

The Purchasing Involvement Scale

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Development of purchasing involvement (PI) as a useful construct and its measurement for understanding and predicting consumer behavior has lagged behind other areas. Purchasing involvement is conceptualized as an enduring individual difference variable. This paper discusses the theoretical reasoning for the new scale as well as the two studies that were used to develop and test the new purchasing-involvement scale. The first study involves an analysis of the Purchasing-Involvement Scale (Slama and Taschian, 1985) and the development of the new 26 item PI scale. The second study provides additional support for the reliability and validity of the proposed scale.

INTRODUCTION

The involvement concept has received a significant amount of attention from researchers over the years. However, development of purchasing involvement as a useful construct and its measurement for understanding and predicting consumer behavior has lagged behind other areas. A number of involvement scales developed over the years were mostly related to measuring situational or enduring product involvement (Laurent and Kapferer, 1985; Zaichkowsky, 1994). Although Mittal (1989) developed a scale called purchase decision involvement, this scale seems to be analogous to the situational involvement of Houston and Rothschild (1978). Since purchasing involvement is defined as the self-relevance of purchasing activities to the individual, it is treated as an enduring individual difference variable. The Purchasing Involvement (PI) scale (Slama and Taschian, 1985) was the only scale found in the consumer behavior literature that used this conceptualization and measured purchasing involvement as an individual difference variable. This paper discusses the theoretical reasoning as well as the two empirical studies that were used to develop and test the new purchasing-involvement scale.

THEORETICAL FRAMEWORK

Sherif and Cantril (1947) introduced ego-involvement in linking new information with central, or ego-involved, attitudes. Involvement has been referred to as an internal state variable that indicates the amount of arousal, interest, or drive invoked by a particular stimulus or situation (Andrews, Durvasula, and Akhter, 1990; Bloch, 1982). Involvement also stands for perceived personal relevance (e.g. Celsi and Olson, 1988; Zaichkowsky, 1985). Zaichkowsky (1985) defines involvement as a person's perceived relevance of an object based on inherent needs, values and interests. One aspect common in prior definitions is that involvement suggests the degree of arousal a person has for an object of personal relevance (Mittal, 1989). Mittal also points out, like motivation, the concept of involvement requires a goal-object. This goal object can be a product, thus, this might lead to the concept of "product involvement" or it can be the purchase decision leading to the concept of "purchase involvement" (Antil, 1984; Mittal and Lee, 1989).

Enduring and situational involvement were introduced by Houston and Rothschild (1978) to draw a distinction between these two different forms of involvement. Enduring involvement is viewed as a mean level of involvement across situations, while situational involvement is said to provide temporary, situation-bound deviations from the mean level. This suggests that it is possible for a consumer to have a low enduring involvement overall, yet a high situational involvement during a specific purchase situation (Mittal and Lee, 1989).

Some researchers have suggested that, for individual consumers, a consistent level of involvement may occur across purchase situations. For example, Higie and Feick (1988) viewed enduring involvement as an individual difference variable representing an arousal potential of a product or activity that causes personal relevance. It is suggested that enduring involvement is intrinsically motivated by the degree to which a product or activity is related to the individual's self-image or pleasure received from thoughts about or use of product or engaging in the activity (Higie and Feick, 1989).

Consumers differ in the amount and type of effort they put into shopping. Kassarian (1981) has stated that there are differences between individuals which, regardless of the product or situation, make some people more interested, concerned, or involved in the consumer decision process, hence relating search effort and motivation to process information (Bloch, Sherell, and Ridgway, 1986; Bloch and Richins, 1983) to the notion of consumer involvement. Kassarian (1981) suggests that different consumer types (i.e., market segments) can be identified on the basis of involvement proposing that consumers' involvement with purchasing influences their purchase behavior. Westbrook and Fornell (1979) found four distinctive styles of information search among durable good buyers, ranging from the objective shopper at one extreme to the personal advice seeker at the other extreme (Slama and Tashchian, 1985).

