Customer satisfaction is an important indicator of corporate competitiveness. Previous studies have shown that perceived service quality is related to customer satisfaction. This study investigates the relative importance of service quality dimensions on customers’ satisfaction across utilitarian and hedonic services. The moderating effect of alternative differentiation on the quality/satisfaction relationship is also examined. The results indicate that technical quality is more influential on the satisfaction of utilitarian services, and functional quality is a more important determinant factor of satisfaction in hedonic services than in utilitarian services. The relationship between service quality dimensions and satisfaction varies with the degree of differentiation of other alternatives.

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ABSTRACT

Customer satisfaction is an important indicator of corporate competitiveness. Previous studies have shown that perceived service quality is related to customer satisfaction. This study investigates the relative importance of service quality dimensions on customers’ satisfaction across utilitarian and hedonic services. The moderating effect of alternative differentiation on the quality/satisfaction relationship is also examined. The results indicate that technical quality is more influential on the satisfaction of utilitarian services, and functional quality is a more important determinant factor of satisfaction in hedonic services than in utilitarian services. The relationship between service quality dimensions and satisfaction varies with the degree of differentiation of other alternatives.

INTRODUCTION

Customer satisfaction has been viewed as an important indicator of corporate competitiveness, since it has a positive link to customer loyalty and profitability (Cronin and Taylor 1992; Oliver and Swan 1989; Anderson, Fornell, and Lehman 1994). A better understanding of the satisfaction formation process can allow firms to improve their customer satisfaction and loyalty more effectively. Consistent with this direction, many researches have devoted to identifying the determinants of satisfaction (Anderson and Sullivan 1993; Cronin and Taylor 1992; Taylor and Baker 1994; Woodside, Frey, and Daly 1989). Among all the factors that have been identified as antecedents of customer satisfaction, service quality may be the one that has received considerable attention.

Indeed, service quality has become an important research topic in service management. The conceptualization and operationalization of service quality are the recurring issues in the service literatures. Although there has been an ongoing debate about how to measure service quality, many studies agree with the multi-dimensionality of service quality and focus on two prevailing dimensions (Levesque and McDougall 1996; Grönroos 1984; McDougall and Levesque 1994; Parasuraman, Berry, and Zeithaml 1991). The first dimension includes the core or outcome aspects of service, which is known as “technical quality” (Grönroos 1984). The second dimension includes the relational or process aspects of service delivery, and is referred as the “functional quality.” Technical quality and functional quality do not necessarily have equal contributions to customer satisfaction. However, only a limited set of empirical studies has reported the relationship between the two dimensions of service quality and customer satisfaction (Kelley, Donnelly, and Skinner 1990; Mittal and Lassar 1998; Patterson, Mandhachitara “A”, and Smith 2001). This study attempts to make up for this gap in the current literatures.

Recent researches in the area of services marketing have begun to examine the effects of situational variables on the relationship between service quality and satisfaction (Mittal and Lassar 1998). Although the importance of investigating situational contingencies is well recognized for the tangible goods (e.g., Churchill and Suprenant 1982; Patterson 1993; Tse and Wilson 1988), it is still greatly untested for the services. Thus, another goal of this study is to examine two possible moderators, service type and alternative differentiation, of the quality/satisfaction relationship.

In summary, this study will investigate the effects of service quality dimensions on customer satisfaction across utilitarian and hedonic services. We will also test whether the relationship between service quality dimensions and satisfaction will vary with the extent of the differences among the alternatives.

CONCEPTUAL BACKGROUND

Dimensions of service quality and satisfaction

Grönroos (1984) proposed two dimensions of service quality, which are the technical quality and functional quality. Technical quality refers to the result or the outcome of the service, while functional quality refers to the process or the way the service has been delivered. The distinction of technical and functional qualities is parallel to the dimensions of perceived justice theory, namely distributive and procedural justice (see Cohen-Charash and Spector 2001 for a review). According to the theory of justice, distribute justice deals with decision outcomes while procedural justice deals with decision-making procedure, or how the outcome distribution is arrived (Lind and Tylor 1988).

