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Procedia - Social and Behavioral Sciences 57 (2012) 325 – 330

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**Procedia**  
Social and Behavioral Sciences

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International Conference on Asia Pacific Business Innovation and  
Technology Management

## The Relationship between Consumer Product Involvement, Product Knowledge and Impulsive Buying Behavior

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### Abstract

Impulsive buying behavior is a common phenomenon but the topic has so far received little academic attention. Therefore, understanding consumers' impulsive buying behavior is important for both the academic and business sectors. To the knowledge of the authors, there have been no studies that have considered the relationship between consumer product involvement, product knowledge and impulsive buying behavior. Thereby, the purpose of this study is to explore the relationship among those three variables. In this study, we use the consumer product involvement as independent variable, product knowledge as intervening variable and impulse buying behavior as dependent variable. We also add in three control variables (price consciousness, age, and consumer materialism), so that we could purify the relationship between consumer product involvement and impulse buying behavior. The main object of this study is based on the general consumer. In this study, 400 questionnaires were sent and the effective rate was 83%. Through the regression analysis found that the higher the consumer product involvement, the higher product knowledge and impulse buying behavior. Finally, implications for managers and scholars are also discussed.

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Keywords: Consumer product involvement; product knowledge; impulse buying behavior

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### 1. Research background, motivation and purpose

Impulse buying behavior of large-scale studies began in the 1950s. In this period, DuPont and consumer buying habits of the point of purchase advertising agencies for more than fifty kinds of products out of the survey will describe the preliminary outline of impulse buying [12, 19, 9, 21].

Impulse buying behavior for consumer seems to imply that some of the more negative thoughts, such as spending money excessively, making impractical purchases, bearing uncertainty and risks in terms of product quality and functions, and even harboring a sense of guilt or social nonidentity.

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Therefore, impulse purchasing behavior is often considered irrational, immature, or highly risky [1, 8, 16, 13].

However, consumers in their daily life and behavior, unplanned impulse buying behavior accounted for a large proportion. Consumer impulse buying behavior in the frequency is quite high, but they are often for their own impulses buying behavior without consciousness. Especially in domestic banks for credit and debit card under the strong sales, there are about nine million people in Taiwan fall into impulse buying [20]. It is estimated that approximately two thirds of the purchase decision is developed in the store. In some product categories, unplanned purchasing rates are high: 85% for candies and chewing gums, 75% for dental hygiene products, and 70% for cosmetics. The purchase of these products is considered unplanned purchases [17]. In addition, impulse purchasing behavior can also be applied to purchases like TVs, VCRs, microwaves, furniture, and holiday travel products [14, 12]. Through the above description and we can know that almost any thing may be impulse buying. Therefore, understanding consumers' impulse purchasing behavior is important for businesses and marketers.

Moreover, in a study of the Taiwan Beverage Industries Association in 2003, total sales for Taiwan's beverage market reached NT\$46.9 billion in 2002. The biggest product category is "tea beverage," accounting for NT\$13.5 billion of total sales. Based on the sales trend, tea beverage is growing at an annual rate of 3% to 4% [4]. Therefore, we have chosen tea beverage as the reserach category. According to the research background and motivation, this study has the following purpose: (1) To explore the relationship between consumer product involvement and product knowledge; (2) To explore the relationship between product knowledge and impulse buying behavior; (3) To explore the relationship between consumer product involvement and impulse buying behavior. [22]

## 2. Research framework

Based on the background and motivation, this study proposes a research framework shown in Figure 1. In this study, we use the consumer product involvement as independent variable, product knowledge as intervening variable and impulse buying behavior as dependent variable. We also add in three control variables (price consciousness, age, and consumer materialism), so that we could purify the relationship between consumer product involvement and impulse buying behavior.

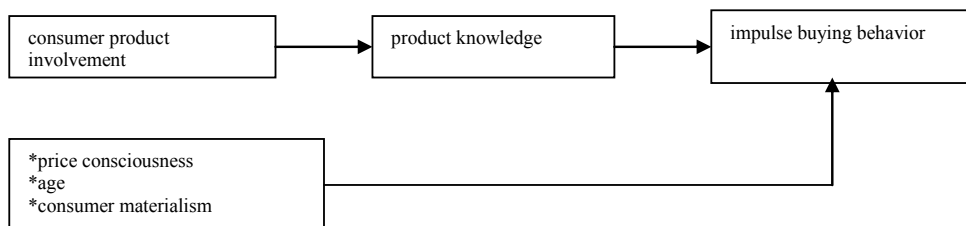


Figure 1 Research framework

## 3. Hypothesis

- H1: Consumer product involvement is positively correlated with product knowledge, implying that the higher the degree of consumer product involvement, the higher their product knowledge.
- H2: Consumers' product knowledge is positively correlated with impulse buying behavior, implying that the higher the degree of consumers' product knowledge, the higher their impulse buying behavior.
- H3: Consumer product involvement is positively correlated with impulse buying behavior, implying that the higher the degree of Consumer product involvement, the higher their impulse buying behavior.