Consistent with the conceptualizations put forth by other researchers (e.g., Kassarian, 1981; Slama and Tachian, 1985), it is likely that purchasing involvement may be motivated by a number of factors besides the individual self-image or pleasure received from shopping. An individual can be highly involved in purchasing activities in order to reduce the uncertainty and risk, and increase satisfaction with the purchase. Some consumers might be less involved with purchases because they are highly concerned about maximizing savings and/or getting the best possible value in purchases.

It is also important to note that the concept of purchasing involvement is different from shopping enthusiasm or need for cognition (NFC) both reported to be determinants of motivation to search (Schmidt and Spreng, 1996). Shopping enthusiasm is defined as the enjoyment and individual feels for the task of collecting and processing information about a product (Babin, Darden, and Griffin, 1994). Need for cognition is defined as the tendency for individuals to engage in and enjoy thinking (Caccioppo and Petty, 1982). People that are highly involved with purchasing activities may or may not be high NFC consumers or may or may not enjoy the shopping activity itself (shopping enthusiasm). As Schmidt and Spreng (1996) have also suggested, shopping can result in instrumental rewards (e.g., lower price) or experiential rewards (e.g., enjoyment and fun). Therefore, a person can be highly involved in purchasing activities in order to reduce the uncertainty and risk, and increase the satisfaction with the purchase without having high NFC or high shopping enthusiasm. This is why purchasing involvement should be treated as a separate construct. In this study, purchasing involvement is conceptualized as a general measure of self-relevance of purchasing activities to the individual. In other words, purchasing involvement is treated as an enduring individual difference variable that is different from product and situational involvement (Veryzer and Karaatli, 2008).

THE PURCHASING INVOLVEMENT SCALE

There are several reasons behind the scale development undertaken here based on the analysis of the original thirty-three-item Slama and Tachian (1985) scale.

Reliability Issues

It is known that, "generally, shorter scales are good because they place less of a burden on respondents. Longer scales, on the other hand, are good because they tend to be more reliable" (DeVellis, 1991, p.86). Although Slama and Taschian (1985) reported a high level of reliability for their purchasing

involvement scale (coefficient alpha internal consistency .93, and .86 test re-test reliability over a two week period), 33-items can be a burden on respondents, especially when used along with other measures as typically occurs in studies. Therefore, possibility of reducing the length of the scale without giving up a considerable amount of reliability would be an improvement on the Slama and Tachian's purchasing involvement scale.

Validity Issues

Content Validity

An analysis of the Slama and Taschian's (1985) thirty-three-item scale showed that some of the items in this scale are rather limited for a scale that is intended to measure purchasing involvement as an enduring individual difference variable. Items such as: "It is important to keep up with special deals being offered by the grocery stores in my area" and "I don't like to waste a lot of time trying to get good deals on groceries" might provide useful insights with respect to a consumer's purchasing involvement when dealing with shopping situations such as grocery shopping and alike. It is foreseeable that such items were originally used in the scale to represent what is generally believed to be low involvement shopping situations. Hence, the intended use of these items might have been to capture a part of the consumer's overall purchasing involvement based on how they behave under what is generally believed to be low involvement shopping situation. On the other hand, Slama and Taschian (1985) also suggested that "purchasing involvement may be used in explaining those consumer behaviors that are not product specific, and may be combined with product and situation involvement to better explain buying behavior" (p. 73). Therefore, a purchasing involvement scale should either not include items with specific product categories, or situations, or it should be comprehensive enough to represent a broad range of categories and situations. Since the latter approach, if at all possible, would require a very lengthy and complicated scale, the earlier approach suggests the elimination of such specific items from the scale. However, no items were omitted initially. Instead, all 33 original items from Slama and Tachian scale and an additional 13 items combined together to further analyze and investigate the possibility of developing a more refined purchasing involvement scale.