The technical/functional quality distinction is also corresponding to the SERVQUAL model (Parasuraman, Zeithaml, and Berry 1988), which indicated that service quality contains five dimensions: reliability, responsiveness, assurance, empathy, and tangibles. Mels, Boshoff and Nel (1997) analyzed the data from four service industries and found that, in reality, SERVQUAL only measures two factors: intrinsic service quality (resembling what Grönroos termed functional quality) and extrinsic service quality (which refers to technical quality). Hui, Zhao, Fan, and Au (2004) further suggested that reliability can be viewed as an outcome measure because customers judge it after their service experience. The other four dimensions are process attributes because they can be evaluated by the customers during the service delivery.

It is commonly noted that service quality is an important determinant factor of customer satisfaction (e.g., Parasuraman et al. 1988; Cronin and Taylor 1992; Spreng and Macko, 1996). Evidence shows that service satisfaction is a function of both technical and functional performance (Grönroos 1995; Yi 1993). Justice theory can provide plausible explanations for the impact of technical and functional qualities on satisfaction. Focusing on the perceived fairness of outcomes, distributive justice theory states that people will respond to unfair relationships by displaying certain negative emotions (dissatisfaction) (Greenberg 1990). Several studies also support the notion that consumers make equity judgments with respect to outcomes, and the equity evaluations would then affect consumer’s satisfaction (Olive and DeSarbo 1988; Oliver and Swan 1989). Defined as the perceived fairness of the means (or process) by which the ends are accomplished (Lind and Tylor 1988), procedural justice aims to enhance the probability of maintaining long-term productive relationship between parties, and has been shown to have a positive effect on consumer service satisfaction (Greenberg 1990; Konovsky 2000; Tax et al. 1998).

Although the effect of performance expectations on satisfaction is known to be contingent on the type of tangible products (e.g., Churchill and Suprenant 1982; Patterson 1993, Tse and Wilson...
1988), few studies have tested this contingency concept in services. Research on organizational justice has also found that distributive justice is more important predictor of satisfaction with personal outcomes, whereas the reverse is true when people make more general evaluations (Folger and Konovsky 1989; Lind and Tylor 1988; McFarlin and Sweeney 1992). This suggests that the predictive roles of outcome perception (i.e., technical quality) and the perceived fairness of process (i.e., functional quality) may depend on the nature of the outcome in question. Next, we will explore this issue and propose the service types and alternative differentiation as moderators of the quality/satisfaction relationship for services.

Service Type

Service industries possess vastly different characteristics, thus the related benefits of what the consumer wants may vary according to the different types of services (Lovelock, 1983). Some services provide benefits of utilitarian values, while may provide hedonic values. Utilitarian services refer to those that accomplish functional tasks and focus on the tangible performance characteristics, such as car repair, dry cleaning, and banking. Hedonic services relate to the multi-sensory, fantasy, and emotional aspects of the consumption experience, such as hairstyling, arts, and dining at restaurants (Hirschman and Holbrook 1982).

When evaluating utilitarian services, customers are more practical and concerned with the problems solving. They are more concerned with the outcomes than the processes when receiving utilitarian services. In the hedonic services, customers are more concerned with the service-delivery and the evoked multi-sensory pleasure and enjoyment, captured with their experiential and affective benefits. They are simultaneously concerned with the consumption processes and the outcomes when receiving hedonic services.

In summary, the relative influence of technical quality compared to the functional quality of customer satisfaction is higher in utilitarian services. On the other hand, the influence of functional quality on customer satisfaction will increase in hedonic services. Therefore, we propose the following hypotheses.

H1: The impact of technical quality on customer satisfaction is greater than functional quality in utilitarian services.

H2: The impact of functional quality on customer satisfaction in hedonic services is greater than in utilitarian services.

