Application of the Personal Involvement Inventory in Marketing

Leisa Reinecke Flynn and Ronald E. Goldsmith
Florida State University

ABSTRACT

This article describes two studies of the revised, 10-item Zaichkowsky Personal Involvement Inventory (PII) that illustrate the use of the scale to identify involved consumers for managerial purposes. The first study used data from 185 men and women consumers for the topic of travel services. Study two obtained data from 135 adult women and covered the topic of fashionable clothing. The findings of both studies revealed a wide variety of differences in managerially relevant behaviors between low and high involvement consumers. The implications of these findings for travel service and fashion managers are discussed to illustrate how the PII can help in marketing decision making. © 1993 John Wiley & Sons, Inc.

Consumer involvement refers to the feelings of interest, enthusiasm, and excitement that consumers have about specific product categories (Bloch, 1986). Every consumer, it seems, is especially involved with one or more product categories that he or she finds highly relevant and attractive. Involved consumers feel that these product categories are especially relevant to their lives. Hobbies, collections, or specialties such as the clothing enthusiast, the movie buff, the car lover, and so forth, are examples of this prevalent type of consumer behavior. Because involved consumers are very important to the success or failure of many marketing strategies (Bloch, 1986), marketing managers are eager to identify and understand who these key consumer enthusiasts are. Con-

sequently, the measurement of consumer involvement is of prime importance to the successful application of this construct in marketing.

It is no wonder then that since its first publication (Zaichkowsky, 1985), the Personal Involvement Inventory (PII) has become one of the more widely used self-report measures in marketing research. Most of the work on the PII, however, has been directed at improving the psychometric characteristics of the scale. Managerially oriented applications of the PII have not appeared in the literature. This article presents demonstrations of how Zaichkowsky's (1987) revised, 10-item PII can be used to identify product enthusiasts and give direction to marketing strategy aimed at more involved customers in both a product and a service category.

THE SURVEYS

Two separate questionnaires were distributed to adult exhibitors and participants at a public exhibition for senior citizens held in a small southern city in the U.S. This Senior Showcase consisted of a series of lectures and information and demonstration booths for products and services targeted to older adults and those who care for older adults. The first questionnaire dealt with travel services and the second with fashionable clothing, two product categories likely to elicit a wide range of involvement scores and also appropriate for the participants who supplied the data.

The first questionnaire presented the PII adapted for travel services with the instructions recommended by Zaichkowsky (1987). Next, several questions asked the subjects to recall how often they performed specific vacation travel related behaviors: "Frequently," "Often," "Sometimes," "Rarely," or "Never." Additional questions asked the respondents about the number of vacation trips taken in the past year, membership in any travel clubs, ownership of vacation homes or motor homes, and attendance at travel shows. Finally, a short battery of demographic questions were asked. Completed questionnaires were obtained from 185 subjects. The respondents consisted of 82 men and 98 women (five missing responses for gender) ranging in age from 21 to 80 years with a mean of 48.3 years (SD = 15.4) and a median of 45 years. Ninety-one percent of the sample was white, and the rest were African-American, Hispanic, or other.

The second questionnaire focused on fashionable clothing. Along with the revised PII and demographics were 27 fashion related behavior and attitude questions. Complete questionnaires were obtained from 135 women. They ranged in age from 20 to 77 years with a mean of 39.1 years (SD = 13.5) and a median of 37 years. Eighty-four percent of the sample was white, and the rest were African-American, Hispanic, or other. Fifty percent of the sample reported household incomes below

$40,000.00, 37% reported making $40,000.00 or over, and 13% refused that question. Although not a purely random sample, the data may be taken to represent a realistic cross section of adult female consumers.

The product and service chosen as the topics of these surveys were picked for their relevance to the samples of consumers. Because our purpose was to illustrate how the revised PII could be used to provide managerially relevant data and not to measure precise point and interval estimates of characteristics of specific market segments, both samples are highly adequate for the study.

