We indeed find mediating effects of vicarious innovativeness and the support of generalizability of our findings in services. One interesting finding is that personal communications (word-of-mouth and modeling) played a consistently strong mediating role in explaining the relationship between innovative predispositions and adoption behavior, while impersonal communications (advertising) did not.

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Dickerson, Mary Dee and James W. Gentry (1983), Cialdini, Robert (2001), “Behavior, while impersonal communications (advertising) did not.


Personality and Personal Values in Travel Destination Preference
Lynn R. Kahle, University of Oregon, U.S.A.
Yukiko Matsuura, University of Oregon, U.S.A.
Jeffrey Stinson, University of Oregon, U.S.A.

ABSTRACT
The roles of personality traits and personal values in relation to travel destination preferences were investigated. It was hypothesized that extraverted and internally-oriented people would prefer adventurous travel destinations, and that neurotic and externally-oriented people would prefer busy/crowded destinations. Participants (147 students) completed the Mini-Modular Markers (a short form of the Big Five) and the List of Values and the travel destination preference inventory. The results supported the idea that both personality traits and personal values could be good predictors of travel destination preferences. The results of a linear regression analysis did support the idea that hypothesized personality traits and personal values could be good predictors of travel destination preferences. As for personality traits, first, as hypothesized, extraversion predicted adventurous tourist sites, that is, people who were rated as high on the extraversion trait were more interested in visiting adventurous tourist sites. In the variable of the Mini-Modular Markers, assertive, playful and sociable traits are the characteristics of extraverted people. They are active, energetic and bold, so they would seek more exotic and unknown places and sites where they can explore, walk around, and go camping. High scores on neuroticism predicted busy/crowded tourist sites. People who were rated as high on neuroticism were more interested in visiting busy/crowded tourist sites. Emotional instability, such as anxious, fearful, fretful and nervous feelings, was characteristic of neurotic people. People who have such feelings may be dependent, and they do not want to try something for the first time, so they would prefer the tourist sites where a lot of people have already visited, that is, big urban cities.

Regarding values, the result showed that internally-oriented people tended to prefer adventurous tourist sites. People who are high on internally motivated values were more interested in visiting adventurous tourist sites. Excitement and fun and enjoyment in life were characteristics of internally motivated values. Internally-oriented people consider stimulation and thrills important. This outlook may influence the result that internally-oriented people preferred the adventurous tourist sites. Externally motivated values predicted visiting busy/crowded tourist sites. People who were rated as high on externally motivated values were more interested in visiting busy/crowded tourist sites. Externally-oriented people consider security and recognition important. Usually, busy and crowded attributes of sites are a gauge of their popularity. If a tourist site is dangerous, people will not visit there. This difference may be the reason why externally-oriented people preferred busy/crowded tourist sites.

The relation between the traits and values, and the applicability of individual traits and values in tourism were discussed.

REFERENCES
Satisfaction Processes: Antecedents and Consequences of Differential Judgment Input
Yong-Soon Kang, Binghamton University–SUNY, U.S.A.
Subimal Chatterjee, Binghamton University–SUNY, U.S.A.

EXTENDED ABSTRACT

Literature suggests that there are multiple processes through which consumers may reach a satisfaction judgment (e.g., Fournier and Mick 1999), each process differing on the input or basis used by the consumers to arrive at their judgments. For example, the leading satisfaction theory, the expectancy-confirmation paradigm, supposes that consumers use a set of performance expectations as a standard to evaluate the actual product performance, and the difference between expectations and actual performance determines their satisfaction judgment (Oliver 1996). However, a review of the vast and growing satisfaction literature identifies at least seven other distinctly different inputs that consumers often use in making satisfaction judgments. They are (1) aspirations or desires (i.e., product fulfills some wish; e.g., Spreng, MacKenzie, and Olshavsky 1996; Wirtz and Mattila 2001), (2) category norms (i.e., product performs as expected of the category; e.g., Cadotte, Woodruff, and Jenkins 1987; Woodruff, Cadotte, and Jenkins 1983), (3) fairness or equity (i.e., product is a good deal; e.g., Oliver and Swan 1989), (4) alternative outcomes (i.e., product compares well with other alternatives; e.g., Droge, Halstead, and MacKoy 1997; Ping 1994), (5) post-purchase emergent criteria (i.e., product provides an unexpected benefit; e.g., Fournier and Mick 1999), (6) quality (i.e., product provides good quality; e.g., Churchill and Suprenant 1982; Tse and Wilson 1988; Oliver 1980), and (7) emotions (i.e., product provides good feelings; e.g., Oliver 1989; Westbrook 1987).

Our research looks at three issues. First, we examine the potential structure or relationship among the eight satisfaction inputs. For example, are expectations substantially different from category norms or are both manifestations of an underlying latent dimension? Similarly, to what extent are consumers using emotions as a judgment input likely to use aspirations-based inputs as well? Second, what are the factors (individual, situational or product) that determine the use of different judgment inputs? For example, are knowledgeable and experienced consumers more likely to follow the expectation-confirmation process (thereby using expectations as input) than others? Finally, and third, what are the differential consequences of the different judgment inputs? For example, does satisfaction based on emotional inputs lead to stronger repurchase intentions, compared to the same-level of satisfaction based on, say, fairness considerations? We believe that answers to these questions can be interesting and useful to both researchers and practitioners.

We conducted a critical-incidence survey. Respondents recalled a recent purchase and consumption experience; a random half recalled a satisfactory experience and the other half dissatisfactory. We identified the respondent’s key judgment input using an open-ended question (i.e., please tell us why you were satisfied or dissatisfied with your last purchase), as well as by using rating tasks. The ratings tasks explicitly asked respondents to agree or disagree (on seven-point scales) to statements that explicitly asked whether the respondent had used a specific input to form their satisfaction evaluation. For example, to test for the emotion criteria, respondents were asked to agree or disagree with the following statement: I am dissatisfied mainly because the emotions that I felt while using the product/service were not good. In addition, the instrument included questions about the purchase itself, levels of satisfaction or dissatisfaction, respondent’s product experience, learning, purchase behavior, product perceptions, self-confidence, and demographics.

We completed 425 interviews. Our respondents came from the northeastern region of the USA, but they were diverse and balanced in age and gender due to quota sampling. The products and services in their reports included electronics (28%), household products (17%), apparel (12%), automotive (10%), entertainment (6%), and telecommunications (5%).

The results provide us with three critical insights. First, a multidimensional scale mapping of the judgment input data (i.e., respondent’s ratings of the judgment inputs) indicates that the eight inputs can be grouped into four classes: (1) expectations, category norms, and quality perception; (2) emotions and aspirations; (3) alternative outcome and sense of fairness/equity; and (4) post-purchase emergent criteria. For instance, when respondents reported that they used post-purchase emergent criteria as the key input, they were very unlikely to use, simultaneously, alternative outcome as the judgment input. On the other hand, those who reportedly used their expectations as their judgment inputs also used category norms as well. An additional exploratory factor analysis replicated the same results.

Second, our results revealed different antecedents for the different satisfaction inputs. For example, the use of emergent criteria in satisfaction or dissatisfaction judgment was negatively correlated with the pre-purchase product-class experience. The likelihood of using emergent criteria was higher among those who answered the dissatisfaction version of the survey as opposed to the satisfaction survey. Similarly, the use of equity/fairness input and alternative outcome input was more likely when the respondent believed that the focal product’s prices vary greatly. Finally, for perceived search goods, respondents used more concrete or objective inputs such as expectations and quality, whereas for perceived experiential goods the use of alternative outcome was the only judgment input/basis that was avoided by the consumer.

Third, our results show different consequences of using the different satisfaction inputs. For example, the use of emergent criteria in satisfaction or dissatisfaction judgment was positively correlated with the amount of post-purchase product learning. Those who reportedly used quality or emotion as their basis of judgment tended to give more extreme satisfaction or dissatisfaction ratings than others. As expected, satisfaction had a robust correlation with repurchase intention (r=.64).

Our results have some practical implications. For example, our study, by examining the antecedents of the different satisfaction inputs, provides managers an easy link between market conditions and the most effective marketing communications strategy. Finally, by examining the consequences of using the different satisfaction inputs, our study gives managers insights into communication strategies that best stimulates post-purchase learning and customer loyalty.

REFERENCES


EXTENDED ABSTRACT

The location of the reference point affects the coding of outcomes as gains and losses (Kahneman 1992). In turn, this coding affects consumer satisfaction and regret owing to performance differences in evaluating positive and negative outcomes. Under the expectancy-disconfirmation model of satisfaction (e.g., Oliver 1980), individuals will be satisfied since the actual performance exceeded their expectations. However, recent research suggests that multiple comparison standards may influence consumer satisfaction (Fournier and Mick 1999; Oliver 1997). One alternative comparison standard is the outcome of the unchosen product or service. Nevertheless, when consumers are in a case involving more than two alternatives, it is uncertain which unchosen alternative that assumes the role of the reference point. In our daily life, multiple reference point may be available, and thus the subject may simultaneously confront some referents above, some at, and some below the focal outcome. Surprisingly, little is known regarding this phenomenon. This study thus focuses on the expectancy-disconfirmation paradigm and the equity theory (Adams 1965), which are the basic theories in satisfaction research. Most importantly, both theories base satisfaction judgments on comparison processes that can help understand the choice of reference points (Homburg, Krohmer, Cannon, and Kiedaisch 2002).

Actually, the same phenomenon also occurs during measurement of regrets. Consumers experience regret when an unchosen alternative would have yielded a better outcome than the chosen alternative (Sugden 1985). However, if two or more alternatives are unchosen, which one will be considered the comparison standard? Regret theory (e.g., Bell 1982; Loomes and Sugden 1982) does not provide any predictions. Only Tsios (1998) investigated the influence of experienced regret on reference point selection. However, his findings in both experimental studies were somewhat contradictory. Specifically, a recent study by Abendroth (2001) emphasized that expectancy-disconfirmation can disentangle regret by examining the unique and combined effects from taking performance expectations and/or a preferred, unchosen alternative for comparison. This finding is quite interesting. Whether consumers use multiple reference points to measure their experienced regret is an interesting question. Since the formalization of the concept of regret or rejoicing is based on the comparison, the literature on social comparison theory (Festinger 1954) and temporal comparison theory (Albert 1977) may provide some guidance.

To develop a clear understanding of individual feelings about their satisfaction and regret relative to each referent, this study attempts to examine the choice of multiple reference points when assessing postpurchase satisfaction and regret in the context of a choice set comprising three alternatives.

Hypothesis

We test the following hypotheses:

**H1** Satisfaction is assessed not only by the expected outcome but also by the similar-performing unchosen outcome.

**H2** People select the similar-performing unchosen alternative as the reference point for calculating regret.

**H3** In a threatening situation (the chosen alternative is much worse than the best-performing unchosen alternative), regret will be simultaneously assessed by the similar-performing unchosen alternative and the expected outcome. However, this condition occurs only when the chosen alternative is better than expected (because individuals can weight their absolute performance rather than relative performance to enhance their self-evaluation).

Method

**Design.** This study has a 2 (disconfirmation of expectations: positive vs. negative) x 3 (comparison with the unchosen alternative: favorable vs. unfavorable vs. mixed) between-subjects factorial design. Six experimental conditions were generated.

**Procedure.** Five hundred and seventy-six EMBA and MBA students at three large national universities participated in the study. Similar to the procedures used by Tsios (1998), students were randomly assigned to one of six treatment conditions. To control for potential order effects, the items measuring the dependent variables were ordered randomly.

Results

This study mainly aimed to measure actual consumer feelings of satisfaction and regret regarding their chosen outcomes relative to each referent. This objective was achieved through a series of multiple regression analyses, with satisfaction and regret as the two dependent measures, and the three relative performances as the independent variables (one was the relative performance between the chosen outcome and expected outcome; two were the relative performances generated by the chosen outcome compared with the similar-performing and dissimilar-performing unchosen alternatives, respectively).

For satisfaction, the chosen outcome relative to the expected outcome and the chosen outcome relative to the similar-performing unchosen alternative were both positive and statistically significant (p < .05) in all groups. The expected outcome and similar-performing unchosen alternative thus represent important reference points for consumer satisfaction. Thus, H1 was strongly supported. Specifically, on the one hand the chosen outcome relative to the similar-performing unchosen referent was greater (standardized coefficient beta = .327, .271, respectively) in the best-similar groups, and on the other hand the chosen outcome relative to the expected outcome was greater (standardized coefficient beta = .311, .248, respectively) in the worst-similar groups. This result is interesting and seems to reflect self-serving social comparisons (Klein 2001).

For regret, the chosen outcome was negative and statistically significant relative to the similar-performing unchosen alternative (p < .05) in all groups. The analytical results demonstrated that the similar-performing unchosen alternative is important predictor in experienced regret. Thus, H2 was supported. Furthermore, for the positive-worst-similar group, the relation between the chosen and expected outcomes was also significant (p < .05), and therefore, H3 was supported, too. It highlighted that subjects in the positive-worst-similar group with available self-resources tend to protect themselves from threatening social comparison situations.

Discussion

The results make several contributions to marketing theory. First, consumer satisfaction in relation to two reference points—expected outcome and similar-performing unchosen alternative.
Second, some of the evidence presented here clearly proves that the two referents were not equally related to satisfaction. When subjects faced more favorable comparisons with others, the similar-performing unchosen alternative had greater standardized regression weight, while when subjects faced unfavorable comparison with others, the expected outcome had greater weight. Finally, individuals generally select the similar-performing unchosen alternative as the reference point for calculating regret. However in a threatening performance comparison situation, the expected outcome will also serve as another comparison standard for regret, particularly when the chosen alternative exceeds expectations. This finding differs from previous research.

References
INTRODUCTION

In the past two decades, many studies of the service marketing area have tried to define service quality and develop instruments to measure it. Since Parasuraman et al. (1988) introduced the service quality instrument, called SERVQUAL, many studies have used SERVQUAL to measure service quality in various domains, ranging from financial services (Lin, 1999), health services (Dean, 1999), travel agent services (Kaynama, 2000), and retailing services (Mehta, 2000), to restaurants (Lee and Hing 1995). However, since SERVQUAL was originally developed to measure the general service quality, it didn’t fully consider the underlying characteristics of a specific industry such as retailing. Recently, as the Korean retail industry is becoming more competitive, there is a general agreement that the most important retailing strategy for creating competitive advantage is the delivery of high service quality. Also, many global retailers, such as Tesco (British discount store) and Wal-Mart (American discount store), are making the Korean retail market even more competitive and therefore, many retail managers are interested in the management of service quality in retail environment.

From the retail manager’s perspective, the level of service quality is highly correlated with the level of customer retention and customer’s favorable word-of-mouth behavior. In this sense, most retail managers would be very interested in the question of how to increase their retention rate and therefore, to elaborate this question in more detail, service quality study in a retail setting would be very important. Current measures of service quality including SERVQUAL do not adequately capture customers’ perceptions of service quality for retail stores such as department or specialty stores. Therefore, the main objective of this study is to investigate the usefulness and applicability of the different methods including SERVQUAL in measuring the service quality of retail environment and their relationships to customer retention and word-of-mouth behavior. By exploring the suitability of each different measurement method of retail service quality, this study enhances the understanding of the major dimensions of retail service quality and the analysis of the effect of service quality on customer retention and word-of-mouth behavior.

THEORETICAL BACKGROUNDS

Service quality is generally perceived to be a tool that can be used to create a competitive advantage and therefore, substantial research into service and service quality has been undertaken in the last 20 years. Bitner et al. (1990) define service quality as “the consumers’ overall impression of the relative inferiority/superiority of the organization and its services.” The most common definition of service quality is the discrepancy between a consumer’s expectations and perceptions of the service received. Accordingly, service quality is defined as how well a delivered service level matches a customer’s expectation. Parasuraman et al. (1988, 1991) identified more detailed dimensions of service quality and developed a well-known instrument, called SERVQUAL, to measure a customer’s perceptions and expectations from service. The SERVQUAL instrument consists of five underlying dimensions, with two sets of 22 item statements for the ‘expectation’ and ‘perception’ sections of the questionnaire. Perceived service quality is measured by subtracting customer perception scores from customer expectation scores, both for each dimension and overall. The five dimensions of SERVQUAL are (Parasuraman et al., 1988, 1991):

1. Tangibles, which pertain to the physical facilities, equipment, personnel, and communication materials.
2. Reliability, which refers to the ability to perform the promised services dependably and accurately.
3. Responsiveness, which refers to the willingness of service providers to help customers and provide prompt service.
4. Assurance, which relates to the knowledge and courtesy of employees and their ability to convey trust and confidence.
5. Empathy, which refers to the provision of caring and individualized attention to customers.

Since the SERVQUAL was developed in 1988, various researchers have recognized that both the instrument itself and the conceptualization of service quality may benefit from further refinement (for example, Finn and Lamb 1991, Lee and Hing 1995). They have argued that the SERVQUAL instrument needs to be customized to the specific service area. One study by Babakus and Mangold (1989) showed that SERVQUAL is not 5-dimensional in a health care setting.

Cronin and Taylor (1992) argued that using the difference score between expectation and performance in SERVQUAL may not be appropriate and they have developed a new instrument, which is called SERVPERF, to measure service quality based on customer perception of performance. After many studies have examined the suitability of SERVQUAL in measuring service quality in different types of service, they tried to adapt the original 22 SERVQUAL items to various service contexts by slightly changing the original items. In the area of retail market, only few researches (Finn and Lamb 1991, Dabholkar et al. 1996, Mehta 2000) have tried to measure the quality of retail service. Dabholkar’s study (1996) concluded that there are 5 underlying dimensions of service quality in a retail environment such as physical aspects, reliability, personal interaction, problem solving, and policy. In their study, based on the partial disaggregation technique and cross validation, they developed a new measurement scale, called Retail Service Quality Scale (RSQC), for retail stores. The five dimensions of retail service quality of RSQC are:

1. Physical aspects, which is similar to tangibles dimension of SERVQUAL. This dimension includes the appearance and convenience of the physical facilities of the retail store.
2. Reliability, which is similar to the SERVQUAL reliability dimension, except that it has two subdimensions and a couple of other variables.
3. Personal interaction, which has two subdimensions—service employees inspiring confidence and being courteous/helpful.
4. Problem solving, which addresses the handling of product returns and exchanges as well as of complaints.
5. Policy, which captures aspects of service quality that are directly influenced by store policy.
Because Dabholkar’s measurement scale was designed specifically for the retail environment, we assume that the Retail Service Quality Scale is a better method to correctly measure the quality of service in a retail environment than the other general scales such as SERVQUAL or SERVPERF.

**RESEARCH HYPOTHESES**

The growing importance of service quality in the retail environment leads us to examine the following questions concerning the relationships among service quality, customer retention rate, and word-of-mouth in the retail environment.

- Is Retail Service Quality Scale a more appropriate method to measure the quality of retail service than SERVQUAL or SERVPERF?
- Is service quality significantly associated with retailer’s customer retention?
- Does the level of service quality influence customer retention and word-of-mouth behavior?

Mummelaneni and Wilson (1989) argue that satisfaction leads to binding the customer and the seller together and strengthening their relationship. Once a customer has decided that he or she is no longer satisfied with the product or service, the process of the dissolution of the bonding between the customer and the provider becomes salient. Also, there is widespread consensus among scholars (e.g. Wilson, 1995) that greater satisfaction increases the level of a customer’s commitment to the seller. Recently, in the information system area, some research has begun to try to investigate the relationship between Internet service quality and customer retention rate (McKinney et al., 2002). In a study of electronic commerce channel preference, Devaraj et al. (2002) also showed that service quality is one of the major determinants of the proportion of long-term customers.

One of the key issues for service providers as a result of the increased competition is “churn,” or customer movement to the competing company. Therefore, how to increase the level of customer retention has been one of the key questions to most marketing managers in the retail industry. Some marketing researchers have showed that quality of service is the key factor for determining the service switching intentions (Keaveney and Parthasarathy, 2001). Using data on the online industry, Chen and Hitt (2002) investigated how service characteristics affect the level of customer switching and retention. Similarly, Zeithaml, Berry, and Parasuraman (1996) emphasize the importance of measuring future behavioral intentions of customers to assess their potential to remain with or leave the service organization. On these grounds, we have the following research hypotheses regarding service quality, customer retention, and word-of-mouth behavior.

H1: Retail Service Quality Scale is more appropriate method to measure the retail service quality than the other general scales such as SERVQUAL or SERVPERF.
H2: Service quality of retailers is positively related to the level of customer retention.
H3: Service quality of retailers is positively related to the word-of-mouth behavior.
FIGURE 1
Second-order CFA Model of Retailer’s Service Quality: SERVQUAL Model

FIGURE 2
Second-order CFA Model of Retailer’s Service Quality: SERVPERF Model
items measured (Anderson and Gerbing 1988). Composite reliability, a measure of internal consistency comparable to coefficient alpha (Fornell and Larcker 1981), was in excess of 0.70, implying acceptable level of reliability for each of the constructs. To assess the degree of associations among the 5 subdimensions, a formal test of discriminant validity was conducted by using the chi-square difference test. This suggests that the better model will be the one in which the two constructs are viewed as distinct, yet correlated factors (Anderson and Gerbing 1988, Bagozzi et al. 1991). In all ten paired comparisons of the different models, the chi-square difference test was significant, suggesting that the constructs are distinct. In sum, all these diagnostics suggest that the measurement model of Retail Service Quality Scales should be accepted as a good representation of the data and we accepted research hypothesis 1.

**Structural Model and Hypotheses Testing**

To test the research hypotheses and investigate the effects of service quality on customer retention and word-of-mouth, we conducted covariance structure analysis by using LISREL 8. The final structural model of retail service quality was tested and, as seen in Figure 4, the results showed that service quality has positive impact on customer retention ($b=0.84$) and word-of-mouth ($b=0.83$) accordingly. Therefore, research hypotheses 2 and 3 were supported with strong statistical significance. This confirms the recent results of Keaveney and Parthasarathy (2001) that service continuers show a higher satisfaction level than service switchers. Cronin and Taylor (1992) also showed that service quality influences customer satisfaction, even though they measured service quality with performance perception only.
The results of model testing showed satisfactory goodness-of-fit indices. In general, the goodness-of-fit was high (GFI=0.90) indicating that a major proportion of the variances and covariances in the data was accounted for by the model. More specifically, the root mean square error of approximation (RMSEA=0.056) is below the .08 cutoff recommended in the literature (e.g. Browne & Cudeck 1993). The adjusted GFI and other fit indices (AGFI=0.88, NFI=0.97, NNFI=0.98, CFI=0.98) clearly meet the requirements recommended in the literature (Bagozzi and Yi, 1988, Baumgartner and Homburg, 1996) and these magnitudes indicate that the model fits the data adequately.

CONCLUSIONS AND IMPLICATIONS
Many studies have emphasized the need to develop valid and reliable measures of the service quality in a specific industry. Most researches have made much efforts to apply SERVQUAL, a commonly used measure of service quality, to the various industries. In this research, we tried to find the most appropriate method of measuring service quality of retailers. Among the three different methods including SERVQUAL, SERVPERF, and Dabholkar’s scale, we concluded that Dabholakar’s Retail Service Quality Scale (Dabholkar et al. 1996) is a better methods than SERVQUAL or SERVPERF. Furthermore, we explored the effect of service quality on customer retention and word-of-mouth of customers. This study reveals that service quality does influence the level of customer retention and word-of-mouth behavior.

The results from the present study suggest several implications for the use of service quality scales in the retail environment. This study has the potential to make managerial and methodological contributions to the analysis of retail service quality. This research provides retail managers with a scale to assess the quality of their service from the perspective of the five underlying dimensions. This study also provides marketing managers, especially in the retail environment, with an insight to understand how to increase customer retention level. Identifying customer perceptions of service quality for a particular retail store allows retail managers to better tailor their marketing efforts and customer management to increase the retention rate. In this sense, the results of this study will be used for an efficient management of CRM strategy. Methodologically, this research attempted to examine the suitability of SERVQUAL, SERVPERF, and Retail Service Quality Scale to measure the service quality in a retail setting. The assessments of reliabilities and validities of measurement scale through LISREL analysis confirm the correspondence rules between the empirical and theoretical concepts (Bagozzi 1984). These methodological attempts and the purified measurement items of the study will provide a valuable guidance to the future empirical research into retail service quality.

REFERENCES
An Analysis of Determinants of Consumer’s Recycling Behavior
Michiy Aoki, Tamagawa University, Japan

ABSTRACT
The purpose of this paper is to understand the motivation of consumer participation in recycling activities, and to show the reason why we cannot participate in recycling behavior. This study is devoted to examining the critical factors surrounding recycling behavior. The results showed that past behavior was more effective than attitude in predicting recycling behavior. And the findings suggest that consumer’s involvement play an important role in recycling behavior. Finally, theoretical and managerial implications of these findings are discussed.

INTRODUCTION
Today, the rapidly increase in household garbage is a serious problem for public policy in the world. The convenience of our daily life often overrides environmental considerations to cause wastage of natural resources. We are reexamining our consumption and waste disposal patterns, faced with a threat of rapidly depleting natural resources. One obvious solution to this problem is to reduce our consumption levels, and the other solution is to reduce our wastage. We know that recycling has emerged as an important means by which wastage can be reduced. However, this recycle system cannot work very well. Why we cannot participate in recycling behavior?

The purpose of this paper is to understand the motivation of consumer participation in recycling activities, and to show the reason why we cannot participate in recycling behavior. This study is devoted to examining the critical factors surrounding recycling behavior. The results may present implications for the development of marketing strategies for recycling.

LITERATURE REVIEW
Barns (1982) examined recycling as a marketing problem. He predicts that changes in channel structure will probably occur as recycling incentives increase. He has pointed out that reverse logistics are needed for the future recycling system.

Although a large number of studies have been made on the recycling behavior (see Shrum et al. 1994), a little is known about consumer motivation of recycling behavior. There are two kinds of approach to this theme. The first approach is to explain the reason why consumers do not participate recycling activities. This research examines factors which affect recycling activities. For example, Bagozzi and Dabholkar (1994) test the theory of reasoned action (e.g., Ajzen and Fishbein 1980) as an explanation of recycling behavior. The theory of reasoned action hypothesizes that intentions are direct determinate of behavior and are influenced by attitudes, and subjective norms toward the behavior. Bagozzi and Dabholkar (1994) explore more fully the determinants of attitudes, subjective norms, and past behavior as they relate to recycling. To test hypotheses implied by this theory, regression analyses were used. The results showed that attitudes and past behavior affected intentions, but subjective norms did not. Past behavior had about twice the impact of attitudes. Similarly, Dahab , Gentry and Su (1995) examined the effect of various factors on recycling by regression analyses after they defined the word of “recycle” as a purchase and reuse of the product made from recycled materials. They showed that past recycling activities affected the recycling behavior, but attitudes and subjective norms did not. However, the measure of attitude is not correct in their study, the results have a problem of attitude specification.

The second approach is to explain how the value for the purchase of recycled products is formed. For example, Bei and Simpson (1995) investigated the determinants of consumers’ purchase probabilities toward eleven recycled products based on Thaler’s (1983, 1985) acquisition-transaction utility theory, which suggested that consumers’ purchase probabilities depended on the received value compared to the purchased cost. Bei and Simpson (1995) introduced the notion of “psychological benefit” from the purchase of recycled products which covered consumer’s attitude and feeling about buying recycled products. The results showed that psychological benefit from the recycled products was positively related to the probability of purchasing the products. Nonami et al (1997) investigated the effects of cognitive variables on recycling behavior in a path analysis model. This model included three determinants of behavior intention: evaluation of feasibility, cost and benefits, and social norms. The results showed that social norms affected recycling behavior. The evaluation of cost and benefit, affected behavioral intentions.

CONCEPTUAL MODEL AND HYPOTHESES
The objective of the present study is to understand the motivation of consumer participation in recycling activities. Previous studies have tested the theory of reasoned action (e.g., Ajzen and Fishbein 1980) as an explanation of recycling behavior. Therefore, we intended to test the theory of reasoned action in our hypothesized model of the present study. We hypothesize the perceived benefit of recycling may motivate the recycling behavior.

Previous studies suggested several factors which were associated with consumer’s recycling behavior, such as, attitude and past behavior (e.g. Bagozzi and Dabholkar 1994). Subjective Norms did not affect the recycling behavior in any previous studies, but social norms affected the recycling behavior (e.g. Nonami et. al 1997). Therefore, we added these three factors in our hypothesized equation model for recycling behavior. This model is illustrated as follows:

Recycling Behavior = Perceived Benefit + Attitude toward Recycling + Social Norm + Past Behavior [1]
Perceived Benefit = Cost + Benefit [2]

We hypothesize that recycling behavior is a function of perceived benefit, attitudes toward the act of recycling, social norms, and past behavior. In this study, the motivational component of recycling activities may also be derived from the perceived benefit of the activities. If an individual perceived that recycling would bring about the desired social outcome, he or she would be more motivated to act. While attitudes are hypothesized to be important in the recycling decision, the motivational factor will moderate the relationship between attitude and behavior. Recent research in consumer behavior and social psychology has focused on the concept of involvement as an important moderator of the amount and type of information processing elicited by persuasive communication (Petty, Cacioppo and Schumann 1983). We suggest that consumer’s involvement is low, they will do systematic...
recycling activities by custom. In this situation, past behavior will have an important effect. This leads to the following hypotheses.

H1: The lower the consumers’ involvement to recycle, the greater the effect of the past behavior for recycling.

H2: When consumers’ involvement to recycle is high, the effect of attitudes and social norms will be greater than that of the past behavior for recycling.

