

Full Length Research Paper

Impulse buying: the role of store environmental stimulation and situational factors (An empirical investigation)

Mohammad Mahmoudi Maymand and Mostafa Ahmadinejad*

Department of Business Administration & MBA, Payame Noor University, PO Box 19395-3697 Tehran, Iran.

Accepted 12 September, 2011

This study aims to examine the role of environmentally induced stimulation in influencing impulse buying. In addition, the authors seek to investigate the impact of two situational factors (availability of time and money) on impulse buying. The present research empirically tests a theoretical model of impulse buying by examining the associations between impulse buying and environment of store, visual merchandising, promotions, impulse buying tendency (IBT), examination goods and availability of time and money. A total of 329 customer surveys were collected and these were analyzed using partial least squares (PLS). Findings show that promotion environment of store and examination of goods have most related with impulse buying behavior. On other hand, results prove that there is not significant relationship between customers' impulse buying behaviors and two situational factors (availability of time and money) and visual merchandising. This study provides insights to retailers about types of environment of store that can influence consumers' impulse buying behaviors.

Key words: Impulse buying, customers, environment of store, visual merchandising, impulse buying tendency (IBT), promotions.

INTRODUCTION

Impulse buying is one of the widespread and epidemic phenomena of the lifestyle which has been the focal point of several researches and theories (Rook and Fisher, 1995). Among the whole purchases in U.S., approximately four (4) billion dollars are being spent on impulse buying; this rate involves about 80% of whole sale in certain product categories (Kacen and Lee, 2002). Most shoppers occasionally engage in impulse buying (Welles, 1986). More than half of mall shoppers were found to

purchase on impulse (Nichols et al., 2001) and over one third of all department store purchases have been made on impulse (Bellenger et al., 1978) indicating that impulse purchases are critical to a retailer's profit. According to Economist (2000), almost a quarter of Amazon.com's sales were made by encouraging impulse purchases through product recommendations (Dawson and Kim, 2009). In fact, a lot of purchases fulfill when the customers get surrounded by some sort of excitement (Underhill, 1999) and more than half of purchases are spontaneous. Moreover, new forms of purchase like TV and internet forms, allows the customers to do more purchases due to the easier access to product (and services) and the ease of impulse buying. Unplanned purchase is one of the most important characteristics for understanding the purchase behavior and the customers (Park and Kim, 2008). Researchers agree that a specific

*Corresponding author. E- mail: ahmadinejad@phd.pnu.ac.ir.
Tel: (+98) 912 638 0493.

Abbreviations: PLS, Partial least squares; IBT, impulse buying tendency; OLS, ordinary least squares; AVE, average variance extracted