SURVEY RESULTS

Psychometric Performance of the PII for the Travel Sample

Summed scores on the PII covered the entire possible range from 10 to 70. The sample mean was 55.0 (SD = 11.6) and the median was 57. Coefficient alpha was 0.92, indicating very good internal consistency. This finding is consistent with other reported uses of the scale. In order to assess the dimensionality of the PII, an exploratory factor analysis was performed. For this sample the scale split into two factors. Items 1, 5, 7, 8, 9, and 10 loaded on the first factor, and 2, 3, 4, and 6 on the second. The factor loadings are found in Table 1. This factor solution has been reported before by Zaichkowsky (1987), who felt that the two-factor finding was not a problem because none of the items loaded negatively on the first factor. This made summing the scale items possible despite possible multidimensionality. In this case all 10 items do load positively on the major factor.

To further evaluate the implications of the two-factor structure, we created two separate involvement subscales corresponding to the two

Table 1   Exploratory Factor Analysis

Item No.	Travel		Fashion
	Factor 1	Factor 2	Factor 1
1. Important	0.65	0.43	0.85
2. Boring	0.22	0.86	0.85
3. Irrelevant	0.54	0.65	0.88
4. Unexciting	0.30	0.87	0.88
5. Appealing	0.51	0.25	0.68
6. Mundane	0.51	0.67	0.77
7. Worthless	0.64	0.54	0.88
8. Not needed	0.58	0.36	0.83
9. Involving	0.83	0.16	0.73
10. Means a lot	0.73	0.26	0.77
Eigenvalue	5.66	0.81	6.62
% variance	56.6%	8.1%	66.2%
Factor correlation	0.69		

factors and correlated scores on each of them with the dependent variables. The correlation coefficients were virtually equal in every instance. Thus, based on the factor analytic results and on the correlations with dependent variables, we felt justified in combining all 10 PII items to form the summed scale as suggested by Zaichkowsky (1987).

In order to classify respondents as having high or low personal involvement we split the distribution at the median. Those subjects scoring 57 or lower were placed in the low involvement group, and those scoring 58 or above were classified as high in personal involvement with vacation travel.

Psychometric Performance of the PII for the Fashion Sample

The second questionnaire was distributed to women only and focused on fashionable clothing. Their scores on the PII understandably differed from those using travel services as a stimulus. The 135 women had a mean score of 48.6 ($SD = 13.3$) and a median of 50 out of a possible 70 on the summed PII. Again, responses covered the entire range of 10 to 70. Coefficient alpha was marginally higher for the category of fashion clothing at 0.95. Unidimensionality was demonstrated by exploratory factor analysis (shown in Table 1) of the second sample. The single factor had an eigenvalue of 6.6 and explained 66.2% of the total variance.

Again, with the second sample, we classified the respondents as high or low in personal involvement with fashion clothing if they scored above or below the median summed score. In this case the lower 50% had summed scores of 50 or below. They were classified as low in personal involvement with fashion. The remaining 50%, those scoring 51 to 70 on the PII, were classified as high in personal involvement with fashionable clothing.

Involvement and Demographic Characteristics

No statistically significant differences between those scoring above or below the median on the PII were found for the three demographic variables. Nor were there any significant correlations between age, education, or household income and the total PII score for either fashion or travel samples.

Personal Involvement and Travel Service Results

The travel questionnaire contained a series of 10 questions about the travel related behavior of the respondents. These questions reflected travel related behaviors that would be of interest to managers in the travel industry. Systematic differences between the more and less involved consumers would demonstrate the ability of the PII scale to

identify unique characteristics of more involved consumers, thereby improving the manager's knowledge of this key market segment. To evaluate this question we first performed a two-group MANOVA on the data using the high and low involvement groups of respondents as the independent variable and the scores on the eight travel behavior measures as dependent variables. The analysis showed a statistically significant difference between the two groups [$F(1, 129) = 2.55, p < 0.05$]. The univariate F tests showed statistically significant differences ($p < 0.05$) for seven of the eight behaviors. The final two behaviors were dichotomous and were measured with a chi-square. Neither showed significant differences between the two groups. These findings confirmed the overall usefulness of the PII in distinguishing high versus low involvement consumers. To more precisely examine the nature of the differences we found and to illustrate the managerial implications of such findings, we correlated the entire range of PII scores with the dependent variables. The results of the MANOVA and Pearson correlations can be found in Table 2.