Differentiation of Alternatives

Alternative differentiation, sometimes called alternative attractiveness, is defined as the customer’s estimation of the availability of similar services from an alternative service provider (Ping 1993; Patterson and Smith 2003). When more similar services are available, the differentiation and the attractiveness of alternatives are both lower. As Ping (1993) pointed out, the unavailability of similar or attractive alternatives is a favorable situation to retain customers. In other words, alternatives differentiation can increase customer’s switching cost (Burnham, Frels, and Mahajan 2003). Therefore, when competing service providers’ offer differentiated alternatives customers will have to spend more time and effort to compare among the alternatives, thus increasing their search cost. In addition, when the consumer switches to an alternative service different from the current one, this would mean that the consumer is forsaking the time, economic, and emotional investments made to establish and maintain the current service relationship, such as the special treatments for regular customers, friendships with the service personnel, and familiarity (and learning) with the service environment and procedure. Hence, in order to avoid the loss of these sunk costs customers will intend to stay in the current relationship even when it is at a less satisfactory condition (Ping 1993; Sharma and Patterson 2000). To reiterate, the higher the alternative differentiation, the higher the switching costs.

The moderating effect of the perceived alternative differentiation on the relationship between service quality dimensions and satisfaction is now considered. When alternative differentiation is low, then the switching cost is low, and it does not matter much if the customers change their service providers. For the utilitarian services where customers are more concerned with problem-solving and accomplishing specific tasks, low alternative differentiation allows customers to consider the reasons of switching based only on the core aspects of the service, i.e., technical quality. However, when alternative differentiation is high, customers have to make more comparison among the alternatives, and both the service outcome and process will become the main determinants of customer satisfaction. Therefore, the customers would simultaneously consider the problem-solving and the added services (e.g., comfortable feel, good atmosphere). Thus, the explanatory power of functional quality on customer satisfaction will increase.

H3: Under low alternative differentiation, the impact of technical quality on customer satisfaction is greater than that of functional quality for utilitarian services.

H4: For utilitarian services, the relationship between functional quality and customer satisfaction will be stronger under high alternative differentiation condition, compared to low alternative differentiation condition.

In hedonic services customers are concerned with not only the specific tasks accomplished but also the service-delivery process. Even when other alternatives are similar and switching barriers have yet to be established, customer will put some attention on how they are treated during service encounters to give a satisfaction evaluation. When other alternatives are highly differentiated, however, customers will become more involved in the evaluation process (Zaichkowsky 1985) and consider various aspects of service quality. Therefore, functional quality becomes central to determine satisfaction.

H5: Under high alternative differentiation, the impact of functional quality on customer satisfaction is greater than that of technical quality for hedonic services.

H6: For hedonic services, the relationship between functional quality and customer satisfaction will be stronger under high alternative differentiation condition, compared to low alternative differentiation condition.

METHOD

Sample

In order to choose services representing utilitarian and hedonic consumptions, a pilot study with 60 participants and across 40 service industries was conducted. All participates categorized retail banking as utilitarian service, and about 97.5% agreed all-you-can-eat buffet as hedonic service; therefore, these two services were selected as surveyed industries. A convenience sample of 570 graduate students from a main university in Taiwan was surveyed. Respondents were asked to recall one of their recent experiences with either a retail banking or an all-you-can-eat buffet and fill out a questionnaire based on that experience. Those who did not visit a retail bank or an all-you-can-eat buffet in the past six months were excluded, resulting in a total number of 422 usable responses (response rate 74%). Among them, 66 % was females.
The Effects of Service Quality Dimensions on Customer Satisfaction Across Different Service Types

Measures
All measures used in this study were adapted from extant scales. Both the technical quality scale and functional quality scale were based on Patterson et al. (2001) and contained five items each. The four items capturing customer satisfaction were based on Oliver and Swan (1989). The three items capturing alternative differentiation were adapted from Patterson and Smith (2003). All constructs used a 7-point Likert scale with anchors of strongly disagree (1) to strongly agree (7). The wording of all scales was adapted to suit the two chosen services. Cronbach’s α coefficients ranging from 0.75 to 0.94, exhibiting good internal reliability; therefore, all scale items were averaged to form corresponding constructs for further analyses.