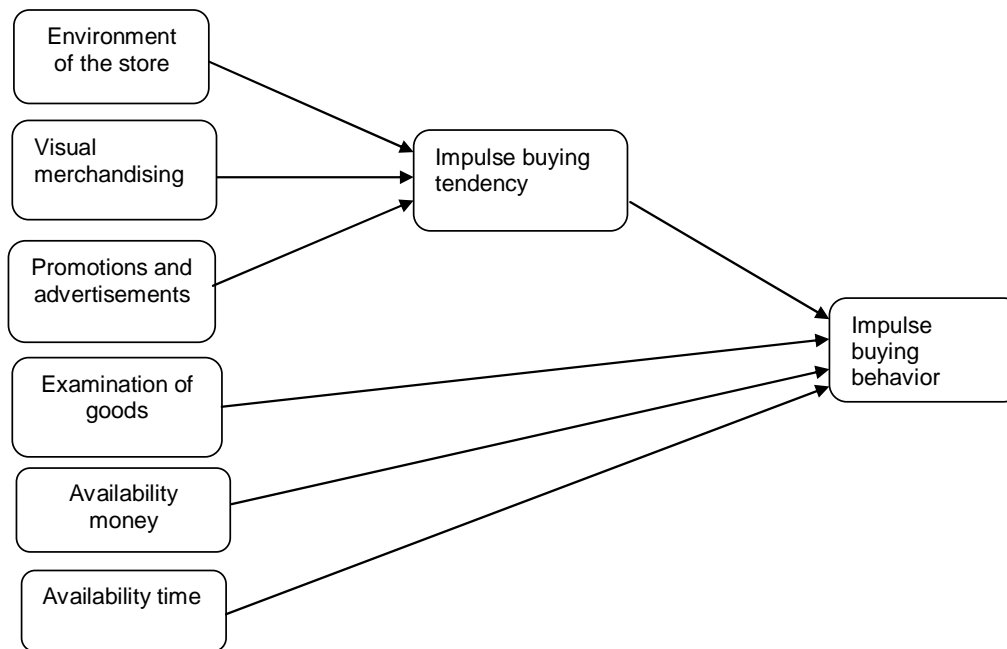


Figure 1. Overview of the research design.

pleasuring stimulus in the customers will lead to such behaviors. According to the results of several researches, impulse buying satisfies the needs for entertainment, excitement, social interaction and pleasure-related satisfactions in the customers. The purpose of the present research is to investigate the effects of environmental and situational stimuli and factors on impulse buying and presenting a model for customers' impulse buying.

This study explores a model of impulse buying in conjunction with store environmental stimulation and situational aspects of consumption among store chain customers. The findings of the study are expected to add to existing literature by providing insight into consumers' impulse buying behavior. Understanding impulse buying behavior offers retailers guidance in developing strategies that create shopping opportunities. These marketing strategies may help retailers manage to highly encourage their purchase intentions. The benefits include an increased market share for retailers and positive perceptions of impulse buying by consumers. Consumers are expected to benefit from the findings of this study by being more aware of factors affecting their own impulse-buying behaviors.

In this paper, the role of environmental stimulation in driving impulse buying was first examined. Environmental stimulation included external stimuli, environment of the store and visual merchandising. The external stimuli of impulse buying refer to marketing stimuli which are controlled and conducted by the marketers, in this study, promotions and advertisements are investigated as major

aspect of external stimuli. Environment of the store containing physical attractiveness of a store include arrangement of the commodities, lighting and using the colors. Visual merchandising refers to communicate a store/company's fashion value and quality image to prospective customers. Then, examination of goods as one of the characteristics of goods was carried out.

Finally, combined effects of two types of situation factors (that is, availability of money and time) on impulse buying were investigated. Prior research has studied these factors in isolation, while their joint impact on impulse buying remains unknown. An overview of the research design is shown in Figure 1.

Conceptual definition of impulse buying

Impulse buying is defined as a complicated, spontaneous, sudden, and unnecessary behavior in which the high speed of decision-making procedure suppresses the rational and wise scrutiny about the details and other options. Compared with the planned purchase, impulse buying occurs with more excitement and less carefulness and it is usually inevitable. Although at the first sight, impulse buying may seem a simple concept, but if being precisely looked, it will appear to be a complicated and multidimensional concept (Harmancioglu et al., 2009). Piron (1991) conducted a review of definitions of impulse buying and concluded that none of them fully described this interesting and complex phenomenon. He identified

Table 1. Measurement reliability and validity.

bleVaria	AVE(>0.5)	Pc (>0.6)	R Square	Cronbachs alpha
Environment of the store	0.6255	0.7210	0.000	0.8722
Visual merchandising	0.6020	0.7084	0.000	0.8695
Promotions and advertisements	0.7690	0.8794	0.000	0.9100
Examination of goods	0.5662	0.6931	0.000	0.7915
Availability money	0.6821	0.7124	0.000	0.7602
Availability time	0.5891	0.7583	0.000	0.8843
Impulse buying tendency	0.5522	0.6214	0.662	0.7099
impulse buying behavior	0.5190	0.6328	0.273	0.7840

thirteen dimensions which were common across these various definitions of impulse buying proposed by different researchers (Parboteeah, 2005). These thirteen dimensions are summarized in Table 1.