Personal Involvement and Fashion Results

Frequency of shopping and monthly spending were significantly related to involvement. These two variables are of particular interest to marketers and can be predicted using the PII. The low involvement group reported significantly less time spent shopping than the high involvement group. Overall, PII scores were correlated with reported shopping frequency ($r = 0.30, p < 0.01$). Spending on fashion also differed across the two groups.

A series of questions about various fashion shopping habits and preferences were asked of each subject. They were included in order to demonstrate how the PII could be used to uncover characteristics of high involvement/heavy user customers or conversely, to examine the low involvement market. Again, a MANOVA with the high and low involvement groups as independent variable and the 17 behavioral measures as dependent variables was computed. This showed a significant difference between the two groups [$F(1, 101) = 5.73, p < 0.001$]. Univariate F tests showed 11 of the 16 measures to be significantly different between the two groups of women. We also computed Pearson correlations for these variables. The results of the F tests and correlations appear in Table 3.

DISCUSSION

Involvement With Vacation Travel

It is no surprise that subjects scoring higher on personal involvement also report that they are more likely to read magazines, newspaper

Table 2 Involvement and Travel Variables

Questionnaire Statement	Mean Scores		F (1, 129 df)	r
	Low Invol. $n = 73$	High Invol. $n = 71$		
How often do you read *Travel and Leisure* or other travel magazines?[a]	2.3	2.8	5.71*	0.34**
How often do you read the travel section of the newspaper?[a]	2.8	3.2	NS	0.34**
How often do you watch television programs about vacations and travel?[a]	2.8	3.3	8.55**	0.35**
How often do you visit with or speak to a travel agent about vacation plans?[a]	2.3	2.8	6.85**	0.34**
Have you ever attended a travel show?[b]	0.5	0.6	NS	NS
How often do you read travel books or books about traveling?[a]	2.3	2.8	6.78**	0.33**
How often do you travel for vacation purposes?[a]	2.9	3.5	12.32**	0.43**
How many vacation trips have you been on in the past year?[c]	2.0	3.3	9.51**	0.34**
Do you belong to any travel clubs such as AAA?[d]	41.7%[e]	39.8%[e]	NS	NS
Do you own a vacation home, condo, time share, or motor home?[d]	21.4%[e]	15.7%[e]	NS	NS

[a]Responses to this item were measured as 5 = Frequently, 4 = Often, 3 = Sometimes, 2 = Rarely, 1 = Never. [b]Responses to this item were measured as 0 = Never, 1 = One Time, 2 = More Than Once. [c]This was an open-ended question. [d]Responses to this item were measured as 1 = yes, 0 = no. A chi-square was used as a test statistic for these two questions. [e]These are the percent of subjects answering "yes" in each group.

*$p \le 0.05$. **$p \le 0.01$.

articles, books, and watch television shows about travel. What this shows is not only that more involved persons engage in more product related behaviors, but that the PII does a good job of measuring involvement. Furthermore, a marketer could design questions pertinent to the issues facing his or her business and use them along with the PII to profile important market sgements. This is especially valuable because, given the findings in this study, using the PII to classify or segment customers is likely to be more revealing than the use of demographics alone.