METHOD

Subjects and Procedure
The data for the study were collected from consumer monitors by mail survey in February 2002. The sample consisted of 1531 (876 male and 655 female) respondents. The measures for the study were all contained within a questionnaire booklet.

Measures
The recycling questions asked how frequently the respondents recycled new papers, and how frequently they recycled cans and bottles. The behaviors were measured on five-point scales from “very seldom” to “very frequently.” The measure of social norm was five-point scales with response choices ranging from “strongly agree” to “strongly disagree.” We defined “Social Norm” in this study according to the previous study (Nonami et. al 1997). That is an individual’s perceived informal community rule that dictates the members of society ought to engage in recycling. The social norm scale consisted of two items that asked if “people in this community expect me to recycle specific materials, that is, newspaper, can and bottles.”

Attitudes were measured with the item “Would you describe your attitude toward recycling activity,” with the following response alternative recorded: “unfavorable,” “neither unfavorable nor favorable,” “somewhat favorable,” “quite favorable,” “extremely favorable” (Bagozzi and Dabholkar 1994). Recycling cost and benefit were measured with three aspects, that were economical cost and benefit, labor cost and benefit, and time cost and benefit. Past behavior was measured by the frequency of recycling activity. We measured respondents’ levels of involvement in recycling activity as follows. Respondents were asked to indicate the extent to which they agreed with the statement that “I think I am concerned with recycling activity” in 5-point scale ranged from 1 (strongly disagree) to 5 (strongly agree).

RESULTS AND DISCUSSION
First, we examined the correlations between the independent variables. The results are shown in Table 1. The correlations were relatively low in Table 1, so, we could use the regression analysis to test the hypotheses. All of the variables were tested as continuous variables using multiple regression analysis. The results of standardized regression analyses are shown in Table 2-4.

In Table 3 and Table 4, all of coefficients of past behavior were significant at 0.1% level. Therefore, we used these results to test Hypothesis 1. Hypothesis 1 predicts that the lower consumer’s involvement to recycle, the greater the effect of the past behavior for recycling.

In the case of newspaper, standardized coefficient of past behavior is 0.425 (high involvement)<0.618 (low involvement), this is in the support of the expected relationship. In the case of can and bottles, the relationship are almost the same, that are 0.404 (high involvement)<0.811 (low involvement), 0.418 (high involvement)<0.727 (low involvement), respectively. Therefore, Hypothesis 1 was supported.

Hypothesis 2 suggests that the effect of attitudes and social norms will be greater than the effect of the past behavior for recycling in the case of high involvement. In Table 3, when consumer’s involvement to recycle is high, coefficients of attitude were not significant except of the case of bottle recycling. In this case, the coefficient of attitude, social norm and past behavior was 0.173, 0.238, and 0.418, respectively. The coefficient of past

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cost</th>
<th>Benefit</th>
<th>Attitude</th>
<th>Social Norm</th>
<th>Past Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>1</td>
<td>-0.014</td>
<td>-0.016</td>
<td>0.006</td>
<td>-0.057</td>
</tr>
<tr>
<td>Benefit</td>
<td>1</td>
<td>0.448</td>
<td>0.325</td>
<td>0.216</td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>1</td>
<td>0.476</td>
<td>0.409</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Norm</td>
<td>1</td>
<td>0.495</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past Behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

TABLE 2
Results of Standardized Regression Analyses

<table>
<thead>
<tr>
<th></th>
<th>Attitude</th>
<th>Social Norm</th>
<th>Past Behavior</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspaper</td>
<td>0.155**</td>
<td>0.359**</td>
<td>0.527**</td>
<td>0.356</td>
</tr>
<tr>
<td>Cans</td>
<td>0.157**</td>
<td>0.389**</td>
<td>0.539**</td>
<td>0.493</td>
</tr>
<tr>
<td>Bottles</td>
<td>0.190**</td>
<td>0.294**</td>
<td>0.560**</td>
<td>0.411</td>
</tr>
</tbody>
</table>

* p<0.05, ** p<0.001, n=1506.
behavior was greater than those of attitude and social norm. Therefore, Hypothesis 2 was not supported in this model.

The results of this study are consistent with the findings of Bagozzi and Dabholkar (1994), in that past behavior enhances the predictive power of the model of reasoned action. In this study, consumer’s perceived benefits and costs have not significant effect on explaining recycling behavior. In general, we think that recycling involves a lot of costs. Therefore, consumers do not engage in recycling behavior. This explanation is quite reasonable, but the findings of this study suggest another reason.

Bagozzi and Dabholkar (1994) found that past behavior was more effective than attitude in predicting recycling intentions. Past behavior had about twice the impact of attitudes in their study. This drives us to the question whether recycling activities are goal-oriented action or not. Otherwise, recycling behavior may be a systematical custom behavior. In this case, consumers’ past behavior may also predict the experience of recycling behavior. The experience lower the effort required to participate in the recycling activities.

**TABLE 3**

<table>
<thead>
<tr>
<th></th>
<th>Attitude</th>
<th>Social Norm</th>
<th>Past Behavior</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>News Paper</td>
<td>-0.002</td>
<td>0.303**</td>
<td>0.425**</td>
<td>0.185</td>
</tr>
<tr>
<td>Cans</td>
<td>0.047</td>
<td>0.329**</td>
<td>0.404**</td>
<td>0.314</td>
</tr>
<tr>
<td>Bottles</td>
<td>0.173**</td>
<td>0.238**</td>
<td>0.418**</td>
<td>0.215</td>
</tr>
</tbody>
</table>

* p<0.05, ** p<0.001, n=919.

**TABLE 4**

<table>
<thead>
<tr>
<th></th>
<th>Attitude</th>
<th>Social Norm</th>
<th>Past Behavior</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>News Paper</td>
<td>0.170*</td>
<td>0.265**</td>
<td>0.618**</td>
<td>0.328</td>
</tr>
<tr>
<td>Cans</td>
<td>0.095</td>
<td>0.237**</td>
<td>0.811**</td>
<td>0.469</td>
</tr>
<tr>
<td>Bottles</td>
<td>0.020</td>
<td>0.208**</td>
<td>0.727**</td>
<td>0.374</td>
</tr>
</tbody>
</table>

* p<0.05, **p<0.001, n=238.

The main purpose of this study was to understand the motivation of consumer participation in recycling activities. The first step was to build our hypothesized equation model for recycling behavior. We hypothesized that recycling behavior is a function of perceived benefits, attitudes toward the act of recycling, social norms, and past behavior. While attitudes are hypothesized to be important in the recycling decision, the motivational factor will moderate the relationship between attitude and behavior. In this study, we suggest that consumer’s involvement will be positively related to the motivation of recycling behavior. When consumer’s involvement is high, their motivation of recycling will be high. In this situation, recycling behavior will be more affected by the theory of reasoned action. When consumer’s involvement is low, they will do systematic recycling activities by custom. In this situation, past behavior will have an important effect.

The results in our study showed that past behavior was more effective than attitude in predicting recycling behavior in any case. These findings suggested that recycling activity would not be a reasoned action, but a systematic behavior in daily life. We know that custom makes recycling activity easy, and these experiences improve consumers’ involvement level. In turn, these experiences make consumers’ attitude toward the recycling activities. The important role of consumer research is to construct a smart recycling system and to show the way of enjoying the recycle behavior.

**REFERENCES**


The Impact of Consumers’ Perceptions of Relationship Quality on Key Relational Constructs
Amy Wong, Universitas 21 Global, Singapore
Lianxi Zhou, Lingnan University, Hong Kong

EXTENDED ABSTRACT
The concept of relationship quality has emerged as a central tenet in the relationship marketing literature (Smith, 1998). It is clear that relationship quality plays an important role in the effective management of customer relationships. In order for service managers to benefit fully from this knowledge, it is critical that they understand the interrelationships between the key determinants and outcomes of relationship quality. In a similar vein, Hennig-Thurau, Gwinner, and Gremler (2002) propose that a key goal in relationship marketing theory is the identification of key factors that influence important outcomes for the firm and a better understanding of the causal relationships between these determinants and outcomes. This study examines service quality and customer satisfaction as determinants of relationship quality, and the impact of relationship quality on key relational constructs (customer loyalty and customer commitment). Based on the literature, we develop hypotheses linking relationship quality, service quality, customer satisfaction, customer loyalty, and customer commitment.

Three alternative models were compared and tested using empirical data collected in a consumer sample in a retail chain departmental store setting in Australia. In the baseline model, relationship quality is hypothesized to be indirectly determined by service quality through customer satisfaction, and the two key outcome constructs are primarily driven by relationship quality. The second model includes an additional path into the baseline model, that is, a direct effect of service quality on the focal construct—relationship quality. Added to the second model are two more additional paths pertaining to the relationships between customer satisfaction and the two outcome constructs. This third model served as our full test model, which is the most comprehensive among the three.

The findings suggest that while all the three models are acceptable in terms of overall goodness-of-fit, the third model appears to have a higher degree of parsimony as suggested by the root mean square error of approximation (RMSEA). This implies that relationship quality is determined by both service quality and customer satisfaction, and that relationship quality partially mediates the impact of customer satisfaction on relational outcomes such as customer loyalty and customer commitment.

These findings have important theoretical and practical implications for the study of marketing relationships in a consumer service setting. First, relationship quality seems to be more conducive to a service organization’s success and long-term competitiveness. In the extant literature, customer satisfaction is often viewed as a central determinant of behavioral outcomes (Anderson and Fornell, 1994; Rust and Zahorik, 1993). Our results indicate that relationship quality is perhaps more action-oriented such that the behavioral implications of customer satisfaction can, in part, be achieved through established overall relationship quality. Thus, the cultivation of relationship quality in service contexts should be given considerable attention. Second, to cultivate relationship quality, our results suggest that satisfied customers are the key drivers yet customers’ perceptions of service quality can also have a direct impact. Therefore, managing customers’ perceptions of service quality can result in further strategic implications through its influence on the state of relationship quality. Finally, this study concludes with a discussion of a number of limitations and future research directions.

REFERENCES


The Impact of Consumers’ Perceptions of Relationship Quality on Key Relational Constructs


Can We identify the Research Hypothesis with the Alternative Hypothesis?

Hyunchul Cho, Hanyang University, Republic of Korea
Shuzo Abe, Yokohama National University, Japan

EXTENDED ABSTRACT

The research hypothesis is commonly a statement of the relationship between concepts and is derived from a theory or stored knowledge in a certain research field. The statistical hypothesis, on the other hand, is the expression of a parameter that characterizes population distribution, so it does not contain any logical reasons for specific relationships or characteristics within it (Hay 1981, p. 232). In general, the statistical hypothesis is derived from the research hypothesis, but not vice versa.

Although the above differences of definitions between the research and statistical hypotheses seem to be clear enough, the two hypotheses are quite often regarded as identical ones. For example, in their textbook of research methodology Aaker, Kumar and Day (1995, p. 470) describe the statistical hypothesis as a form of verbal description.

Likewise, the commonly used statement, like “The research hypothesis is the alternative hypothesis,” (e.g., Albright, Winston, and Zappe 1999, p. 438; Lind, Marchal, and Mason 2002, p. 337; Tropper 1998, p. 155) does not distinguish the research hypothesis from the statistical hypothesis.

Then, are the differences between the research and statistical hypotheses so trifling that it matters only in the definitional sphere? For pedagogical convenience or just to avoid the feeling of redundancy, can we treat the two hypotheses interchangeable as in the above examples? Our answer is “no,” and in this article we explain why it is so, and propose to make clear distinction between the two categories of hypothesis. This is because overlooking the differences between them may lead to the following four points of conceptual and empirical confusion.

CONFUSION 1: It May Lead to Categorical Exclusion of the Research Hypothesis in Null Form (RHNF). There are two forms of research hypothesis. They are the research hypothesis in alternative form (RHAF) and the research hypothesis in null form (RHNF). The former RHAF is the common type. It includes a verbal assertion of the existence of some testable relationship between concepts. But, occasionally researchers use the latter RHNF, which involves a verbal assertion of the nonexistence of some testable relationship between concepts. This RHNF becomes pivotal when researchers propose a new theory/model that accommodates a different structure from the existing theory/model. If researchers ignore the distinction between the research and statistical hypotheses and try to apply the statistical testing method, then in the process of doing so, they most naturally would see the hypothesis as statistical hypothesis and apply the logic of statistical testing that assumes only RHAF. So, it leads to categorical ruling out of RHNF.

CONFUSION 2: It May Lead to Wrong Interpretation of Test Result for the Research Hypothesis in Null Form (RHNF). Regarding the statistical hypothesis as identical with the research hypothesis would hinder the clear understanding of the empirical testing system. So, even when researchers test RHNF, it makes the researchers less aware that their test is based on the logic of proof, which is weak and incomplete. There are arguments that the statistical testing is good for only RHAF and it should not be used for testing RHNF, however the authors argue that if we pay careful attention to its limitation, we can use statistical testing for RHNF.

CONFUSION 3: The Flow of Steps in the Whole Process of Theory Testing May not be Observed. Generally, the whole process of theory testing can proceed in the following 7 steps: (1) Theory → (2) Setting up research hypothesis (RHNF/RHAF) → (3) Setting up statistical hypothesis (Translating into H_0 and H_1) → (4) Testing statistical hypothesis (by the logic of disproof/proof) → (5) Testing research hypothesis (RHNF/RHAF is supported/not supported) → (6) Testing theory (the theory is supported/not supported) → (7) Interpretation of this empirical test result from some philosophical standpoint. Unfortunately, if the research and statistical hypotheses are not distinguished, then step 2 and 3 would merge into a single step, then researchers would neglect all the factors involved in the translation process between them. Or, if step 4 and 5 are not handled separately, it would give wrong conception that a single statistical test determines the acceptance or rejection of the research hypothesis. Obviously, this hinders systematic conduction of empirical research.

CONFUSION 4: It May Lead to Wrong Conception of Theory Testing. If researchers identify the theory with the statistical hypothesis, then all the factors involved in the process of deductively deriving the research hypothesis from the theory and then translating it into the statistical hypothesis would be neglected from the consideration. It not only aggravates the problems mentioned in the previous section but also introduces a new type of confusion. An example is the wrong conception like “The existing theory is the null hypothesis and the new theory is the alternative hypothesis” (Albright, Winston, and Zappe 1999, p.438). The authors show that even when researchers pit two competitive theories (Platt 1964), unless they can ingeniously design a single statistical test for two competing research hypotheses, they need to test separately each research hypothesis derived from each theory.

Based on the clear distinction between the research hypothesis expressed by the verbal statement and the statistical hypothesis described by the parameter(s), the authors propose a new scheme for classifying the research hypothesis and the statistical hypothesis.

REFERENCES

A Study of Stress and Changes in Consumer Behavior
George P. Moschis, Georgia State University, U.S.A.
Euehun Lee, Information and Communications University, Seoul, Korea
Anil Mathur, Hofstra University, U.S.A.

EXTENDED ABSTRACT

Over the past fifty years or so, the concept of "stress" has been receiving increasing attention in the psychological and medical fields, and it is currently "one of the most prolific enterprises in the behavioral and social sciences" (Cohen 1988, p.7). Stress has been defined in a variety of ways, but most researchers refer to it as a condition resulting from environmental or social demands placed upon the person which exceed his or her ability to adapt to a situation (e.g., Caplan 1961; Lazarus 1966). Although this variable has not received as much attention in consumer research, several investigators have suggested that stress may be a key explanatory factor, helping us understand a wide variety of consumption-related behaviors. These events, that reflect acute and chronic instability and that stress is a signal that the organism is struggling to restore stability and equilibrium (Pearlin 1982). Most people do not remain passive when faced with forces that adversely affect them, but they actively react by employing a variety of coping strategies. Coping refers to those actions and thoughts that enable individuals to handle difficult situations (Murrell et al. 1988).

What aspects of consumer behavior reflect efforts on the part of consumers to handle stress? Unfortunately, little systematic research can be found to answer this question at the present time. However, previous researchers have explicitly or implicitly suggested a wide variety of consumer behavior which may serve as a coping mechanism. Changes in consumer behavior may not be only the outcome of stress. Many life events mark transitions into new roles (e.g., spousal, parenthood). Consumers typically re-evaluate their consumption needs at several transition points in their lives, and many changes in consumer behavior are the result of these assessments.

In order to better understand the nature of the relationship between life events and consumption-coping behaviors, it is essential to uncover the underlying mechanisms through which these relationships operate. We suggest that life events are stressful and result in a direct demand for readjustment via consumption (i.e., consumption-coping behaviors). These events, that reflect acute stress, also affect the older person’s consumer behavior indirectly via their exacerbation of role strains (chronic stress).

Methods and Results

Eight hundred and fifty nine adult consumers (average age 71.2, 65.4% males) were used in the study. The questionnaire included questions used to measure acute stress (measured by asking respondents to indicate whether they had personally experienced 17 events and counting the number of events experienced during the previous 12 months to construct a 0-to 17 point index), chronic stress (measured by using five statements that apply to various role settings and counting the positive responses for the previous 12 months), as well as consumption-coping behaviors (measured by asking the respondents to indicate if they had engaged in any of the 13 activities that have been suggested to be means of coping with stress and counting the positive responses for the previous 12 months).

A series of regression analyses were carried out to assess the direct and indirect effects of life events on consumption coping behaviors, as well as to assess the role of chronic stress as a mediator between life events and consumption coping behaviors. The results indicate that life events had a strong and direct effect on consumption coping behaviors. Life events also had a positive effect on anticipated events and chronic stress. Chronic stress, in turn, had a direct effect on consumption coping behaviors. However, anticipated events did not significantly impact consumption coping behaviors.

We also examined the mediating effects of chronic stress. This test provided evidence of partial mediation as suggested by the model. Also, the two types of stress work additively, a finding which is consistent with previous psychological studies (e.g., Norris and Uhl 1993; Wheaton 1990).

The present research suggests that stress might be a viable approach to the study of consumer behavior. The relationship between life events and consumption-coping behaviors is very strong. Furthermore, chronic stress consistently shows a significant positive impact on consumption-coping behaviors and it partially mediates the effects of life events. The findings on the relative importance of acute versus chronic stress as predictors of behavioral outcomes among older adults are consistent with findings of psychological studies. Several directions for future research are also suggested.
Ritual Aspects of Sports Consumption: How Do Sports Fans Become Ritualized?

Seungwoo Chun, University of Nebraska-Lincoln, U.S.A.
James W. Gentry, University of Nebraska-Lincoln, U.S.A.
Lee P. McGinnis, Washburn University, U.S.A.

ABSTRACT

Previous research on sports fans has focused on entertainment value, collective group influence, and self-enhancement in explaining why and how they become sports fans. The research has paid little attention to ritual aspects of sports consumption, which potentially offer individuals a chance to maintain and celebrate cultural meanings embedded in the consumption. Drawing upon in-depth interviews, we suggest that an individual’s desire for cultural identity can be a possible motivation for being a sports fan. Our data indicate that sports fans actively ritualize their sports consumption activities to acquire and maintain cultural identities. Sports fans employ several fan ritualization strategies—formalism, symbolic performance, traditionalism, and social interaction—in order to legitimize their sports consumption as meaningful ritual practice, and, thus, to connect themselves to cultural identity in a society.

Sports have become important global contemporary consumption phenomena. Sports consumption provides individuals with entertainment, group affiliation, escape from everyday life, self-esteem, etc. (Wann et al. 2001). Over the past years, a number of sports fan studies (e.g., Fisher and Wakefield 1998; Laverie and Arnett 2000; McPherson 1976) have been conducted on why and how certain individuals become sports fans. First, sports fan socialization research posits that the degree of consumer role socialization is a function of the collective influence of significant others—family, peer group, school, and community systems—because they provide role models and an opportunity set for learning the behavioral, affective, and cognitive components of the role of sports consumer (McPherson 1976). Another stream of research focuses on fan identity salience research and argues that individuals get involved in sports consumption because team or/and player identification offer them a chance of self-enhancement (Fisher and Wakefield 1998; Laverie and Arnett 2000).

Both streams of research have focused on entertainment value, collective group influence, and self-enhancement in explaining why and how they become sports fans. The research has paid little attention to ritual aspects of sports consumption, which potentially offer individuals a chance to maintain and to celebrate cultural meanings embedded in the consumption. Understanding the ritual aspects of sports consumption can also help marketers understand the depth and magnitude of sports, which is often downplayed or viewed simply as entertainment.

In this paper, we view sports consumption as ritualized practice. This view posits that sports consumption is one way to acquire and maintain a cultural sense of identity by attaching symbolic meanings to objects and activities, securing valuable traditions, and anchoring behavior in cultural and social orders. In order to show how individuals connect themselves to cultural identity through sports consumption, we introduce the concept of fan ritualization. With this concept, it is suggested that sport fans employ several strategies in order to legitimize their sports consumption as meaningful ritual practice and, thus, to connect themselves to cultural identity in a society. This might provide an alternative framework of the current understanding of why and how an individual becomes a sports fan because an individual’s desire for cultural identity can be a possible motivation for being a sports fan.

Some consumer research on ritual (Rook 1985; Wallendorf and Arnould 1991) suggests that ritual provides a vehicle through which individuals are able to connect their identities to social and cultural values. Individuals actively manipulate objects and symbols to heighten ritual experience which allows them to construct their cultural identity (Arnould 2001). For example, participants in the Thanksgiving ritual employ several strategies of decommodifying mass-produced and branded food product including repackaging, and temporal separation to celebrate the cultural values of “homemade” of Thanksgiving Day (Wallendorf and Arnould 1991). However, there has been little research on how sports fans acquire and maintain cultural identity in their sports consumption.

This study reports the findings from in-depth interviews with Japanese sport fans on their sports consumption, in particular, spectatorship. Japanese informants were selected because of Japan’s active interest in baseball and because of Japan’s collective nature. Drawing on the interviews, we suggest that desire for connection with one’s cultural identity can be a primary motive for sports consumption, and individuals actively employ various strategies to secure a sense of cultural identity in their sports consumption. In addition, we propose several primary sources which shape sports fans’ consumption practices in utilizing the strategies. This study contributes to scholars’ limited knowledge of the ritual aspect of sports consumption.

CONCEPTUALIZING FAN RITUALIZATION

This paper defines sports fandom as ritualized consumption practice, a way of action by a “ritualized social body who possesses, to various degrees, a cultural sense of ritual” (Bell 1992, p.107). Bell (1992) defines this sense of ritual as the ability to utilize schemes internalized in ritualized environments. Chicago Cubs’ fans in the left field bleachers at Wrigley Field possess this cultural sense of ritual as they catch a homerun ball from the visiting team, they perform a “loyalty” ritual which involves the throwing back of the visiting team’s homerun ball onto the field. Sports fans have developed various types of ritual activities: wearing team colors, celebrating patriotism at international games by decorating their bodies with national flags, and symbolizing personal meaning through sport-related material possessions (Eastman and Riggs 1994).

Previous research on sports consumption has characterized the ritual aspects of sports fandom as symbolized, role-assimilated, and self-enacted consumption practice. First, sports fans symbolize their consumption activities and experiences. Sport fans represent and communicate multiple symbolic meanings laden with cultural values and social relationships by manipulating objects and activities (Holt 1992, 1995). Second, sports consumption is role-assimilated practice. Sports fans occupy various ritual roles that change according to different consumption situations. For example, home fans have different roles from those of away fans in terms of seat location, cheering, or even activities outside of the stadium. Although sports fans have the freedom to enact their own roles in their sports consumption, on occasion they will experience embarrassing moments if they neglect those roles. Third, sport fans’ role-enactment is based on volunteerism. The ritualized fans accept, rather than
resist, the roles. Furthermore, many fans display active role enactment. Transcendent experiences such as flow and communitas have been identified as significant factors in motivating fans to transform roles into self-endorsed ones (Turner 1969). In the experience of communitas, everyday social roles and status disappear and are replaced by new ones that develop intense comradeship with each other (Deegan 1989; Turner 1969).

These ritual characteristics make it possible for individuals to develop self-identities linked with traditional, cultural and social values through sports consumption. Bell (1997) suggests that ritual is a means through which individuals embody the power, authority, and value of society. The individuals form communities around shared experiences and values of ritual. Arnould (2001) points out that contemporary consumers cherish ritual experiences from their consumption activities because securing cultural senses from the consumption of mass-marketed consumer goods is not straightforward. Consumers actively utilize various strategies to ritualize their consumption so as to attain culturally meaningful consumption experiences (Arnould, Price, and Curasi 1999).

How do sport fans ritualize their sports consumption? What kinds of strategies do fans employ to obtain ritual experiences through sports consumption? According to Bell (1992), a ritual is a group of activities which are distinct and privileged vis-à-vis other activities. The significance of ritual behavior lies in how such activities constitute themselves as authentic and legitimizing. Bell suggests that people utilize various ritualization strategies such as formalism, traditionalism, and dramatic performance to legitimize their activities as socially appropriate rituals. However, this ritualization practice is culture-specific because the effectiveness of each strategy depends on each culture’s value system.

Based on Bell’s (1992, 1997) theory of ritualization, we suggest that sport fans actively employ various strategies to ritualize their sports consumption. The fans can acquire and maintain ritualized sports fandom–symbolized, role-assimilated, and self-enacted–through the ritualization process. In addition, fans are able to secure cultural identity through sports consumption because fan ritualization practice is based on familiar cultural and social value systems. This view of sports fandom as ritualized consumption practice may broaden the current, more limited understanding of sports consumption which has focused on sports as mere entertainment without much emphasis on sports as a way to sustain or enhance a cultural sense of identity.

METHOD

Fan ritualization strategies have been employed as a framework to assess how sports fans legitimize their sports consumption as culturally meaningful ritualized practice in a society (Authors 2003). Authors (2003) list four fan ritualization strategies: formalism, symbolic performance, traditionalism, and social interaction, and discuss how cultural values impact the fan ritualization process.

In the current study, we conducted semi-structured, in-depth interviews with ten informants. The informants for this study were Japanese students currently studying at a large Midwestern university. These informants were randomly selected from the Japanese student society (which consists of about 80 undergraduate and 10 graduate students). The focus of the interviews was on understanding their baseball consumption experience–both in Japan and in the United States. Japanese students were selected as informants for two reasons: baseball is a very popular sport in Japan, and the informants had consumed the sport while in Japan. Interviewing these students gave us insight into the impact of Japanese culture on their ritualization process (while in Japan). In addition, their interviews helped us understand how American culture has impacted their process of baseball consumption while living in the US.

The first author conducted all the interviews. No monetary reward was offered to informants. Each interview lasted from 45 minutes to an hour and a half, was audio taped, and transcribed verbatim. The transcripts were read by multiple researchers several times each. Finally, the researchers assessed the existence of fan ritualization strategies in a baseball consumption context. We focused on the structure we (Authors 2003) had proposed earlier to guide our interpretations; at the same time, we actively sought to find evidence disconfirming the structure. In the next section, we report our findings in terms of what is (in)consistent with the fan ritualization strategies.

RESULTS: SPORTS FAN RITUALIZATION STRATEGIES

Our informants revealed that they do indeed ritualize their sports consumption experience while consuming sports. For the ritualization, they formalize, dramatize, traditionalize, and socialize their sports consumption, but differences exist in the degree of enthusiasm in enacting these strategies across fans (e.g. serious fans and non-serious fans). This ritualization of sports consumption seems to allow them to link with cultural and social values embedded in sport as well as society.

Formalism

The formalization of behavior is one popular ritualization strategy because the particularity of a situation effectively contrasts with less special ones, thus promoting the conventional and idealized order sequence of the event (Harris 1983). Our informants noted formality in their sports consumption, characterized as “the use of a more limited and rigidly organized set of expressions and gestures, a restricted code of communication or behavior in contrast to a more open or elaborated code” (Bell 1997, p.139).

When I go to the baseball stadium, I am always wearing my team’s cap. My father who is a serious Giants’ fan always wears uniforms when he goes to the stadium. He even keeps the clothes, caps, and flags at his work place (Kosuke, Male 25).

Cheering activities are also formalized, for example, cheering instruments, special activities, and songs for teams and players. Our informants mentioned several formalized cheering activities such as making noise by megaphones, flying balloons in the 7th inning, and playing musical instruments. Some cheering activities are specialized for a certain sport, team, or player. For example, Ichiro, a famous Japanese baseball player now in the United States, has his own special songs, and fans in the stadium always sing these songs when he was at bat. Our informants are well-informed about those activities and enjoy participating in them. Several informants noted that they brought items (e.g., megaphones) to participate in these formalized cheering activities. In addition, this formality of behavior in sports consumption develops into sets of rules that make it hard for sports fans to avoid. For example,

Even though I don’t think I am a serious baseball fan and have not been to a baseball stadium before, I’m going to buy a megaphone if I have a chance to go there because everybody around me has it (Keiko, Female 20).

The normative aspect of their sports consumption reflects rules that regulate ritual activities by elaborating the procedure and
the limits of acceptable behavior in the ritual. They are likely to feel a sense of guilt or a “fear of being an outsider” if they act differently from those who follow the rules and conventions of sports. Turner (1969) explicitly argues that ritual involves obligation, and all members of a society should follow the rules of the ritual.

In spite of this normative aspect of sports fans’ ritual, they voluntarily formalize their sports consumption because many of them enjoy symbolic meanings and values attached to the formalization. One informant, a Hanshin Tigers’ fan, noted that there are always balloon flying and fanfare in the middle of 7th inning before the home team’s offense starts.