Piron (1991) integrated these definitions and proposed a comprehensive definition: "Impulse buying is a purchase that is unplanned, the result of an exposure to a stimulus, and decided on-the-spot. After the purchase, the customer experiences emotional and/or cognitive reactions"

Characteristics of impulse buying

The three characteristics which distinguishes impulse buying from other purchase behaviors are (1) being unintended or unwanted; (2) being unreflective; and (3) spontaneous or sudden (Jones et al., 2003). The unintended purchase refers to a situation in which the consumer is not actively look for the product but buys it. Unreflective purchase refers to the lack of evaluating the product by the customer and his reluctant to think about its long-term results (Rook, 1987) and to cursorily evaluate its short-time results in mind (Wittmann and Paulus, 2008; Dawson and Kim, 2009). The third characteristic relates to the immediacy in purchase in which the time period between seeing the product and buying the product is very short (Lee and Kacen, 2008). Impulse buying is a rapid action, that is, the customer tends to buy the product immediately after seeing it without any scrutiny (Dawson and Kim, 2009).

Verplanken and Herabadi (2001) identified two main dimensions of impulse buying; the first one is the lack of planning, thinking, and reflecting. Principally, what distinguishes the impulse buying from planned purchase, is the quality and quantity of the information being analyzed before purchase, and the time period being spent between seeing and buying (Lee and Kacen, 2008). The spent time for impulse buying is very short in comparison with the planned purchase because lesser information is processed by the consumer and no evaluation upon the long-term consequences is done (Jones

et al., 2003; Wittmann and Paulus, 2008; Lee and Kacen, 2008). The second dimension of impulse buying relates to exciting senses as proposed by Verplanken and Herabadi (2001). Impulse buying forms in response to powerful internal excitements. During the purchase process, the consumers experience the senses like excitement, pleasure, fray, and satisfaction (Hausman, 2000; Sivera et al., 2008).

External stimuli

In impulse buying, the consumers are being affected by internal and environmental factors (Dawson and Kim, 2009), since the behavior of impulse buying is usually formed by the stimuli (Rook and Fisher, 1995; Dawson and Kim, 2009). The external factors of impulse buying refer to marketing stimuli which are controlled and conducted by the marketers in order to attract the attention of the customers (Youn and Faber, 2000; Dawson and Kim, 2009). When consumers are exposed to stimuli like promotional incentives, they can have high motivations for impulse buying (Dholakia, 2000). External marketing stimuli do not only absorb new customers but increase the purchase volume of current customers by encouraging the impulse buying of ordinary products or better products (Dawson and Kim, 2009). External factors contain features like the light, decoration of the shop, and commercial brands, integrated sale techniques, and marketing activities (Levy and Weitz, 2007).

Environment of the store

Specific situations and retail settings influence both in-store responses and future store choice decisions because of the changing and adoptive nature of expectations, preferences, and behavior (Hausman, 2000). For instance, Darden et al. (1983) showed that consumers' belief about the physical attractiveness of a store had a higher correlation with a choice of a store than did merchandise quality, general price level, and selection.

This point shows that the environment of the store and its view is most effective on selecting the store, and the state of visual merchandising in the store plays a critical role in this regard (Kim, 2003). Similar to this opinion, Bowers (1973) believes that the people welcome or avoid a situation on basis of their interests. Stern (1962) showed that the widespread advertisement and beautiful showcases are very effective on impulse buying. Moreover, the goods that are more expensive and need more time and energy to buy, usually are not purchased impulsively. Kollat and Willett (1967) showed that impulse buying is usually being done in prolix purchases and in sizable stores more than rapid purchases. Babin and Kim (2001) affirmed that the store space containing arrangement of the commodities, lighting, and using the colors can significantly affect the purchase behavior of the consumers and can help developing the long-term stable interaction with the consumers. The store stimuli serves as a type of information aid for those who go to the store without any predetermination of what they need or buy, and once they get into the store, they are reminded or get an idea of what they may need after looking around the store. In other words, consumer's impulse buying behavior is response made by being confronted with stimuli that provoke a desire that ultimately motivate a consumer to make an unplanned purchase decision upon entering the store (Kim, 2003). The more the store stimuli, such as visual merchandising, serves as a shopping aid, the more likely the possibility of a desire or need arising and finally creating an impulse purchase (Han, 1987; Han et al., 1991).