The second group of questions dealt with exposure to vacation travel promotions. Although the high involvement group did consult more often with travel agents, they did not differ statistically from the low involvement subjects in frequency of travel show attendance. The travel show example is important in that it may be revealing that such promotional tools are not drawing the type of customers that managers

Table 3   Fashion Involvement and Fashion Related Behavior

Questionnaire Statement	Mean Scores		F (1, 101 df)	r
	Low Invol. $n = 55$	High Invol. $n = 54$		
How often do you read *Vogue* or other fashion magazines?[a]	2.0	3.1	25.75**	0.57**
How often do you read the fashion clothing articles in the newspaper?[a]	2.5	3.4	14.89**	0.43**
How often do you watch television programs relating to clothing styles?[a]	2.3	3.4	28.68**	0.60**
How often do you check to see if the fashion items shown in fashion magazines are available at stores?[a]	2.1	3.1	29.61**	0.54**
How often do you attend fashion shows and other fashion events when they take place in your community?[a]	1.9	2.7	16.89**	0.41**
After attending a fashion show at a shop or department store I purchase the featured merchandise.[a]	1.7	2.3	12.25**	0.43**
I look for the items featured on mannequins or in other displays in stores.[a]	2.7	3.4	23.73**	0.53**
I make bigger purchases from stores that have sales associates who are knowledgeable about their store's merchandise.[a]	3.0	3.8	18.57**	0.44**
When I shop, I like the sales associate to help me in putting together an outfit.[b]	2.7	3.0	NS	0.21*
I like to have sales associates assist me by getting other things for me to try on while I am in the dressing room.[b]	3.0	3.2	NS	0.25**
A phone call from a salesperson will encourage me to visit that store.[b]	2.5	2.9	NS	0.23*
I mix and match old and new fashion items in my wardrobe to build new outfits.[a]	3.4	4.1	15.47**	0.47**
The clothing I buy is more practical than stylish.[b]	3.9	3.1	21.94**	−0.47**
I only buy clothes and accessories that are on sale.[b]	3.3	2.7	10.34**	−0.20*
I only shop for fashion items at stores with a liberal return policy.[b]	3.4	3.3	NS	NS
After I get home I change my mind and return items I have purchased.[a]	2.5	2.2	NS	NS

[a]Responses to this item were measured as 5 = Frequently, 4 = Often, 3 = Sometimes, 2 = Rarely, or 1 = Never. [b]Responses to these items were measured as 5 = Strongly Agree, 4 = Agree, 3 = Neither Agree Nor Disagree, 2 = Disagree, and 1 = Strongly Disagree.
*$p < 0.05$. **$p < 0.01$.

most desire. Expensive promotions such as expos or trade shows need to be examined for the effect they have on sales. The PII is used here to uncover less easily apparent characteristics of travel service consumers.

The set of variables dealing with frequency of vacation travel and purchase of vacation products and services is especially revealing. The more involved customers reported traveling for pleasure more often than the others. This was to be expected. The results of the other questions are more surprising. High travel involvement customers are no different from low involvement customers in ownership of vacation homes, condos, time shares, or recreational vehicles or in frequency of membership in travel clubs such as the American Automobile Association. Ownership of vacation homes or club memberships are often used as criteria for mailing lists for travel related products and services. It is possible that vacation home ownership is more related to income than to travel interest. Persons who own vacation homes are probably more likely to spend free time there than to travel frequently to other destinations. Membership in organizations such as AAA is probably linked more to business travel frequency than to vacation frequency. Using either of these two variables as indicators of interest in travel or the frequency of vacation travel would be a mistake.

We have demonstrated that the PII is useful as a segmentation tool for vacation travel services. It is important to note that it is superior to demographics in distinguishing involved consumers. Although age, education, and income are not correlated with PII scores, are they correlated with the behavioral variables? The subject's age in years was significantly, positively correlated with only four of the behavioral questions. Older consumers were more likely to read and watch television shows about travel. This finding is not unexpected and may be due to the nature of the product under investigation. It is true that older persons are more apt to travel for vacation purposes than younger, busier persons. Still, age is not as strong a predictor of travel related behaviors as personal involvement. Educational level and income are even poorer predictors of travel consumption. More educated consumers were more likely to use travel agents, as were higher-income consumers. This is the only behavioral variable that was significantly related to these two, frequently used demographic measuring sticks. Summed scores on the PII did a much better job of identifying consumers who are likely to be important members of the travel service marketer's target market.

