Discerning Store Brand Users From Value Consciousness Consumers: the Role of Prestige Sensitivity and Need For Cognition

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[to cite]:

[url]:
http://www.acrwebsite.org/volumes/9000/volumes/v31/NA-31

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ABSTRACT
Research shows that consumers who seek value are the main purchasers of store brands or private labels. In this paper we corroborate that value consciousness is positively related to store brand purchase. We further demonstrate that two other personality traits, prestige sensitivity and need for cognition influence store brand usage. Prestige sensitivity has a direct effect, but contrary to our hypothesis, need for cognition did not. Moreover, both prestige sensitivity and need for cognition were shown to moderate the effects of value consciousness on private label usage.

DISCERNING STORE BRAND USERS FROM VALUE CONSCIOUSNESS CONSUMERS
Research interest in store brand or private label consumption has seen a revival concomitant with the rapid growth of the private label in recent years. Store brands provide fairly good quality but lower price compared to national brands, which constitutes a good value perception to some consumers and compels them to buy (e.g., Richardson, Jain and Dick 1996; Burton, et al. 1998). But national brands use sales promotions to enhance their value proposition, a tactic recommended as a way to keep the value conscious segment (e.g., Quelch and Harding 1996). Thus, it seems that for this segment in particular, competition between manufacturers and retailer has intensified, increasing the need to understand the relationship between value consciousness and store brand usage.

In line with recent research (e.g., Ailawadi, Neslin, and Gedenk 2001), the current study seeks insight into store brand usage and value seeking. We examine the relationship between value consciousness (Lichtenstein, Netemeyer, and Burton 1990) and store brand usage, proposing factors that may moderate this relationship. Specifically, we test the influence of prestige sensitivity (Lichtenstein, Ridgway, and Netemeyer 1993) and need for cognition (Cacioppo and Petty 1982) in moderating the effect of value consciousness on consumers’ purchase of store brands.

CONCEPTUAL DEVELOPMENT
Perceived value has long been considered an important driver of a consumer’s purchase decision (e.g., Dodds, Monroe, and Grewal 1991; Szybillo and Jacoby 1974; Zeithaml 1988). Generally, if a product provides better value than others, then consumers’ purchase intention of this product will be high (Dodds, Monroe, and Grewal 1991). A simple expression of perceived value is the ratio of quality received relative to price paid (Lichtenstein, Netemeyer, and Burton 1990; Lichtenstein, Ridgway, and Netemeyer 1993; Monroe and Petroshius 1981). Store brands, although not providing quality as high as national brands are able to deliver high perceived value because of their lower prices, making them attractive to value-conscious consumers (Richardson, Jain and Dick 1996; Burton, et al. 1998). However, if value-conscious consumers prefer some unique benefits that cannot be met by store brands then their desire to purchase store brands might be weakened.

In particular, store brands are generally thought to suffer a deficit compared to national brands in regard to the social symbolic or image benefits they offer. Factors that increase consumer’s desire for these benefits should affect store brand purchase, and additionally, may moderate value-seeking tendencies. For example, some consumers may be motivated in brand purchase by factors related to impression management, for example social conformity and reference group influence (e.g., Bearden and Etzel 1982; Bearden and Rose 1990). One such factor is prestige sensitivity, a personality trait that reflects consumers’ “favorable perceptions of the price cue based on feelings of prominence and status that higher prices signal to other people about the purchaser” (Lichtenstein, Ridgway, and Netemeyer 1993, p. 236). To the extent consumers associate store brands with lower prices and are concerned about what using a lower-priced product may signal to significant others, store brand usage should diminish.

In addition, there is reason to believe that store brand choice may be affected by how consumers process brand-related information. The brand cue is often used as a signal of quality when other more probative information is lacking or the consumer lacks the motivation to invest cognitive resources necessary to use this information (e.g., Dodds, Monroe, and Grewal 1991; Zeithaml 1988). Motivation is also affected by a person’s need for cognition, a trait reflecting the person’s inherent enjoyment of engaging in effortful thought (Cacioppo and Petty 1982). There are ample research evidence demonstrating that high need for cognition individuals engage in more information-processing activity than low need for cognition individuals (Cacioppo, et al. 1996). One study proposed that need for cognition was somehow related to store brand usage but did not find a significant effect (Ailawadi, Neslin, and Gedenk 2001). However, we believe need for cognition may yet be related to store brand usage both directly and as a moderator of the effect of value consciousness.