Visual merchandising

Visual merchandising is defined as "the presentation of a store/brand and its merchandise to the customer through the teamwork of the store's advertising, display, special events, fashion coordination, and merchandising departments in order to sell the goods and services offered by the store/company" (Mills et al., 1995). Visual merchandising, or visual presentation, is the means to communicate a store /company's fashion value and quality image to prospective customers. "The purpose of visual merchandising is to educate the customers enhance the store/company's image and to encourage multiple sales by showing apparel together with accessories" (Frings, 1999). Thus, every store tries to improve the images of the store and to do so, it appeals to the commodities interesting for the customers and make them faithful to that brand and encourage their purchase behavior. Visual merchandising can be fulfilled by presenting a specific brand via the working-group advertisements of the store, displaying, or performing in coordination with the fashions and commercial departments so that the store can sell the commodities and

services of the company to the customers (Kim, 2003). Frings (1999) showed that customers usually analyze the show cases inside and outside the store in which the mannequins, arrangement of the commodities accessible to the customers, and commercial brands are very important.

Impulse buying tendency (IBT)

In addition to environmental factors, the internal factors have a significant role in increasing the tendency to impulse buying as well (Beatty and Ferrell, 1998; Verplanken and Herabadi, 2001; Harmancioglu et al. 2009). These factors are based on the personality of the consumer. So, the main focus lies on the individual not on the external environment. The internal factors of impulse buying directly zoom on the individual. In this regard, the internal stimuli and the personal characteristics which encourage them to impulse buying are very important to investigate.

IBT is defined as the "degree to which an individual is likely to make unintended, immediate, and unreflective purchases" (Jones et al., 2003). Several researchers have suggested that consumers' personality traits can exemplify impulsive behavior more than other traits (Beatty and Ferrell, 1998; Rook and Fisher, 1995; Weun et al., 1998).

Research contends that these personality traits can help determine the degree of a person's IBT (Beatty and Ferrell, 1998; Rook and Fisher, 1995). Youn and Faber (2000) found that consumers with a higher IBT were more likely to be affected by marketing stimuli such as advertisements, visual elements, or promotional gifts and thus engage in in-store browsing and tend to respond more frequently on urges to buy impulsively.

Characteristics of goods

Parboteeah (2005), states that some goods are bought impulsively more often than the others. Butkeviciene et al. (2008) confirm probability that whether the goods will be bought impulsively depends on category, price and symbolic meaning of the goods. Stern (1962) suggests that the probability of impulse buying is higher for the products which are less expensive or have a shorter production cycle. Bellenger et al. (1980) also believe that IBT differs among the different products. Following Parboteeah (2005), price of goods is an important factor of impulsive buying as well. Specifically, consumers tend to be impulsive during the time of sale or discounts. Though Bayley and Nancarrow (1998), basing on Narasimhan and others (1996), state that price based purchasing not always coincides with impulsive purchasing. Examination of goods is important in the

process of impulsive purchasing. Consumers tend to examine goods and usually buy more as those who have no such tendency (Jarboe and McDaniel, 1987 based on Parboteeah, 2005).

Situation factors

Parboteeah (2005) basing on Dholakia (2000), states that situation factors are environmental and individual factors that have influence on impulsive. Beatty and Ferrell (1998) found that time pressure reduced unplanned purchases in an experiment while time availability has been positively linked to search activity in a retail setting. Thus, all other things being equal, individuals with more available time will browse longer (Beatty and Ferrell, 1998). A second situational variable that is likely to positively influence impulse purchasing is the amount of budget or extra money the individual perceives she or he has to spend on that day (that is, money available). For example, Jeon (1990) found a marginal association between perceived extra money and impulse purchasing (Beatty and Ferrell, 1998).

Hypothesizes

- H₁: environment of the store is positively related to IBT
 H₂: visual merchandising is positively related to IBT.
 H₃: promotions and advertisements are positively related to IBT.
 H₄: Examination of goods is positively related to impulse buying behavior.
 H₅: Availability money is positively related to impulse buying behavior.
 H₆: Availability time is positively related to impulse buying behavior
 H₇: Impulse buying tendency is positively related to impulse buying behavior.