RESULTS
Descriptive statistics of the constructs are shown in Table 1. To test H1 and H2, we regressed satisfaction on technical quality and functional quality for the two types of services. Regression results are presented in the first row of Table 2. Both beta coefficients of the technical and functional qualities are significant across the two services. For utilitarian service, technical quality is considerably more important in shaping satisfaction evaluations than functional quality; that is, beta coefficient for technical quality is 0.59 versus 0.18 for functional quality, supporting H1. For hedonic service, the beta value of the functional quality (.40) is slightly greater than that of technical quality (.39), granting some support for H2.

To examine the moderating role of alternative differentiation on the quality dimension-satisfaction relationship, we divided the data into high and low alternative differentiation groups for each service and conducted sub-group regression analyses. The results are shown in the second and third rows of Table 2. When alternative differentiation (hereafter AD) is low, technical quality is a significant determinant of satisfaction for both utilitarian and hedonic services (β = .694 and .398 respectively). Functional quality, however, is significant only for the hedonic service (β = .255, p < .05), but not for the utilitarian service (β = .019, NS). Therefore, H3 is supported.

When AD is high, technical quality and functional quality are both important determinants of satisfaction for the utilitarian service (β of technical quality = .518, β of functional quality = .306, both p < .001). Although both of the beta values of technical quality and functional quality are also significant for the hedonic service, the impact of functional quality is almost three times that of technical quality (β of technical quality = .236, p < .05; β of functional quality = .623, p < .001). Hence, H5 is supported.

Chow tests were performed for each service to test H4 an H6. For the utilitarian service, the Chow test F = 3.109, significant at α = .05 level, suggesting there are significant differences in the regression equations across the high and low AD sub-groups. Specifically, the influence of functional quality on satisfaction becomes greater as the degree of alternative differentiation increases (β = .019 for low AD group vs. β = .306 for high AD group). Therefore, H4 is supported. Similarly, the impact of functional quality is significantly different between the low and high alternative differentiations for the hedonic service (Chow test F = 5.8188, p < .05). Functional quality apparently have a stronger impact on satisfaction (β = .623, p < .001) under high AD condition than when it is under low AD condition (β = .255, p < .05). In addition, the influence of technical quality decreases as AD increases. These results provide support for H6.

CONCLUSIONS
The results of our study show that at different service categories, technical and functional quality has a different impact on customer satisfaction. In the utilitarian services such as banking, technical quality has a stronger impact on satisfaction than functional quality. In hedonic services such as all-you-can-eat buffet, functional quality is more influential than in utilitarian services.

Our study also shows that alternative differentiation has a major impact on the nature of the relationship between quality dimensions and customer satisfaction for both utilitarian and hedonic services. Under the low alternative differentiation conditions, the impact of technical quality on satisfaction is greater than functional quality in utilitarian services. In hedonic services, the influence of functional quality on customer satisfaction increases to a level close to that of technical quality.

Under high alternative differentiation conditions, the impact of technical quality on satisfaction is no less than functional quality in utilitarian services. In hedonic services, functional quality exerts more explanatory power on satisfaction than technical quality. For both utilitarian and hedonic services, the impact of functional quality on customer satisfaction under high alternative differentiation is greater than low alternative differentiation. This suggests that highly differentiated alternatives will increase customers’ switching cost, so customers will put more attention on the process of service delivery.