## 4. Method

### 4.1 Sample and procedure

This study uses individual consumers as basis for our analysis. According to data from Taiwan Beverage Industries Association in 2003, total sales for Taiwan's beverage market reached NT\$46.9 billion in 2002. The biggest product category is "tea beverage," accounting for NT\$13.5 billion of total sales. Based on the sales trend, tea beverage is growing at an annual rate of 3% to 4% [4]. Therefore, we have chosen tea beverage as the reserach category.

Although 400 respondents volunteered for the study, incomplete questionnaires and those that defy common sense (consistent reaction or rule changes demonstrated when answering the questions) were removed to preserve validity. A total of 332 samples were deemed valid, of which 54.2% (n=180) were male, 45.8% (n=152) were female; average age was 26.16 years.

### 4.2 Measurement

Consumer product involvement is defined as "The product's level of concern and attention for consumers." This study adopted the 6-item scale developed by Kapferer and Laurent [7], e.g. "When I buy the tea beverage, product information is very important to me." and "I will carefully compare different tea beverage quality is good or bad before purchasing." Anchors for the 5-point Likert scale ranged from "Strongly disagree" to "Strongly agree". Higher scores indicated that respondents are more product involvement. In this study, the product knowledge is defined as: comparison with others, consumers have the knowledge of the tea beverage. This study uses the scales developed by Bloch, Ridgway and Sherrell [3] to measure the tea beverage knowledge. The following questions are asked: "Do you think you have the knowledge about the tea beverage?" "Compared to your friends, do you think you have knowledge about the tea beverage?" "On the whole, do you think you have knowledge about the tea beverage?" "In your daily lives, how much information about the tea beverage do you think you can attain?" "Compared to your friends, how much time do you spend browsing articles related to the tea beverage in newspapers and magazines?" Questions are answered according to five-point Likert-scale from "no knowledge" to "a lot of knowledge." The higher the tea beverage knowledge on the part of the respondent, the higher their score is. Impulse purchasing behaviour is defined as unplanned, sudden and immediate purchasing option. This study adopted the 4-item scale developed by Donthu and Gilliland [6], e.g. "Usually my purchasing is unplanned." "I like to buy spontaneously", and "When shopping, I always think very carefully". Anchors for the 5-point Likert scale ranged from "Strongly disagree" to "Strongly agree". Higher scores indicated higher tendency for impulse purchasing behaviour.

### 4.3 Control Variables

In addition to consumer product involvement, many other variables influence impulse purchasing behavior. Therefore, this study controlled the factors empirically tested by past scholars to be influential to impulse purchasing behavior in order to isolate the relationship between consumer product involvement and impulse purchasing behavior. The control variables in this study included price consciousness, age, and consumer materialism. Price consciousness was defined as "the level of consumers' sensitivity to price and being attracted to low prices". This study adopted the scale developed by Shim and Gehrt (1996), which was modified from Sproles and Kendall [18]. The scale contained 3 items, which included "I generally choose low-priced products" and "I would look carefully for products on discount". Anchors for the 5-point Likert scale ranged from "Strongly disagree" to "Strongly agree". Consumer materialism is defined as "individual consumers have a value; it epitomizes the importance of the consumer favorite material possession [2, 11, 10] ". This study adopted the 5-item scale developed by Clark, Martin, and Bush [5], which included items like "Have a decent thing to me is important." and "I wish I could rich enough so that I can buy anything I like." Anchors for the 5-point Likert scale ranged from "Strongly disagree" to "Strongly agree".

## 5. Results

### 5.1 The correlation coefficient matrix of variables

The independent variables of this study are: consumer product involvement, intermediate variables as follows: product knowledge, dependent variable was: impulse purchasing behaviour. Control variables are: price consciousness, age, and consumer materialism. Between the various variables, Pearson product-moment correlation coefficient analysis, as shown in table 1.

Table 1 shows the correlation coefficient matrix: consumer product involvement and product knowledge were positively correlated, and reached a statistically significant ( $r = 0.280, P < 0.01$ ); product knowledge and impulse purchasing behaviour were positively correlated, and reached a statistically significant ( $r = 0.193, P < 0.01$ ); consumer product involvement is positively related to impulse purchasing behaviour, and reached a statistically significant ( $r = 0.180, P < 0.01$ ).