METHODS

Data for this study was collected by the means of a survey conducted in Iran in 2011. Because statistical population of this research is large and unknown, Crochan formula is used to determine sample size, by assuming: $p=.5$ (maximum variability), $\alpha=.05$ and $\epsilon=.05$, sample size determined 385. A total of 385 questionnaire forms were delivered to respondents of which 329 were returned giving a response rate of 85%. By consulting with retail's marketing managers, Tehran city was divided into five geographical region which are, north, south, east, west and central regions, and based on the amount of retail's branch, customer and variety of services offering in per region selected one branch as a sample and randomly distributed 70 questionnaire there. This resulted in a sample that was well distributed in terms of demographic information. To test for response bias, one-way analysis of variance (ANOVA) was conducted to test whether there were any significant differences in our variables based on the

respondents' gender, age, education and income. Non-significant results indicated no evidence for response bias. The questionnaire consisted of questions that were related to background. Likert five-point scales ranging from "strongly agree" to "strongly disagree" were used as a basis of questions.

Analysis

In this study, the proposed model using partial least squares analysis (PLS) was examined (Appendix 1). It is selected PLS that was used to test the hypotheses since it is intended for causal-predictive analysis in explaining complex relationships (i.e. high number of indicators) with collinear factors (Fornell and Bookstein, 1982; Hulland, 1999). The objective of PLS, first proposed by Wold (1985), is the maximization of the explained variance for the indicators and latent variables by ordinary least squares (OLS). Following a series of OLS analyses, PLS optimally weighs the indicators so that the researcher can obtain a latent variable estimate. Accordingly, PLS avoids the indeterminacy problem and provides an exact definition of component scores. Scholars hold that, PLS is superior to other techniques (such as factor analysis and multiple regression) because it tests the measurement model within the context of a structural path model (Fornell and Larcker, 1981). Compared to other path-analytic techniques, PLS requires minimal demands on measurement scales, sample size, and residual distributions (Barclay, 1991).

RESULTS AND DISCUSSION

Reliability and validity

Reliability of measurement model were analyzed in two sections; one related to each reflective index and its corresponding construct which is displayed with the loading value, and the other is the composite reliability of all reflective indices with the corresponding construct to determine the interior correlation of measurement model. The proper reliability value for each index with its corresponding construct is at least 0.6 (Sosik et al., 2009) and for the composite reliability (ρ_c) it is at least 0.7 (Sosik et al., 2009; Fornell and Larcker, 1981) The loading of all reflective indices with their corresponding constructs is more than 0.6 and the composite reliability is more than 0.7 (Table 2). These reliability coefficients ranged from 0.71 to 0.85, providing strong support for each latent variable. Measurement validity is assessed with the convergent validity index. Convergent validity indicates that the indices of each construct have to be median correlated with each other. The criterion for convergent validity is that the average variance extracted (AVE) has to be more than 0.5. AVE coefficients show the percentage of the construct variance or model variable has been analyzed by a separate component. The outputs of PLS show that the variables have AVE more than criterion index 0.5 (Table 2). Thus, it can be concluded that the components can sufficiently analyze the variance of the variables of research model. So the measurement model is properly valid.

Table 2. Measurement reliability and validity.

Variable	AVE(>0.5)	Pc (>0.6)	R Square	Cronbachs alpha
Environment of the store	0.6255	0.7210	0.000	0.8722
Visual merchandising	0.6020	0.7084	0.000	0.8695
Promotions and advertisements	0.7690	0.8794	0.000	0.9100
Examination of goods	0.5662	0.6931	0.000	0.7915
Availability money	0.6821	0.7124	0.000	0.7602
Availability time	0.5891	0.7583	0.000	0.8843
Impulse buying tendency	0.5522	0.6214	0.662	0.7099
impulse buying behavior	0.5190	0.6328	0.273	0.7840