Taken together, our results suggest that customers are more involved in evaluating hedonic services than in utilitarian services, since they consider not only the service outcome but also the service process for hedonic services. Alternative differentiation increases

### TABLE 1
Descriptive Statistics for Utilitarian and Hedonic services

<table>
<thead>
<tr>
<th></th>
<th>Utilitarian service (Retail banking)</th>
<th>Hedonic service (all-you-can-eat buffet)</th>
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<tr>
<td></td>
<td>n</td>
<td>mean</td>
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<tr>
<td>Technical Quality</td>
<td>255</td>
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<tr>
<td>Functional Quality</td>
<td>4.09</td>
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<td>Satisfaction</td>
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<td>1.21</td>
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switching cost and perceived risks, and thus increases customers’ level of involvement. The notion that customers are more involved in hedonic services compared with utilitarian services is consistent with Shavitt (1992) and deserves further investigation.

Managerial implications

The results of this study showed that the impact of technical and functional quality in shaping customer satisfaction varied in the utilitarian and hedonic services. In utilitarian services, customers are more concerned with the service outcome than with the service process. To increase customer satisfaction, managers of utilitarian services could consider investing more resources in improving core benefits, especially when competitors are offering similar alternatives. In hedonic services, customers tend to use both technical quality and function quality to evaluate their service experience. It may be useful for managers of hedonic services to put a little more attention on the delivery process, such as treating customers as individuals, understanding what customers need beforehand, and showing willingness to help. When competing offers are highly differentiated, functional quality becomes even more important for hedonic services. Therefore, managers must understand the specific resources, skills, and mindsets of service staff that make up functional quality, so that proper investment on quality improvement can be made.

Limitations and further research

One limitation of this study is that a student sample was used, thus the results can only be generalized to young people. Second, the two services in this study are of low personal contacts and interactions, in contrast to hairdressing, medical, and insurance planning, which are of high personal contacts and tailor-made services. Previous studies have shown that the effects of quality dimensions on satisfaction would vary with the degree of personal contact (Mittal and Lassar 1998; Patterson and Smith 2003). Therefore, our results should be applied to low contact services only.

Our findings suggest that we have several contingency models of satisfaction evaluation, and each is applicable under different conditions. Thus, future studies of satisfaction must take into account the fact that the nature of the relationship between the antecedents and satisfaction are context-specific. Perceived service complexity, level of personal involvement, and service usage experience are possible moderators worthy of investigation. Simultaneously considering several moderators is especially expected since it would help sort out the boundary conditions of our results. This study did not consider the behavioral consequences of customer satisfaction such as customer loyalty, repeat-purchase, and recommendation. Previous studies have found that service quality could have a direct link to behavioral intentions (Sharma and Patterson 1999; Bell, Auh, and Smalley 2005), but the quality dimension affecting satisfaction seems to differ from that affecting loyalty (Mittal and Lassar 1998). Future research needs to further explore the dynamics of quality dimensions, satisfaction, and loyalty across various types of services.

REFERENCES


### TABLE 2

Regression Results (standardized)

<table>
<thead>
<tr>
<th></th>
<th>Technical Quality</th>
<th>Functional Quality</th>
<th>AdjR²</th>
<th>Chow Test</th>
<th>Technical Quality</th>
<th>Functional Quality</th>
<th>AdjR²</th>
<th>Chow Test</th>
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<tr>
<td>overall</td>
<td>.59***</td>
<td>.18**</td>
<td></td>
<td></td>
<td>.39***</td>
<td>.40***</td>
<td></td>
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</tr>
<tr>
<td>Low AD</td>
<td>.694***</td>
<td>.019ns</td>
<td>.493</td>
<td>3.109***</td>
<td>.398***</td>
<td>.255*</td>
<td>.314</td>
<td>5.819***</td>
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<tr>
<td>High AD</td>
<td>0.518***</td>
<td>0.306***</td>
<td>0.599</td>
<td></td>
<td>0.236*</td>
<td>0.623***</td>
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<td>Buffet</td>
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***p<0.001, *p<0.05, ns: not significant at p<0.05