The model depicted in Figure 1 shows the proposed relationships examined in this study. In the model, prestige sensitivity and need for cognition moderate the effect of value consciousness on consumer’s purchase of store brands. We now develop each hypothesis in turn.

Value Consciousness and Purchase of Store Brands
Value consciousness reflects consumers’ concern for price paid relative to quality received in a purchase transaction (Lichtenstein, Ridgway, and Netemeyer 1993). However, this does not necessarily mean any product will provide good value: low priced products provide good value to consumers only if these products also meet certain quality specifications (Corstjens and Lal 2000; Lichtenstein, Netemeyer, and Burton 1990). Although store brands used to be considered inferior to national brands, they have achieved great quality improvement in recent years (DeNitto 1993; c.f., Corstjens and Lal 2000). More and more consumers accept that store brands carry fairly good quality yet much lower price, hence good value. This is attested to by the faster growth of store brand sales than national brand sales (Supermarket Business 1998). Thus, to many value-conscious consumers, store brands represent a better bargain than national brands and provide good incentive to purchase. Although we contend that not all value-conscious consumers will purchase store brands, past research has demonstrated a relationship between value consciousness and store brand proneness (Burton et al. 1998). Therefore, it is proposed that,

H1: Value consciousness is positively related to purchase of store brands.
Discerning Store Brand Users from Value Consciousness Consumers

Prestige Sensitivity and Purchase of Store Brands

Prestige sensitivity is related to favorable perceptions of the price cue based on the status or prominence higher-priced products signal to others (Lichtenstein, Ridgway, and Netemeyer 1993). Consumers with high prestige sensitivity may buy expensive goods not because of quality perceptions per se, but because of the perception that others may perceive them as socially positive because of the high price. Store brands are normally priced at approximately 30% lower than national brands (Information Resources Inc. 1999), thus could seldom serve the purpose of signaling prominence and status to other people. Hence, it is proposed that consumers with high prestige sensitivity will buy fewer store brands than those with low prestige sensitivity.

H2: Prestige sensitivity is negatively related to purchase of store brand.

Interaction between Value Consciousness and Prestige Sensitivity

As indicated above, in general value-conscious consumers tend to buy store brands. However, a value-conscious consumer may be high or low in prestige sensitivity. For those who are highly value-conscious as well as highly prestige sensitive, the good value provided by the store brands may not be attractive because these brands normally do not signal prominence and status to others. Value consciousness for these consumers may appear as actively pursuing name brands on promotion. Thus, for these consumers, the association between value consciousness and purchase of store brands will be weak, if any.

On the contrary, for highly value-conscious consumers with low prestige sensitivity, the prominence and status attached to the high price is less important. Therefore, for these consumers, the association between value consciousness and purchase of store brands should be strong. The above contention leads to the following hypothesis,

H3: The relationship between value consciousness and purchase of store brands is stronger for low prestige sensitivity consumers than for high prestige sensitivity consumers.

Need for Cognition and Purchase of Store Brands

Need for cognition refers to an individual’s intrinsic enjoyment of and motivation to engage in effortful cognitive information processing (Cacioppo and Petty 1982). Consumer researchers have long recognized the need for cognition as an important factor in influencing consumers’ purchasing behaviors (e.g., Inman, Peter, and Raghubir 1997; Inman, McAlister, and Hoyer 1990). How consumers arrive at a brand-related judgment, such as judgments of quality or value, is affected by need for cognition because of the implications of processing intrinsic (attribute-related) information.

Low need for cognition individuals are more likely to rely on easily processed peripheral cues or other marketplace signals and provide little elaboration on such information to form an attitude. High need for cognition individuals rely more on message content and engage in more elaboration of such information in forming their attitude (e.g., Inman, Peter, and Raghubir 1997; Zhang and Buda 1999). Store brands have limited distribution, engage in less advertising, and typically charge lower prices than national brands. Taken as extrinsic cues or market signals, these characteristics place them at a disadvantage compared to national brands. Extrinsic cue effects were shown to play a more important role in brand evaluations than product ingredients in comparisons between the two brand types (Richardson, Dick, and Jain 1994). These easily processed information cues may signal inferior quality to consumers with low need for cognition. However, consumers with high...
need for cognition may pay more attention to information from product labels and engage in more extensive comparisons with national brands. This effort may lead them to more greatly appreciate the quality offered by store brands, and thus deem them good purchase values. Therefore, consumers with high need for cognition should be more likely to consider store brands than those with low need for cognition.

