The Impact of Perceived Value on Behavior Intention:  
An Empirical Study

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ABSTRACT

In this study, the authors examine the impacts of acquisition utility and transaction utility on buying intention. Furthermore, the authors test these proposed relationships across high vs. low involvement conditions. Results from an experiment suggest that acquisition utility has significant impact on buying intention and such impact gets stronger when involvement level is high. However, the results do not support that transaction utility is significantly related to buying intention.

INTRODUCTION

To compete in a value-seeking consumer environment, firms must demonstrate the viability of their products to satisfy consumer needs. One method for demonstrating value to consumers is via the acquisition of a product. Firms are able to demonstrate the value consumers receive by purchasing one of its products relative to its selling price (Grewal, Monroe, and Krishnan, 1998). Another option available for firms is to demonstrate value by placing items on sale. That is, offering a product at a lower price compared to a higher reference price (Grewal, Monroe, and Krishnan, 1998). This influences the consumer’s belief that he or she is receiving value based on the transaction process; the consumer sees value in receiving a good deal. Previous research has shown both acquisition and transaction utility have positive influences on behavioral intentions of consumers, but it has been suggested that involvement with the product category moderates the relationship between utility and behavioral intention (Bei and Simpson, 1995). Bei and Simpson’s research used a very specific product category, recycled products, which may have influenced the findings with regard to involvement. The goal of our research is expand the research to a more general product category which does not generate a bias.

Built on marketing literature, this paper examines how consumers’ perceived transaction utility and acquisition utility influence their buying intention across high and low involvement groups. In the next section, we review the related literature regarding acquisition utility, transaction utility, and involvement. Then, hypotheses are developed. Next, we present the methodology and an examination of the results from a laboratory experiment. Finally, we conclude with a discussion of the empirical findings and the managerial implications for practitioners.

LITERATURE REVIEW

Acquisition Utility and Transaction Utility

For many transactions, consumers perceive not only the physical functioning of the product but also the psychological pleasure by acquiring the product. The total value of a purchase contains two parts: transaction utility and acquisition utility (Thaler, 1985). Transaction utility refers to the perception of psychological pleasure obtained from taking advantage of the deal (Thaler, 1985). Specifically, buyer’s perceived transaction utility is a function of the difference between his internal reference price (the expected price of the product) and sale price (the actual purchase price). Acquisition utility refers to evaluation of what consumers pay versus what they receive (e.g. Grewal, Monroe, and Krishnan, 1998; Zeithaml, 1988). That is, a buyer perceives acquisition utility associated with the transaction if the utility of purchased product outweighs the sale price.
Marketing literature offers support for this two-dimensional utility theory. Furthermore, prior studies find strong and consistent results for a positive relationship between buying intention and the perception of transaction utility and acquisition utility (e.g., Grewal, Monroe, and Krishnan, 1998; Zeithaml, 1988). All things being equal, one is more likely to purchase the products if he/she observes that the transaction generates either acquisition utility or transaction utility. Therefore, the main effect of perceived utilities on buying intention is hypothesized:

H1: Acquisition utility positively influences behavioral intention.
H2: Transaction utility positively influences behavioral intention.

Involvement

The concept of involvement lies in the personal relevance of the object or situation (Celsi and Olson, 1988; Laurent and Kapferer, 1985; Zaichkowsky, 1985; Houston and Rothschild, 1978). As such, involvement is defined as the perceived personal relevance of a product based upon the individual’s needs, wants, and desires. Two types of involvement have emerged in the literature: enduring and situational involvement (Celsi and Olson, 1988). Enduring involvement is an individual’s intrinsically motivated, ongoing level of interest in a product category (Higie and Feick, 1989; Richins and Bloch, 1986), whereas situational involvement is a temporary, elevated level of interest in a product category. That is, the situation itself dictates the individual’s heightened level of interest in the product category (Houston and Rothschild, 1978). The consumer recognizes a need and responds accordingly. Petty and Cacioppo (1981) furthered this research by introducing the concepts of high and low involvement to message reception.

High involvement situations provide a high degree of personal relevance to the individual whereas low involvement situations seem to be of little importance to the individual (Petty and Cacioppo, 1981). However, it can be argued that products cannot be intrinsically involving. Toothpaste may be both high and low involvement depending upon the circumstances of the buying intention. A high involvement toothpaste purchase may be due to the negative outcome of a dental exam, where the consumer needs to reconsider the brand or type of toothpaste used previously. A low involvement example may be that of an individual who continually purchases the same brand without consideration of other existing brands.