The proposed scale intends to measure consumers' overall involvement with purchasing on a single scale. However, this is not to suggest that purchasing involvement is a uni-dimensional construct. To the contrary, in general, purchase situations involve a number of issues consumers deal with, such as consequences of the purchase, time and effort spent, value of shopping, etc. Therefore, it is important to determine whether or not as well as which of these sub-dimensions of purchasing involvement are indeed in place when someone attempts to measure the construct.

Predictive Validity

Since involvement with something influences attitudes and behaviors relating to it, it can be expected that involvement with purchasing should influence attitudes and behaviors associated with purchasing (Slama and Tashchian, 1985). Consumers engage in more search when involvement is high and less search when involvement is low. Celsi and Olson (1988) found that consumers spend more time attending to information as their involvement increases. Schmidt and Spreng (1996) proposed that enduring-involvement is positively related to motivation to search for information. Kassarian (1981) relates purchasing involvement to search activities, such as clipping coupons and reading Consumer Reports. Purchasing involvement would influence a person's general approach to the consumer decision process from pre-search through post-purchase evaluation (Slama and Tashchian, 1985).

Although situational differences are expected to influence consumers' level of involvement with the purchasing activities, if there is a consistent difference in consumers' shopping behavior (e.g., the amount of time spent) between those highly-involved and those who are less involved with purchases in general, the proposed purchasing-involvement scale should be able to capture the variance between these groups.

H: Consumers that have high purchase-involvement are expected to spend more time in shopping than those that have low purchase-involvement.

METHOD

One hundred eighty-eight undergraduate students from a university in the Northeast United States were used for the first study. Final analysis included 176 participants due to missing values. Participants were asked to fill out a self-administered forty-six-item questionnaire in a classroom setting. Thirty-three of these items were adopted from Slama and Tashian's purchasing involvement scale, and the remaining thirteen items were developed by the author and checked for face validity using two other marketing experts. The six-point Likert-scale (ranging from 1-strongly disagree to 6-strongly agree) used by Slama and Taschian was also used in this study in order to measure participants' responses for each item in the questionnaire. The reason behind opting for a scale with an even number of points was chosen to avoid subjects' tendency to choose neutral answers (DeVellis, 1991).

A second study was conducted in order to test the reliability and the predictive validity of the new twenty-six item purchase-involvement scale. The second study included two-hundred-twenty undergraduate and graduate students from universities in Northeast United States. A mock-shopping site was used for the second study. Participants were asked to carry out a shopping task for air purifiers much like one they would carry out if they were shopping online. Since the product knowledge has proven to be one of the important variables that affects consumers' information search, information describing various attributes of air purifiers were provided in order to control or minimize the possible differences participants may have in product knowledge. There were sixteen product alternatives available for consideration. Once participants completed the shopping task, they were asked to respond to the twenty-six item purchasing-involvement scale and several demographic questions.

RESULTS

Varimax rotation was used as the extraction method in the factor analysis and those items with factor loadings of .50 were retained. The only exception to this rule was item ten. This item was used as a reverse order item in this study. Several subjects reported difficulties interpreting the meaning of item 21. This item was excluded from the scale due to perceived ambiguity. Several items (8, 25, 28, 32, 39, and 46) were excluded due to the reasons discussed under the content validity issues. Twenty-six items were grouped under 6 factors (See Table 1).

An analysis of these items suggested six sub-dimensions (time/effort, outcome/consequence, information/knowledge, value, saving/sales, interest). These results indicate that Purchasing-Involvement is indeed a multi-dimensional construct. A review of inter-item correlations for these six factors indicates average inter-item correlations are significant ($p < .01$). This confirms that the items within each factor were well correlated.

Reliability of a measure indicates its consistency on measuring a construct (Nunally, 1978). A frequently used measure of reliability, Cronbach's coefficient alpha, was used to test the internal consistency reliability of the purchase-involvement scale (Cronbach, 1955). This index measures the degree to which indicator items of scale are homogenous and reflect the same underlying constructs. A value of .60 - .70 and above, measured by Cronbach's alpha, is considered an acceptable indicator of scale reliability (Nunally, 1978). The 26 item purchase-involvement scale developed in the first study had a reliability test of .87. A coefficient alpha reliability test of the scale in the second study was .88. This indicates an acceptable and consistent level of reliability for the proposed purchasing-involvement scale. Further analyses showed that deletion of any of the twenty-six items did not substantially improve the reliability of the measured construct purchasing-involvement.