H4: Need for cognition is positively related to purchase of store brands.

Interaction between Value Consciousness and Need for Cognition

H1 proposed that value consciousness is positively related to store brand usage. However, value is a perceived construct and, as argued above, judgments of quality and value—which affect purchase intentions—are influenced by the manner in which these judgments are formed. If consumers form judgments based on extrinsic cues and they are high in value consciousness, they may opt not to buy store brands but instead buy national brands or national brands on deal. On the other hand, if the consumer forms judgments based on elaborated processing of intrinsic attributes and they are highly value conscious, they should be more likely to perceive a better value in store brands. Therefore, it is proposed,

H5: The relationship between value consciousness and purchase of store brands is stronger for high need for cognition consumers than that for low need for cognition consumers.

METHODOLOGY

Sample

A survey was designed and undergraduate college students participated in the study for extra credit. In total, 213 useable cases were obtained of which freshmen, sophomores, juniors, and seniors are roughly evenly distributed (19.4%, 20.9%, 34.6%, and 25.1%, respectively). A bit more than half (70.4%) are females and the majority is White (76.7%), followed by Asian (10.0%) and Black (9.5%).

Measures

Value consciousness, prestige sensitivity and need for cognition are independent variables and purchase of store brands is the dependent variable in the study. The measure for value consciousness was taken from Lichtenstein, Netemeyer, and Burton (1990). Subjects were asked to rate their agreement on a 7-point scale (1=strongly agree to 7=strongly disagree) with seven items such as “I am very concerned about low prices, but I am equally concerned about product quality” and “When I shop, I usually compare the ‘price per ounce’ information for brands I normally buy.” After reverse coding, the score for the scale should range from 7 to 63, with higher scores indicating greater prestige sensitivity. For our sample, the mean score was 29.68 (s.d.=10.39). For this scale Cronbach’s alpha was .86, indicating good reliability.

Need for cognition was measured by Cacioppo, Petty, and Kao’s (1984) abbreviated 18-item scale. Subjects were asked to indicate their agreement on a 7-point scale (1=strongly agree to 7=strongly disagree) with statements such as “I would prefer complex to simple problems” and “I find satisfaction in deliberating hard and for long hours.” After appropriate coding, the scale should range between 18 and 126, with higher scores on the scale reflecting greater need for cognition. Subjects in this study exhibited a mean score of 80.79 (s.d.=14.81). Cronbach’s alpha was .87, which is consistent with previous studies (e.g., Cacioppo, Petty, and Kao 1984; Inman, Peter, and Raghunib 1997).

For consumers’ purchase of store brands, an index of private label usage was developed. Subjects were asked to report the brand they most often buy or would be most likely to buy next time they purchase the product for 20 grocery goods (see Appendix), pre-tested for relevance to the sample and similar to the ones used in past research (e.g., Richardson, Jain, and Dick 1996). Subjects were instructed to write down “do not use” or “any brand” if applicable. Then, the ratio (expressed in percentage) of the number of store brands over the number of products they use is computed as the index of consumers’ purchase of store brands. Although some past research has used frequency scales (i.e., purchasing the brands “very often” to “not very often”) to indicate store brand usage (e.g., Myers 1967; Richardson, Jain, and Dick 1996), an index was deemed less prone to subjective interpretation. Theoretically, this index could range between 0 and 100; for our sample it ranged between 0 and 75, with a mean of 16.73 (s.d.=15.83).

Analysis

Hypotheses 1, 2 and 4 predict main effects and are tested by multiple regression. Hypotheses 3 and 5 predict moderation effects and are tested according to the method proposed by Baron and Kenny (1986).

RESULTS

Table 1 reports the bivariate correlations between the independent variables and dependent variables.

Hypothesis 1, 2 and 4 predict that the main effects of consumers’ value consciousness, prestige sensitivity, and need for cognition on their purchase of store brands. Although the Pearson correlations between value consciousness and prestige sensitivity and that between value consciousness and need for cognition are significant, the coefficients are fairly small (see Table 1). Hence, it is deemed that multicollinearity will not be a severe problem if the three variables are entered simultaneously to a regression. As expected, the collinearity tolerance for all three variables is very high (.94, see Table 2).