We say Rakki Sehun, (Lucky 7), the seventh inning... There is tradition which says the number seven represents good luck and the strongest at bat for the Tigers. They often score runs to come from behind. In the stadium, there is announcement in the middle of the inning to remind everyone to cheer even harder during Lucky 7 (Ryuichi, Male 22).

However, the formalism of sports fans’ behavior is not evenly enacted in all sports consumption situations. Our informant also revealed situational rule enactment in their sports consumption. One informant told us that he and his father do not have any specific ritual when they watch baseball on the TV, even though they actively participate in ritual activities in the stadium. This discrepancy may be due to the collective nature of fan rituals in the stadium. These results are in contrast with those from Eastman and Riggs (1994)’s study about televised sports and ritual, who reported that wearing uniforms or the colors of a home team and eating special food are common to American sports fans when they are watching games on TV.

Other informants also suggest this situational rule enactment; for example, their participation in cheering activities varied according to the people with whom they went to the stadium. One informant said that he felt shy at actively joining in the cheering activities when he went to the games with his girlfriend and his family because he was concerned about his partner and family members’ feelings about his cheering activities, which are very different from his normal behavior.

These results suggest that social surroundings are crucial factors in formalizing behavior. This situational rule enactment reflects Japanese cultural values that the self is viewed as interdependent with the surrounding context, and it is the “other” or the “self-in-relation-to-other” that is focal in individual experience (Markus and Kitayama 1991). The maintenance of harmony with others may contribute to enhancing the sports consumption experience.

**Symbolic Performance**

Bell (1997) suggests that dramatizing performances in rituals make the event extraordinary by evoking the condensed emotions among participants. This induces participants to articulate symbolic meanings related to the ritual. This ritual performance is dramatized by highly visual imagery, dramatic sound, and extraordinary settings. Dramatized ritual performance is not improvised on the spur of the moment. Pre-existing ritual scripts guide the performance and serve as criteria for its evaluation (Rothenbuhler 1998). Our informants noted that they appear to be knowledgeable about various types of symbolic performances and enjoy these activities and the symbolic meanings embedded in them.

People use musical instruments such as trumpets, drums, and violins. They make special sounds to organize cheering activities in the stadium. Also, people sing a song and dance together with the music (Masa, Male 20).

Several informants mentioned diving into Dotonbori River, the famous dramatic ritual performance of the Hanshin Tigers’ fans to cerebrate their team’s winning. They noted that the ritual represents courage and bravery which they think Osakans’ unique personality and distinguishing them from Tokyo residents. The media reported that over 5,000 ecstatic Hanshin fans dived into the Dotobori River in Osaka to celebrate their first Central league pennant in 18 years in September, 2003.

However, not all spectators participate in every symbolic performance. There seems to be separation between normal fans (most of our informants) and serious fans. Even though some serious fans such as supporter group members voluntarily organize and participate in collective cheering activities, many other fans sometimes just watch the serious fans perform, in large part because they have not spent the time and effort in organized preparation and practices before performing the rituals.

For example, they (serious fans) dance singing the song, but it is hard for me to join in the activity and to know how to dance. But, many serious fans really enjoy the dance…. Yeah, but, some people know it, how to dance. These are for some serious fans, not like me (Toru, Male 26).

These dedicated fans who have formed themselves into supporter groups and their self-appointed leaders encourage other spectators to cheer their team with chants, drums, and noisy maracas for nine innings of almost nonstop cheering. Japanese games are very noisy events from start to end. Our informants noted that they often lost concentration on the game because of the cheering activities. Moreover, they said that this is very different from what they have experienced in American ballparks. There is a more frenzied feel at a Japanese ballgame–more like an American college football or basketball game.

This cheering appears to act as a tension release for the normally self-controlled Japanese. One informant mentioned that a stadium serves as a socially legitimized place for shouting and making noise, suggesting that the stadium is a place to “let one’s hair down” without being socially sanctioned.

I think I have another reason to go to the stadium and shout with a megaphone. I think that people have no place to yell. It bothers other people. People are very sensitive to other people in normal situations. I think it is Japanese culture (Toru, Male 26).

These results indicate that the Japanese fans enjoy collective types of cheering activities, which represent a harmonized expression of symbolic meanings by the participants. This reflects the general spirit of Japanese baseball, which can be described as “to contribute to the team by not showing off, or being individualistic.” These types of collective fan rituals are in contrast to the self-expressive rituals which are visible in individualistic fans’ ritual performances. In American ballparks, one frequently observes fans who have painted their bodies or faces to show their support of the team. U.S. baseball fans also enjoy bringing creative and special signs (e.g., the CUBS and WGN are #1 (Holt 1995)) to the stadium to support the team and players. Individualistic performances are easily identifiable in terms of his or her role or aesthetic expressions while performing a ritual. It could be argued that collectivism is demonstrated when a row of American fans paint their chests with...
the name of player for whom they are rooting, with each fan showing a different letter of the name. Even though these fans need each other to successfully represent the expression, the group is still separating itself from the rest of the fans.

Our results indicate that feeling “togetherness” through collective rituals contributes to the enhancement of their sports consumption experiences. Collective cheering seems to satisfy the Japanese need for harmony and allow them to be part of the group. One informant noted that he watched his home team with other fans on the screen at the stadium when his team played away-games. These findings reflect interdependent cultural values that emphasize interconnection and interdependency with other people (Markus and Kitayama 1991).

**Traditionalism**

Baseball, similar to sumo wrestling, has a splendid history and tradition in Japan. Baseball was first introduced in 1873 and it became Japan’s most popular modern sport through the late Meiji period (1868-1912), Japan’s early modernization era. The Meiji leaders cultivated baseball as one way of westernizing their people. In the early 20th century, the railway and newspaper industries supported various high school baseball tournament games (e.g., Koshien Games) to promote their businesses (Kelly 1997). This is in contrast to the nostalgia of American baseball which seems to closely overlap with America’s small-town, pre-industrial past (May 1989).

Traditionalization is a common way of legitimizing ritual activities by attaching mythical and sacred power to the “past” in the ritualization process (Bell 1997). Bell (1997) notes that, as a powerful tool of legitimation, traditionalization may be manifested in “the repetition of activities from an earlier period, the adaptation of such activities in a new setting, or even the creation of practices that simply evoke links with the past” (p. 145). Nostalgia for the past is essential for sports fans in enhancing their enjoyable sports consumption. This sense of the past in sports consumption plays a role in the construction of a shared collective identity among the fans.

Our informants attach various meanings to the traditions of sports. For example, several informants noted that the Koshien stadium itself, the first modern baseball stadium built in 1924, offers Japanese baseball fans sacred value such as the emergence of modern Japan even though the seats and aisles are extremely narrow, and the amenities are basic. There have been proposals to upgrade the place, but the changes are usually not accepted by the fans. One informant noted that

I think …baseball is a kind of symbol for Japanese old guys … after World War II. In the early 20th century, Japanese tried to follow American culture. People tried to learn what’s popular in the United States. And that is mixed with Japanese culture. I think that’s why baseball was very popular. We liked Americans even though we lost WWII because we thought Americans are more civilized and developed than us. We respected American officials because they treated us very fairly. They were not very brutal. That’s why baseball became popular (Toru, Male 26).

The Japanese professional baseball league has prospered under big corporate ownership and, throughout the last century, baseball has been a significant arena for the display of the ideologies and institutions of modern Japan (Kelly 1997). In recent years, these traditional values of the Japanese baseball have become more salient to its consumption when compared to soccer. Soccer recently gained popularity and its professional league (J-League) started in 1993. One informant said that

…soccer is pretty much rooted in local (environment). Many professional soccer teams are located in small cities. So, a lot of local people go to cheer. But baseball is not like that. More nationwide. The baseball teams are owned by big companies. So, Giants, people from somewhere not from Tokyo can be a really big fan of Giants. It may be the effect of the media because Yomiuri is a big media company and has the Giants (Toru, Male 26).

Several informants noted that soccer fans come from the younger generation, but baseball fans appear to be more from the older generations in which an individual self is less valued than a collective self. One informant noted that supporter group members for soccer teams are younger, and their cheering activities are heterogeneous and less organized than those of baseball. For example, the megaphone, an important item for cheering activities in the baseball stadium and symbolized as something controlling players and cheering activities, is rarely used for cheering activities in the soccer stadium. This megaphone seems to symbolize hierarchical values which have been a basis for Japanese economic development. Instead, several informants noted that cheering activities in the soccer stadium reflect local values more.

**Social Interaction**

Social interaction in the ritualization process refers to a set of activities for learning or sharing ritual activities and their symbolic meanings. Individuals may learn how to perform the various activities of a ritual and its symbolic meanings from family, friends, community members, or media. Bell (1992) introduced the concept of “ritual specialists” who have socially recognized authority to judge the importance of ritual and the performance’s correctness. Ritual specialists may serve to legitimize the social importance of the ritual, and to diffuse the correct way of performing it.

Our informants noted that various social groups including media and supporter group serve as ritual specialists. Several informants informed that oendan (supporter groups) plays an important role in devising fan rituals and educating less ritualized fans. Our informants are well-informed about supporter groups’ activities even though they are not members of any group. Generally, the oendan equipped with massive flags, taiko drums and trumpets leded chants for teams and players. There is not only one supporters group for a team. Our informants noted that five or six oendan were cheering for a home team and each group was trying to outdo the others. They noted that supporter groups and their activities are highlighted in the media on a big game day (e.g. the Japan Series).

Our informants are aware that these Japanese baseball supporter groups are being managed based on their fans’ voluntary cooperation. Kelly (1997) reported that even though the groups sometimes receive support from the team management, for example, when purchasing group season tickets, most of members of the groups have self-defined roles from providing drinking and eating to playing an music instrument in a game day.

Supporter group activities are not limited to organizing and leading cheering activities. The members also enjoy other social functions such as making friends through this gathering. For example, Kelly (1997) reported that the membership of many Japanese baseball fan clubs comes from the employees of companies and their business associations. These fan clubs, oftentimes, facilitate maintaining favorable business relations among the local communities. One informant noted that
(They are) gathering together, updating team information, and the national soccer team’s supporter group; they go abroad together to watch a game of the Japanese national team. Close relationships developed among members through these activities (Toru, Male 26).

In addition, the media are important sources for Japanese fans to learn fan ritual activities. For example, many Japanese are familiar with the Giants’ fight songs because they are often televised though network TV. On the other hand, close social groups (e.g., family or close friends) do not seem to serve actively as ritual specialists more than socially official groups (e.g., supporter groups or media) do. One informant noted that

I: Do you have any specific type of cheering and something to do that (you) only share with your family, friends, or your co-workers? Something different from other people?
R: Not really, most of things that we do are similar to what other people are doing there (Kosuke, Male 25).

These results reflect that official social groups acting as ritual specialists have authority power in the legitimization of fan ritual activities more than do close social groups in the collective culture. Thus, other-focused and high-power difference cultures (e.g., Japanese and Korean) may consider officialness and representativeness in overall society to be more important than close ties in the establishment of the authority of social groups.

DISCUSSION AND CONCLUSION

Sports fandom as ritualized consumption practice implies that sports fans are active participants who symbolize and celebrate sports consumption by voluntary role-enactments as sports fans. This perspective of sports fandom raises new questions such as how individuals acquire and maintain ritualized sports fandom and what are the important influences in the fan ritualization process. An attempt to answer these questions might help us understand the role of sports consumption in constructing the fans’ cultural identities.

The results of this study suggest that sports fans employ various ritualization strategies—formalism, symbolic performance, traditionalism, and social interaction—to acquire and maintain ritualized sports fandom. In addition, our data imply that cultural values, sport traditions, and social roles may play important roles in utilizing these strategies in the fan ritualization process. Kozinets (2001) reported that meanings idealized about the media-product have a great impact on the construction of Star Trek fans’ consumption practice, but the practice is mediated by their need to conform to wider macrocultural categories of appropriately controlled consumption. In this study, we suggest that cultural values, sport traditions, and social role provide influential meanings and practices that structure consumers’ identity, actions, and relationships. Our informants suggest that they recognize and enjoy cultural identities weaved with interdependent and harmonious values while engaging in various ritualized sports consumption including collective cheering and support group activities. In addition, the differences in consumption practices between baseball and soccer exemplify the influence of sport traditions and social roles on sports consumption meanings and practice.

Our research primarily contributes to the limited knowledge of the ritual aspects of sports consumption. This contribution has potential to extend the current understanding of how an individual becomes a sport fan. The theory of sports fan socialization suggests that socialization is a function of the collective influence of socialization agents (e.g., family, peer group, school, and community social systems) (McPherson 1976). The theory assumes that sports fan behavior is learned via observation and imitation of role models who are present in a variety of social systems. However, our research implies that sports consumption practice is much more than mere imitation of other fans’ behaviors. Sports fans actively employ various strategies to legitimize their sports consumption practice as appropriate sports fandom. Our research suggests that cultural values, the social role of sports, and the sport traditions play important roles in the legitimization process. Thus, sports consumption practices enable fans to link to cultural values and meaningful social relations by acquiring and maintaining this
sports fandom. In essence, sports consumption becomes another vehicle through which fans can become part of the greater society.

On the other hand, fan identity salience research suggests that individuals get involved in sports consumption because team or/ and player identification offer them a chance for self-enhancement (Fisher and Wakefield 1998; Laverie and Arnett 2000). This stream of research relates sports fans’ sense of self to their team/player identification. However, our findings suggest that team/player identification is not the only factor in shaping sports fans’ sense of self. They actively create and build their identities as sports fans by attaching symbolic meanings to objects and activities, securing their valuable traditions, and anchoring their behavior in cultural and social orders through the fan ritualization process. Therefore, sports fans, in their roles as ritual participants, may celebrate not only successful team performance, but these symbolized cultural meanings through engaging in a variety of sports fan rituals.

This study demonstrates that the role of sports consumption in society is not just entertainment, but also a valuable way for people to connect themselves to the greater collective. The cheers and chants in which people engage do more than merely demonstrate support for their team; it provides an opportunity to relive and celebrate their historic roots and traditions. By understanding that fans use sporting venues for meaningful ways to connect with other fans and to celebrate their traditions, marketers are better equipped to foster environments that allow participants to demonstrate these rituals. Commercial attempts to create or reproduce frivolous rituals are often met with resistance, but integrating and sustaining meaningful rituals will provide additional reasons for people to attend games.

Our study highlighted the collective nature of Japanese rituals and indicated that American fan rituals appear to be more individualized. This does not mean that American fans may not be susceptible or willing to engage in more collective rituals. Aaker and Williams (1998), for example, found that collectivist appeals in advertisements tended to lead to more favorable attitudes for members of individualistic audiences and vice versa. The same relationship may also be found in sports. In an amorphous society like the United States (Celsi, Rose, and Leigh 1993), terrorism and other elements have made people increasingly alienated and frightened, making such places as sporting venues increasingly more important for experiencing ritual activity. Marketers and managers might find that collective rituals can help American cope with their fears by allowing them more leeway and opportunities to feel connected. Reintroducing past and outdated rituals to American ballparks may indeed enliven crowd response and encourage greater participation and attendance.

REFERENCES
A Focused Conversation Model in Consumer Research: The Incorporation of Group Facilitation Paradigm in In-Depth Interviews
Peisan Yu, Tung-Hai University, Taiwan

ABSTRACT

Toward a trend of multidisciplinary approach in consumer research, this article attempts to extend the current conduct of individual in-depth interviews with the integration of group facilitation techniques. Based on one of the major modules of professional group facilitation, the Focused Conversation Method adopts a holistic approach to the natural flow of human thinking processes. The researcher proposes that it enhances not only the interviewing skills through the iterative and sequential use of this procedure, but also the elicitation of thoughts, reflections and emotions among research informants. For research topics whose corpus of study are still obscured from the current literature, the author further posits that the Focus Conversation method can significantly benefit the discovery and interpretation of their underlying dimensions and issues.

Starting from the late 1970s, the field of consumer research has been undergoing a major movement toward paradigmatic pluralism where positivist perspectives, as well as an interpretivist representation of consumer behavior, are both rendered a feasible path of consumption epistemology (Calder et al. 1981; Denzin and Lincoln 2000). However, with respect to this new genealogy of qualitative inquiry, criticisms still exist to its philosophical integrity and methodological adequacy. To various degrees, ambiguity is found in the planning and implementation of the data collection process per se, even though ample endeavor has already been provided to improve its conduct (McCracken 1988; Thompson 1990, 1991, 1993).

Specifically, in doing personal in-depth interviews, the field data collector, in most cases played by the researcher himself/herself, is generally referred to as the “interviewer”, “moderator”, “leader” (in group settings) and/or sometimes the “facilitator” (Greenbaum 2000; Kitzinger and Barbour 1999; Mariampolski 2001). Apart from their nominal distinctions, the terms are oftentimes used interchangeably and loosely, implying a blurry line in the demarcation of these roles. Moreover, although a number of sources is present to address the fundamental issues of qualitative data collection (e.g., Briggs 1986; McCracken 1988), uncertainty still exists regarding the systematic approach, as well as the guidelines and principles that can be used to aid the actual execution of an interview session (Fontana and Frey 2000; Frey and Fontana 1993; Greenbaum 2000; Janesick 2000; Michell 1999).

On the other hand, until more recently, the informants, participants, or interviewees from the researched party have been treated as no more than the living instrument from which data are collected (Chrzansowska 2002). In contrast, in the scenario of group facilitation whereby participation is the principal objective of a successful conduct, a group facilitator always juxtaposes in his/her design both the welfare of the researching and the researched party (Philbrook and West 2002a, 2002b, 2002c; Stanfield 2000).

In pursuit of a procedurally sound approach in qualitative inquiry, the present article intends to serve as the first in a series of efforts to apply the practices of group facilitation techniques to augment the paradigmatic perspective of in-depth interviews in consumer research (Spencer 1989, Stanfield 2000). In particular, a core module called the “Focused Conversation Method” is introduced and empirically adapted in an exploratory study in the topic of “My home, My Comfort: A Consumption Interpretivism of Its Fantasies and Reflections.” Preliminary results are later reported to examine its feasibility in qualitative inquiry and the scenario of consumer research. On the whole, this demonstration shows the added value of building interpretive knowledge of consumer behavior using a focused conversation model.

I. METHODOLOGICAL PERSPECTIVES IN IN-DEPTH INTERVIEWS

Two types of qualitative data collection techniques are generally recognized as the most preferred methods by the researchers, namely, focus group interviews and individual in-depth interviews (Denzin and Lincoln 1998; Mariampolski 2001; Patton 1999). While focus groups are a feasible way of obtaining data in group settings, individual interviews are more common when disclosure of introspective data is desired from individual sources (Baker and Hinton 2000; Crabtree et al. 1993; Fontana and Frey 1998; Greenbaum 2000; Krueger 1993; Mariampolski 2001). Despite their growing popularity among both academics and practitioners, depth interview methods frequently encounter application problems that are presumably either inherent in the original protocol of the design or are caused by a “formulaic approach” that fails to apply the technique to its fullest potential (Gilchrist 1999; Kitzinger and Barbour 1999; Morgan and Krueger 1993). Various attempts have therefore been made to patch up these methodological limitations. Paget (1999), for instance, has described depth interviewing as “...a science of subjective experience” through which “the use of a systematic method of constructing knowledge and reporting the phenomena studied” elicits a subject’s lived experiences which are recorded for later interpretation. This differs from the conventional view treating the subjects being interviewed as merely “well-guarded vessels of feelings.” In order to achieve active interviews, it is proposed that the interviewer must establish a climate for mutual disclosure.1 Likewise in their 2000 article, Fontana and Frey construct the task of in-depth interviewing as a “negotiated accomplishment”.

In short, the research paradigm for working researchers to construct a sound and emergent design based on their best understanding of the issues being observed (McCracken 1988; Belk, Wallendorf and Sherry 1989) has gradually shifted from the once prevailing view of a researcher-dominant practice to a more balanced mutual-sharing from which both parties involved are expected to provide input in order to achieve a mutually beneficial collaboration. Thus, the role of interviewee/informant should no longer be treated as the mere carrier of stories, fantasies, and experiences when the right of serendipity is reserved exclusively to the researcher/interviewer in the iterative process of analysis. Nor, on the other hand, should it be still held a universal truth to place the accountability solely on the side of the researching party for the emergence of meaningful themes and constructs out of the data collected. Interviewees/informants are now being invited to join the alliance of their ethnographic performance by partaking in the identification and definition of the issues under study. Nevertheless, researchers still preserve a panoramic view and a broader interpretive perspective from cross-interview analysis and other forms of

1See Holstein and Gubrium (1999), pp. 111-113
A Focused Conversation Model in Consumer Research

II. INCORPORATING GROUP FACILITATION TECHNIQUES INTO THE IMPLEMENTATION OF DEPTH INTERVIEWS

Originally derived from a proactive response to the broad-based, fast-paced and changing world of workplace and the community, the Technology of Participation was invented by the Institute of Cultural Affairs with the purpose of building a common ground of communication in community building. This technique was later expanded its service to team building work in corporate settings (Philbrook and West 2002a, 2002b; Spencer 1989; Stanfield 2000). Among these methods, the Focused Conversation module is worthy of special attention by qualitative researchers in the context of consumer ethnography (Stanfield 2000). A four-stage process is embedded into the design. The facilitator/leader takes a holistic systematic approach by asking a series of questions to elicit responses that take the other party or parties from the surface of a topic to its depth, and derive implications for their life and work (p. 17, Stanfield 2000). Reflecting a natural unconscious process of perception, responses, judgment, and decisions in the human mind, the four levels provide an excellent foundation for in-depth probing.

As illustrated, the more objective and impressionistic questions often come first, followed by reflective questions that call for instinctual personal reactions and associations. Next, interpretive questions prompt digging deeper for insights and patterns. Finally, the decisional stage calls forth the “so-what” question(s).

Moreover, there are five preparatory steps in this approach. A brief depiction is provided in the following paragraph.

1. **Focus the conversation:** The establishment of a focal direction of the conversation;
2. **Formulate the objectives and aims of the conversation:** The formulation of the practical results and experiential aims;
3. **Brainstorm the questions:** The elicitation of plausible questions to be asked;
4. **Order and sequence the questions:** The organization of the questions according to the four levels of flow; and
5. **Rehearse the questions.**

A. Applying the Method to Depth Interviews

In applying the focused conversation technique, twelve in-depth personal interviews were conducted on the topic of “My Home, My Comfort: An Consumption Interpretivism of its Fantasies and Reflections” between the months of July to October, 2002.

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EXHIBIT 1

<table>
<thead>
<tr>
<th>Modes of conduct in in-depth interviews</th>
<th>Grounding paradigm</th>
<th>Employed Approach</th>
<th>Its source of origin</th>
<th>Representational framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>The long Interview</td>
<td>Researcher-dominated</td>
<td>Participant-observation</td>
<td>Anthropology</td>
<td>McCracken (1988)</td>
</tr>
<tr>
<td>Naturalistic Inquiry</td>
<td>Emergent design</td>
<td>Critical Interpretivist</td>
<td>Consumer research</td>
<td>Belk, Wallendorf and Sherry (1989)</td>
</tr>
<tr>
<td>Modular</td>
<td>Participatory Participation-Converged</td>
<td>Gestalt</td>
<td>Group facilitation</td>
<td>Facilitated Focused Conversations (Spencer 1989, Stanfield 2000)</td>
</tr>
</tbody>
</table>

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observation. A comparison of the different approaches in in-depth interview is illustrated in Exhibit 1.

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2Initiated ironically by the traumatic experiences of surviving soldiers of WWII, the method was first introduced by Joseph Mathews, a former army chaplain and a resumed university professor, through the help of an art professor who showed him the use of a triadogue in art appreciation. Following the same line of thinking, Mathews decided to experiment this approach in conversations on various art forms with his university community. The method started to spread from classroom into a Chicago urban slum on community building works in the 1960s and gradually permeated into other public and private sectors to suit the need of organizational needs.

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3Ibid, p. 21. The advantages of the approach can be summarized as follows:
1. Above all, the method contributes to the thinking process, which prevents a conversation from drifting aimlessly along;
2. It is versatile and works with people of mixed backgrounds, ages, and varying levels of acquaintance, from total strangers to long-term colleagues;
3. It provides an excellent way to focus people on a topic long enough to determine what direction is needed. This kind of focus is a time saver, and often a saver of psychological energy;
4. The process has a way of sidetracking politicking and power plays;
5. It provides the room for genuine listening while avoids negative thinking; and, last but not least,
6. It allows honesty.
The key informants were 5 men and 7 women, aged from 32 to 68, with a wide variety of occupational choices, residential. The major screening criteria for the informants were that they all had an abode that they considered their home and in which they had been dwelling on a regular basis. The length of each interview ranged from 2.5 hours to 3.5 hours. Each interview was audio-recorded and later transcribed verbatim. With the exception of two informants, all the interviews were conducted in the informants’ current home and still photos of their home were taken toward the end of each interview. The flow of the interview proceeded as follows, with quotes indicating an example of the actual words spoken by the facilitator/interviewer:

The opening remarks: “The subject of our interview is home and comfort.” First of all, I would like to thank you for agreeing to be interviewed and I would like now to have your permission to disclose your thoughts and feelings about the focal issue [the informant agreed]. As you may have known already, this is an academic research project, and therefore all of the data you release in our conversation will be kept strictly confidential. Now, if you are ready, I would like to begin the interview.

The interview questions were then delivered following the ORID order. See Exhibit 4 for a description of the questions. The graphic drawings of the informant’s current home and their ideal home respectively. After the ORID session, the informant was asked to draw on a piece of blank paper, from a bird eye’s view, their existing home, highlighting any spots, corners, rooms and/or objects that best represent their idea of a comfortable home with a caption and a brief line of written description, then provide a verbal explanation of their thoughts and feelings to the interviewer. Afterwards the informants was further requested to do another drawing of their ideal home, again from a bird eye’s view and highlighting the relevant spots, corners, rooms and/or objects that best represent their idea of a home of comfort. During the time in which the informant spent on drawing, the interviewer went around the house and took still photos with a digital camera of the objects, corners, spots or rooms specified by the informants in the interview.