To examine products or behavioral intentions, it is suggested that high versus low involvement of the individual is important (Bei and Simpson, 1995; Zaichkowsky, 1985). Previous research has shown that those individuals who experience high levels of involvement with product categories spend time searching for information on the product category so the right decision is made and generally respond to the quality of arguments made in an advertisement (Petty and Cacioppo, 1986). People who exhibit low involvement with the product category respond to peripheral cues in the advertisement. Peripheral cues may include colors, background music, physical attractiveness of the actors, and movement.

Lichtenstein, Netemeyer, and Burton (1990) found that individuals who experience enduring involvement with a product category are more concerned with acquisition utility than transaction utility and that individuals who experience situational involvement are more concerned with transaction utility. Chen and Tsai (2008) discovered that product involvement moderates the relationship between perceived value and customer loyalty and also moderates the relationship between perceived value and satisfaction. Shao, Baker, and Wagner (2004) reported that both low and high involvement moderate the relationship between service quality expectations and purchase intent. Further, involvement with a product category moderates the relationships between acquisition utility and behavioral intention and between transaction utility and behavioral intention (Bei and Simpson, 1995). This leads to our third hypothesis:

H3a: Involvement will moderate the relationship between acquisition utility and buying intention, such that this relationship will be stronger when the level of involvement is high.
H3b: Involvement will moderate the relationship between transaction utility and buying intention, such that this relationship will be stronger when the level of involvement is high.

The proposed conceptual model delineates the relationships among these two different perceived values (transaction utility and acquisition utility), the outcome (buying intention), and the moderator (involvement) (see Figure 1).
RESEARCH METHOD

Data were collected from undergraduate students in a state university. In this study, a laboratory experiment, 389 subjects completed the survey (203 from the $89.95/ $79.95 group and 186 from the $89.95/ $54.95 group). The mean age of subjects was 21.63 years (range 19-48), 37.6% of the subjects were female. Subjects were randomly assigned to one of the two treatment groups.

Pretests were conducted before the main study. The objective of the pretest was to predict the acceptable price range for running shoes. Because the context of buying running shoes is believable and relevant to student subjects, students are indeed an appropriate group of consumers for current study. Having agreed to participate, every respondent was given a booklet containing the ad and the instructions, as well as, the questionnaire.

Measures

All constructs in the current study were measured using previously developed scales. Measurement literature suggests that the manipulation of seven-point Likert-type scales tends to produce consistent and reliable subjects’ responses (Weng, 2004). All constructs were assessed using seven-point scales labeled as strongly disagree, disagree, somewhat disagree, neither agree nor disagree, somewhat agree, agree, and strongly agree. Table 1.1 lists the scales that were used to measure each construct.

The two exogenous constructs are acquisition utility and transaction utility. Respondents’ perceptions of transaction utility were assessed using three items that reflect the psychological enjoyment buyers perceive from taking the deal (Grewal, Monroe, and Krishnan, 1998). Furthermore, nine items were applied to assess buyers’ perceptions of acquisition value (Grewal, Monroe, and Krishnan, 1998). Acquisition value refers to the perception of whether the produce is worth the money paid. The only endogenous construct, consumers’ buying intentions were assessed using a three item scale (Grewal, Monroe, and Krishnan, 1998). Finally, the 20-item involvement (Zaichkowsky, 1985) was included to test the moderation effects of it on the relationships between antecedents (acquisition utility and transaction utility) and outcome (buying intention).

ANALYSIS AND RESULTS

Measurement Model

Several steps were undertaken to assess the overall measurement quality. First, we examined the measurement model using confirmatory factor analysis (Anderson and Gerbing, 1988). The LISREL 8.80 was used to assess the measurement model and structural model, respectively. An initial CFA, including 15 items measuring three latent
constructs, suggested all factor loading estimates ($\lambda x$) achieved acceptable values (Table 1). However, the outputs of modification index and standardized residuals suggested one acquisition utility item displayed unacceptable large values. Thus, one of the fifteen items was deleted for following data analysis (see Table 1).

The results of the measurement model exhibited a good level of fit (Hair et al. 2010). Specifically, the resulting $\chi^2$ fit statistic is 171.4 with 74 degrees of freedom ($p < .01$). The statistical significance of the $\chi^2$ test does not necessarily suggest a poor fit because of the large sample size. That is, the $\chi^2$ test statistic is a mathematical function of sample size (Bagozzi and Yi 1988). Next, three types of overall model fit measures were reported to test the different aspects of measurement model. More specifically, the model comparative fit index (CFI) is .99, the root mean squared residual (RMSEA) is .058, and the parsimony normed fit index (PNFI) is .80. Thus, the results exhibit adequate convergent validity and fit.