The multiple regression show significant results, with $R^2=.09$, $F(3, 202)=6.90$ ($p<.001$). Coefficients are significant for value consciousness and prestige sensitivity ($p=.05$, and .00, respectively), but not for need for cognition ($p=.09$). Thus, H1 and H2 are supported but H4 is not.

Hypothesis 3 and 5 predict the moderating effect of prestige sensitivity and need for cognition on the relationship between value consciousness and purchase of store brands. Following Baron and Kenny’s (1986) suggestion, the moderators are first dichotomized at the median point. Then, the effect of value consciousness on purchase of store brands is measured at each level of the moderators. Results are presented in Table 3.
### TABLE 1
Correlations, Means, Standard Deviation, and Reliability

<table>
<thead>
<tr>
<th></th>
<th>Value Consciousness</th>
<th>Prestige Sensitivity</th>
<th>Need for Cognition</th>
<th>Purchase of Store Brands Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Consciousness</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prestige Sensitivity</td>
<td>-0.19***</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Need for Cognition</td>
<td>0.16*</td>
<td>-0.06</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Purchase of Store Brands Index</td>
<td>0.18***</td>
<td>-0.25**</td>
<td>0.15**</td>
<td>1.00</td>
</tr>
<tr>
<td>Means</td>
<td>38.06</td>
<td>29.68</td>
<td>80.79</td>
<td>16.73</td>
</tr>
<tr>
<td>S.D.</td>
<td>7.05</td>
<td>10.39</td>
<td>14.81</td>
<td>15.83</td>
</tr>
<tr>
<td>Reliability (Alpha)</td>
<td>0.78</td>
<td>0.86</td>
<td>0.87</td>
<td></td>
</tr>
</tbody>
</table>

Note: **–p<.01 (2-tailed)
*–p<.05 (2-tailed)

### TABLE 2
Effects of Value Consciousness, Prestige Sensitivity, and Need for Cognition on Consumers’ Purchase of Store Brands

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Unstandardized Beta</th>
<th>Std. Error</th>
<th>t</th>
<th>p-value</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>4.28</td>
<td>8.83</td>
<td>.49</td>
<td>.63</td>
<td></td>
</tr>
<tr>
<td>Value Consciousness</td>
<td>.31</td>
<td>.16</td>
<td>1.98</td>
<td>.05</td>
<td>.94</td>
</tr>
<tr>
<td>Prestige Sensitivity</td>
<td>-0.32</td>
<td>.11</td>
<td>-2.99</td>
<td>.00</td>
<td>.96</td>
</tr>
<tr>
<td>Need for Cognition</td>
<td>.13</td>
<td>.07</td>
<td>1.72</td>
<td>.09</td>
<td>.98</td>
</tr>
</tbody>
</table>

Note. –R²=.09, F (3, 202)=6.90 (p<.001).

### TABLE 3
Moderating Effects of Prestige Sensitivity and Need for Cognition

<table>
<thead>
<tr>
<th>Moderator</th>
<th>Level of Moderator</th>
<th>Independent Variables</th>
<th>Unstandardized Beta</th>
<th>Std. Error</th>
<th>t</th>
<th>p-value</th>
<th>Comparison of Betas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prestige Sensitivity</td>
<td>Low (n=110)</td>
<td>(Constant)</td>
<td>-1.14</td>
<td>9.47</td>
<td>-0.12</td>
<td>.91</td>
<td>t=10.71***</td>
</tr>
<tr>
<td></td>
<td>High (n=102)</td>
<td>Value Consciousness</td>
<td>.53</td>
<td>.24</td>
<td>2.25</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>Need for Cognition</td>
<td>Low (n=105)</td>
<td>(Constant)</td>
<td>5.90</td>
<td>7.19</td>
<td>.82</td>
<td>.41</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n=103)</td>
<td>Value Consciousness</td>
<td>.21</td>
<td>.19</td>
<td>1.07</td>
<td>.29</td>
<td></td>
</tr>
</tbody>
</table>

Note: ***–p<.001
For prestige sensitivity, the upper group exhibits a mean of 38.72 (s.d.=4.92, n=102) and the lower group has a mean of 21.31 (s.d.=6.30, n=110). The impact of value consciousness is significant for consumers with low prestige sensitivity ($t=2.25, p=.03$) but not for those with high prestige sensitivity ($t=1.07, p=.29$). The difference between the unstandardized coefficients is significant ($t=10.71, p<.001$). Therefore, H3 is supported.