Next the interview requested the informants to do two monologues with their home: first from the owner/dweller to his/her

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EXHIBIT 2
Levels of Probing in the Focus Conversation Method

<table>
<thead>
<tr>
<th>Level of In-depth Probing</th>
<th>Some Sample Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The objective level—</td>
<td>“What is it?”</td>
</tr>
<tr>
<td>1. It involves questions about facts and external reality;</td>
<td>“What do you remember/recall of the words/event/saying of…?”</td>
</tr>
<tr>
<td>2. Often forms the frame of reference to the top of mind awareness of informants;</td>
<td>“What is involved?”</td>
</tr>
<tr>
<td>3. It is germane that this level of information be disclosed early on in the conversation so as situate the interviewer within an identified domain of allusion.</td>
<td></td>
</tr>
<tr>
<td>The reflective level—</td>
<td>“What do you feel?”</td>
</tr>
<tr>
<td>1. It deals with questions that call forth immediate personal reactions to the data.</td>
<td>“What does it remind you of?”</td>
</tr>
<tr>
<td>2. It is derived from an internal response, sometimes emotions or feelings, hidden images, and associations with the facts.</td>
<td>“Where were you surprised/delighted?”</td>
</tr>
<tr>
<td>3. Conceivably it is an instinctual response within the human mind to naturally react to both external and internal experiences.</td>
<td>“Where do you feel difficult/stuck?”</td>
</tr>
<tr>
<td>The interpretive level—</td>
<td>“What does all this mean to you?”</td>
</tr>
<tr>
<td>1. It includes questions that draw out meanings, values, significance, and implications will be raised so as to assign the meanings and understanding of their importance.</td>
<td>“What is your general understanding of this?”</td>
</tr>
<tr>
<td>2. At this level meanings and understandings are surfaced at the level of awareness in order to designate judgmental, rather than reflective, synthesis, to the experiences.</td>
<td>“What are we learning from this?”</td>
</tr>
<tr>
<td>3. Certain conclusive elaborations such as evaluations, appraisals, and attitudes are thus formulated and articulated.</td>
<td>“What is the insight?”</td>
</tr>
<tr>
<td>The decisional level—</td>
<td>“What will you do from here?”</td>
</tr>
<tr>
<td>Questions are designed to elicit resolution, to bring the conversation to a close, and to enable the group or individual to make a resolve about the future are delivered.</td>
<td>“What are the next steps?”</td>
</tr>
<tr>
<td></td>
<td>“What will you do in the future?”</td>
</tr>
</tbody>
</table>
## EXHIBIT 3
Preparation of the Focused Conversation

<table>
<thead>
<tr>
<th>Step</th>
<th>Rationale</th>
<th>Alternative Approach</th>
<th>Source of reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Focus the conversation</strong></td>
<td>Conversation-oriented: With a clearly defined focus, it helps to formulate the focus question(s) to be raised in the discussion and provides the participant with a lucid sense of direction as to where the conversation is headed.</td>
<td>Research-oriented questions</td>
<td>Merton 1999</td>
</tr>
<tr>
<td><strong>2. Write down the intent of the conversation</strong></td>
<td>The goals are developed from two angles 1) The Rational Objective (also called practical results,) indicates the practical goal of the conversation. In the case of qualitative research, the goals may be to gather data of self-reflections, self-retrospections, or self-introspections through verbal, written or graphic forms of self-disclosure by the informants. 2) The experiential aim refers to the inner impact the leader or researcher wants the conversation or interview to have, usually expressed in the form of a feeling state, mood or overall atmosphere that the facilitator wishes to create.</td>
<td>No clear demarcation in the current literature</td>
<td>Philbrook and West 2002a</td>
</tr>
<tr>
<td><strong>3. Ensure a Concrete Beginning Point for the Objective Questions.</strong></td>
<td>The design of a transitional moment of opening with a mutually shared common ground before the group or pair achieves a level where genuine sharing and discussion of the focal issue can take place.</td>
<td>Similar design is found in applied and academic research design</td>
<td>Philbrook and West 2002a, Chrzanowska 2002</td>
</tr>
<tr>
<td><strong>4. Brainstorm Questions to Realize the Rational Objective and the Experiential Aim.</strong></td>
<td>Here the facilitator jots down all the possible questions that could be asked on the topic according to the occurrence of the words in the discussion rather than following strictly the order of O-R-I-D. This step allows the facilitator to better capture the comprehensive scope of the issue and prioritize the questions that are considered more pertinent to the focal issue. In the situation where the preparation of an in-depth interview session is being processed, the interviewer/facilitator could make the best use of this step to coordinate between the needs of the researching party and that of the researched party, the participants to allow the gains from both sides.</td>
<td>No modular design Nominal group approach</td>
<td>Spencer 1989, Claxton, Ritchie and Zaichowsky 1980</td>
</tr>
<tr>
<td><strong>5. Select the questions the facilitator sees fit</strong></td>
<td>In light of the preset rational objectives and experiential aim, choose only the questions that will offer the facilitator the information needed, and eliminate the rest.</td>
<td>No particular approach adopted by alternative perspectives</td>
<td>McCracken 1988, Spencer 1989, Philbrook and West 2002a</td>
</tr>
<tr>
<td><strong>Scramble the order of the questions</strong></td>
<td>At this stage the facilitator rearranges the order of questions according to their appropriate level of occurrence until each one flows easily into the next.</td>
<td>No particular approach adopted by alternative perspectives</td>
<td>Spencer 1989, Philbrook and West 2002a</td>
</tr>
<tr>
<td><strong>Rehearse the conversation in Head</strong></td>
<td>The facilitator goes over the conversation, and practices with himself/herself the delivery of the questions. It allows a chance to comprehend the questions from the standpoint of a participant, noticing especially the ones that tend to be difficult in answering and try to rephrase them for greater understanding and ease in the answering. Also it helps to ensure that questions lead naturally from one to the next, without any sudden leaps.</td>
<td>No particular approach adopted by alternative perspectives.</td>
<td>Spencer 1989, Philbrook and West 2002a</td>
</tr>
<tr>
<td><strong>Prepare the opening comments with care</strong></td>
<td>The intention of opening statements serves: 1) To invite and focus the attention; 2) To remind certain prior consensus; 3) To provide the context in which the group ought to operate; and 4) To forestall any foreseeable objections.</td>
<td>No particular approach adopted by alternative perspectives</td>
<td>Spencer 1989, Philbrook and West 2002a</td>
</tr>
<tr>
<td><strong>9. Prepare the closing with care</strong></td>
<td>At this stage the facilitator brings the conversation to an end, while recognizing there may still be unsolved issues left for future conversation.</td>
<td>No particular approach adopted by alternative perspectives</td>
<td>Philbrook and West 2002a</td>
</tr>
<tr>
<td><strong>Reflect on the conversation, the group, and the facilitator</strong></td>
<td>In this section the facilitator “ dances” with the interviewee/informant and reflects the rhythm of the “ choreography” by going over the entire design and improving the smoothness of its flow.</td>
<td>No particular approach adopted by alternative perspectives</td>
<td>Spencer 1989, Philbrook and West 2002a</td>
</tr>
</tbody>
</table>
## EXHIBIT 4

The Four Levels of Questions in Focus Conversations and its Operationalization in the In-depth Personal Interviews of “My home, My Comfort: A Consumption Interpretivism of Its Fantasies and Reflections.”

<table>
<thead>
<tr>
<th>Rational Objectives (for the interviewer)</th>
<th>Experiential Aim (for the informant)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete verbal and graphic disclosure of reflections, stories, reminiscences and fantasy of a home of comfort</td>
<td>Fun, warm, absorbing, profoundly introspective, sharing, fanciful</td>
</tr>
</tbody>
</table>

### Levels of focus

<table>
<thead>
<tr>
<th>Objective (O)</th>
<th>Reflective (R)</th>
<th>Interpretive (I)</th>
<th>Decisional (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Focus of the questions</strong></td>
<td>(Data, the “facts” about the topic, external reality)</td>
<td>(Internal relationship to the data)</td>
<td>(The life meaning of the topic)</td>
</tr>
<tr>
<td>The words, images, objects and spatial settings being presented in a home of comfort</td>
<td>The emotional state and mood of the when being in a home of comfort</td>
<td>The cognition of the informant’s existing state of comfort at his/her current home</td>
<td>The actions that can be taken in order to enhance the level of comfort at home.</td>
</tr>
<tr>
<td><strong>What it does for the interviewee</strong></td>
<td>(Ensures that everyone deals with the same body of data and all the aspects)</td>
<td>(Reveals its initial responses)</td>
<td>(Draws the significance from the data for the group)</td>
</tr>
<tr>
<td>Ensures that the informant starts contemplating with the various aspects of the issue</td>
<td>Reveals his/her initial responses of feelings and mood</td>
<td>Self-disclosure of the current state of being with regard to his/her cognitions of a home of comfort</td>
<td>Future outlook of the creation of a home of comfort, action-wise and conception-wise.</td>
</tr>
<tr>
<td><strong>Questions are in relation to</strong></td>
<td>(The senses: what is seen and heard and touched etc.)</td>
<td>(Feelings, moods, emotional tones, memories or associations)</td>
<td>(Layers of meaning, purposes, significance, implications, “story” and values. Considering alternatives, options)</td>
</tr>
<tr>
<td>The imagery, semantics and objects involved with a home of comfort</td>
<td>Reminiscence of the joyful and difficult memories and associations with a home of comfort</td>
<td>Layers of meaning, awareness, perception, implications, “stories” and values in the maintenance and creation of a home of comfort. Consideration of alternatives, and options.</td>
<td>Implication, implementation, and action</td>
</tr>
<tr>
<td>The five senses: what is seen, heard, smelt, touched and tasted.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Key questions

- What are the words that come into your mind when you think of a home of comfort?
- What are the objects that come into your mind when you think of a home of comfort?
- What are the scenes that come into your mind when you think of a home of comfort?
- What are the spatial settings that come into your mind when you think of a home of comfort?
- Use your five senses to describe a home of comfort.
- Use your sixth sense, or holistic sense, to describe a home of comfort.
- What is your mood when being in a comfortable home?
- State at least three things that you like most about a comfortable home.
- State at least three most difficult things in maintaining a comfortable home.
- What is your own definition of a home of comfort? Provide at least three examples of the presentation of a home of comfort. How comfortable are you in your current home?
- What was your idea of a comfortable home when you first moved into your current home as opposed to now?
- What are the changes you observe taking place during your habitation?
- Graphic drawing and verbal description of the informant’s current home and the identification of spots, corners, objects and rooms that best represent the idea of a home of comfort.
- State at least three things that will directly threaten your idea of a comfortable home.
- State at least one thing that can be done to make your home more comfortable.
- Graphic drawing and verbal description of an ideal home of comfort.

### Traps and pitfalls

- Asking closed questions, or questions not specific enough; no clear focus. Ignoring objective questions because “they are too trivial”.
- Limiting the discussion to an either/or survey of likes and dislikes.
- Abusing the data by inserting pre-cooked meaning; intellectualizing, abstracting, judging responses as right or wrong.
- Forcing a decision when group is not ready or avoiding pushing group for decision.

### If this level is omitted

- The world of intuition, memory, emotion and imagination is ignored.
- Group gets no chance to make sense out of the first two levels.
- No higher-order thinking goes into decision-making.
- The response from the first three levels are not applied or tested in real life.

*The descriptions in the parenthesis indicate the conceptual dimension of the module, with the rest indicating the operationalization of the current study.

Source: Syndicated from Stanfield, R. Brian (ed.) (2000), The Art of Focused Conversation: 100 ways to Access Group Wisdom in the Workplace (pp. 26-29)
house, and secondly from the home/house (impersonated by the informant) back to its owner/dweller (Marcus 1995).

In the closing comments, the interviewer asked the informant to add anything that was left unsaid in the conversation and then announced to the informant that the interview was now completed.

B. Preliminary Findings and Discussions

Since the major purpose of this article is to examine the potential value of a new methodological tool in doing depth interviews, the discussion in this section is thus focused mainly on the feedback and observations gained from the execution of the technique per se, rather than a presentation of the data content gathered from the field.

Accomplishment of the rational objectives and the experiential aims. It should be noted that all of the interview sessions were conducted smoothly, with all of the informants successfully completing the requested tasks. Except for two informants, all the rest underwent a profound self-introspective journey in the interview about the intertwined relationships of their ideal state of home comfort and their real state of being in life, as is also evidenced in the current literature. Some even felt that the impact of the interview reached the level of a transformative encounter such that the journey had led them to go beyond the subject matter under discussion into a contemplation of the more central issues in their lives. While no substantial research has been done on informant/respondents’ experiences of the depth interview (Chrzanowska 2002; Gordon and Robson 1982), the current study serves as one among the few to demonstrate the salience of therapeutic effects that often results from an in-depth interview (Marcus 1995).

General flow of the process

On the whole, the informants did not have any problem in comprehending the questions raised, nor did they find any incongruence in the order of questions. However, several of them did show digressions in responding to the questions at the reflective level as most people tended to use judgmental phrases like “I think”, “It is in my opinion”, or the interpretation-laden statements like “because...and” to explicate and justify their feelings. On such occasions, the interviewer would reiterate the question and gently request the informant to shift his/her attention back to the reflective-feeling state by simply asking: “What does it make you feel?” or “What were your feelings then?”

The quality and quantity of the information gathered

The depth and richness of information drawn out by the application of the focused conversation method is worthy of attention by consumer researchers. In the traditional conduct of depth interviews, there are generally very few guidelines to guard against rambling and unconscious hopping back and forth across the four levels of the human mind. In contrast, the ORID method holds a focused, yet open enough, space for the informants to traverse through their own realm of self-reflections, thoughts and fantasies at a natural pace. Some informants even indicated their surprised feelings about the profundity of the focal topic to their overall personal lives at a more symbolic level. For example, one informant, a forty-four-year old male professor of cinematography at a local university, attributed the current muddled state of his apartment to his inner sense of being spiritually unsettled in his life. Toward the completion of the interviewing session, this informant could not help but start to confide a traumatic incident of breaking his engagement with his former fiancée. To his self-retrospection, his grief over the loss had subsequently kept him from clearing up the physical environment of his apartment, mirroring his procrastination in self-healing.

The benefit of a multimethod approach

Albeit a common practice in consumer research, the combination of verbal narrative, textual writing and graphic drawing proves to aid extensively the collection of qualitative data and lead to a greater variety and depth in interpretation. The shifting of the response mode also complemented the different forms of reflections generated by the informants, thus rendering a more holistic understanding of the informants’ subconscious, even unconscious, perceptions of the issues under study. Judging from the holistic perspective of Gestalt psychology, the task of graphic drawing undoubtedly facilitated the disclosure of more subtle, inner personal thoughts that are often beyond verbal narration in a purely oral or textual form (Marcus 1995). For instance, one informant, a 43-year-old university professor, after her constant laments about her lack of satisfactory physical space in her present home, practically spread the circumference of her sketches to the very edges of the paper in her subsequent drawing of her ideal home. Another informant, a well-known choreographer in her early forties, had recently moved into a 40-year-old apartment loft. After a six-month project of thorough refurbishing, it was transformed into a wooden-floored studio with an open kitchen at one end and a window wall at the other. Its main purposes were for dance rehearsals, small group presentations, and social entertainment. Later in her drawing, only the scene of her sitting room facing toward the end where the kitchen was located was included, with all the other partitioning reserved exclusively for her private use, such as the bedroom, the toilet and the guestroom, missing from the illustration.

Comments from the informants about the interviewing process

Several informants felt that some of the questions raised following the set of questions at the objective level, were a bit redundant, implying that the imagery and thoughts being induced were interrelated and intertwined from one level of questions to the next. As argued by Stanfield (p. 26, 2000), of the four levels of questioning in ORID, the objective level should never be downplayed or omitted simply because of its face simplicity in the opening of an interview session. The rationale behind it is for the engaging parties to evoke an overall sense of the different facets being tackled and recollected so as to build a common ground for subsequent sharing. By the same token, at the onset of each interviewing session, the facilitator paid special attention to thoroughly cover all of the preset questions at the objective level so as to ensure the emergence of the informant’s idiosyncratic understanding of the subject matter.

On the other hand, since a majority of the informants were deeply absorbed in the introspections and reflections about their current home life, which reflected their current state of being in their lives, they often strayed into telling side stories of their lives that were not directly related to home and comfort. In three instances the informants fell into a deeply contemplative state after the session ended and started to associate events in their emotional lives with the idea of a comfortable home life.

Equally intriguing was the fact that the informants were generally delighted, although bashful at first, about the task of picture drawing and the finale of their home-owner monologues. Although most of them had indicated before the interviewing session that they fell significantly short in graphic drawing skills, nearly all of them completed the task within 20 minutes.

C. Implications for future research

Several points are worth noting here: First, as already discussed in Section I, based on the traditional paradigm of depth interviewing, the success of fieldwork sessions is largely unilaterally assessed based on accomplishing the research objectives and goals pertaining

to each individual research project. The experiential journey on behalf of the research informants/respondents is seldom, if ever, incorporated into the grand framework of the design in research methodology. In contrast, with the empirical demonstration of the present study, the module of ORID weighs the identification of experiential aims to be of equal importance to the formulation of rational objectives; together they stand as the two indispensable pillars in the planning and designing of group facilitation activities where the welfare of the participants is just as important as the outcome of the session itself. In other words, mutual benefits are achieved through such a process as opposed to the common guidelines of depth interviewing where informants are interviewed only for the sake of their capability to offer researchers information of substance.

Secondly, through the application of the Focused Conversation method, the present study demonstrates the benefits of a multidisciplinary approach in which the practices of group facilitation can be employed to join the existing techniques of qualitative inquiry at the level of individual in-depth interviews as well as group interviews. Last but not least, taken exclusively as a planning tool for the generation of sequentially sound questions, the technique of ORID can also be used as a guide for researchers to better channel their thoughts from the conceptual level of preparation down to the operational level of fieldwork execution, while still empowering informants with enough space to explore the underlying dimensions of sharing that are worth revealing. Preliminarily, I contend that the utilization of such a technique can indeed further the basic tenants of naturalistic inquiry and its premise of an emergent design. While the iterative process of fieldwork, construct derivation, and interpretation remains undeniably the holy mission of researchers, the use of the ORID technique opens the door of invitation for informants to join in the hermeneutical course of genesis of meanings and interpretative knowledge.

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Briggs, C. L. (1986), Learning How to Ask: A Sociolinguistic Appraisal of the Role of the Interview in Social Science Research, New York: Cambridge Univ. Press


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EXTENDED ABSTRACT

Unrealistic optimism is a well-researched effect: people believe that good things are more likely to happen to themselves than to average others, and bad things are more likely to happen to others (Perloff & Fetzer, 1986; Weinstein, 1980). The bias has been shown to have both favorable and unfavorable effects. The bias is important as it can affect people’s intentions to engage in preventative behaviors (Mulkana & Hailey, 2001), as well as affect the manner in which they process information to update their beliefs (Radcliffe & Kline, 2002). However, unrealistic optimism has not only been associated with positive mental health (Taylor & Brown, 1988), but in the specific context of marriage satisfaction, idealistic individuals have been shown to make their relationships more satisfying than realistic individuals (Murray, Holmes & Griffin, 1996a, 1996b).

In this paper we focus on individual gender differences in unrealistic optimism. It is important to study individual differences in unrealistic optimism in contexts where such differences could lead to a mismatch of expectancies between groups or dyads, with consequences for the quantity and quality of their interaction. Consistent expectancies between marriage partners are important as marital satisfaction is mediated by individuals’ perceptions of their spouse’s goals for the marriage (Sanderson & Cantor, 2001), and expectancies can be self-fulfilling (Murray et al., 1996b). Given this, surprisingly, the literature has not systematically examined differences in unrealistic optimism among males’ and females’ levels of optimism regarding marriage (but see Murray et al., 1996a, 1996b).

Hypotheses

Study 1 tests the strength of the bias for males versus females, and Study 2 follows up by examining the resilience of the bias among males and females. We examine actual and relative levels of optimism amongst females and males in a domain where a mismatch between expectancies could be disharmonious: marriage. Actual optimism is defined as an estimate of a more optimistic likelihood for oneself as compared to a provided base-rate, or a group. Relative optimism is defined as an estimate of a more optimistic likelihood for oneself as compared to another person. Study 1 examines the issue of relative optimism (versus an average person), while Study 2 examines the issue of actual optimism (versus a given base-rate), as well as relative optimism.

Study 1

Participants. Three hundred and nine second and third year undergraduate students participated in the study.

Design: We used a 4 (target person: self, same-sex best friend, average undergraduate, and average person) x 2 (events: likelihood of getting divorced/having a happy marriage) x 2 (gender: male/female) design.

Study Procedure. After a brief introduction to the study, stating that it was related to prospects of life events among undergraduates, study participants were asked to estimate their own likelihood ("Self-Before") for the event condition they were assigned to. This was used to categorize them into optimists and pessimists. Optimists were defined as those who estimated a positive event occurring at a greater likelihood than the actual base rate (and a negative event as occurring at a lower likelihood), with the remainder defined as pessimists.

Subsequent to their first likelihood estimate, they were provided base-rate information for the event to which they were assigned (Divorce=25%, Happy Marriage=60%). The base-rates were based on an official publication of the Government Statistical Reports: Monthly Bulletin of Statistics.

Results: Optimistic Males: Initially estimate that their likelihood of getting divorced is low (M=9.18), and they do not update their self-estimates when given base-rate information (M=9.26). Analogously, they estimate a high likelihood of a happy marriage (M=81.68) and do not update it when provided a base-rate of 60% (M=80.36). Despite being provided base-rate information, optimistic males continue to exhibit self-positivity versus non-self estimates (M’s for non-self=19.92 and 61.25 for divorce and happy marriage respectively, both significantly different from self estimates, p’<.05). Their estimates also continue to reflect an absolute level of positivity versus the provided base-rates for divorce and happy marriage (both p’<.05).

Optimistic Females: initially estimate that their likelihood of getting divorced is low (M=12.17), and, like their male counterparts, do not update their self-estimates when given base-rate...
information \( (M=11.65) \). However, while they initially estimate that their likelihood of a happy marriage is high \( (M=82.00) \), they do assimilate base-rate information and reduce their estimate of their own likelihood of having a happy marriage \( (M=79.55, t(39)=2.69, p<.01) \). Like optimistic males, optimistic females continue to exhibit relative self-positivity versus non-self estimates \( (\text{Non-self } M's=27.52 \text{ and } 64.50 \text{ for divorce and happy marriage respectively, both } p's<.05) \). Their estimates also continue to reflect an absolute level of positivity versus the provided base-rates for divorce and happy marriage \( (\text{both } p's<.05) \).

**Pessimistic Males:** initially estimate that they have a very high likelihood of getting divorced \( (M=50.39) \), but reduce this overestimate when given base-rate information \( (M=42.94, t(17)=2.75, p<.05) \). This lowered self-estimate is no different from estimates of others’ likelihood of getting divorced \( (M=41.19, p>.70) \), but continues to be higher than the base-rate provided \( (t(17)=3.42, p<.005) \). Pessimistic males estimate that their likelihood of a happy marriage as low \( (M=47) \), but increase this when informed that base-rates of a happy marriage are 60\% \( (M=50) \), albeit this difference is marginal \( (t(9)=1.41, p<.10 \text{ one-sided}) \). This updated belief is no different from estimates of non-self \( (M=50.75, p>.50) \), or base-rates \( (M=60, p>.15) \).

**Pessimistic Females:** on the other hand, estimate a high chance of getting divorced \( (M=49.79) \), but do not update it when given base-rate information \( (M=49.09, p>0.70) \). However, while they initially estimate that their likelihood of a happy marriage is low \( (M=39.53) \), they appear to assimilate base-rate information and directionally increase this estimate when provided base-rate information \( (M=49.82, t(16)=1.91, p<.07) \). Importantly, their estimates subsequent to base-rate information continue to be unrealistically pessimistic versus the actual base-rate provided for estimates of divorce \( (t(32)=6.05, p<.001) \), and directionally so for estimates of a happy marriage \( (t(16)=1.92, p<.08) \). These estimates reflect a pattern of self-negativity for divorce \( (M's=49.09 \text{ vs. } 38.61 \text{ for self versus non-self respectively, } p<.05) \), a pattern that is directionally repeated for the domain of happy marriage \( (M's=49.82 \text{ vs. } 54.32, \text{ for self versus non-self respectively, n.s.}) \).

**Discussion**

Across two studies, we show: *(a)* both males and females are unrealistically optimistic about their expectations of their marriage; *(b)* males show greater levels of optimism than do females; *(c)* Given base-rate information, females become more realistic in their estimates about a happy marriage; *(d)* Given base rate information, optimistic males remain unrealistically optimistic, but pessimistic males update their self-estimates and do not show any self-negativity; *(e)* females update their beliefs of having a happy marriage more readily than they update their beliefs about the possibility of getting divorced, irrespective of whether they are optimistic or pessimistic to begin with.
A Post-material Perspective: The Influence of Financial Detachment on Consumers’ Happiness
Hélène Cherrier, University of Westminster, UK

EXTENDED ABSTRACT

A central theme in marketing is to satisfy consumers, which subsequently aims at consumers’ well-being and happiness (Fournier and Mick 1999). This connection between consumer satisfaction and well-being is based on the assumption that individuals who have access to affluent consumption should express a high level of happiness. From this perspective, it is expected that individuals who have access to consumption should express a high level of happiness. However, several prominent authors have pointed that access to material goods does not necessarily correlate with a higher level of happiness. During the period of increasing material prosperity in the United States, from early 1970’s to late 1990’s, researchers reported that happiness has been dropping (Myers 2000a; Myers 2000b; Schwartz 2004). In 1986, Wholey reported that only 20% of Americans are happy (Wholey 1986). And in 1995, Easterlin concluded that economic growth does not bring happiness to a society (Easterlin 1995). Consistent with those findings, consumer behaviorists have noted in the late 1990’s that consumers’ increasing ability to acquire and possess more material goods does not necessarily makes them happier (Belk 1995; Cherrier 2002; Cherrier and Murray 2001; Richins and Dawson 1992).

One of the consequences of feeling unhappy with consumption is an increasing consumer resistance. In search for happiness, certain consumers have “simplified their life”, “downshifted”, and “lowered their consumption” (Cherrier 2002). This inclination toward lowering consumption practices poses a practical problem in marketing. Satisfying consumers who voluntary choose to downshift their consumption lifestyle and resist the market system is difficult to achieve. That is even truer for politically motivated consumer resistance groups who use public space (e.g., Buy-Nothing-Day) and discursive space (e.g. http://www.simpleliving.net) to expose consumers to the negative aspects of extravagant and/or conspicuous consumption. As consumer resistance may become more pronounced in the future (Hearn et al. 1999), it seems desirable to develop a comprehensible understanding of consumers happiness away for the market logic for which happiness comes from consumption.

In this study, a model representing the effect of financial detachment on happiness is developed and tested. Evidence regarding the indirect impact of social responsibility and spiritual-reflection on happiness is also provided.

The paper considers two different samples. The first study relates to developing a measure for financial detachment and spiritual-Reflection. For this study, data were collected via questionnaire from two business classes at the Midwestern University of a total of 101 students aged from 19 to 42 years of age with 54 percent below 21 years of age. Of the 266 respondents who returned the survey, only 261 completed the four scales without missing data. Those 261 respondents aged between 25 to 89 years of age with an average of 56 years old and represented 41% of males. None of the scales used in the study were correlated with income level, age or religious preference. The distribution of the data collected from the 261 respondents did not exhibit skewness or kurtosis distribution.

3The model fit for each measure was estimated using structural equation modeling approach with AMOS software. The maximum likelihood method (ML) was employed because of its superiority to the generalized least squares estimation method at sample size 261 (>250) (Bentler 1990). The Chi-Square of 52.269 with 0.386 probability of fit indicates that the model demonstrates a good fit. Moreover, it reports a Goodness of Fit Index of 0.996, a CFI of 0.991, a Tucker-Lewis Index of 0.989, which are all above the 0.90 recommended for a good fit (Bentler 1990). This model reflects an RMSEA of 0.013, which indicates a perfect model fit (Brown and Cudeck 1993). Regarding the largest sample size for which one could accept our model, Helter 0.05 index reports 336, which is above 200 for a good fit. Finally, this model reports the information theoretic as follow AIC (108.269)<BCC (111.217)<CAIC (236.076)<BIC (277.653).

All three hypotheses were supported, as each p value related to each hypothesized direct effect was lower than 0.05 and therefore significant (Kaplan 2000). Responsible social behavior and spiritual reflection were positively correlated to financial detachment (r=0.22 and 0.47), and financial detachment was positively correlated to happiness (r=0.23). Moreover, all indirect effects were also supported. Spiritual-Reflection had a positive effect on Happiness through Financial Detachment (SE=0.06, t value=1.833, and p-value=0.033). Responsible Consumption Behavior had a positive effect on happiness through Financial Detachment (SE=0.05, t value=2.08, and p-value=0.019).

Understanding how non-materialistic aspects of life such as spiritual-reflection and social responsibility impact financial detachment and happiness has important implications for consumer behavior studies and the understanding of post-materialistic values. Academics researchers in cultural and social sciences are increasingly questioning the relation between material possession and happiness, highlighting the need to understand postmaterial values. Under postmaterialistic values, the pursuit of happiness relates cultivating a sense of enjoyment in everyday life, developing healthy relationships and communities and material simplicity (Dekker and Halman 2003; Hunter 2000; Inglehart 1997; Inglehart 2002).

For instance the hierarchy of need satisfaction has received much attention in the marketing of products and services. In Solomon’s book (1999), self-actualization, the highest point of consumers’ need, is reached through the consumption of “education, hobbies, and travel”. Having self-actualization linked to specific products and activities levels is to say that consumption can fulfill “ultimate” needs, such as justice, beauty, and happiness.

1Questionnaires were distributed at the end of an international marketing class and at the end of a retailing marketing class. Each class had a similar distribution of age and gender. All the 101 questionnaires were used in the study.

2Of the 266 respondents who returned the survey, only 261 completed the four scales without missing data. Those 261 respondents aged between 25 to 89 years of age with an average of 56 years old and represented 41% of males. The income and education distribution within the sample is characteristic of the Midwestern State selected for the study, 50% of the respondent have an income below $44.000 and some college education. None of the scales used in the study were correlated with income level, age or religious preference. The distribution of the data collected from the 261 respondents did not exhibit skewness or kurtosis distribution.
et al. 1998; McIntosh 1998; McLeod et al. 1998). The present model supports that spiritual-reflection and social responsibility are impacts one’s attitude toward money, which in turn affect one’s happiness.

Such statement should be tested in other studies using a wider sample. Other studies may employ diverse empirical methods such as experiments or surveys, multimethod multitrait designs, as well as constructs based on ecological awareness.

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Consumption and the “Modern Woman” in China: A Conceptual Framework

Kineta Hung, University of Hong Kong, Hong Kong
Yiyan Li, University of Hong Kong, Hong Kong
Russell W. Belk, University of Utah, U.S.A.

ABSTRACT

With changing social expectations, rising living standards, and increasing Western influences in China, young Chinese women residing in urban areas have developed a new awareness of their femininity and the possibility of new identities marked more by consumption than by their employment and family roles. We review work in sociology, anthropology, consumer research, and cultural studies regarding the “modern woman” in China in order to understand (1) the multiplicity of the feminine ideals she is socialized to and (2) the role that consumption plays in her identity construction and the desires she seeks to fulfill. Our review shows that in an environment lacking a clear, unified feminine ideal to model themselves upon, Chinese women give new meanings to consumption objects and combine different consumption objects in an attempt to approximate conflicting ideals. Specifically, whereas the Chinese woman has global consumer tendencies and accepts global products, she is looking for a balance between local and global identities. Research implications are discussed.

CONSUMPTION IN CHINA: FROM PRODUCTION TO DESIRES

A number of recent research projects have explored the way consumers undergo cultural adaptations brought on by multiculturalism, immigration, and globalization (e.g., Belk 1992; Belk and Costa 1998; Ger and Belk 1996; Penaloza 1994; 2001; Thompson and Tambyah 1999). This line of research suggests that in a cultural environment characterized by rapid changes and fragmentation, consumers adapt by reconfiguring their self-identities as their social conceptions are shaped and reshaped by competing cultural forces (Firat and Venkatesh 1995). Central to the consumer’s acculturation process is the use of product symbols to mark their new identities through tastes (Abbas 2002; Bourdieu 1984), styles, and fashions (Murray 2002; Thompson and Haytko 1997)–all key positional consumption decisions (James 2000).

It has been postulated that the globalization of production, capital, and the media would lead to the globalization of consumer culture (Levitt 1983; Quelch 2003). While some (e.g., Ritzer 2004) worry about the cultural loss that such globalization entails, others (e.g., Appadurai 1996) suggest that it instead provokes a reinvigoration of local culture. At the present time, Chinese society is a prime location in which negotiations between the global and the local are played out (Munshi 2001). These conflicts are not felt uniformly within the Chinese population however. Past research has shown that younger, better-educated, and more urban people in economically developing countries are more concerned with individual desires and more prone to the influences of globalizing mass media (Keilior, D’Amico, and Horton 2001; Sklair 1994).