Involvement with Fashion

The PII worked well in identifying customers who were involved with fashionable clothing. Women with high scores spent more on clothes and shopped more often, as one might expect. They also read more about

fashion and clothing and were even more likely to seek out clothing featured in the media once inside the retailer's store. Less involved women were less active in promotional activities and less interested in shopping help from sales associates than the highly involved women. More involved customers were more interested in style than practicality and less likely to buy items on sale. On the other hand, involvement level did not affect the importance attached to liberal return policies or the propensity to return purchased merchandise.

In the fashion data, demographic variables were not nearly as efficient in identifying customers as the PII score. Age was significantly correlated with 4 of the behavioral indicators. Income had significant correlations with 12, and educational level was uncorrelated with any of the fashion behavior variables. The impact of income on variables like fashion show attendance, awareness of merchandise displays, and attraction to stores with knowledgeable sales associates is not easily explained. Still, income did not explain as many behaviors as involvement did.

The finding that return policies seemed to be of equal interest to involved and noninvolved shoppers, is an interesting one. Liberal return policies act to reduce the risk associated with making a purchase. Risk is often associated with the level of involvement (Laurent & Kapferer, 1985; Mittal & Lee, 1989). The more involved a consumer, the more that consumer will report that the purchase represents a risk. Why then would the more involved customer report no more sensitivity to return policies than the less involved? The question of how risk reducing policies work in different consumer groups might be answered by future research.

CONCLUSION

Zaichkowsky's revised PII is a short, easily administered measurement instrument. It measures personal involvement with a product category using 10, 7-point, bipolar adjectives. Although much discussion has taken place on the topic of its psychometric properties, little research had been devoted to the managerial application of the PII. This article has described two studies that demonstrate how the PII can be used to identify a market segment and delineate some of its habits and preferences. This study also demonstrates the external validity of the PII. Demonstration of this type of validity for the scale has been missing in the literature.

We realize that marketers are unable to administer questionnaires containing items designed to measure theoretical consumer behavior constructs to each of their present and potential customers. By administering a scale like the 10-item PII to a sample of customers marketers could examine a variety of possible marketing strategies on the cus-

tomers who are most likely to be interested in them. This article is not intended as a cookbook for product and service managers for the marketing of their goods; rather it is meant to give suggestions for the application of a robust and reliable measurement scale as a tool to answer a variety of marketing questions. We feel confident that the scale would reveal valuable information about involvement and consumer behavior if it were used in other, similar product and service categories.

REFERENCES

Bloch, P. H. (1986). The product enthusiast: Implications for marketing strategy. *Journal of Consumer Marketing, 3*(Summer), 51–62.

Laurent, G., & Kapferer, J. N. (1985). Measuring consumer involvement profiles. *Journal of Marketing Research, 22* 41–53.

Mittal, B., & Lee, M.-S. (1989). A causal model of consumer involvement. *Journal of Economic Psychology, 10,* 363–389.

Zaichkowsky, J. L. (1985). Measuring the involvement construct. *Journal of Consumer Research, 12*(December), 341–352.

Zaichkowsky, J. L. (1987). *The Personal Involvement Inventory: reduction, revision and application to advertising.* Working paper, Simon Fraser University.

Leisa Reinecke Flynn and Ronald E. Goldsmith are Assistant Professor and Professor, respectively, in the Department of Marketing at Florida State University, Tallahassee, FL. Please address all correspondence to Dr. Leisa Reinecke Flynn, Marketing Department, College of Business, Florida State University, Tallahassee, FL 32306-1042.