Once the reversed items are converted, the sum of all the responses in the scale is used to calculate a total purchase-involvement-score for each subject. Since the proposed purchasing involvement scale contains 26 items and each item is measured using a six-point Likert-type scale (see Appendix), the possible range for purchasing involvement scores is 26-156. Once the purchasing involvement score for each subject is calculated, the scores are ordered from highest to lowest in order to create distinct groups with varying level of purchasing involvement (e.g., high and low) using the group mean as a split point.

Similar techniques in determining groups have been used by other researchers in the past (Zaichkowsky, 1985).

TABLE 1
ROTATED COMPONENT MATRIX (a)

	Component					
	1	2	3	4	5	6
Scale Item						
R-PINV-3						.792
R-PINV-4			.643			
R-PINV-5					.685	
R-PINV-6					.556	
R-PINV-7					.571	
R-PINV-10 (b)					.456	
PINV-11						.573
PINV-12	.707					
PINV-13	.655					
PINV-16	.678					
PINV-17				.521		
R-PINV-18		.679				
R-PINV-19		.539				
PINV-20		.519				
PINV-23	.682					
PINV-24	.612					
R-PINV-26						.742
R-PINV-29			.637			
R-PINV-33				.587		
PINV-34	.582					
P INV-35			.659			
R-PINV-37		.538				
R-PINV-38			.601			
R-PINV-41		.514				
PINV-42	.552					
R-PINV-44				.608		
Notes: (a) Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 20 iterations. Items marked as "R" are reverse ordered. (b) This item was not listed as reversed item in the Slama & Tachian's purchasing involvement scale.						

The data from the second study was also used to investigate the predictive validity of the purchasing-involvement construct measured by the proposed scale. This was accomplished by testing the hypothesized relationship between the purchasing-involvement and the amount of time used by the participants. Using the scale mean as a split point, participants were divided in to two groups (high versus low) based on their purchase-involvement score. The purchase-involvement scores of the participants in this study ranged between 75-149, and the mean scale-score is computed as 112.

The results of the research conducted by Slama and Taschian (1985) suggested that, in general, females seem to be more involved with purchasing than males are. A review of the distribution of gender on the two levels of purchasing involvement support this finding (Hi-Inv-Female: 59.8%; Hi-Inv-Male: 43.6%; Low-Inv-Female: 40.2%; Low-Inv-Male: 56.4%). In order to control the potential bias of gender,

ANCOVA (GLM Repeated Measures) is used as the method of analysis where gender is introduced as a covariate.

Results from the ANCOVA analysis conducted for air purifiers indicates that consumers with a high level of purchase-involvement spend significantly more time (AP-HI mean = 303.04) shopping than those that are less involved with purchases (AP-LI mean = 224.71) ($F_{1,215} = 10.986, p < .05$). No significant gender effect was found in the time taken shopping for air purifiers ($F_{1,215} = 1.002, p > .10$). These results provide support for the predictive validity of the new scale.

CONCLUSION

The concept of purchasing involvement suggests that consumers have certain tendencies and preferences with respect to purchasing activities and involvement with shopping in general. Even though situational variables are important, due to its enduring nature across different products and situations, purchasing involvement as an individual difference variable can help to capture a portion of the unexplained variance in studies investigating consumer decision-making and shopping behavior. As an enduring individual difference variable, purchasing involvement can be used for segmentation.

The trade-off between the control of unwanted noise in the environment and increased realism is well known in choosing between laboratory experiments and field experiments. Since consumers carry out their actual online purchases on the Internet using a computer station, and the environment they carried out the experimental shopping task was essentially the same environment, one can argue that laboratory experiments can create an environment with acceptable ecological validity for research studying consumers' online shopping behavior. However, it is important to account for the differences that might occur in the results due to the environment used to collect the data for the study.