Since the reintroduction of the market system in China in the late 1970’s, China has experienced unprecedented growth, increased influences from the Western world, and commercialization of its media, that have in turn cultivated consumerist values as well as a desire for self-actualization (Pan and Wei 1997) and the “good life” characterized by possessions, pleasure, and luxury (Belk and Pollay 1985). Instead of emphasizing production as the driver of the economy, domestic consumption becomes “an activity, a way of social life and as ‘the work of the imagination’” (Munshi 2001, p.7) that could help realize a “relatively comfortable life” (xiaokang) (Davis 2000).

While the marketization process affects both men and women, the latter are especially affected because women constitute the main consumer segment for which the majority of products are advertised as well as the most common representation in advertising, including advertising for products and services not targeted at women (Hooper 1998; Johansson 2001). Indeed, the androgynous figure that epitomized Chinese women during the Cultural Revolution decade of 1966-76 has given way to a new widely commercialized form of femininity in China (Hooper 1998). Not since the calendar posters or yu fen pai of old Shanghai, Hong Kong, and Canton, have women in China been such a focal target for and popular emblem of consumerism. Our objective in writing this review article is to understand the relationship between Chinese women’s shifting identities and their consumption habits. We attempt to outline the recreated feminine ideal or ideals in consumerist China as well as the way Chinese women use consumption products and symbols to approximate the differing feminine ideals that may place conflicting demands on them. The findings of this review distinguish whether Chinese women are becoming part of the homogenized segment of global consumers (Sklair, 1994), are reacting against such globalization by emphasizing what is local and distinctly Chinese, or are striking a different balance among these conflicting demands.

WOMEN IN CHINESE SOCIETY

Consistent with the Maoist slogan of “women holding up half the sky”, Chinese women during the revolutionary period of 1950’s to 1970’s were expected to be asexual, austere, and work and sacrifice for the bettering of the masses (Andrews and Shen 2002). The proper woman of the period, as illustrated in official magazines such as the China Reconstructs and China Pictorial, was a worker or peasant who wore plain, androgynous clothes with no adornment or jewelry, and who sacrificed her individuality, sexuality, family, and friends–at least temporarily–to “serve the poor and lower-middle peasants whole-heartedly” (Andrews and Shen 2002, p.142). These social expectations for women were a drastic departure from the traditional Chinese female ideal, where a woman would be obedient and would respect and maintain the patriarchal hierarchy within the kinship system (Croll 1995). Some scholars (e.g., Hall 1997; MacKinnon 1989) have argued that although the ideologically imposed state policy was successful in placing women in traditionally male-dominated occupations, it fell short of carrying out the promised “socialization of domestic labor” essential in promoting gender equality. Despite these shortcomings in reflecting the reality faced by women, the “masculinized woman” provided a clear, unified feminine ideal for Chinese women of the period to model themselves upon.

THE “MODERN CHINESE WOMAN”

Although the androgynous feminine ideal impressed some Western visitors to China as being dignified and respectful of women (Barrett 1973), Chinese women on whom stringent requirements had been placed to preserve the austere image were quick to discard their baggy clothes when political pressure lifted (Hooper
articles regarding work-a-day behavior. For example, an article in *Metropolis* published in 1999 called “How Do You Deal with a Male Boss?” offered tips such as “it can be smart to pretend you are a bit dumb,” and “use softness to overcome hardness.” In another feature article on office skills, the author offered advice on “Appropriate Femininity in the Office” that included “feminine eyes” (“Eyes should be warm but not hot, soft but not flirtatious”) and “body language” (“Don’t be too slow and relaxed when you walk, because this shows that you lack elegance or are weak. It also makes people think you are out of date. But if you walk too fast or in too masculine a way, you will lose the gentle beauty of a woman.”) (cited by Andrews and Shen 2002, 156-57).

**THE URBAN SOPHISTICATE**

Cosmopolitan ideology allows people faced with rapid globalization to make sense of their experiences and to sustain an array of socioeconomic and cultural hierarchies (Abbas 2000; Hannnerz 1990; Thompson and Tambahy 1999). It involves rejecting the strictly local in favor of multiplicity identities vested more in identifying with the global. The metropolises of Beijing, Shanghai, and Guangzhou/Shenzhen are the intersection between China and the affluent West as well as the intersection between affluent urbanites and impoverished rural emigrants. Thus, styles and tastes become important social indicators in these cities and beyond, allowing affluent urbanites to mark their identities and to distinguish themselves from those with less cultural capital than economic capital. Andrews and Shen (2002, pp. 149-150) describe this feminine ideal as it appears in lifestyle magazines:

“[She] wears, with great charm, the same stylish clothing seen in the windows and on the display racks of the most elegant Shanghai and Beijing boutiques. The home of the typical new woman is tastefully decorated and has built-in furniture that makes clever use of the space available in new high-rise urban apartments. Elegant bathrooms, well-designed kitchens, and cozy computer nooks are essential. Modernist chairs and tables accent the space, which is also well stocked with books and music. Leisure hours are passed in quiet comfort. The new woman takes an interest in art museums and the new galleries in Shanghai and Beijing. She is plugged in to the Internet, popular music, and film. She knows where to shop and how to shop, and the lifestyle magazines help other young women see how to catch up with her.”

This description highlights the “good life” led by affluent urbanites who have access to products and brands newly arrived from the West or Japan that offer them a level of comfort and luxurious living beyond the reach of the general public but one that becomes the desire of all sectors of Chinese society. Indeed, the emphasis on newly-arrived commodities and designer products have given rise to “imagined cosmopolitanism” (Schein 2001) of the visible so that window-shopping and lifestyle magazine reading become forms of aspirational modern consumption that a broader range of Chinese women can participate in (Schein 2001). These processes have also fueled the culture of fake (Abbas 2002) and creolized products (Erbaugh 2000; Ger and Belk 1996), thus making the cultural experiences of the unreachable assessable to most urban Chinese.

It is this Chinese female ideal that is closest to those of the *Yu Fen Pei* and other ads of old treaty port Shanghai when women were shown golfing, wearing Western dresses, posing with airplanes, at horse races, and in other settings that conveyed their modernity by adopting global consumption patterns (Belk and Xin 2003; Xin and Belk 2003). However the controversy and backlash that such
images precipitated in Shanghai during the first half of the Twenty-first Century are thus far missing in Twenty-first Century China.

THE CULTURED NURTURER

As we briefly mentioned earlier, the domestic role for women has never disappeared from the Chinese conception of womanhood, although the private, pleasurable, and nurturing aspects of a woman’s life disappeared from public discourse during the revolutionary years, when the body—male or female—became part of the social order (Chen 2001). Meanwhile, qualities such as domesticity, nurturance, and softness that are believed to be uniquely female (Croll 1995) remain central to the way men view their marriage partners. The ideal wife according to a recent survey of urban males in China is indistinguishable from traditional feminine ideals of being “beautiful … soft, kind, well-mannered, loyal, virtuous, skilled in domestic crafts (e.g., sewing, cooking and so forth) and can take care of children” (Croll 1995, p. 153). Surveys conducted among students and professionals supported these findings and show repeatedly that men preferred a wife who is “gentle and soft” (wenrou) and who puts her interests after their own (Evans 2000).

The consumerist culture brought on by the economic reform recognizes and reinforces the gendered representation in the domestic sphere, where “The man would be the ship braving the wind and waves; the woman the peaceful harbour” (Hooper 1998). The visual images in magazines, billboards, and television advertising display women admiring household appliances such as refrigerators, blenders, and vacuum cleaners in leisurely, reclining poses (Hooper 1998). These images rival images of leisure-class women and waves; the woman the peaceful harbour (Hooper 1998). These images precipitated in Shanghai during the first half of the Twentieth Century are thus far missing in Twenty-first Century China.

We can call this feminine ideal the “Social Climber” instead of the “Talented” or the “Independent” because we reason that, whereas the latter descriptions could help identify this feminine ideal, the “Social Climber’s” most important role in Chinese consumerist culture is not her consumption mode (e.g., “Because [designer clothes] are high quality, they can actually save money because they last longer” Daddishi 1999) or her personality per se, but her role as a model of success to show other types of urban women how they could move up socially to afford what they desire, be it cosmetics for the “flower vases”, a modern apartment for the “urban sophisticated”, or household appliances for the “cultured nurturer”.

Lifestyle magazines frequently ran stories on successful women who exemplify the “thirty traits” listed above. For example, the magazine Shishang (Cosmopolitan) has run stories featuring “strong women” (niu qiangren) such as: Liu Xiaohong, head of the legal department for the Greater China Region of the Asia-Pacific Division of Motorola (June 1999, 64-67); Li Yifei, deputy general manager of Viacom in China (June 1999, 62); and Zhao Yan, customer service manager for a major advertising agency (June 1999, 54); who as a group emphasize the importance of persistence and hard work in their path to success (cited by Andrews and Shen 2002). Thus, we are seeing once again, aside from the “flower vases”, a Chinese woman’s focus on her inner qualities (i.e., softness, persistence) as opposed to outer qualities (i.e., good looks, talent). These qualities have also been attributed to the national culture of the Chinese people rather than gender-specific culture (Evans 2000). Meanwhile, these role models suggest to readers of lifestyle magazines who are not yet “urban white collar” (dushi bailing) workers that they could strive to achieve this coveted position, while readers who are already in upscale office jobs could strive to move up from secretarial positions to managerial positions (Andrews and Shen 2002).

Although these stories have focused on “strong women” in the commercial sector, athletes and fashion models who train hard and are determined enough to win have also been constructed as alternative role models of success to Chinese consumers (Brownell 2001). The path to fame for peasant elite athletes is reflected in a rhyme: “One year later rustic, two years later foreign, three years later won’t acknowledge Dad and Mom” (yinian tu, erqian yang, sannian buren de he niang) (Brownell 2001, p.129).

CONCLUSION

We set out to understand the multiplicity of feminine ideals contemporary Chinese women are socialized to and the role consumption plays in Chinese women’s identity construction and their fulfillment of desires. Our review suggests that as the broker for the multiple forces exerting differential and often conflicting influences on her, a Chinese woman who is younger, better educated, and more urban places strong importance on identifying herself as “modern,” “feminine”, and in opposition to the androgynous ideals of the revolutionary era. But we also identified four prototypical modern/feminine ideals labeled as the “flower vase”, “urban so-
phisticate”, “cultured nurturer”, and “social climber,” that offer competing versions of alternative Chinese femininities.

Whereas beauty, sophistication, talent, and nurturance are characteristics desired by women in many cultures, the meanings these images also carry reflect the social/historical milieu of China. The “flower vase”, for example, suggests that “being beautiful” in China implies having not only the facial appearance and body form that emphasizes a woman’s sexual features (aided by cosmetics, bust-enhancers, and the right clothes), but it also embodies an “inner” quality of softness and chastity that makes a beautiful Chinese woman more restrained and subdued than her Western counterpart.

Our analysis of the “cultured nurturer” and the “social climber” shows a clear separation between a woman’s domestic and career roles in the consumerist literature, although these conflicting roles have caused considerable anguish in a woman’s daily lives. Andrews and Shen (2002) note that a “social climber’s” most applauded achievement is her ability to juggle the double burden of home and work. Given these conflicting social expectations, one woman exclaimed that she was “Very confused! How can you not be confused?” when asked how the modern woman might feel in China today (Croll 1995, p. 175).

Amidst the confusion, there is evidence that “being modern” is an ideal most desired by Chinese women, especially those who embrace products that have recently arrived in urban China and that are perceived as “scientific” (e.g., cosmetics, household appliances, new recipes and ways of preparing a meal). Meanwhile, there is also evidence that Chinese women desire “being feminine”. However, the acceptance of things feminine is not as straightforward as accepting things that are modern. On the one hand, Chinese women accept Western forms of femininity characterized by independence and self-sufficiency (e.g., the “cultured sophisticate” and the “social climber”). On the other hand, they reject overt displays of sexuality and instead infuse things feminine with inner characteristics and collective morality, stressing softness, chastity, determination, and hard work—a combination of values that is not characteristic of Western consumerist culture. Thus, it appears that Chinese women are trying to break the link between modernity and Westernization by infusing modernity with Chinese elements, such as collective morality and determination (Croll 1995). Given the fusion between things modern and things Chinese that appears to be collective morality and determination (Croll 1995). Given the Chinese women are trying to break the link between modernity and characteristic of Western consumerist culture. Thus, it appears that the Chinese fusion of these characteristics means that Chinese women would become a market economy with Chinese characteristics, it is clear that the cultural legacy of China means that Chinese women

will develop a modern femininity with distinctly Chinese characteristics. If a combination lifestyle such as a “cultured nurturer” and an “urban sophisticate” seems unlikely, it is perhaps because the Chinese fusion of these characteristics is still emerging.

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EXTENDED ABSTRACT

Digital information has turned the world into a network of instant and simultaneous activities no longer limited to space, matter, or time. On the one hand, incredible technological advancements irreversibly forces marketing practices into consumers’ private space (for example E-commerce and interactive buying). On the other hand, this “age of digitalization” allow individuals, still desperately limited by their body and locality, to reflect and make choices on the way they consume.

Considering these views, we discuss theorists who approach consumer behavior in the age of digital information as a structural phenomenon. Among those who attribute digital information and the evolution of consumption lifestyles to the structural background, and follow its deterministic extreme, we identify a group of theorists from Marshall McLuhan (1964) to Jean Baudrillard (1976, 1993, 1999), or Paul Virilio (1988, 1995). For them, technological advancement facilitates a structural phenomenon that dictates consumers and determines consumption lifestyles. From an extreme deterministic perspective, the structural component of technology prevails in every aspect of society, becoming more real than reality, more natural than nature. Here, the consumer is not only de-centered but is removed from reality (Baudrillard 1993; McLuhan 1964). In a world where reality is transformed into images and time is fragmented into a series of perpetual moments, consumers lose their sense of identity and purpose. Without a clear defined identity, the consumer is vulnerable to alienation, manipulation, and mystification. The consumer is the consumed, not the object. The object takes control over the subject. The subject is dead. Consumers do not choose, the system of consumer culture chooses for them. Here, signs of resistance and revolt are quickly absorbed and commodified by capital. What begins as a sign of defiance soon becomes a part of consumer culture rather than a criticism of it.

One doesn’t need to agree with McLuhan and Baudrillard. First, McLuhan’s technological determinism neglected the varying forces, interests, and power relations that also influence the impact of technology on society. Second, Baudrillard’s reproduction and simulation of the erased, nonexistent society appears as something already irreversibly omnipresent. We could say, together with Douglas Kellner, that Baudrillard “describes precisely how capitalists would like the world to be” (Kellner, 1989: 28).

In this paper we emphasize that consumer behavior in the age of digital information is neither the result of pure structural determinism nor the result of pure agentic consumer choices. Indeed, we argue along with Holt (1998) and Murray (2002) that consumption choices result from a dialectical interaction between the structure and the agent. We also argue that this dialectical approach still prevails in the age of digital information. To capture the interaction between humans or groups in society with a larger structure in consumer behavior, we concentrate on the dichotomies of digital/network, and actual/virtual. To grasp this dialectical process theoretically, we consider the influential book by Pierre Levy (1998): Becoming virtual: reality in digital age. In this book, Levy analyzes the dialectics between the virtual and the actual as a driving force in our current stage of civilization. The actual is an event, or an entity, which happens in the here and now. It can be a physical or a subjective process. The virtual is an event being represented and detached from its temporal and spatial determination. Virtual, the mirror of the actual lacks the crucial “here and now” components of an event. Events constitute their virtuality. An event, which is followed by commentaries in the media, in conversation, in science, and generally in any discourse, becomes virtual, enters a new stage of its existence. The virtual mirror of the event does not follow the particularities of the actual, the complexity of the “here and now.” Rather, it submits itself to the rules of these commentaries, languages, codes, and discourses. Here, virtualization is the dominant process in the construction of experience today, as more and more subjective activities rely upon secondary sources, descriptions, and interpretations.

Events or protests against consumption such as Buy Nothing Day or Buy Nothing Christmas represent a specific consumption behavior where individuals decide not to consume for an entire day and manifest against the consumer culture. The event of Buy Nothing Day happens here and now. However, it exists long before in the form of mobilization and intense communication, in the form of the discourse preceding that event. When the event happens, it becomes immediately appropriated by a discourse. “The messages that virtualizes the event are at the same time its prolongation; they participate in its accomplishment, its incomplete determination. They become a part of it.” (Levy 1998: 74). Anti-consumption activists in their discourse portray events such as the Buy Nothing Day as great victories over the corporate world. The discourse, the virtual part of the event has such a tendency. Such victories (whose success relies on the way they are portrayed in the discourse) are important aspects of the identity building for the movement. The language of victory (which is, however, pretty much an exclusive property of the discourse, not that of an actual change in the anti-consumption movement) provides energy for new mobilizations, virtualizations and new events—new actualizations of the virtual discourse.

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1According to Castells (1997, 2000), the main characteristic of the new global constellation are the core processes taking place in timeless time. For him, the “elimination of sequencing creates undifferentiated timing, thus annihilating time” (1997: 127).
Christmas in Japan: A Global and Local Consumption Holiday

(20-minute video)

Junko Kimura, Hagoromo University, Japan
Russell W. Belk, University of Utah, U.S.A.

EXTENDED ABSTRACT

This video shows that adaptation is prevalent in Japanese Christmas. Despite some effort by the small number of Christian churches in Japan to preserve religious aspects of the holiday and an even smaller number of Christmas nativity scenes, the Japanese Christmas is overwhelmingly a secular celebration devoid of religious meaning. While this may be increasingly the case elsewhere in the world, there has never been a prominent Christian component in Japanese Christmas and these elements are largely unknown to Japanese consumers. Nevertheless, the abundance of secular Christmas icons, including Santa Claus, sleighs, reindeer, snowmen, Christmas gifts, department store Christmas window displays, Christmas trees, interior and exterior Christmas lights and decorations (some private home decorations shown in the video cost as much as US$50,000), and Christmas music, all suggest that the celebration of Christmas in Japan has numerous elements that would be recognized world-wide as representing the contemporary Christmas. In this respect, the Japanese celebration of Christmas is global and shares key elements with much of the world. As the manager of the Osaka Ritz Carlton Hotel reflected, a spectacular Christmas setting helps consumers feel like spending much more freely. This global consumer Christmas in Japan has been promoted by a number of global merchants, media, and brands, including Universal Studios-Japan, Disney, the Muppets, Coca Cola, Visa, Hyatt Regency, KFC, McDonald’s, Vogue, Martha Stewart, and many others. At least superficially, Christmas in Japan would seem to be a prime example of cultural imperialism by Western multinational corporations and media.

On closer inspection, however, there are also a number of aspects of the Japanese Christmas celebrations that would not be recognized by Christmas celebrants in the West, even when they are presented in Japan as representing Christmas in specific Western locales. Examples shown in the video include a wedding for 8 couples hosted by a singing African-American “minister” under a giant Christmas tree, an Italian Christmas tree decorated with red women’s underwear, a 70-year tradition of fancy and expensive German Christmas cakes, a huge Christmas tree in the Kyoto train station decorated with the Japanese superhero Astro Boy, Christmas cards featuring kawaii (cute) Japanese cartoon characters, multiple “real” Santa Clauses such as those from Finland and Norway (Japanese Santas are not acknowledged as being “real” as much as dress-up pretenders), and a large number of young couples exchanging Tiffany Christmas gifts before spending a night or two in an expensive hotel (or for those who book too late, lining up on Christmas Eve to get into a by-the-hour “love hotel”). Each of these examples suggests a hybrid adaptation of Christmas in Japan, contributing to making it something that is uniquely a part of Japanese culture. This appropriation of the global occurs in other cultures as well, but is especially prevalent in Japan.

At the same time that Japan has adapted Christmas to local tastes, we find that there are places in Japan that seem impervious to Christmas influences. They include not only obvious bastions of tradition such as Buddhist temples, Shinto shrines, and the Imperial Palace in Tokyo, but also less obvious strongholds like Japanese restaurants, tatami mat homes, Japanese gardens, and Japanese sports like Sumo wrestling. In this way, Christmas is partitioned geographically and kept foreign, exotic, and separate from what is regarded as truly Japanese. Not only is Christmas partitioned in space, but in time as well. By the end of Christmas Day (December 25th) in Japan, virtually all Christmas decorations have been removed from homes, stores, streets, and offices in order to prepare for New Year decorations and celebrations.

Still, all tradition is invented. This is evident, for instance, in Buddhism (which traveled from India to China to Korea to Japan), the Japanese tea ceremony and kanji writing system (from China), and Japanese foreign trade (forced on Japan by the “black ships” of US Commodore Perry in 1853). The new traditions of Christmas ushered in by global media and global brands differ from these earlier cultural adaptations primarily in their speed, degree of branded commercialism, and multiculturality character. Compared to the hybridization of Christmas traditions from Europe that were melded together in the US during the 19th and 20th Centuries, Japan has kept Christmas as something fanciful and foreign. By partitioning of Christmas in time and space, it continues to be perceived as largely gaijin or foreign (as illustrated by the Finnish and Norwegian “real” Santas”). Nor have seemingly hybrid examples like Astro Boy Christmas tree decorations, Christmas weddings, or kawaii Christmas cards supplanted Western Christmas iconography or come to be thought of as uniquely Japanese. Such “global” examples show a Japanese appropriation and partial reconfiguration of Christmas, but not to the extent that these local adaptations dominate what Japanese consumers regard to be the global or foreign elements of Christmas.

We end by discussing how Christmas is used to provide both a consumption holiday and a welcome relief from more hierarchical and obligatory traditional holiday celebrations in Japan. The strong role of fantasy in Japan is expressed in other ways such as in Japanese anime, manga, films, and literature, but Christmas is a more enacted and participative consumption activity. The video concludes by suggesting that a parallel may be found in other global consumption phenomena such as intercultural tourism. To the extent that tourist destinations homogenize and offer only world food and drinks, world hotels, world airports, world music, world media, and world tourist attractions, there is little incentive to leave home. Only if these destinations promise something different, even if it is a stereotyped cliché that is otherwise hard to find in the host culture, is there reason to become a global traveler. The same can be said of more local visitation to theme parks and themed cities such as Las Vegas. It is the desire to consume something different that attracts us, not the desire to be the same as others in the world. The video finds that similar desires apply to Christmas in Japan, suggesting that globalization equates with a search for differentiation and otherness rather than homogenization.
Gender Differences in Processing Comparative Advertising in a Competitive Context-Evidence for Differential Strategies
Chingching Chang, National Chengchi University, Taiwan

EXTENDED ABSTRACT
This study argues that, in a competitive ad context, the likelihood of engaging in involving brand evaluation strategies varies for different consumers. Past research indicates that male and female participants differ in terms of their processing strategies. Women are said to be “comprehensive processors” and more likely to integrate product information, whereas men seem less motivated to engage in detailed message elaboration (Meyers-Levy, 1989). According to Meyers-Levy, the effect of gender differences on information processing can be partially explained by women’s lower threshold for message attention. Therefore, this study argues that female participants will engage in involved brand evaluation strategies only if the products are presented in the same context, whereas male participants will not be motivated to do so unless they are exposed to comparative appeals which specifically direct their attention to relative product advantages.

Due to these processing differences, this study also suggests that a comparative appeal will lead female participants to generate enhanced perceived manipulative intent and result in deteriorated ad and brand evaluations. In clear contrast, a direct comparative appeal will increase the possibility that male participants show higher levels of brand evaluation involvement—thus, in turn, generating more favorable responses.

This study also proposes a hypothesis about the alignability of product attributes. Recent research suggests that product comparison is carried out by an alignment process that generates three properties: commonality, alignable differences, and nonalignable differences (Zhang & Markman, 1998; Zhang & Markman, 2001; Zhang, Kardes & Cronley, 2002; Zhang & Fitzsimons, 1999). The difficulty of comparison increases with the alignability of the attributes (Zhang & Fitzsimons, 1999). In keeping with this line of research, the present study proposes that, in a competitive ad viewing context, alignability of product attributes for two competitive brands will moderate the relative effects of comparative ad appeals based on gender. As the processing difficulty increases, the use of comparative ad appeals will not generate enhanced manipulative intent for female participants. At the same time, as the processing difficulty increases, using comparative ad appeals will not effectively motivate male participants to engage in message elaboration. Given these differences, the superior effects of attribute-based non-comparative appeals for female participants on ad and brand evaluations, as well as on purchase intention, will be attenuated when the two competing ads feature nonalignable, as opposed to alignable, product attributes. The same holds true with respect to the superior effects of comparative appeals on male participants.

Findings of this study show that women get involved with brand evaluations to a similar degree regardless of whether or not direct comparative appeals are used. Under a competitive advertising viewing context, direct comparative appeals do not encourage female participants to be more involved with brand evaluations. In clear contrast, direct comparative advertising appeals enhance male participants’ involvement in brand evaluations to a higher extent than non-comparative appeals. Other findings are that the processing differences between genders have evaluative consequences. Direct comparative appeals, as opposed to non-comparative appeals, cause women to perceive the manipulative intent of the ad. The result is negative ad and brand evaluations and reduced purchase intention. Direct comparative appeals, however, as opposed to non-comparative appeals, seem to effectively motivate men to be more involved in brand evaluations, thus leading to more favorable ad and brand evaluations as well as enhanced purchase intentions. Finally, the findings of this study suggest that the attribute alignability of competing products moderates the effectiveness of comparative and non-comparative appeals for different genders.

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We attempt to add into the causes by highlighting the issue of Papavassiliou on consumer confusion can be gained from Mitchell and in trademark infringement cases (Kapferer 1995; Loken, Ross and by the increasing conflict between brand foreign connection. We believe that consumers become confused style, while local brands seek to deck themselves out in global or problem as international brands seek to dress themselves in the local emerging markets where both international and domestic compa- nies alike race to build brand appeal by connecting the consumer with global, foreign, or local sentiments (Keller and Moorthi 2003). In China, for example, the forces of globalization and localization with globalness and localness contend with each other in shaping consump- tion tendencies. This trend is even more pronounced in emerging markets where both international and domestic compa- nies alike race to build brand appeal by connecting the consumer with global, foreign, or local sentiments (Keller and Moorthi 2003). In China, for example, the forces of globalization and localization are taking hold at a faster rate than anyone expected in the past, making both global and local brands part of the Chinese landscape.

Consumer confusion of brand origin is becoming more of a problem as international brands seek to dress themselves in the local style, while local brands seek to deck themselves out in global or foreign connection. We believe that consumers become confused by the increasing conflict between brand’s local and nonlocal images. As this confusion continues to rise, global and foreign brands become less competitive in emerging markets. The purpose of this study is to highlight the marketing determinants of consumer confusion of brand origin, and then draw managerial implications for internation al brand managers. Notably, Keller and Moorthi (2003) recently emphasize some of the challenges faced by multi- national corporations in building strong brands in emerging mar- kets. They point out poor market assessment and improper commu- nication as two major causes of “an inadequate grasp of the market”. We attempt to add into the causes by highlighting the issue of consumer brand confusion arising from improper communication.

A BROADER VIEW OF CONSUMER CONFUSION

Consumer confusion has long been considered a central issue in trademark infringement cases (Kapferer 1995; Loken, Ross and Hinkle 1986; Miaoulis and d’Armatto 1978). A broader perspective on consumer confusion can be gained from Mitchell and Papavassiliou’s (1999) study in which they highlighted consumer confusion as more than a trademark issue, claiming that the concept involves consumer misattributions in brand knowledge due to the massive increase in both consumer choices and complexity of product information available in the marketplace. According to Cohen (1999), there are generally three types of consumer confusion, labeled types M, B and D (“Misleading”, “Bewildering”, and “Discriminatory”, respectively).

Type M confusion is related to misleading information in marketing communications such as advertising. Type B confusion arises from the nature of the product, where the product features are either too complex (as with digital cameras) or too abstract (as with milk features), causing bewilderment to consumers. Type D confu- sion is related to the nature and number of alternatives available in the market. Such confusion may arise because the consumer fails to distinguish between the products of one company and another (“horizontal mistaken identity”), or between products of superior specification (“vertical mistaken identity” as for example, private-label brands vs. premium brands, or four-star vs. five-star hotels). In both cases the confusion arises because consumers cannot discriminate between alternatives.

In our research focus, consumer confusion on the local and nonlocal origin of brands can be portrayed as Type D confusion, with both horizontal and vertical mistaken identity. However, such confusion seems to stem from both Type B (“Bewildering”) and Type M (“Misleading”) confusions. For example, consumers might mistake a brand’s origin because they are presented with misleading or inadequate country-of-origin (CO) information (Lim and O’Cass 2001; Samiee 1994), a form of misleading-type confusion (Type M). At the same time, consumers might also become confu- sioned as a result of “information overload” so that they cannot cope with all the similar product features offered by both nonlocal and local brands, a form of bewildering-type confusion (Type M).

More specifically, we focus on consumer confusion of brand origin arising from branding and marketing communications, and attempt to understand this from the perspective of “Type M” confusion. Amidst growing concern that the growth of multina- tional companies and the evaluation of hybrid products have in many cases blurred the accuracy of country-of-origin information (Samiee 1994), it is argued that brand origin will in future provide the key for understanding how consumers perceive and evaluate brands (Thakor and Kohli 1996). However, improper communica- tion in building international brands in emerging markets (Keller and Moorthy 2003) appears to further mistake consumers’ perception of a brand’s origin.