Discriminant validity was assessed via conventional procedures described by Fornell and Larcker (1981). Discriminant validity was assessed for the three latent constructs: transaction utility, acquisition utility, and buying intention. All of the three squared correlation estimates are less than the variance extracted estimates for the respective constructs suggesting acceptable discriminant validity among the three constructs.

The correlation table (Table 2) suggests that buying intention (BI) is positively related to acquisition utility (AU) and transaction utility (TU), respectively. That is, the higher acquisition utility/transaction utility generate higher buying intention indicating H1 and H2 are hold.

<table>
<thead>
<tr>
<th>Table 1: Scale Items and Measurement Properties</th>
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<tbody>
<tr>
<td><strong>Transaction Utility</strong></td>
</tr>
<tr>
<td>Taking advantage of a price-deal like this makes me feel good</td>
</tr>
<tr>
<td>Beyond the money I save, taking advantage of this price deal will give me a sense of joy</td>
</tr>
<tr>
<td>I would get a lot of pleasure knowing that I would save money at this reduced sale price</td>
</tr>
<tr>
<td><strong>Acquisition Utility</strong></td>
</tr>
<tr>
<td>If I bought this running shoes at $54.95, I would be getting my money’s worth</td>
</tr>
<tr>
<td>If I acquired these running shoes, I think I would be getting good value for the money I spend</td>
</tr>
<tr>
<td>I feel that acquiring these running shoes meets both my high quality and low price requirements</td>
</tr>
<tr>
<td>I feel that I am getting good quality running shoes for a reasonable price</td>
</tr>
<tr>
<td>After evaluating the advertised running shoe features, I am confident that I am getting quality features for $54.95</td>
</tr>
<tr>
<td>I think that given these running shoes features, they are a good value for the money</td>
</tr>
<tr>
<td>I would value these running shoes as they would meet my needs for a reasonable price</td>
</tr>
<tr>
<td>Compared to the maximum price I would be willing to pay for these running shoes, the sale price conveys good value</td>
</tr>
<tr>
<td>These running shoes would be a worthwhile acquisition because it would help me exercise at a reasonable price</td>
</tr>
<tr>
<td><strong>Buying Intention</strong></td>
</tr>
<tr>
<td>If I were going to buy running shoes, the probability of buying this pair is</td>
</tr>
<tr>
<td>The probability that I would consider buying these running shoes is</td>
</tr>
<tr>
<td>The likelihood that I would purchase these running shoes is</td>
</tr>
</tbody>
</table>

Notes:
a The numbers are CFA Loading Estimate of items on the corresponding constructs.
b Construct Reliability
c Variance Extracted
d Item was deleted for further CFA and Structural Model analysis
The results of the CFA analysis indicate a satisfactory fit. Thus, we decided to examine the structural model. The model fit was computed, and the proposed relationships (H1, H2, and H3) among constructs were tested using LISREL 8.80 (Jöreskog and Sörbom 1993). The resulting $\chi^2$ from testing the structural model is 171.402 with 74 degrees of freedom. Furthermore, the RMSEA is .0582, the CFI is .991, and the PNFI is .801. These results show interesting findings: the measurement model and structural model produced almost the same model fit measures across different indexes. For instance, a further computation suggested that both measurement model and structural model have the same degrees of freedom of 74. First, the measurement model has 31 parameters [14 (loading estimates) + 14 (error variance terms) + 3 (construct covariance terms)], and the structural model has 15 parameters [14 (loading estimates) + 14 (error variance terms) + 2 (exogenous-endogenous structural terms) + 1 (construct covariance term)]. Next, both measurement model and structural model have 105 degrees of freedom available [(14x15)/2]. Finally, both measurement model and structural model have 74 degrees of freedom (74=105-31). Thus, we could not compare the model fit between the structural model and measurement model.

The results in Table 3 suggest the following findings. Acquisition utility displays a significant effect on buying intention ($\gamma = .649, p < .01$) but transaction utility does not have such impact on buying intention ($\gamma = -.03, p > .10$). Therefore, H1 was supported but the results failed to support H2.

To examine H3a and H3b, we tested the structural model across both the high and low involvement groups simultaneously. After examining the distribution of involvement scores, it was decided to group the respondents into a high involvement group (N=184, score ranged from 5 to 7) and a low involvement group (N=181, score ranged from 1 to 4.9). First, we tested the initial multiple-group model (we called it total free model-TF) allowing each structural coefficient to be freely calculated in each group. The results of the TF model show the $\chi^2$ is 278.217 with 148 degrees of freedom (RMSEA = .0696, CFI = .986, and PNFI = .791). Thus, the two-group TF model displays acceptable fit and provides a basis for comparing a series of constrained models to test the moderation effects of involvement on the relationships between antecedents (AU and TU) and outcome—buying intention (Hair et al. 2010).