While earlier studies did not include shopping on the internet, the second study on this research utilized on an online-shopping task. Since the purchasing involvement is conceptualized as an enduring individual difference variable, the proposed scale can be used for measuring the level of purchasing involvement for different shopping environments.

While theoretical support for the conceptualization of the purchasing-involvement has been present, a review of the literature has revealed that the efforts for developing a tool to measure this construct as an enduring individual difference variable have been very limited. This research paper is intended to draw more attention to the purchasing involvement concept while sharing the results of two studies that produced a new scale for an enhanced measurement of this construct.

The results using the new purchasing involvement scale show that consumers that are highly involved with purchases in general differ in their shopping behavior from those that are less involved with purchases. Consumers who are highly involved with the purchases took a longer time shopping than those consumers who were less involved with purchasing in general. This suggests that purchasing-involvement, as an enduring individual difference variable, deserves more attention than it has received in the past and that this construct may contribute to understanding consumer behavior. While the new purchasing involvement scale presented here is a step towards this effort, future research, both those replicating the findings of this study and others offering possible enhancement for the measurement of purchasing involvement are needed. Rosenthal and Rosnow (1984) suggested that a minimum of 15 studies are necessary to demonstrate that a single statistically significant result was tolerant of unpublished null results on the same relationship. An overriding concern with this line of research has to do with just how much variance that is currently unexplained by other dimensions of involvement (e.g., situational, product) can a purchasing involvement explain? This is a significant question that requires further research in this area.

REFERENCES

- Antil, J. (1984), "Conceptualization and Operationalization of Involvement" in *Advances in Consumer Research*, Vol. 11, T. Kinnear, ed. Provo, UT: Association for Consumer Research, 203-209.

- Andrews, J. C., Durvasula, S & Akhter, S.H. (1990), "A Framework for Conceptualizing and Measuring the Involvement Construct in Advertising Research," *Journal of Advertising*, 19, 27-40.
- Babin, B. J., Darden, W. R. & Griffin, M. (1994), "Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value," *Journal of Consumer Research*, 20, March, 644-656.
- Bloch, P. H. (1982), "Involvement Beyond the Purchase Process: Conceptual Issues and Empirical Investigation," in *Advances in Consumer Research*, Vol. 9, A. A. Mitchell, ed. Ann Arbor, MI: Association for Consumer Research, 413-417.
- _____, & Richins, M. L. (1983), "A Theoretical Model for the Study of Product Importance Perceptions," *Journal of Marketing*, 47 (Summer), 69-81.
- _____, Sherrell, D.L. & Ridgway, N. M. (1986), "Consumer Search: An Extended Framework," *Journal of Consumer Research*, 13 (June), 119-126.
- Cacioppo, J. T. & Petty, R. E. (1982), "The Need for Cognition," *Journal of Personality and Social Psychology*, 42 (January), 116-131.
- Celsi, R. L. & Olson, J. C. (1988), "The Role of Involvement in Attention and Comprehension Processes." *Journal of Consumer Research*, 15 (September), 210-224.
- Cronbach, L. J., & Meehl, P. E. (1955). "Construct Validity in Psychological Tests," *Psychological Bulletin* 52 (4), pp. 281-302.
- DeVellis, R. F. (1991), *Scale Development: Theory and Applications*. Applied Social Research Methods Series, Vol. 26. Newbury Park, CA: Sage Publications.
- Higie, R. A., & Feick, L. F. (1989), "Enduring Involvement: Conceptual and Methodological Issues." In *Advances in Consumer Research*, Vol. 16 (1), Thomas Srull (Ed.). Provo, UT: Association for Consumer Research, 690-696.
- Houston, M. J., & Rothschild, M. L. (1978). "Conceptual and Methodological Perspectives on Involvement" in *Research Frontiers in Marketing: Dialogues and Directions, 1978 Educators' Proceedings*, S. C. Jain ed., Chicago: American Marketing Association, 184-187.
- Kassarjian, H. H. (1981), "Low Involvement: A Second Look.," in *Advances in Consumer Research*, K. B. Monroe, ed. Ann Arbor, MI: Association for Consumer Research, 8, 31-34.
- Laurent, G. & Kapferer, J. N. (1985), "Measuring Consumer Involvement Profiles," *Journal of Marketing Research*, 22, 41-53.
- Mittal, B. (1989), "Measuring Purchase-Decision Involvement," *Psychology & Marketing*, 6, Summer, 147-162.
- _____, & Lee, M. S. (1989), "A Causal Model of Consumer Involvement," *Journal of Economic Psychology*, 10, 363-389.
- Nunnally, J.C., (1978), *Psychometric Theory*, McGraw-Hill, New York, NY.
- Rosenthal, R. & Rosnow, R. (1984), *Essentials of Behavioral Research: Methods and Data Analysis*. New York: McGraw-Hill Book Company.
- Schmidt, J. B. & Spreng, R. A. (1996), "A Proposed Model of External Consumer Information Search," *Journal of the Academy of Marketing Science*, 24 (3), 246-256.
- Sherif, M. & Cantril, H. (1947), *The Psychology of ego-involvement*. New York: Wiley.
- Slama, M. E. & Tashchian, A. (1985), "Selected Socioeconomic and Demographic Characteristics Associated with Purchasing Involvement," *Journal of Marketing*, 49, Winter, 72-82.
- Veryzer, R. W. & Karaatli, G. (2008) "Re-Thinking The Purchasing Involvement Construct," *Marketing Management Association, 2008 Spring Conference Proceedings*, 1-6.
- Westbrook, R. A. & Fornell, C. (1979), "Patterns of Information Source Usage among Durable Good Buyers," *Journal of Marketing Research*, 16, August, 303-312.
- Zaichkowsky, J. L. (1985), "Measuring the Involvement Construct," *Journal of Consumer Research*, 12, 341-352.
- Zaichkowsky, J. L. (1994), "The Personal Involvement Inventory: Reduction, Revision, and Application to Advertising," *Journal of Advertising*, 28 (4), 59-70.