RISEING CONSUMER CONFUSION OF BRAND ORIGIN

Drawing on the visual aspects of semiotics (Mick 1986) and the meaning transfer theory (McCracken 1993), global and local symbols are transferred to the brand, sometimes creating misattributions of brand origin as particularly affiliated to a global, foreign, or local culture (Alden et al. 1999). Indeed, as highlighted in some recent studies, notably in an interpretive study of global and local advertising appeals in constructing cultural (Chinese) identi- ties by Zhou and Belk (2003), significant misattributions are based on brand name in that people are not always accurate in detecting the country of origin of an advertised brand.

In one example used in their study, Federal Express was mistakenly perceived as a Chinese company because an ad for FedEx mentioned its Chinese name (Lian Bang) and showed a
Chinese courier delivering packages to various foreign and Chinese destinations. Even an ad for M&M candies, using a Western-looking person, led to the brand being mistakenly identified as of domestic Chinese origin because the person spoke in Putonghua (Zhou and Belk 2003). Reflecting on the attribution of localness to a foreign brand bearing Chinese characters, Zhou and Belk (2003, p.31) further note that “If a foreign brand name was rendered in Chinese with an attempt to create appropriate or auspicious mean-ings rather than an attempt to sound similar to the brand name in its original language or an attempt at a literal translation, the result was sometimes a perception that the brand was actually Chinese.”

In fact, nowadays it is not uncommon to see such cases as that involving non-Dutch people’s misattribution of Philips as a local brand (Hiscock 2002), British people’s perception of Ford and Heinz (despite their American ownership) as British companies and brands (Mitchell 2000), unawareness of McDonald’s foreign origin by young people in Hong Kong (Watson 1997), or the misperception of Sprite as originating in China (Zhou and Belk 2003). As for the case of McDonald’s, Watson (1997) particularly mentioned that the confusion arises because conscious efforts are made by local McDonald’s franchises to support popular local events, to employ decor that reflects local sources of pride, and to serve locally developed menus.

**SOURCES OF CONSUMER CONFUSION OF BRAND ORIGIN**

We argue that among other factors, two conflicting forces, the use of a “global” branding and communication strategy by local firms and the practice of a localization strategy by foreign firms in emerging markets, confound the phenomenon of consumer confusion of brand origin. To a large extent, the two forces mislead consumers through brand images projected in the mixed use of marketing communications. This section characterizes the sources of consumer confusion as follows.

**Local connection to global/foreign sentiment**

The desirability of global brands has long been recognized (Aaker and Joachimsthaler 1999; Kapferer 1992; Quelch 1999). A number of authors assert that a global image gives a brand more power and value, and thus increased sales (Shocker, Srivastava and Ruekert 1994). Recently, the competitive advantage of global brands has been well supported (Steenkamp et al. 2003). In addition, there is also empirical evidence for the symbolic power of brands with nonlocal origin, especially among consumers in developing countries (Batra et al. 2000).

Given the potential power of global/foreign brands, most local firms are becoming interested in investing their brands with global status. In China, for example, an array of domestic firms are trying to be perceived as global players—seeking to boost sales and profits by making their brand names and logos increasingly recognizable around the world (Khermouch, Einhorn and Roberts 2003; Saywell 1999). The global outreach of a handful of Chinese brands include Tsingtao (beer), Haier (home appliances), Wahaha (food and soft drinks), Konka (TVs), and Meidi (air-conditioners).

Although there is evidence that more and more Chinese firms are going global by targeting consumers in smaller countries and other developing markets who are looking for good quality at a competitive price, most Chinese global-outreach efforts in the more advanced world seem to be aimed primarily at impressing consumers back home, and providing home consumers with a sense of modernity and authenticity, while at the same time appealing to their desire for national/local pride and cultural identity. As a case in point, many Chinese are aware and proud that some Chinese brands like Haier appliances are marketed abroad as sophisticated goods with premium prices, and such a global presence acts as signs or surrogates for quality in the home market (Landler 2000).

In another case, determined to turn itself into a brand as coveted as its foreign counterparts such as Nike in the vast Chinese market, Li-Ning Sports Goods has begun sponsoring national sports teams, not just in China but also in France, Spain, Russia and elsewhere. Its global ambitions are illustrated by the fact that during the Spain vs. China game at the women’s basketball world championships in 2002, China’s team wore Nike uniforms, Spain’s team, however, wore Li-Ning’s signature logo, a stylized “L” resembling a wavy check mark—the rival of the swoosh (see Kahn 2003). The Chinese sneaker company also signed up European designers to further enhance its brand image and make it stand out in the fashion-conscious world. Li-Ning believes that the Chinese people need a sports brand of their own, but with global appeal. Likewise, cell-phone maker China Kejian has recently agreed to sponsor the English Premier League soccer team Everton in exchange for Kejian’s brand name appearing on the players’ jerseys when the team is contracted to play exhibition games in Kejian’s hometown of Shenzhen (see Khermouch, Einhorn and Roberts 2003). Jianlibao, a Chinese state-owned soft-drinks maker, though struggling to survive nowadays, used to be one of the most promising domestic brands in overseas markets. The brand’s early success in China seems to have been primarily a result of its global-outreach image (Saywell 1999).

It is increasingly common to see a foreign-sounding name or a Western celebrity endorsing a domestic Chinese company or brand. The symbolic association with foreignness is used and interpreted in ways that reinforce rather than overwhelm local cultural values (Zhou and Meng 1998). These and other cases highlight some of the common practices by local companies in the less affluent parts of the world seeking to make the connection between local brands and home consumers’ desire for both global quality and authenticity, and local cultural traditions and identities (Ger and Belk 1996; Zhou and Belk 2003). Such strategies clearly reflect Ger’s (1999) conceptual position that local brands should at least have some global presence or international association before their images can be improved at home.

We believe that the focus on global/foreign sentiment by local firms in emerging markets leads to consumer misattribution of a local brand as of foreign origin. The use of foreign-sounding names in local brands (such as the German-styled Ham manufactured by China Henan Shineway Group) serves as one of the many Chinese examples of the quest for global or foreign appeal. This phenomenon is echoed in the evidence which researchers are finding for the popularity of foreign-sounding brand names in the advanced market (Leclerc, Schmitt and Dube 1994). Within the Chinese context, we suggest that marketing communications that use foreign-sounding names, non-Chinese endorsers, advertising themes, foreign-look packaging and other nonlocal symbols and imitations are some of the main reasons for the misperception of local brand’s origins.

**Targeting global sentiment by multinational corporations**

The political, economic and technological forces shaping the race toward global consolidation have been well documented (Douglas and Wind 1987; Levitt 1983). Quelch (1999) echoes Levitt’s (1983) classic article “The Globalization of Markets” and highlights what has made the global brands matter more now than in the past, what distinguishes them from national (or local) brands, and the main strategies for building global brands. In his view, it is now possible to identify segments of global consumers across different country markets because of increased cross-border popu-
loration mobility as well as the faster transfer of ideas and the signs of global cosmopolitanism and modernity stemming from the electronic facilities of cross-border television and the internet.

In one reflection of the growth of global consumer segments, Alden et al. (1999) analyze multinationals’ brand positioning through advertising, and identify the emergence of global consumer cultures as defined by shared sets of consumption-related symbols such as global brands. They note (p.77) that “by implication, advertising featuring the idea that consumers all over the world consume a particular brand or appealing to certain human universals might invest the brand with the cultural meaning of being a conduit to feeling at one with global consumer culture.” The authors further emphasize that targeting global consumer culture with global brands should not be confused with globally standardized advertising since global brands may be communicated differently in each national market. Examples of brands that apparently have focused on the emergence of global consumer cultures include Sony’s positioning of one of its products as appropriate for young people around the world; Philips’ advertisements explicitly featuring people from different countries; Benetton’s slogan on the unity of humankind; and Nescafé’s advertisements projecting the image of a brand consumed globally (see Alden et al. 1999).

Although a whole series of major consumer goods companies—such as Proctor & Gamble, Heinz, Kimberly Clark, Nestlé, Unilever and Electrolux have reconstituted their brand portfolios by selling brands which they believe do not have global potential, and buying others which they think do, most of their marketing effects are in fact directed toward the pursuit of global “blends” as opposed to global brands (Michell 2000).

Global “blends”—blending the global with local sentiment

In recognition of the distinct nature of emerging markets (Arnold and Quelch 1998; Batra 1997), many foreign companies have attempted to integrate global value into local consumer culture (global “blends”). Such practice reflects the well-known perspective, “think global, act local”. In reality, different forms of global “blends” can be observed.

*Using a global platform with local adaptations.* Rather than increasing control and cost savings, globalization may provoke more resistance and demands for localization (Aaker and Joachimsthaler 1999; Quelch 1999). However, one of modern marketing’s great skills is, “knowing when and where to ignore local differences in the quest for global synergies.” (Mitchell 2000). That is why, among marketing scholars, there are numerous discussions as to how to reconcile global brand strategies with local cultural and market adaptations. A remarkable example can be seen in a study of McDonald’s in East Asia in which the author (Watson 1997) argues that the franchises in these countries are a very adaptive blend of the global and the local. Watson notes McDonald’s conscious attempts to combine the virtues of local culture and traditions with Western names and in-store displays in order to insinuate McDonald’s into the local culture.

In most other cases, however, the up-front quality of globalness risks alienating local consumers. In response to this potential disconnection with local consumers, many foreign companies that practice global brands take a “global platform” approach (Aaker and Joachimsthaler 1999). One of the most common ways of doing this is the use of a global platform bearing either the same core product technology such as “global cars” from General Motors being sold under different brand names in most other countries of the world, or the same global brand itself such as Coca-Cola being expressed in marketing communications in different ways according to local appeal (Mitchell 2000). Using a global brand as a platform with local adaptations also involves the customization of product ingredients to each market’s specifications, as in “localized MacDonaldization” (Watson 1997) or the very different forms of actual coffee under the same brand name of Nescafé in different countries (Mitchell 2000).

Another significant way of using a global brand as platform is co-branding between the global and the local through strategic alliances or global acquisition. The most flagrant example perhaps involves Danone, a French maker of yogurt, which in the less affluent parts of the world has leveraged its global name into a number of local brands across a wide range of product categories (including yogurt in South Africa, high-fiber crackers in Malaysia, and snakes in China). Leverage of global brand names by linking to relatively well-known local brands has become common and attractive. For example, Abratt and Motlana (2002) report two cases in which international companies (such as the French company Danone and the Canadian company McCain Foods) employed strategic brand alliances with well-known local brands to introduce new international brands into the South African market.

Making the local connection has also led some multinational corporations to develop a series of locally branded products. For example, Coca-Cola has now launched more than 20 different national (or local) brands of carbonated soft drinks (beverages) around the world, and these brands have become a significant part of the Coca-Cola portfolio (Quelch 1999). Some successful locally branded products by global companies have even been tested and transformed into the core elements of their global platform. Unilever’s Snuggles fabric conditioner, for instance, which originated in its German subsidiary, has attempted to establish itself in different countries by conveying a globally uniform message of “trust, softness, love, and security” but with the teddy bear identifiable as a typical “local” bear and products sold under different brand names such as Huggy in Australia and Cocolino in Italy (see Riesenbeck and Freeing 1991).

Global appropriation of the localness. In an effort to target local consumer culture and national sentiment favoring local traditions, some multinationals have even practiced the highest degree of global appropriation of the local—making global brands appear indigenous. They attempt to “in-localize” domestic offerings by “clothing their brands in local costumes” (Belk 2000, p.69). They craft locally by either disguising or down-playing their global aspiration to the use of local symbols, packaging and branding. Examples include Nescafé’s use of local people for its coffee in India; Coca-Cola’s localization of television commercials in China featuring everything from Chinese zodiac animals to Spring Festival couplets; and Danone’s piggybacking off the successes of local brands. In the latter case, for instance, France’s Danone, as a relative latecomer in China’s market, bought out a new bottled water business from Hangzhou Wahaha Group Co., a Chinese leading maker of enriched milk drinks targeted at domestic children and now a manufacturer of food and soft drink products. Danone embarked on a massive expansion for Wahaha but continues to sell their products under their Chinese own brands. Today, it is speculated that Danone aims to help Wahaha’s Future Cola, also known as “the Chinese people’s own cola”, to take on Coke and Pepsi.

With the same belief that some well-known Chinese brands can withstand the competition from foreign rivals, Unilever took over the Beijing-based Jin Hua Tea Processing Factory, the largest jasmine tea producer in northern China, and retained the company’s original brand name to compete with other global brands in China such as Lipton (Schlevogt 2000). There are other similar cases in the Chinese market for home appliances. Examples include Whirlpool’s washing machines sold under the Chinese Kelon brand name and...
Maytag International’s products bearing its Chinese partner Rongshida’s brand name (Schlevoogt 2000). Such global appropriation of localness does not seem to be unique in China. According to a global bi-annual consumer survey conducted by Research International Observer, global brands such as Danone, Nestlé, Kraft, Dove and Kleenex are in fact perceived as local brands by consumers around the globe because of the extent of localization (Hiscock 2002). In these cases, global brands become “glocal” brands (Hiscock 2002). As such, the confusion of brand origin arises because consumers get confused with the mixed consumption symbols.

CONCLUSION AND MARKETING IMPLICATIONS

In an era of global and local competition, consumers can easily become confused with a brand’s origin or cultural identity. Consumer perception of a particular brand origin may differ from reality because of ignorance, lack of salience of origin information, or deliberate obfuscation by companies concerned about consumer reactions to an unfavorable origin (Thakor and Kohli 1996). This study describes insights into consumer confusion of brand origin, and highlights mixed branding and marketing communications as potential sources of brand confusion. Evidently, local consumption cultures in the less affluent parts of the world is of particular interest to international managers because it challenges them to capitalize on consumer sentiments by making the connection with locality (Riesenbeck and Freeling 1991). Adding to the challenge, many local firms emulate the branding and marketing communications of multinationals, expanding and endorsing the dominant trend in consumer icons and desires, that is, global appeal adapted to the local. This strategy seems to be more desirable in the light of the backlash against foreign products because of their fading symbolic value in the eyes of Chinese consumers (Zhou and Hui 2003).

Given the increasingly conflicting roles of global and local brands in capitalizing on local consumer sentiments and sympathies in a globalizing world, especially in emerging markets, we have sought to ascertain whether consumer confusion of a brand’s origin affects perceived foreignness and globalness effects (Batra et al. 2000; Steenkamp et al. 2003). Future research could examine the extent of brand confusion in relation to the firm’s branding and marketing communication orientation (global, foreign, local, or a kind of combination). Another area for further research would be an investigation of the theoretical and empirical implications of consumer brand confusion. For example, there is a need for research examining how consumers react to a brand when they are confused about the brand’s local versus nonlocal origin.

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Asia Pacific Advances in Consumer Research (Volume 6) / 363
Effects of Global Cultural Positioning Advertisements
Sunkyu Jun, Hongik University, Korea
Haksik Lee, Hongik University, Korea
James W. Gentry, University of Nebraska-Lincoln, U.S.A.

ABSTRACT
The present study investigates the effectiveness of global cultural positioning advertisements (GCPAs), in which the brand is associated with the global culture at an individual level. It is argued that a brand’s transnational image as well as its brand personality as established in the GCPA activates self-concepts in terms of cosmopolitanism as well as individual personality traits. It is hypothesized that consumers’ responsiveness to the GCPA depends on self-concept congruity. Findings indicate that the congruency between the brand personality established in the GCPA and the consumers’ relevant personality traits influences brand attitudes.

INTRODUCTION
As cultural globalization accelerates in various domains of life including consumption, local culture is not free from interactions with other cultures. Consumption patterns evolve as consumers are open to new cultures due to the development of diffusion technologies such as the Internet (Dickson 2000). We witness global consumer segments around the world whose values and practices are converging across territorial boundaries while less influenced by their national cultures (Keillor, D’Amico, and Horton 2001). Given the growth of global consumer segments, marketers are faced with a choice of brand positioning strategies regarding whether to position their brands to be associated with global culture, referred to as global cultural positioning, or to position them to be associated with local culture, referred to as local cultural positioning.

Alden, Steenkamp, and Batra (1999) distinguished the global consumer cultural positioning strategy from the local consumer cultural positioning strategy. They showed that a significant portion (over 20%) of advertisements in a variety of countries, including Korea (the context of this study), employed the global consumer cultural positioning strategy while a greater portion of advertisements employed the local consumer cultural positioning strategy. Their study suggests that certain cues of advertisements may be effective tools to build a global image of the brand. However, the key to this marketing strategy is to identify consumers who are more responsive to a global image being associated with the brand.

The present study investigates the effectiveness of a global cultural positioning strategy in advertising. This issue is distinct from the traditional controversy over the effects of standardized advertising. A standardized advertisement has a domestic origin and is designed for a specific country before being repeated elsewhere, whereas a global cultural positioning advertisement (GCPA) is designed to associate the brand with the global culture instead of the local culture and may or may not be employed in a standardized advertising campaign (Alden, Steenkamp, and Batra 1999; Onkvisit and Shaw 1999). The effectiveness of GCPAs may be investigated at a country level as well as at an individual level. As an instance of country-level variance in the effectiveness of GCPAs, people in a country at a low level of economic growth may desire to be affiliated with the consumption culture of more advanced countries, which are mostly in the West. This anecdotal reasoning is consistent with the premise that global culture is an extension or a transformation of the cultures of Western Europe and North America. However, global culture is in essence a transnational culture encapsulated from territorial cultures, and is an outcome of the interconnection and the hybridization of the existing local cultures (Hannerz 1990; Hermans and Kempen 1998).

The process of cultural hybridization results in increased complexity in ideas and modes of thought in their externalization into practices in a society, and this cultural complexity leads to a multicultural identity or hybrid identity, combining local culture and elements of the global culture (Arnett 2002; Hermans and Kempen 1998). As a psychological consequence of cultural globalization, the self is subject to multiple cultural identities, which are manifested in different ways across social contexts. In that sense, the responsiveness to the values and practices rooted in the global culture depends on the interaction between the self and cultural cues in a specific context. Empirical evidence indicates that self-concept mediates the influence of national culture on the consumption practices of an individual. For instance, Wang et al. (2000) found that, in the context of advertising appeals using the connectedness-separateness dimension, a connected appeal resulted in more favorable brand attitudes among Chinese consumers and a separateness appeal resulted in more favorable brand attitudes among U.S. consumers. However, the cultural-level persuasion effect was mediated by individual differences in self-concepts in terms of connectedness-separateness.

We propose that the effectiveness of GCPAs varies across individual consumers depending on the congruence between the brand association established by the global cultural positioning and consumers’ self-concepts. The conceptual background is developed from the perspective of self-concept congruency theory. Hypotheses will be tested in the context of Korean advertising.

CONCEPTUAL BACKGROUND AND HYPOTHESES
Activation of Self-Concept
Whereas the rigid structural argument tends to assume culture as a unitary and internally coherent structure constraining the way that individuals think and act, culture also consists of schemata or rules and resources enabling individuals to organize a life within which culturally shaped skills and habits are useful (Sewell 1992; Swidler 1986). As individuals experience culture as disparate bits of information and internalize them in the form of domain-specific knowledge, culture is so fragmented across individuals that they selectively perceive information germane to their existing schemata and process schematically embedded information more quickly (DiMaggio 1997; Hong et al. 2000). Among the representations of cultural knowledge, self-concept or self-schema accounts for important cultural variations in cognition, emotional expression, and behavioral motivation as a response to situational influences (DiMaggio 1997; Markus and Kitayama 1991).

As was discussed earlier, the self consists of different cultural positions and even conflicting cultural traits. This implies that a number of self-concepts may be accessible at a given moment and any of these self-concepts can be activated depending on the cultural cues relevant to a specific aspect of self-concept. In the advertising context, since the discourse of advertising has been vital to the construction of self-identity, certain aspects of self-concepts are automatically activated by advertising cues that are highly internalized and associated with self-identity (Brumbaugh 2002).
The GCPA attempts to relate the brand’s transnational image to consumer self-identity. Cues used in the GCPAs are likely to activate self-concepts related to the transnational image discoursed in those advertisements. For example, the use of English in advertisements in a country where English is not the first language could serve as global rhetoric and activate self-concepts regarding global orientations (Piller 2001).

We propose that cosmopolitanism is an aspect of self-concept that may be activated by cues used in GCPAs. Cosmopolitanism is a self-orientation toward cultural diversity itself and toward divergent cultural experiences, and is a cluster of schematic knowledge and sets of skills enabling individuals to organize a life beyond parochial ways of life (Cannon and Yaprak 2002; Hannerz 1990; Holt 1998; Thompson and Tambyah 1999). Cosmopolitanism is an accessible aspect of self-concepts like ethnocentrism or introversion and may be activated by relevant cues in advertisements such as bilingual advertisements activating global identity (Piller 2001). As a tactic of global consumer cultural positioning strategy, Alden, Steenkamp, and Batra (1999) suggest that language, aesthetic styles, and story themes are cultural symbols that may identify the brand with cosmopolitan consumers.

We also propose that personality traits are other aspects of self-concept to be activated by the advertising cues in the GCPA. The transnational image of the brand in the GCPA is likely to develop brand associations in terms of certain dimensions of brand personality as brand associations are established through brand positioning strategy (Aaker 1997; Punj and Moon 2002). In turn, the associated dimensions of brand personality are likely to activate relevant aspects of personality traits that constitute the self-concept. Categorization theory in the context of the connectionist model suggests that each feature of the object that is encountered becomes part of an input node of a network in memory and that the input node is connected to a set of output nodes (Shanks 1991). In the context of cultural positioning advertising, advertising cues are connected to a set of cultural categories and, once a cultural category is activated, existing nodes linked to the cultural category are associated with the advertised brand.

**Self-Concept Congruity**

Research on motivation indicates that self-expressive needs are important motivations for preferences for, and the choice of, goods and consumption practices (Belk 1988; Hirschman and Holbrook 1982; MacInnis and Jaworski 1989; Park and Young 1986). Self-congruity theory posits that individuals have a motive to behave consistently with their views of themselves and that consumers prefer brands associated with personality traits congruent with their self-concepts (Sirgy 1982). The strength of this motive for self-concept congruity is dependent upon the magnitude of the discrepancy between the emotional consequences of self-congruency versus self-incongruency. Given the motive to express one’s self-concept, for which valence is positive in general, the ability to express one’s self-concept is associated with positive affect whereas the inability to express self-concept is likely to produce negative affect (Aaker 1999; Bununk et al. 1990; Higgins 1987).

Self-concept congruity effects have been demonstrated in the context of consumer behavior. Advertising appeals that present the brand in ways that are consistent with consumer’ self-concepts have resulted in more favorable brand attitudes (Chang 2002; Wang et al. 2000). Aaker (1999) suggests that consumers form favorable brand attitudes when the brand personality is congruent with their personality traits.

We propose that consumers are more responsive to global cultural positioning strategy in advertising when the transnational image as well as its associated brand personality is congruent with their self-concepts in terms of cosmopolitanism and personality traits.

**H1:** Consumers who are more schematic for cosmopolitanism evaluate the brand advertised in the GCPA more favorably than those who are less schematic for cosmopolitanism.

**H2:** Consumers evaluate the brand advertised in the GCPA more favorably when the brand personality developed in the advertisement and their personality traits are congruent than when those two are incongruent.

**METHODS**

**Overview**

Two types of print advertisements were created for a fictitious cosmetics brand: one is presumably a GCPA and the other one is presumably a local cultural positioning advertisement (LCPA) as a control advertisement. Fifty-six adult women (age ranged from 21 to 59; median age of 40) participated in the experiment and were randomly split into either the GCPA group or LCPA group. The cosmetic product class was selected as a stimulus since the subjects were expected to have a reasonable level of personal relevance with cosmetics and their advertisements. Another rationale for the choice of cosmetics is that a significant portion of cosmetics advertising employs a global positioning strategy in the context of Korean advertising.

The Korean advertising industry has been increasingly influenced by foreign ad agencies. Only two of the top ten ad agencies are owned by Koreans, and foreign-based ad agencies account for about half of the total advertising market in Korea (Maeil Economic Daily 2003). Alden, Steenkamp, and Batra (1999) noted that about 22% of Korean advertisements employed a global consumer cultural positioning strategy, which is about the average percentage for the seven countries included in their study.

The participating subjects are enrolled in a public academy providing diverse short-term courses, mostly for housewives. As most of them reside in the same suburban area of Seoul, their socioeconomic backgrounds are expected to be similar. The participating subjects were presented with three advertisements, of which two are filler advertisements of different products. They were asked to prepare to give their opinions on those products. After viewing advertisements, they completed a questionnaire including independent and dependent variables. The experiment took about twenty minutes, and the subjects were paid (approximately US$8) as compensation.

**Stimulus Advertisements**

A GCPA and a LCPA were created to differ in the semiotic meanings of their ad cues. The same brand name, which has the English pronunciation of “Andante Whitening Lotion,” is used in both advertisements, but the brand name is written only in Korean in the LCPA while it is written both in Korean and English in the GCPA. Both advertisements include the same attribute information: some words of the copy were written in English in the GCPA (e.g., “Vitamin-C”) while all words were in Korean in the LCPA. The GCPA differs from the LCPA in title and illustration. The title in the LCPA is written in Korean: “Andante Whitening Lotion (italic in English), My skin is always clean, even in the downtown. Glittering more than snow with triple whitening effect.” The title in the GCPA is written in both Korean and English: “Andante Whitening Lotion (italic in English), My skin is always clean, even in the downtown. Glittering more than snow with triple whitening (italic in English) effect.” The illustration in the LCPA includes buildings that are recognized with ease by people living in Seoul, while the
illustration in the GCPA includes buildings in a downtown that the subjects are expected to recognize as an area in a foreign country.

Measures

For the measure of cosmopolitanism, we used items that have been tested with Korean consumers by Yoon, Cannon, and Yapprak (1996). In a separate study using Korean women, we initially used the 24 items and found that six items loaded on the first factor that was interpreted to correspond to the concept of cosmopolitanism. Thus, those six items were used as a measure of cosmopolitanism in the present study (Appendix 1). The Cronbach’s coefficient alpha in the main study is .77.

For the test of hypothesis two, concerning the effects of congruency between brand personality and subjects’ personality traits, there is a need to know the dimensions of brand personality that distinguish the GCPAs from the LCPAs. In a separate study, 60 Korean print advertisements including 36 filler ads, 12 GCPAs, and 12 LCPAs were evaluated in terms of brand personality. The classification of GCPAs or LCPAs was based on a coding scheme modified from that used in the study of Alden, Steenkamp, and Batra (1999). The 60 advertisements were evaluated in terms of brand personality using Aaker’s (1997)24 brand personality scales. Among those scales, 21 were retained after a series of exploratory factor analyses, resulting in three factors. The 12 LCPAs and 12 GCPAs were compared with respect to the three factors of brand personality. The brand personality of the GCPAs differed significantly from that of the LCPAs with respect to a factor composed of 11 items; this factor was labeled “sophisticated” (“young,” “imaginative,” “up-to-date,” “contemporary,” “intelligent,” “successful,” “upper class,” “glamorous,” “good looking,” “charming,” and “Western”).

Thus, we used these 11 items to measure subjects’ personality traits in the sense that Aaker’s (1997) measures of brand personality were generated from human personality and were in turn used to measure personality traits in her study of self-concept congruity effects (Aaker 1999). The Cronbach’s coefficient alpha in the main study is .93. In testing hypothesis two, we expect that subjects will form more favorable brand attitudes for the GCPA as they report higher scores on the “sophisticated” factor.

Brand attitude was measured with three seven-point semantic scales: “attractive-unattractive,” “favorable-unfavorable,” and “better-worse” (than other brands). The Cronbach’s coefficient alpha in the main study is .83.

RESULTS

The GCPA and the LCPA were evaluated regarding subjects’ perceptions of transnational image, using two seven-point scales: “looking exotic” and “looking global” (α=.88). The average score of transnational image of the GCPA was significantly greater than that of the LCPA (4.17 vs. 3.11, t=2.51, p<.05). The two advertisements were also evaluated regarding subjects’ perceptions on the “sophisticated” dimension of brand personality, using the 11 seven-point items selected earlier (α=.93). The average “sophisticated” score of the GCPA was significantly greater than that of the LCPA (4.70 vs. 3.93, t=2.65, p<.05). Thus, the global positioning advertisement was successful in creating transnational image as well as creating the “sophisticated” dimension of brand personality.

Analysis of covariance (age was used as a covariate) was conducted to test the interaction effect of cosmopolitanism and ad type (GCPA or LCPA) and the interaction effect of the “sophisticated” personality trait and ad type. The main effects were not significant (p>.05). The interaction of cosmopolitanism and ad type is not significant (F(1,48)=.11), indicating that H1 is not supported. Thus, the more simplistic relationship between a broader awareness and preference for global ads was not found. On the other hand, the interaction effect of the “sophisticated” personality trait and ad type was significant (F(1,48)=4.71, p<.05), supporting H2. Further analysis shows support for the predicted direction: subjects who are schematic for the “sophisticated” trait formed more favorable brand attitudes for the GCPA as opposed to the LCPA (4.12 vs. 3.62); subjects who are less schematic for the “sophisticated” trait formed more favorable brand attitudes for the LCPA as opposed to the GCPA (3.98 vs. 3.85).