Table 1 The correlation coefficient matrix of variables

	product involvement	product knowledge	impulse purchasing	price consciousness	materialism	age
product involvement	----					
product knowledge	0.280**	----				
impulse purchasing	0.180**	0.193**	----			
price consciousness	0.127*	0.161**	0.202**	----		
materialism	0.216**	0.231**	0.296**	0.307**	----	
age	-0.090	0.019	-0.115*	-0.063	-0.123*	----

Note : \*  $P < 0.05$  ; \*\*  $P < 0.01$

### 5.2 Consumer product involvement and product knowledge

The analysis from the table 2 shows that: Consumer product involvement on the product knowledge are significant predictors,  $\beta$  value is positive 0.280, reached a significant level of 0.01; that is, the higher the consumer product involvement, its has higher knowledge of the product. Therefore, the assumption 1 was supported.

Table2 Regression of consumer product involvement and product knowledge

variable	$\beta$ coefficient	R-square	Adjusted- R-square	F-ratio
product involvement	0.280**	0.079	0.076	28.173**

Note : \*  $P < 0.05$  ; \*\*  $P < 0.01$

### 5.3 product knowledge and impulse purchasing behaviour

However, in order to clarify the relationship between product knowledge and impulse purchasing behavior, this study further used hierarchical multiple regression to test H2: product knowledge is positively correlated with impulse purchasing behavior. Control variables (price consciousness, age, and consumer materialism) were entered in Step 1 to eliminate the impact of these factors. In Step 2, product knowledge was entered to help determine the relationship between product knowledge and impulsive purchasing behavior after controlling all other factors (refer to Table 3). Results from Table 3 indicated that consumers' product knowledge explained 1.2% of the total variance in impulse purchasing behavior after controlling sex, age and price consciousness. Also, the coefficient was 0.125, reaching the significance level of 0.05. Therefore, H2 of this study was supported: the higher the level of consumers' product knowledge, the higher the tendency for impulse purchasing behavior.

Table3 Regression of product knowledge and impulse purchasing behaviour

variable	$\beta$ coefficient	R-square	Adjusted- R-square	Incremental R square	F-ratio
Control variable					
price consciousness	0.108*				
materialism	0.223**				
age	-0.084	0.107	0.099		
product knowledge	0.125*	0.122	0.111	0.012	11.315**

Note : \*  $P < 0.05$  ; \*\*  $P < 0.01$

#### 5.4 Consumer product involvement and impulse purchasing behaviour

Also, because the higher the level of consumers' product involvement, the higher their impulsive purchasing behavior, this study further utilized hierarchical multiple regression to test the relationship between consumers' product involvement and impulse purchasing behavior. That is, when product knowledge was higher due to higher consumers' product involvement, would impulse purchasing behavior result? In Step 1, control variables for this study were entered (price consciousness, age, and consumer materialism). In Step 2, consumers' product involvement was entered to examine the effect of consumers' product involvement on impulse purchasing behavior after controlling other relevant factors. The results are presented in Table 4. According to Table 4, after controlling variables such as price consciousness, age, and consumer materialism, consumers' product involvement could explain 0.90% of the total variance in impulse purchasing behavior. The coefficient was 0.110 reaching the significance level of 0.5. Therefore, consumers' product involvement was found to be positively correlated with impulse purchasing behavior: the higher the consumers' product involvement, the higher their impulse purchasing behavior.

Table4 Regression of product involvement and impulse purchasing behaviour

variable	$\beta$ coefficient	R-square	Adjusted- R-square	Incremental R square	F-ratio
Control variable					
price consciousness	0.114*				
materialism	0.228**				
age	-0.070	0.107	0.099		
product knowledge	0.110*	0.118	0.108	0.009	10.969**

Note : \*  $P < 0.05$  ; \*\*  $P < 0.01$

## 6. Conclusion

Through empirical analysis of this study showed that the higher the degree of consumer product involvement, the higher its product knowledge. Therefore, this study suggests that companies can target those consumers consumption less frequently to enhance their product knowledge, such as: issuing DM, multimedia advertising or advertisements published in newspapers and magazines.

Furthermore, in the relationship between the product knowledge and impulse buying behavior. Through this empirical study shows that the higher the consumer's product knowledge, the higher the impulse buying behavior. Therefore, this study suggests that companies may wish to emphasize with the differences between industry, so as to enhance consumers' impulse buying behavior, for example: own brand, product or brand extension.

On the other hand, the results of this study also showed that the higher the degree of consumer product involvement, the higher the impulse buying behavior. Therefore, this study suggests that enterprises with higher frequencies for the consumer groups, provide more detailed product knowledge, as well as manufacturers and other product differences, such as: quality, service, taste, convenience and so on. In addition, enterprises for lower frequency of consumption of consumer groups provide basic product knowledge in order to make it a smart consumer.

Although impulse purchasing behavior is considered essentially a widespread phenomenon, regional market conditions, exchange paradigms and different culture forces influence such a behavior [12]. Also, cultural diversity has always been a critical component in the study of consumption behavior. Therefore, examining the effect of different culture situations on the relationship between consumer product involvement and impulse purchasing behavior should be an outstanding topic for future studies because this would help extend the theory of impulse purchasing behavior.

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