For need for cognition, the upper group exhibits a mean of 92.21 (s.d.=9.31, n=103) and the lower group has a mean of 69.58 (s.d.=9.77, n=105). The impact of value consciousness is significant for consumers with high need for cognition ($t=2.45, p=.02$) but not for those with low need for cognition ($t=1.28, p=.20$). The difference between the unstandardized coefficients is significant ($t=-7.53, p<.001$), supporting H5.

**DISCUSSION**

This study attempts to shed light on the relationship between value consciousness and store brand usage. Consistent with past research (Burton et al. 1998; Deveny 1993), this study shows value consciousness to be positively related to using private labels (H1). The value consciousness measure developed by Lichtenstein et al. and used here captures the degree to which consumers are concerned for value and the level of effort they devote toward value-seeking behavior, such as side-by-side price and quality comparisons. Naturally, then, with this added effort, consumers can make quality and value judgments less biased by extrinsic cue effects, as they might otherwise (e.g., Hoyer and Brown 1990; Richardson, Dick, and Jain 1994).

However, we further demonstrate that all value-conscious consumers are not equally attracted to store brands. As a matter of fact, those with high prestige sensitivity and those with low need for cognition are not attracted to store brands at all (see Table 3). For the former, it is probably because store brands do not provide a feeling of prestige, although it may exhibit good value. For the latter, it is probably because they do not evaluate store brands in great detail but do not appreciate or recognize the value such brands provide. Examining the value consciousness scale reveals that it is comprised of both behavioral items (e.g., related to use of unit price information) and attitudinal items (e.g., related to how consumers appreciate getting low priced but adequate quality goods). Future research might explore the value consciousness concept in more detail, perhaps by separating components related to effort-involving behavior from components related to preferences for perceived value. In sum it seems that consumers who are value conscious but also pay little attention to product prestige or enjoy effortful cognitive information processing play the leading roles in purchasing store brands (H3 and H5).

This finding provides good implications for retailers who carry store brands and manufacturers who produce name brands. Manufacturers have been concerned that retailers are competing with them for value-conscious consumers via store brands. However, a combination of store brand and national brand users can be beneficial to retailers (Corstjens and Lal 2000), necessitating those who develop store brands to find ways to attract more consumers to their own brands but not disenfranchise national brands or their consumers. A recent study suggests that this is possible if manufacturers and retailers carefully segment the market and target appropriate segments (Ailawadi, Neslin, and Gedenk 2001). The results of our study reinforce this suggestion.

The hypothesis regarding the main effect of need for cognition on purchase of store brands (H4) is not supported. One reason we suspect behind this failed finding may be the use of college students as subjects. On average, college students are higher in need for cognition than general consumers. In the current study, subjects’ need for cognition score ranges from 42 to 126 with the mean of 80.79 (s.d.=14.81). And most (71.15%) are located within the range of one s.d. to the mean. Apparently, they are skewed toward the high end and are restricted around the mean. This range restriction may have reduced the testing power of H4. Therefore, future research is called to retest the relationship with a more general set of consumers.

Past research seems to reveal a general pattern regarding store brand consumption, related to two main factors. First, store brands seem to benefit from a higher level of consumer information processing. Thus, factors related to consumers’ ability and motivation to process brand-relevant information should be considered topics for research. Second, store brands seem to suffer a disadvantage compared to national brands on the basis of value expressive benefits offered. Thus, factors related to a consumer’s social and self-image should be investigated in the context of the store brand versus national brand choice.

**REFERENCES**


APPENDIX

Products Categories Used in the study

1) Laundry Detergent
2) Parmesan Cheese
3) Cooking Oil
4) Spaghetti Sauce
5) Mayonnaise
6) Bread
7) Orange Juice
8) Paper Towels
9) Toothpaste
10) Dish Washing Liquid Detergent
11) Tea
12) Pasta
13) Cola
14) Pain Reliever
15) Coffee
16) Ketchup
17) Shampoo
18) Batteries
19) Bar Soap
20) Skin Lotion