DISCUSSION

Alden, Steenkamp, and Batra (1999) demonstrated that the global consumer cultural positioning strategy was employed in advertising with varying degrees across product categories, but its effectiveness remained open to further research. They suggested that the global cultural positioning strategy might work better than the local cultural positioning strategy in countries of lower levels of economic development as well as that global cosmopolitan consumers might be more responsive to the global cultural positioning strategy (pp. 84-85). While the effectiveness of the global cultural positioning strategy may vary across countries as well as across consumers within a country, the present study provides insight into the varying effects across individuals.

The present study shows that individual responsiveness to the global cultural positioning strategy in advertising depends on whether the brand personality established through the cultural positioning strategy is congruent with one’s personality traits. This finding is in line with past studies addressing the role of individuals’ self-concepts in the persuasion process of advertising (Aaker 1999; Chang 2002; Wang et al. 2000). From a psychological perspective, as consumers experience different bits of cultural information and internalize them as schematic knowledge, the interpretation and process of cultural meanings discoursed in advertisements are idiosyncratic across consumers. The present study extends the psychological consequence of cultural globalization to the context of arguments for the global versus local cultural positioning strategy in advertising.

While the self-concept congruity effect was found in the domain of GCPAs, the contextual influences that could strengthen or eliminate the effect should be clarified further. While the present study was conducted for cosmetics as the focal product, Alden, Steenkamp, and Batra (1999) found different usages of global versus local consumer cultural positions across product categories, indicating that advertisers believe that global cultural positioning strategy should vary across product concepts. It may be that the self-concept congruity effect may be strengthened or weakened depending on the congruency between product concepts and the cultural meanings of transnationality developed in the GCPA.

While the present study did not consider involvement issues, research on the self-concept congruity effect suggests that the effect may be manifested more strongly in a low involvement situation (Chang 2002; Whittler and Spira 2002). Another perspective worthy of study is self-expressive involvement versus functional involvement (MacInnis and Jaworski 1989; Park and Young 1986). There is the possibility that the congruency between brand personality, which is established by the global cultural positioning strategy, and self-concept has stronger relevance to a consumer’s preference and choice under self-expressive involvement situation rather than under functional involvement.

This line of reasoning suggests that the effectiveness of the cultural positioning strategy through advertising should be investigated regarding the complex interactions among product
APPENDIX 1

Measures of Cosmopolitanism

I wish I could speak at least one foreign language.
I enjoy getting news from all over the world.
I like to have contact with people from different cultures.
World issues concern me more than the issues of any one country.
I enjoy experimenting with many different kinds of foods.
I like immersing myself in different cultural environments.

REFERENCES


Prompting Elaboration by Restricting Choice
Richard J. Shakarchi, Ohio State University, U.S.A.
Curtis P. Haugtvedt, Ohio State University, U.S.A.

ABSTRACT
Marketing efforts tend to focus on promotional strategies. At the same time, marketing requires a prevention focus as well, to maintain market share in a competitive environment. In this environment, resistance is often considered a challenge to the endeavor of marketing. However, some forms of resistance can be co-opted for marketing purposes. The current research demonstrates how evoking resistance from participants can be used to increase elaborative processing in consumers. This, in turn, leads to greater persuasion when promotional appeals utilize strong arguments.
EXTENDED ABSTRACT

The examination of customer value determination and value delivery has recently become a focal point in the marketing literature. However, most empirical studies to date have examined these constructs and their relationships within the context of “off-line” shopping. On the subject of on-line shopping, most current research examining the impact of the Internet upon consumer marketing is nothing more than “anecdotes, experiential evidence, and ad hoc descriptive studies.” Thus, the need for empirical research on the relationships between value, satisfaction, and loyalty within an online shopping context is ripe for development.

The authors of this study identify two types of online shopping values—utilitarian value (including price savings, service excellence, time saving, and selection dimensions) and experiential value (including entertainment, visual, escape, and interaction dimensions). Utilitarian value is defined as an overall assessment of functional benefits incorporating the traditional price savings dimension, a service dimension, a time saving dimension, and a merchandise selection dimension. Utilitarian value is relevant for task-specific use of online shopping, such as purchase deliberation (i.e., considering the product, service, and price features before actual purchase). Experiential value is defined as an overall representation of experiential benefits from entertainment, escapism, visual appeal, and interactivity involved with online shopping activities. Experiential value is relevant for acquiring affective and social stimulation, which enhances consumers’ total online shopping experiences. These experiential value dimensions have been the subject of much research in the in-store shopping literature and have also begun to be recognized as important elements of online shopping. This value type is consistent with the emotional dimension of value, including the hedonic and affective motives, as well as the aesthetics and playfulness dimensions.

Then, the theoretical relationships between online shopping values (both utilitarian and experiential), satisfaction, and loyalty are discussed drawing on the existing literature. It is hypothesized that consumer perceptions of each of these two shopping value types will positively affect satisfaction in an online shopping environment.

**H1:** Consumers’ perceptions about the utilitarian value of an Internet retailer will be positively associated with their satisfaction with the Internet retailer.

**H2:** Consumers’ perceptions about the experiential value of an Internet retailer will be positively associated with their satisfaction with the Internet retailer.

Satisfaction is believed to be a central determinant of loyalty. Although store satisfaction has often been regarded as an antecedent to store loyalty, there is not much empirical evidence to support the relationship. However, the Internet may provide a new market rule. Because it is extremely easy for consumers to find alternatives and compare prices and service features, switching costs have been considerably lowered compared to the traditional marketplace. Therefore, customer loyalty and satisfaction will likely demonstrate a strong relationship in the online shopping context.

**H3:** Satisfaction will be positively related to customer loyalty for Internet retailers.

Using a two-step structural equation modeling approach and data from 817 online respondents, the impact of these online shopping values upon consumers’ satisfaction and loyalty is examined. In the first confirmatory factor analysis stage, the psychometric structure of the eight constructs and two higher-order value constructs was assessed using second-order confirmatory factor analysis (CFA). This second-order CFA model included utilitarian value (UV) and experiential value (EV). UV subsumed price savings (PS), service excellence (SE), time saving (TS), and selection (SL) dimensions. EV subsumed entertainment (ET), escape (ES), visual (VI), and interaction (IN) dimensions. The fit indices in Table III for the Measurement Model (GFI=.937, AGFI=.941, CFI=.922, IFI=.962, NFI=.942, TLI=.956, RMSEA=.047) were all above the recommended thresholds for a good fit (Hu and Bentler 1999). Next, the second step structural equation model specified three paths: (1) UV → SAT (satisfaction), (2) EV → SAT, and (3) SAT → LOY (loyalty). The fit indices for the structural Model (GFI=.916, AGFI=.899, CFI=.954, IFI=.954, NFI=.932, TLI=.949, RMSEA=.049) mostly satisfied the recommended thresholds for a good fit. The effect of utilitarian value on satisfaction was positively significant (bUV→SAT=1.087, t=17.417) thereby supporting H1. Experiential value also had a significantly positive influence on satisfaction (bEV→SAT=0.422, t=6.570). Thus, H2 was also supported. Finally, the effect of satisfaction on loyalty was found to be highly significant (bSAT→LOY=1.129, t=20.743); H3 was also supported.

The significance of this research can be found from its integrative approach to online shopping values. The findings indicate that Internet shopping invokes different value types and that these value types additively contribute to customer satisfaction and loyalty. The fact that the second-order Measurement Model verified two overall value types (utilitarian and experiential) in the Internet shopping environment responds to recent calls for more research on consumption goals by Bagozzi and Dholakia (1999) and Woodruff (1997). The findings also lend theoretical support to the adoption of more consequence-level value drivers in consumer behavior studies. The use of second-order value types, such a utilitarian value and/or experiential value, provide both an important approach for theory testing and a more goal-oriented, consequence-level approach to predicting customer satisfaction and loyalty (Woodruff 1997). In conclusion, this study demonstrated that Internet shopping does indeed invoke various shopping values, and both utilitarian and experiential values positively affected customer satisfaction, leading to heightened loyalty.

REFERENCES


Effects of 3-D Visualization on Persuasion in Online Shopping Sites: A Moderating Role of Product Knowledge
Kihan Kim, University of Texas at Austin, U.S.A.
Terry Daugherty, University of Texas at Austin, U.S.A.

ABSTRACT
The use of a three-dimensional (3-D) visualization in commercial Websites has been growing. In order to better understand the influences of this technology on marketing, a laboratory experiment (n=104) was conducted to examine the effects of visualization type (3-D vs. 2-D) and prior product knowledge (low vs. high) on persuasion. The results indicate that 3-D visualization positively influences attitude, and this relationship was found to be greater for novices than experts. Furthermore, a consumer’s sense of presence was found to mediate the effects of product visualization type on persuasion as previously postulated. These findings and future implications for developing effective online marketing strategies are discussed.

INTRODUCTION
The use of a three-dimensional (3-D) visualization in commercial Websites has emerged because of the development of computer technology and practitioners’ efforts in presenting interactive virtual product experiences (Gill 2002). Accordingly, a growing number of academic researchers are also exploring the effects of the 3-D product visualization in advertising and marketing (Holbrook 1998; Li, Daugherty and Biocca 2002). In particular, recent work has conceptualized 3-D product visualization as an active user controlled psychological state consumers encounter when interacting with products in computer-mediated environments (Li, Daugherty and Biocca 2001). These compelling experiences are able to initiate psychological states by providing visual and motor sensory feedback enabling consumers to freely rotate, zoom-in or out, and examine an interactive 3-D representation of a product along each axis. Much of this work has found that 3-D visualization conveys an enhanced experience of vividness, clarity, realism, and presence, ultimately increasing the impact of online marketing communications (Holbrook 1998; Li, Daugherty and Biocca 2003).

Although positive relationships between interactive virtual product experiences and marketing effectiveness measures have been found (e.g., Coyle and Thorson 2001; Li et al. 2002; Klein 2003), these results suggest superior 3-D effects over 2-D at any time, which is a presumption calling for additional research. As a result, this study seeks to examine boundary conditions for the positive 3-D effects previously observed by examining individual differences associated with the level of prior knowledge each consumer brings when evaluating a product online. Invariably, the amount of prior knowledge of a specific product, or even category of products (i.e., computers), can influence a consumer’s motivation and/or ability to process information (Petty and Wegener 1999). Ability and motivation variables are especially important in persuasion since they are likely to influence elaboration of product information (Petty and Cacioppo 1986a).

Therefore, the purpose of this study is to extend our knowledge in this area of work by investigating how consumer attitude toward a product evaluated online is impacted by the effects of 3-D product visualization and prior product knowledge. Overall, this research may potentially contribute to the body of persuasion literature in academia, and help practitioners select proper target audiences when developing marketing strategies. Furthermore, clarifying the influence of 3-D product visualization could facilitate a better understanding of online behavior leading to more effective marketing communication strategies. In the proceeding sections, a brief theoretical rational is presented outlining the hypotheses as well as the methodology and results of this study.

THEORETICAL BACKGROUND

Elaboration & Product Knowledge
A significant amount of research in social psychology provides support for the proposition that consumers assimilate information and everyday experiences by engaging cognitive systems (Chaiken 1980; Epstein 1990; Petty and Cacioppo 1986b; Slovan 1996). Within this framework, elaboration has been conceptualized as the amount of thought generated while processing persuasive messages (Petty and Cacioppo 1986; Petty and Wegener 1999). This is because independent factors are more likely to influence cognitive processes when elaboration is not constrained by other variables. In fact, ELM postulates a multiple role for persuasion as an influencing variable as either a peripheral cue or central argument depending on the context (Petty and Wegener 1999). In this regard, central processing necessitates an expenditure of cognitive resources for information scrutiny, while peripheral processing involves more simplistic strategies (Petty and Cacioppo 1981, 1986a).

Among the variables influencing consumers’ information processing styles, ability is one that has been extensively researched in marketing (Petty and Wegener 1999; MacInnis, Moorman and Jaworski 1991; Jaworski and MacInnis 1989). Ability refers to consumers’ skills or proficiencies in interpreting product information in marketing communications (MacInnis et al. 1991). The availability and accessibility of issue-relevant knowledge structures provide the foundation for processing ability. One of the most important variables affecting information-processing ability is the extent to which a person has an organized structure of knowledge (Wyer and Srull 1984). That is, high ability implies that the prior knowledge necessary to interpret issue-relevant information is present and accessible (Alba and Hutchinson 1987; MacInnis, et al. 1991). For example, some people are more able to think about issues because of their well-developed product class knowledge (Petty and Wegener 1999). Thus, varying the degree of product knowledge would result in differential processing of a given marketing variable, which in turn, has differential impacts on the subsequent persuasive outcomes. Considering that research is generally consistent with the view that simple cues are more likely to affect susceptibility to influence when prior knowledge is low rather than high (Petty and Cacioppo 1986a), 3-D product visualization, if interpreted as a peripheral cue, may be more likely to influence persuasive outcomes under low rather than high elaboration. Marketing executions can still affect attitude change when information scrutiny is reduced resulting in low elaboration. Such variables operate by either inducing primitive affective states, or because they trigger some simple heuristic cues for making a judgment (Chaiken 1987; Petty and Cacioppo 1986a, 1999).

Presence
One of the most convincing constructs explaining the effects of 3-D product visualization is the psychological process known as presence, or sometimes referred to as telepresence. Steuer (1992)
Hypotheses

Consistent with prior research (e.g., Coyle and Thorson 2001; Li et al. 2002; Klein 2003), positive relationships between product visualization type and persuasion are predicted as follows:

**H1:** Product visualization type (i.e., 3-D vs. 2-D) will positively influence consumers’ attitude such that 3-D visualization will have a greater influence on consumer attitudes than 2-D representations.

Given that product knowledge is an important variable influencing elaboration, the following interaction effects between visualization (i.e., 2-D vs. 3-D) and product knowledge on persuasion is predicted such that incorporating 3-D visualization is more likely to influence consumers’ attitudinal responses when prior knowledge of the product is low rather than high (Petty and Cacioppo 1986a). Thus, prior knowledge is predicted to moderate the influence of 3-D visualization on subjects’ attitudinal responses. This prediction is consistent with the tradeoff postulate of ELM (e.g., Petty, Cacioppo and Goldman 1981), which suggests that, as one moves along the elaboration continuum, the impact on attitude will vary based on the level of processing influenced by such factors as prior knowledge. That is, at low levels of information scrutiny, relatively low-elaboration judgment strategies (such as going with the early information or relying on heuristics) and low-elaboration judgment mechanisms and processes (such as identification with the source or classical conditioning) have a greater impact on attitudes than they do at high levels of scrutiny. Thus, as the impact of peripheral-route processing on judgments increases, the impact of central-route mechanisms on judgments decreases (Petty and Wegener 1999).

**H2:** Three-dimensional visualization will have a greater influence on consumer attitudes than 2-D representations when consumers have little prior knowledge of a product. Yet, 3-D visualization will have less effect on consumer attitudes when consumers have more product knowledge.

Finally, consistent with the notion of previous research, the sense of presence should mediate the persuasive effects of 3-D visualization because the interactive nature of 3-D visualization evokes a compelling virtual experience that stimulates the sensation of presence absent from traditional static product representations (Li et al. 2002). Thus, presence is considered a mediator because it is predicted to carry the influence of 3-D visualization to the attitude measures. Note that this role of mediator is different from the role of moderator used in the first hypothesis. Mediation can be said to occur when (1) 3-D visualization affects the presence, (2) the 3-D visualization affects the attitude measures in the absence of the variable presence, (3) the mediator has a significant unique effect on the attitude measure, and (4) the effect of the 3-D visualization on the attitude measure shrinks upon the addition of the variable presence to the model. On the other hand, an interaction is said to occur when the magnitude of the effect of one independent variable on a dependent variable varies as a function of a second independent variable; in such cases, the second independent variable is called moderator.

**H3:** Presence will mediate the influence of 3-D visualization on attitude.

**METHODS**

To test the hypotheses, a laboratory experiment was conducted asking participants to access a Website and evaluate a consumer product. A 2 x 2 between-subject factorial design was used with prior product knowledge (low vs. high) and visualization type (3-D vs. 2-D) serving as the independent variables. Subjects were randomly assigned to the visualization type condition with product knowledge assessed beforehand to classify respondents accordingly.

**Sample**

A total of 104 students were recruited from introductory communication courses at a major southwestern university to participate in the study. In return for their participation, respondents received course credit with informed consent obtained prior to the experiment.

**Stimulus Material**

After considering a variety of products, a Portable Digital Assistant (PDA) was chosen as the experimental product used in creating the stimuli. In particular, the Compaq iPaq was used as it was found to have adequate variations in reported product class knowledge from a pretest. Two versions of an online shopping Website—either incorporating 3-D visualization or 2-D graphics—were constructed for use as the stimulus material in the experiment (see Appendix). In addition to the basic function of point and click, the 3-D visualization Website incorporates such features as product rotation, movement, and zooming in/out via the mouse. Accordingly, the 2-D version only allowed standard point and click functionality as product visuals were static. Except for the type of the product visualization (2-D vs. 3-D), all other information was identical across the two conditions.

Product knowledge was measured using a five-item seven-point subjective knowledge scale (Mitchell and Dacin 1996). Specifically, respondents were asked to indicate their level of familiarity, understanding of the product characteristics, level of knowledge, knowledge relative the general population, and interest in portable computer devices. The index scores were then obtained by averaging all five items (a=.87) and the conventional median split method was used to divide the sample into high and low levels of product knowledge.
Measures

Three variables of primary interest were measured: 1) brand attitude, 2) sense of presence, and 3) product involvement. Brand attitude was adopted from Batra, Rajeev and Ray’s (1986) six-item seven point semantic differential scale (pleasant/unpleasant, useful/useless, cold/warm, poorly made/well made, friendly/unfriendly, and best/worst). Scores of all six items were averaged to derive an index score of brand attitude (a=.91 for post-brand attitude).

Presence was measured by using a sixteen-item five-point scale (strongly disagree/strongly agree) modified from the Independent Television Commission Sense of Presence Inventory developed by Lessiter, Freeman, Keogh, and Davidoff (2001). The items used primarily focus on the traditional definition of “being there” in the mediated environment. A composite score was created to represent an index of presence (a=.79).

Product involvement was measured using a four-item seven-point scale (boring/interesting, unexciting/exciting, appealing/unappealing, involving/uninvolved) adapted from the personal involvement inventory (Zaichkowsky 1985; 1994). The index score of product involvement was obtained by averaging all four items (a=.89) and used as covariate in the ensuing analysis.

Procedure

Upon arrival, each subject completed a written consent form and was given online instructions. Respondents were first asked to answer the following questions before being exposed to the test Website: prior attitude toward the brand, product involvement, and perceived product class knowledge. Then, each subject in the study was directed to either a 2-D or 3-D version of an online shopping Website, and asked to evaluate the product. After being exposed to the test Website, subjects were asked to complete a questionnaire containing the dependent variables.

FINDINGS

Analyses of variance (ANOVA) was used to examine the relationship between product visualization type (3-D vs. 2-D), prior product knowledge, and persuasion. In addition, the mediating role of consumers’ sense of presence was examined.

Descriptive Statistics

Out of 104 participants, 41 (39 percent) were male and 63 (61 percent) were female. Each of the four experimental conditions consisted of 26 subjects. Table 1 shows descriptive statistics, reporting the means and standard deviations of each variable.

Hypothesis Test

All hypotheses were tested with involvement as a covariate, which prevents any confounding effects resulting from subjects’ variation in motivational factors rather than from the primary independent variables of this study.

Hypothesis 1 predicted positive effects for the use of three-dimensional visualization on persuasion. As shown in Table 2, the effects of product visualization type (2-D vs. 3-D) on subject’s attitude change scores showed a significant main effect (F(1,99)=16.85, p<.01). Figure 1 shows the pattern of this interaction reporting the means of brand attitude change scores for each condition. The results indicate that, as product knowledge increased, the effects of the 3-D visualization format on attitude change scores decreased. This finding confirms the notion that the effect of product visualization type on persuasion is also influenced by a consumer’s product knowledge, supporting the hypothesis.

Hypothesis 2 predicted an interaction effect between the product visualization type and product knowledge on subjects’ attitude change scores, such that 3-D visualization will have a greater influence on consumer attitudes when consumers have little prior knowledge of a product. Yet, 3-D visualization will have less effect on consumer attitudes when consumers have more product knowledge.

This hypothesis tests the moderating role of product knowledge. As shown in Table 2, a significant interaction effect between the product visualization type and knowledge was found (F(1,99)=16.85, p<.01). Figure 1 shows the pattern of this interaction reporting the means of brand attitude change scores for each condition. The results indicate that, as product knowledge increased, the effects of the 3-D visualization format on attitude change scores decreased. This finding confirms the notion that the effect of product visualization type on persuasion is also influenced by a consumer’s product knowledge, supporting the hypothesis.

Hypothesis 3 predicted that consumers’ perceived sense of presence would mediate the effects of product visualization on attitude change scores. Specifically, this hypothesis tests whether sense of presence carries the influence of the information format to attitude. Table 3 shows the following four results supporting the hypothesis (e.g., Baron and Kenny 1986; Holbrook and Batra...
1987): 1) The product visualization format significantly affects presence (b=.25, t(1)=4.61, p<.01); 2) The product visualization format significantly affects the attitude change scores in the absence of presence (b=.20, t(1)=2.18, p<.05), 3) Presence has a significant unique effect on the attitude change scores (b=.58, t(1)=3.99, p<.01); and 4) The effect of the product visualization format on the attitude change scores shrinks upon the addition of presence to the model (b=.20‡.07; t(1)=2.18‡.07; p<.05‡n.s.). An additional Sobel test (MacKinnon and Dwyer 1993; MacKinnon, Warsi and Dwyer 1995) was conducted to examine the statistical significance of the mediation effects, which approached the significance level (z=2.08, p<.05).

### DISCUSSION

Marketers constantly face the challenge of creating visual displays that expose respondents to marketing-related stimuli in order to capture the essence of relevant consumption experiences. Historically, these methods have generally been confined entirely to the flat two-dimensional surfaces of the printed page or the computer monitor. Recently however, progress has been made toward overcoming this limitation by introducing the third dimension of vision for purposes of visualizing information in marketing communications (Holbrook 1998).

Nevertheless, marketers and Web practitioners’ passion for making fancy Websites that incorporate the most recent technologies has lead to careless uses of 3-D visualization hoping for positive results. Although several prior studies indicate positive relationships between the use of 3-D visualization and persuasion, the question “Do we always have this positive effect?” has remained unanswered. The result of this study suggests that the answer is “It depends,” and further indicates the ways that marketers can maximize the positive effects of 3-D visualization.

Consistent with the prior research, the results of this study suggest that Websites incorporating 3-D visualization have greater influences on persuasion compared to the 2-D Websites. However, consumers’ product knowledge was found to moderate the relationships between the product visualization format and persuasion, such that novices (i.e., low knowledge consumers) were more likely to be influenced by the use of 3-D visualization than were experts (i.e., high knowledge consumers). Furthermore, the effects of a 3-D visualization on consumers’ perceptions of a given product were found to be the function of consumers’ sense of presence. In other words, consumers’ sense of presence carried the 3-D information to the persuasive outcome.

In a practical sense, these results provide marketing practitioners with useful information that complements the decision-processing involved in selecting proper target groups and in developing strategies for creating tailored online shopping Websites. For example, when a new product is launched in the market, marketers should use various Web techniques including 3-D features because consumers are likely to have a low level of knowledge about the new product, and the 3-D format can serve as a peripheral cue positively influencing novices’ perception of the product. On the other hand, for some products with inherent involvement, the use of 3-D format might not have any positive effects, or even a negative effect can be found because experts with high motivation to process information are less likely to be influenced by 3-D features, and even unintended negative effects can occur. In academia, the results...
of this study aid the body of literature on persuasion and information-processing by applying traditional theory (i.e., ELM) to the online shopping context. By taking a theory-driven approach, this study leads to a better understanding of the role of the 3-D visualization on persuasion.

Although this study contributes to the managerial and academic fields of marketing, it is not without limitations. First, the use of a student sample restricts the external validity. Second, by testing the 3-D effects within a single product (i.e., a PDA), the results should not be generalized across all product categories.

Future research should extend this study in several areas. First, the role of product visualization might play a different function under alternative situations, as suggested by the multiple-role postulate of the ELM (cf. Petty and Wegener 1999). Thus, future research should examine the conditions under which the 3-D format can serve as an argumentation influencing consumers under high and low elaboration conditions. Second, consumers’ affective responses toward the Web experience can be incorporated into the study. This approach could help understanding why consumers’ sense of presence mediated the effects of 3-D format on persuasion. Finally, in addition to investigating the role of subjective knowledge, as in the present study, objective knowledge measure can be incorporated into this study. It would be useful to investigate the relative impacts of subjective and objective knowledge because both types of knowledge are related to aspects of information search and decision-making behavior in different ways (Brucks 1985).

REFERENCES

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APPENDIX
Stimulus Website


Personal Value (LOV) and Consumers’ Acceptance of Web Marketing Facilities (AWMF)– The Case of Consumers in Macau–The Special Administrative Region of China

NG, Sio Wang, Macao Polytechnic Institute, Macao

ABSTRACT

The paper attempts to study the relationship between Acceptance of Web Marketing Facilities (AWMF) based on The Technology Acceptance Model (TAM) model (Kucuk and Arslan, 2000) and the Personal Value–List of Value (LOV) (Beaty et al 1985) in the case of Macau (The Special Administrative Region of China) Consumers. Two factors of LOV were obtained and labeled as “Sense of Peer Acceptance” and three factors of AWMF were obtained and labeled as “Internet shopping as an usual activity”, “Belief of Internet Shopping Benefits” and “Satisfied with Local Internet Provider”. Moreover, the data supports that the more consumers have high achievement-motivation, the less they believe that the Internet can provide benefits. Finally, it was found that there are significant differences between genders and several items of LOV and AWMF.

INTRODUCTION

Consumer researchers have embarked on the study of value most noticeably since 1960s. Rokeach (1968) asserted the concept of values in social sciences. Acceptance of Web Marketing Facilities (AWMF) based on The Technology Acceptance Model (TAM) model (Kucuk and Arslan, 2000) has also been widely been utilized for researchers and practitioners to test, predict and explain users acceptance of technology. (Venkatesh and Morris, 2000; Chau and Hu 2001; Agarwal and Prasad, 1999; Davis and Venkatesh, 1996; Doll, Hendrickson and Deng, 1998, and Fenech; 1998; Straub, Keil, and Brenner, 1997). However, both of these theories have not been simultaneously studied in terms of their mutual relationship and thus, by adopting the samples of Macao–The Special Administrative Region of China” to investigate the inter-relationship between each another becomes more valuable for the field of consumer behavior study.

LITERATURE REVIEW

Personal Values

Value, as an important variable affecting human behavior has prompted extensive research activities in this area. Munson (1984) reviewed value research and concluded that value stretches on four disciplines: psychology, sociology, organizational behavior and consumer behavior. In the field of marketing, the scholars who embarked on the study include Rosenberg (1956) and Vinson and Munson (1976) who investigated the influence of value on consumer behavior. Other research studies have verified that personal values affect product choice (Pitts and Woodside, 1984; Homer and Kahle, 1988); Cheron and Muller (1993) investigated the present significant difference in ownership of products and personal values between Ontario and Quebec. Beat et al (1993) studied the relationship between gift giving and personal values of the parents of college students in the USA and Japan. Kau Ah Keng and Serene Liu (1997) investigated the relationship between personal values and complaint behavior in Singapore. Although previous studies have linked values and other behavior elements as dependent or independent variables in different cultural settings, none have linked consumers’ decision-making style and personal values in China setting.

Various instruments have been developed to measure different aspects of human values (Robinson and Shaver, 1973). One of the well-known ones was developed by Rokeach value survey (RVG) that consists of 18 instrumental values and 18 terminal values. Subjects are required to rank each on value’s importance. However, the method was criticized as it uses rank ordering rather than interval or ratio ordering (Clawson and Vinson, 1978). Another commonly and well-known used method of value measurement was developed by researchers at the university of Michigan (Veriff et al, 1981; Kahle, 1983). Beaty et al (1985) developed the instrument called List of Value (LOV) in the basis of theoretical works of Maslow (1954), Rokeach (1973) and Feather (1975). There are totally nine terminal values in LOV:

1. Sense of belongs
2. Excitement;
3. Warm relationship with others;
4. self-respect;
5. being well-respected;
6. self-fulfillment;
7. a sense of accomplishment;
8. fun and enjoyment in life;

The Technology Acceptance Model (TAM)

The robustness of TAM has also been established through several application and replication (Adam et al, 1992; Davis 1989,1993; Davis et al 1993; Davis and Venkatesh 1996; Gefen and Straub 1997; Igbiria et al, 1997; Mathieson 1991; Morris and Dillon, 1997; Segars and Grover, 1993 and Subramania 1994). TAM built the model on the system usage intention and behavior as a function of perceived Usefulness(U) and Perceived Ease of Use (EOU) (Davis and Venkatesh, 1996). In general, TAM has two beliefs: perceived U which is the user’s perception for the extent to which the system will improve the user’s workplace performance, and perceived EOU depicts the user’s perception of the amount of effort required to utilize the system or the extent to which a user believes that utilizing a particular system would be free for effort (Davis, Bagozzi, and Warshaw, 1989) as depicted in Figure 1.

Doll, Hendrickson and Deng’s (1998) results provided a strong support for the validity and reliability of TAM. Szajna (1994) examined the TAM and found that the U/EOU model indicated reasonable prediction. Also, Szajna (1996) proved that TAM is a valuable tool for predicting intentions to use an information system. Straub, Keil, and Brenner (1997) examined and tested the TAM across Japan, Switzerland and the US. The results indicate that TAM holds for both the US and Switzerland but not for Japan.