APPENDIX
THE PURCHASING INVOLVEMENT SCALE

- I feel like I have to consider as many alternatives as possible in order to make sure I get the best product. (a)
- When I am shopping for a new product, deciding which alternative to buy is an involving process for me. (a)
- I prefer to visit as many stores as possible to make sure I am getting the best buy. (a)
- The decision about which product alternative to buy requires a lot of thought. (a)
- Being a smart shopper is worth the extra time it takes.
- It is part of my value system to shop around for the best buy.
- I am willing to spend extra time shopping in order to get the cheapest possible price on goods of like quality.
- In selecting from many types and brands of a certain product available in the market, I would not care which one I buy (a)*
- In making my selection of a product, I am not too concerned about the outcome of my choice. (a)*
- I choose products very carefully. (a)
- The brands of goods I buy make very little difference to me. *
- It doesn't make much sense to get upset over a purchase decision since most brands are about the same.*
- Consumer Reports is not very relevant to me.*
- Consumerism issues are irrelevant to me. *
- The consumer and business sections of the newspaper are highly relevant to me.
- It is not worth read Consumer Reports since most brands are about the same.*
- Even with small purchases, I prefer to take my time and make sure I am getting the best value. (a)
- I am too absorbed in more personally relevant matters to worry about making smart purchases.*
- Shopping wisely is rather a petty issue compared to thinking about how to make more money.*
- I am not interested in bargain seeking.*
- I am not interested in sales.*
- You can't save a lot of money by careful shopping.*
- I am usually not annoyed when I find out I could have bought something cheaper than I did. **
- I have little or no interest in shopping.*
- Sales don't excite me.*
- When I shop, I think I spend more time shopping than the average person. (a)

Notes: * Reverse order items. ** This item was not listed as reversed item in the Slama & Tachian's purchasing involvement scale. (a) New items.

Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6