Next, invariance constraints were added to all proposed structural parameter coefficients (Γ matrices). The resulting model (labeled as STRUC=IN) of $\chi^2$ is 289.255 with 150 degrees of freedom (RMSEA = .0715, CFI = .985, and PNFI = .80). The $\chi^2$ difference statistic test is significantly different, and thus suggests variance in parameter coefficients between the low and high involvement conditions ($\Delta \chi^2=11.038, df =2, p<.01$).

Hypothesis 3a proposes that the relationship between acquisition utility and buying intention is stronger when the level of involvement is high. Furthermore, Hypothesis 3b proposes that the relationship between transaction utility and buying intention is stronger when the level of involvement is high. The results in Table 3 suggest that the AU is significantly related to BI across high and low involvement conditions ($\gamma$ high involvement = .905, p <.01 and $\gamma$ low involvement = .610, p <.01). However, TU is not significantly related to BI across both involvement conditions ($\gamma$ high involvement = .021, p >.1 and $\gamma$ low involvement = -.149, p >.1). Therefore, we decided to conduct one degree of freedom $\chi^2$ difference tests for the impact of AU on BI across both involvement conditions (H3a). The results of one degree of freedom $\chi^2$ difference test suggest a significant difference at p<.10 level. Therefore, H3a is marginally supported.

Table 2: Correlation Estimates among Variables

<table>
<thead>
<tr>
<th></th>
<th>BI</th>
<th>AU</th>
<th>TU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buying Intention (BI)</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Acquisition Utility (AU)</td>
<td>.62**</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Transaction Utility (TU)</td>
<td>.48**</td>
<td>.79**</td>
<td>—</td>
</tr>
</tbody>
</table>

Notes: **Correlation is significant at the 0.01 level (2-tailed).

Table 3: Structural Path Estimates for the Theoretical Model

<table>
<thead>
<tr>
<th>Direct Effects on:</th>
<th>1 Group Model</th>
<th>High Involvement Group</th>
<th>Low Involvement Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endogenous Constructs:</td>
<td>AU</td>
<td>TU</td>
<td>AU</td>
</tr>
<tr>
<td>BI</td>
<td>H1</td>
<td>H2</td>
<td>H3a</td>
</tr>
<tr>
<td></td>
<td>H3b</td>
<td>H3b</td>
<td></td>
</tr>
</tbody>
</table>
Marketing literature has shown that perceived values can successfully enhance consumers’ intention to purchase the product (e.g., Grewal, Monroe, and Krishnan, 1998). The results of the study provide support for the contention that acquisition utility enhances higher buying intention (supporting H1). Furthermore, the impact of acquisition utility on buying intention becomes stronger in the high involvement condition (supporting H3a). Next, the results also suggest that transaction utility is not related to buying intention across high and low involvement groups (H2 and H3b are not supported). These findings are not consistent with prior studies. A possible explanation for this discrepancy is that respondents’ perceived acquisition utilities dominate their judgment and evaluations about the transactions because the perceived transaction utility (internal reference price minus sale price) was not obvious due to the small amount of savings (e.g., $35 for the high discount treatment). Although the correlation between buying intention and transaction is significantly related, the findings of SEM analysis suggest transaction utility is not an antecedent of buying intention when acquisition utility was included in the data analysis process.

Managerial implications of this research can be drawn from the results. One implication draws from the direct effect of acquisition utility on buying intention. This evidence suggests that enterprises need consistent production of high quality products because consumers perceive acquisition utility when the utility of purchased product outweighs the paid money. Furthermore, the impacts of acquisition utility on buying intention are even stronger when consumers are highly involved in the shopping process. Thus, marketers of high ticket products such as automobiles, home appliances, and electronics need to demonstrate their products provide high levels of utility for their consumers.

There are some avenues for future research. First, the findings of current study were based on one product category—running shoes. Therefore, it is promising to re-examine the proposed relationships by collecting samples across different product categories and shopping scenarios. Second, future research should also pay attention to other potential moderators. For instance, consumers’ confidence and expertise may moderate the relationship between perceived utility and behavioral response. Third, future studies may also examine how the interaction between consumers and service employees influence consumers’ value perception and following behavior intention.

In conclusion, this study suggests mixed evidence about the impacts of perceived utility on buying intentions. The present study suggests that more work needs to be conducted to examine the impacts of acquisition and transaction utility on consumers’ shopping evaluation and behavioral response.

**REFERENCES**