Acceptance of Web marketing Facilities

Although there has been a great number of study germane to TAM. Not many have focused on explaining the user acceptance of WMF through the TAM on a cultural, however, French (1998) tested perceived U and perceived EOU to predict user acceptance of World Wide Web and the results indicated a poor fit for the model until the introduction of an additional construct, computer self-efficacy. Agarwal and Prasad (1998) examined individuals’ perceptions toward the characteristics of information technology innovations as explanatory and predictive variables for acceptance behavior. Kucuk and Arslan (2000) investigated by comparing the AWMF in TAM basis into three countries of Britain, Denmark and Turkey. It was reported that significance difference was found.
between Turkey and Britain and Denmark in terms of AWMF, and no significant difference between Britain and Denmark.

The U of WM

According to Kucuk and Arslan (2000), the U of WM mainly reflects consumers’ perception of the extent to which using Internet would have satisfaction through ordering products and services on the Internet. The variables for of the U of WMF include five factors as follows:

Money Saving—the variable that represents consumers’ belief whether money would be saved through ordering products and services on the Internet;

Time Saving—the variable which represents consumers’ belief in whether the Internet shopping is Time-saving;

Enjoyment of Shopping—the variable represents whether consumers enjoy Internet shopping more than traditional way of shopping;

Ability to access Information—the variable represents if consumer believe that it is more easy to get information on the Internet for the products and services which are not available in their local market;

Security—the variable asking if consumers believe that shopping on Internet is “Safety” in terms of the danger of releasing personal information;

The EOU of WMF

The EOU of WMF indicates consumers’ perception of the effort that is required in Internet for satisfying their needs. It includes four factors as follows:

User Friendly Website—the variable represents whether the consumers find web designs easy to use or users friendly to order products and services on the Internet;

Power of Server Provider—the variable to know whether consumers are satisfied with the local Server Provider in providing enough service for them to ordering products and services on the Internet;

User Experience—this variable is simply asking whether users are well experienced with their Internet usage.

Attitude and Intention Toward WMF

The Attitude and Intention Toward WMF has only one factor in whether consumers would have an intention to order products and services if they had accessed to Internet. (See Table 1)

METHODS

A well back-translated questionnaire in Chinese with the ten-item AWMF and a nine-items List of Value (LOV) Personal Value inventory was administered to the 201 undergraduate students of the School of Business of Macao Polytechnic Institute, Macao- The Special Administrative Region of China. The AWMF is in a scale seven points Likert scale ranging from 1 to 7 which 1 represents Strongly Disagree and 7 represents Strongly Agree and the nine items of the LOV is a 1 to 7 which 1 represents “Totally unimportant” while 7 represents “Very Important”. The LOV and the AWMF inventories were run by factor analysis and their factor score were saved for further correlation analysis. The data was further analyzed by using T-test for investigating whether there is significant difference between gender and the attitude toward LOV and AWMF. Reliability test and KMO test were also adopted for adequacy testing purpose.

FINDINGS

Table 2 depicts the result of KMO test and the factor loading of the Personal Value (LOV) inventory. The KMO 0.816 proves that the LOV inventory is good for conducting Factor Analysis (George and Mallery, 2001). The factor analysis was run in condition of no factor was constrained. As a result, two factors were obtained in Total Variance Explained 53.41%. As shown in Table 2, Factor 1 is labeled as “Sense of Peer Acceptance” which includes six LOV items of “self-respected”, “being well-respected”, “fun and enjoyment of life”, “security”, “a sense of belongings” and “warm relationship with others”. Factor 2 is labeled as “Sense of Achievement” which includes three LOV items of “self-fulfillment”, a sense of accomplish” and “excitement”.

Table 3 is another result and factor analysis of AWMF. The KMO value of 0.731 indicates that it is acceptable for conducting factor analysis (George and Mallery, 2001). There are totally three factors obtained from the factor-unconstrained condition. Resulting in 52.3% of total variance explained, factor 1 is labeled as “Internet shopping as a usual activity” which includes the AWMF items of “It is more easy to get information on the Internet about products and services that are unavailable in local market”, “Ordering products and services on the Internet is secure enough”, “Web design is easy to use or user friendly to order products and services”.

![FIGURE 1](image-url)
"My experience in using internet is enough," "In accessing internet, I have an intention to order products and services"; factor 2 is labeled as "Belief of Internet Shopping Benefits" which includes the items of "Ordering products and services on the Internet can save money", "Internet Shopping is time-saved", "I enjoy internet shopping more than traditional shopping methods" and factor 3 is labeled as "Satisfied with Local Internet Provider" which includes items of "The speed of internet is satisfactory enough for internet shopping" and "The local internet service provider is satisfactory enough to order products and services on the internet".

The factor analysis was conducted for two purposes. First is for investigating the characteristics of Macau consumers in terms of the LOV and AWMF nature. Second is for obtaining the factor score for a further calculation of correlation coefficient of the LOV and AWMF. Table 4 depicts the result of the univariate analysis that the Pearson correlation is obtained by calculating the factor score of the two-factor of LOV and the three-factor of the AWMF. As shown in Table 4, only the LOV factor "Belief of Internet Shopping Benefits" is significantly and negatively associated with the AWMF factor of "Sense of Achievement". That is, the more people are achievement-oriented, the less they believe that Internet can provide benefits for them.

It was hypothesized that there is no difference between gender and the LOV /the AWMF. Table 5 is the T-test result of the LOV and the Gender. It was found that gender had significant different attitude towards the LOV items in terms of "being well-respected" and "fun and enjoyment". To specifically study difference between the gender with each items by conducting cross-tabulation analysis with X2 test, it was also found that female consider "being well-respected" and "fun and enjoyment of life" to be more important than male do.

The second hypothesis is that there is no difference between gender and the AWMF. Table 6 illustrates the results of the T-test of gender and AWMF. It was found that three items of the AWMF are significantly different with gender, namely, "I enjoy Internet shopping more than traditional shopping methods", "Ordering products and services on the Internet is secure enough" and "In accessing Internet, I have an intention to order products and services". Moreover, followed by a cross-tabulation analysis with X2 test, it was found that female is more likely disagree on "I enjoy Internet shopping more than traditional shopping methods", "Ordering products and services on the Internet is secure enough" and "In accessing Internet, I have an intention to order products and services".

---

**TABLE 1**

<table>
<thead>
<tr>
<th>The U of WMF</th>
<th>The EOU of WMF</th>
<th>Attitude and Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Money Saving</td>
<td>6. user-friendly web design</td>
<td>10. User's intention towards Internet ordering</td>
</tr>
<tr>
<td>2. Time Saving</td>
<td>7. Internet speed</td>
<td></td>
</tr>
<tr>
<td>3. Enjoyment from shopping (visual versus physical shopping)</td>
<td>8. Local Internet service provider's infrastructure</td>
<td></td>
</tr>
<tr>
<td>4. Access products information which are not available in the local market</td>
<td>9. User experience</td>
<td></td>
</tr>
<tr>
<td>5. security</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


**TABLE 2**

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>KMO</td>
<td>0.816</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor 1: Sense of Peer Acceptance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Self-respect</td>
<td>0.607</td>
</tr>
<tr>
<td>• Being well-respected</td>
<td>0.696</td>
</tr>
<tr>
<td>• Fun and Enjoyment of life</td>
<td>0.608</td>
</tr>
<tr>
<td>• Security</td>
<td>0.730</td>
</tr>
<tr>
<td>• A sense of belongings</td>
<td>0.685</td>
</tr>
<tr>
<td>• Warm relationship with others</td>
<td>0.720</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor 2: Sense of Achievement</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Self-fulfillment</td>
<td>0.709</td>
</tr>
<tr>
<td>• A sense of accomplishment</td>
<td>0.672</td>
</tr>
<tr>
<td>• Excitement</td>
<td>0.741</td>
</tr>
</tbody>
</table>

Total variance explained: 53.41%
### TABLE 3
Factor Loadings and the KMO test of the AWMF

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1: Internet shopping as an usual activity</td>
<td></td>
</tr>
<tr>
<td>• It is more easy to get information on the internet about products and services that are unavailable in local market</td>
<td>0.517</td>
</tr>
<tr>
<td>• Ordering products and services on the internet is secure enough</td>
<td>0.564</td>
</tr>
<tr>
<td>• Web design is easy to use or user friendly to order products and services</td>
<td>0.649</td>
</tr>
<tr>
<td>• My experience in using internet is enough</td>
<td>0.681</td>
</tr>
<tr>
<td>• In accessing internet, I have an intention to order products and services</td>
<td>0.496</td>
</tr>
<tr>
<td>Factor 2: Belief of Internet Shopping Benefits</td>
<td></td>
</tr>
<tr>
<td>• Ordering products and services on the Internet can save money</td>
<td>0.751</td>
</tr>
<tr>
<td>• Internet Shopping is time-saved</td>
<td>0.762</td>
</tr>
<tr>
<td>• I enjoy internet shopping more than traditional shopping methods</td>
<td>0.543</td>
</tr>
<tr>
<td>Factor 3: Satisfied with Local Internet Provider</td>
<td></td>
</tr>
<tr>
<td>• The speed of internet is satisfactory enough for internet shopping</td>
<td>0.857</td>
</tr>
<tr>
<td>• The local internet service provider is satisfactory enough to order products and services on the internet</td>
<td>0.848</td>
</tr>
<tr>
<td>KMO</td>
<td>0.731</td>
</tr>
<tr>
<td>Total variance explained</td>
<td>52.3%</td>
</tr>
</tbody>
</table>

### TABLE 4
Pearson Correlation of LOV two-factor and AWMF three-factor

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Sense of Peer Acceptance</th>
<th>Sense of Achievement</th>
<th>Internet shopping as an usual activity</th>
<th>Belief of Internet Shopping Benefits</th>
<th>Satisfied with local internet provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sense of Peer Acceptance</td>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>.000</td>
<td>.000</td>
<td>-.132</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td>1.000</td>
<td>1.000</td>
<td>.063</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>201</td>
<td>201</td>
<td>201</td>
<td>200</td>
</tr>
<tr>
<td>Sense of Achievement</td>
<td>Pearson Correlation</td>
<td>.000</td>
<td>1.000</td>
<td>.000</td>
<td>-.147*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>1.000</td>
<td></td>
<td>1.000</td>
<td>.038</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>201</td>
<td>201</td>
<td>201</td>
<td>200</td>
</tr>
<tr>
<td>Internet shopping as an usual activity</td>
<td>Pearson Correlation</td>
<td>.000</td>
<td>.000</td>
<td>1.000</td>
<td>-.083</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>1.000</td>
<td></td>
<td>1.000</td>
<td>.242</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>201</td>
<td>201</td>
<td>201</td>
<td>200</td>
</tr>
<tr>
<td>Belief of Internet Shopping Benefits</td>
<td>Pearson Correlation</td>
<td>-.132</td>
<td>-.147*</td>
<td>-.083</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.063</td>
<td>.038</td>
<td>.242</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Satisfied with local internet provider</td>
<td>Pearson Correlation</td>
<td>.137</td>
<td>-.036</td>
<td>-.013</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.053</td>
<td>.616</td>
<td>.858</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed).
382 / Personal Value (LOV) and Consumers’ Acceptance of Web Marketing Facilities (AWMF)

TABLE 5
Test–test of LOV and Gender


<table>
<thead>
<tr>
<th>Table 6: Test–test of AWMF and Gender</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>warm relationship with others</th>
<th>sense of belonging</th>
<th>equality</th>
<th>security</th>
<th>excitement</th>
<th>fun and enjoyment of life</th>
<th>accomplishment</th>
<th>self-fulfillment</th>
<th>being well-respected</th>
<th>self-Respect</th>
</tr>
</thead>
<tbody>
<tr>
<td>not assumed</td>
<td>not assumed</td>
<td>not assumed</td>
<td>not assumed</td>
<td>not assumed</td>
<td>not assumed</td>
<td>not assumed</td>
<td>not assumed</td>
<td>not assumed</td>
<td>not assumed</td>
</tr>
<tr>
<td>3.814</td>
<td>.052</td>
<td>.000</td>
<td>.987</td>
<td>.800</td>
<td>.000</td>
<td>.000</td>
<td>.998</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

**Levene's Test for Equality of Variances**

<table>
<thead>
<tr>
<th>Sig (2-tailed)</th>
<th>F</th>
<th>df</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>.150</td>
<td>.000</td>
<td>199</td>
<td>.000</td>
</tr>
</tbody>
</table>

**Independent Samples Test**

<table>
<thead>
<tr>
<th>Mean Difference</th>
<th>Std. Error of Mean</th>
<th>Lower 95% Confidence Limit</th>
<th>Upper 95% Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.633</td>
<td>.539</td>
<td>.525</td>
<td>5.763</td>
</tr>
</tbody>
</table>

95% Confidence Interval for Mean Difference: 1.59 to 1.665.
CONCLUSION AND DISCUSSION
This exploratory study attempts to investigate the Personal Value (LOV) and the Acceptance of Web Marketing Facilities (AWMF) in terms of 1) their characteristics of the consumers in Macau; 2) their interrelationship and 3) whether difference significantly exits between genders. The study shows that Macau consumers’ personal value is peer relationship-oriented and self-achievement-oriented. For the AWMF, three types of consumer orientations are justified. Firstly are those who see Internet Shopping as a common and usual way of shopping; secondly type are those who believe that Internet Shopping can provide benefits such as time-saved and money saved and thirdly are those who are satisfied with local Internet service provider. When accessing the inter-relationship between LOV and AWMF, it was found that the more those who have high achievement motivation, the less they believe that Internet is a way of providing the benefits and the less they prefer shopping on Internet rather than traditional shopping approach. The study also shows that in comparing with male, female in Macau more likely disagree that Internet shopping are more enjoyable than traditional shopping; they do not think ordering products and services on the Internet is secure enough; and they do not have any intention to order products and services during navigating.

The finding of the study serves as a basic reference for the local or multinational business that adopts Internet as a selling channel. Since consumers in Macau are more likely peer-relation concern and self-achievement driven, marketing planners should develop the strategy on focus of these Chinese unique characteristics, for example, in developing advertising and sales promotion strategy, marketing planners should emphasize on the element of “reference group” as one of the important variables in consumer behavior. Since “net security” is found to be an important factor especially for female in Macau, any message emphasizing “security” would be a vital factor to increase their confidence of shopping through Internet. It is proven by the study that consumers in Macau basically accept Internet shopping as a usual way for shopping, believe that time and money could be saved through shopping in Internet and, being satisfied with the local Internet providers. However, the key is that they are lacking of confidence. In conclusion, if the local or multinational business are planning to develop their business through the Internet channel in Macau market, it is suggested that they should: 1) design peer-relation/achievement motivated advertising theme; 2) promotion for reinforcing consumer’s confidence in emphasizing “buying through Internet is secure”; 3) endeavor to educate female consumers in believing that net shopping is secured and funny because female are likely more to be potential buyers that male.

BIBLIOGRAPHY


The Effect of Internet Service Quality on Internet Store Loyalty: Mediating Role of Internet Store Satisfaction and Internet Store Image

Euehun Lee, Information and Communications University, Korea
Dong-Il Lee, The Catholic University of Korea, Korea

ABSTRACT

The advent and continuous increases of online shopping and the unprecedented rate of growth in the number of Internet shops in Korea have created an extremely competitive marketplace. In the beginning many executives of e-retailing have believed that low price and attracting new customers rather than retaining customers are keys to success. They often neglect customer satisfaction and customer loyalty. Unfortunately, thousands of members they have recruited have not been converted into a profit. Many e-business managers try to find the solutions by improving the service quality performance. This study explores the relationship between service quality and Internet store loyalty. Empirical study of a sample of 380 Internet shop consumers shows that the effect of service quality on Internet store loyalty is fully mediated by factors such as Internet store image and Internet store satisfaction. So the managers should not only try to improve service quality performance but also carefully monitor the store image and the store satisfaction level.

INTRODUCTION

The advent and continuous increase of online shopping and the unprecedented rate of growth in the number of Internet shops in Korea have created an extremely competitive marketplace. In the beginning, many executives of e-retailing believed that low price and attracting new customers rather than retaining customers are keys to success. They often neglect customer satisfaction and customer loyalty. Unfortunately, thousands of members they have recruited haven’t been converted into a profit. The cost of acquiring new customers in electronic commerce is even higher than that of traditional retail channels. In order to compensate for the higher cost, e-shops should have tried to retain more of their acquired customers more. As a result, many of them have failed in the market, as we saw in the dotcom meltdown era (Pryweller 2002; Karlgaard 2003; Thornton 2003).

The focus has shifted to how to make a profit, and few e-retailers have now started to turn a profit. Research in the field of satisfaction and loyalty has accumulated evidence that retention of customer is a key to success in business. The importance of Internet store loyalty has been suggested and supported empirically (Gommans, Kreshnan, and Scheffold 2001; Smith 2000; Reichheld and Schefer 2000). “The unique economics of e-business make customer loyalty more important than ever” (Reichheld and Schefer 2000, p. 105).

There are other well-known variables for the keys to success. Research has shown that service quality by service providers is one of the most important antecedents for success. Even though the types of service quality provided in e-retailing are different from traditional ones, delivering high level of service quality may be even more important in e-retailing because otherwise customers will visit traditional shops which have various advantages. So e-retailers should develop the unique service-output-demand for their installed customers (Coughlan et. al. 2001). In addition, store image is known to be one of the most important determinants of the success of retail shops. Good store image plays a major role in retaining loyal customers. The role of store image in e-retailing may be more important because hundreds of similar e-stores enter in virtual spaces every month and it is easy for customers to navigate around e-shops.

Our objective is to provide the theoretical background and empirical evidence for the relationship between Internet service quality and Internet store loyalty in the Internet retail environment. Though the direct relationship between them seems to be not conclusive, Internet store satisfaction and Internet store image are considered as mediators. Most research in this field has been confined to developing the conceptual models based on theoretical reasoning (Gommans, Kreshnan, and Scheffold 2001) and to practice-oriented suggestions on how to build loyalty to e-retailing (Smith 2000; Reichheld and Schefer 2000). Little empirical research has been done so far. We examine and document the role of Internet store loyalty and the determinants—store image and customer satisfaction—and that of service quality of e-retail shops, which is considered to be one of the major determinants on store image and customer satisfaction.

We rely on the literature review in the field of consumer satisfaction and retention as well as service quality and e-retailing to construct the model. We then test the model across a broader group of online shoppers. We close the study by discussing implications of the findings and directions for future research.

RESEARCH MODEL AND HYPOTHESES

Based on a review of the literature review, a research model has been constructed as in Figure 1. In brief, we posit that Internet store loyalty is influenced by a consumer’s Internet store satisfaction and an Internet store image. Internet store satisfaction and Internet store image are depicted as the outcomes of Internet service quality with e-shops. We discuss each of the major links in the proposed model. Interestingly, the relationships captured in the model also tend to be the ones discussed in the literature, but their connections have not been well established nor examined until now.

Internet store loyalty as the target variable of the model

The concept of Internet store loyalty(e-loyalty) extends the traditional brand loyalty concept and store loyalty concept to e-retailing consumer behavior (Gommans et al. 2001; Corstjens and Lal, 2000). Schultz (2000) describes Internet store loyalty as an evolution from the traditional concept–product-driven and marketer-controlled—towards a distribution-driven, consumer-controlled, and technology-facilitated concept.

When marketers get the higher loyalty of customers, they can expect increases in frequencies and volumes of purchases, cost reduction, and favorable word of mouth (Zeithaml, Berry, and Parasuraman 1996). Loyal customers are more likely to give the company a larger share of their business. In addition, “losing a customer means losing more than a single sale. It means losing the entire stream of purchases that the customer would make over a lifetime patronage (Kotler and Armstrong 2004, p. 16).” Loyalty is particularly important in e-retailing because customers have a great variety of choices and are easy to navigate around in the e-retailing environment. Our focus on Internet store loyalty results from the fact that traditional evidence that increasing customer retention rate

1The authors wish to thank Jin-hwa Bang for data collection.
is the key to increase profit turns out to be exaggerated even more in e-retailing (Reichheld and Schefter 2000). As a result, Internet store loyalty becomes more important in the environment of e-retailing.

**Internet store satisfaction as the determinant on Internet store loyalty**

Internet store satisfaction is based on the overall experience with an e-retail shop, not just the individual attributes. As a satisfied customer tends to be more loyal to a brand/store, satisfaction with retailing is considered the key to a company’s success and long-term competitiveness. Satisfied customers make repeated purchases and tell others about their good experiences with the product or the service.

Often consumer satisfaction is viewed as a central determinant of customer loyalty or customer retention. Generally speaking, loyalty implies satisfaction, but satisfaction does not necessarily lead to loyalty. Few empirical investigations in this area indicate that a direct relationship between these variables is weak or even nonexistent (Hennig-Thurau and Klee 1997). But this relationship could be stronger in e-retailing. As dissatisfied customers have a great variety of choices and are able to collect a large amount of information in a relatively short time, they have no reason to stay with unsatisfactory e-retail shops.

**H1:** Increased Internet store satisfaction will increase Internet store loyalty

**Internet store image as the determinant on Internet store loyalty**

Consumers develop store images based on service quality they experienced, advertising and opinions of friends and relatives (Assael 1998). As store image is the total perception formulated by consumers’ experience, knowledge, and belief, it has a strong effect on consumers’ buying behavior. It helps consumers evaluate the differences between shops and choose one among them. Retailers have tried to establish a positive image, as their image is directly tied to sales results. Image building as a strategic tool for developing loyalty has been discussed a lot in both theoretical and managerial perspectives in the literature (Bhat and Reddy 1998; Yoo, Donthu, and Lee 2000). Traditionally retailers have tried to develop store loyalty by building store image through mass media communications.

Even though little research regarding Internet store image has been conducted, the importance of Internet store image in building Internet store loyalty has increased because the number of competitive e-shops has exploded in a relatively short period of time. We believe that the relationship between two variables may be stronger in the environment of e-retailing.

**H2:** Increased Internet store image will increase Internet store loyalty

**Internet service quality as the determinant on Internet store satisfaction and Internet store image**

Internet service quality includes unique aspects of e-retailing environment as well as general aspects of service providers. Website and related-technology such as easy navigation, fast page loads, and well-structured navigation and customer service such as order fulfillment and rapid delivery systems are included in Internet service quality (Gommans et al. 2001). Our concept of Internet service quality is similar to attribute satisfaction while Internet store satisfaction is overall satisfaction with e-retailing.

Since the concept of service quality was developed by Parasuraman, Zeithaml, and Berry (1985), subsequent research has found out that delivering quality service is considered an essential strategy for success and survival in competitive environments (Dawkins and Reichheld 1990; Reichheld and Sasser 1990; Zeithaml, Parasuraman, and Berry 1990, Zeithaml et al. 1996).

Even though the direct relationship between service quality and profits is not clear, service quality has been linked to satisfaction. Szymanski and Hise (2000) showed that some aspects of Internet service quality (convenience, product offerings, product information, site design, and financial security) turned to be significantly related to Internet store satisfaction. We assume that Internet service quality and Internet store satisfaction are distinct, though

**FIGURE 1**

Proposed Research Model
related, constructs, like argued in works by Oliver (1999) and Spreng, Mackenzie, and Olshavsky (1996).

H3: Increased Internet service quality will increase Internet store satisfaction.

In addition, the relationship between service quality and favorable intention (image) is positive (Zeithaml et al. 1996). As Internet store image is a total perception and is accumulated through experience of service quality, which is one of the most important benefits provided by e-retail shops, it may be said that service quality is one of the key determinants of Internet store image.

H4: Increased Internet service quality will increase Internet store image

RESEARCH METHODOLOGY AND DATA ANALYSIS

Measurement Development and Data Collection

In order to verify the conceptual framework, this study collected data through a questionnaire survey based on the previous researches. Because the focus of the study is customers’ perceptions and their intention toward the Internet store, we define the population as the customer who has purchasing experience with the Internet store. We first check the customer’s previous purchasing experiences to verify the respondent’s qualification of purchasing experience. Then we measure the service quality based on the SERVPERF items (Cronin and Taylor 1994). The original items are modified because the Internet store has unique characteristics compared to general service settings. Especially the ‘tangibles’ dimension could not be applied to the Internet store setting. So we modify this dimension into ‘web service capability,’ measuring ease of website use, processing speed and well-structured navigation. And some items of the original SERVPERF measures are removed because they are not suitable for the Internet store context. As a result 14 items are measured for 5 Internet service quality sub-dimensions. Then we measured the Internet store image (3 items), Internet store satisfaction (3 items) and Internet Store Loyalty (3 items).

The data come form a survey of 380 consumers in Korea. The sample was 45% male and 55% female. The respondents were younger (20s: 72.8%, 30s: 20.5%, 40+s: 5.5%) as in other samples of the Internet shopper studies, because the main Internet store users tend to be young. 46.3% of the respondents had the purchase experience 2-5 times, and 20% had 6 times or more.

Item reliability is checked. Table 1 summarized the results. Most of Cronbach’s alpha values are greater than 0.70 except assurance dimension in service quality (.5333).

Validity Check of Service Quality

In addition, for the construct of service quality, convergent and discriminant validity were checked. Figure 2 showed the result of the confirmatory factor analysis to check convergent and discriminant validity. The measure of model fit in the figure 2 is acceptable ($\chi^2(73)=230.137$ (p=0.000)). Generally, Chi-square value is very sensitive to the number of samples (Cochran, 1952; Gulliksen and Tukey, 1958; Joreskog, 1969; Bentler and Bonnett, 1980; Browne and Mels, 1992; Arbuckle, 1997). Thus the other measures of fit are considered like GFI(0.921), AGFI (0.886), RMR (0.057), RMSEA (0.075), NFI (0.907) and IFI(0.934). Overall model fit indexes are acceptable. So the model is used for hypothesis testing.

Figure 3 also shows the results of hypotheses testing. All the hypotheses (H1, H2, H3, and H4) are significant. As expected, Internet store image and Internet store satisfaction is fully mediating the effect of Internet store service quality on the Internet store loyalty. All the path coefficients are positive and statistically meaningful.

But some of the previous research stated the direct effect of service quality on loyalty (Zeithaml et. al 1996). So we performed additional analysis on the direct effect. The result is shown in Figure 4.

The measure of model fit in the figure 2 is acceptable ($\chi^2(72)=229.694$ (p=0.000), GFI=0.921, AGFI=0.884, NFI=0.907, IFI=0.934, RMR=0.056, RMSEA=0.076). But the direct effect is not accepted and the expected sign of the path coefficient is not supported. Furthermore $\chi^2$ difference test shows that losing degree of freedom by adding direct effect path is not meaningful ($\chi^2(1)=0.443$, p>0.5). So the result supports additional evidence that the effect is fully mediated by Internet store image and Internet store satisfaction.

IMPLICATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Many people have believed that the Internet service quality is a critical factor to build Internet store loyalty in Internet markets. The results of this study confirmed this belief. But the effect is indirect. It was fully mediated by the mediating factors such as Internet store image and Internet satisfaction. Thus, in order for the e-business company to get customers’ loyalty to the Internet store, managers should carefully examine their store’s image and satisfaction level. By doing that, they can guarantee their stores’ service quality and keep their customers loyal to the store. Unlike the mediating factors, service quality has no direct effect on the Internet store loyalty.

The result gives us an important implication. The primary implication concerns how to set up e-business strategies. Most managers believe that improvement of the store’s service quality directly leads to the creation of loyal customers. This attitude has a risk. They should carefully monitor the image and the satisfaction, because the service quality performance itself does not make the customers loyal to the Internet store. Thus, as in most of the marketing situations, performance improvement alone does not guarantee results; image and customer’s satisfaction level are also important paths to results.

In this study, we identified the role of Internet store satisfaction and Internet store image as mediators. But there may be more mediators such as trust, customization, and commitment. Including such mediators in future Internet store loyalty studies may prove fruitful. In addition, it may be necessary to find out the relative importance of dimensions of service quality. That result may be
able to help marketers manage service quality more efficiently and effectively.

REFERENCES

| TABLE 1 |
| Measures and Reliability |
| Construct | Items | α |
| Website Capability | Homepage is easy to use | .7721 |
| | Processing is speedy | |
| | Clicking for the target information is appropriate | |
| Reliability | Keep accurate transaction list until fulfillment | .7687 |
| | Quality of ordered and delivered is same | |
| | Payment list is same with order list | |
| Responsiveness | You can solve the problem with help function | .7318 |
| | Order cancellation is easy to do | |
| | Manager’s email response is speedy | |
| Empathy | Provide customers with additional service | .7797 |
| | ‘Try to understand individual customer’s request | |
| | Provide the means to receive customer suggestion | |
| Assurance | Manager is kind and trustworthy | .5333 |
| | Provide delivery failure compensation policy | |
| Internet Store Image | Impression of this Internet store is good | .8540 |
| | I am familiar with this Internet store personally | |
| | Impression of this Internet store is unique | |
| Internet Store Satisfaction | Satisfied with the product you have purchased | .7068 |
| | Satisfied with the service | |
| | Satisfied with the store overall | |
| Internet Store Loyalty | To continue using this store gives me more value | .7578 |
| | Intend to continue using this store | |
| | Intend to recommend this store to neighbors | |
FIGURE 2
Confirmatory Factor Analysis (Service Quality)

FIGURE 3
Results for the structural equation model (Fully Mediating Effect Model)

* p<0.05
( ) S.E.
FIGURE 4
Results for the structure equation model (Direct Effect Model)

The Effect of Internet Service Quality on Internet Store Loyalty


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