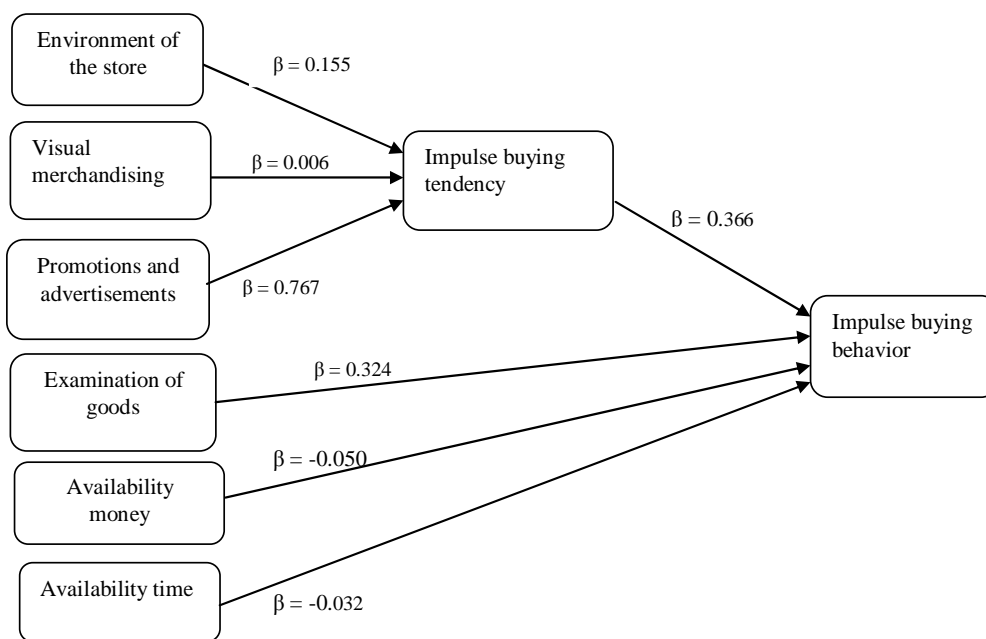


Figure 2. Structural model.

Structural model

The PLS construct level statistics (AVE and information collection request (ICR), previously explained) indicate a fit for the manifest variables to the latent variables; however, they do not give an indication of overall model fit or how the latent variables co-vary with one another. Since PLS is designed to maximize prediction, the emphasis is put on explanatory power to maximize variance in the dependent variables based on the independent variables in the model (Harmancioglu et al., 2009). Consequently, the degree to which PLS models accomplish this objective is evaluated based on prediction oriented measures (R^2 ; instead of covariance fit as is attempted in mean±standard error (SEM)) (Fornell and Bookstein, 1982; Barclay, 1991). Figure 2 depicts the structural path coefficients. Table 3 shows the

results for the hypothesized model: variance explained for each dependent construct is shown, along with an indication of the significance of the hypotheses.

Consistent with H_1 , environment of the store was significantly related to IBT ($\beta = 0.155$, $\rho < 0.05$). This result is similar to the results of Beatty and Ferrell (1998), and Kim (2003). The relation between the visual merchandising and IBT was not confirmed, H_2 not supported ($\beta = 0.006$, $\rho > 0.05$). In contrast to this result, kim (2003) showed the significant relation between the visual merchandising and impulse buying. Promotions and advertisements are positively related to IBT ($\beta = 0.767$, $\rho < 0.5$). Supporting H_3 , Dawson and Kim (2009), Virvilaite et al., (2009) and kim (2003) have confirmed this relation as well. Examination of goods and IBT are positively related to impulse buying behavior ($\beta = 0.324$, $\rho < 0.5$; $\beta = 0.366$, $\rho < 0.5$) supporting H_4 and H_7 . The

Table 3. Variance explained (R^2) and estimated path coefficients.

Criterion	Predictor	Estimate	T-statistics	Conclusion
Environment of the store	Impulse buying tendency ($R^2 = 0.662$)	0.155	2.030	Support
Visual merchandising		0.006	0.430	Not Support
Promotions and advertisements		0.767	6.730	Support
Examination of goods	impulse buying behavior ($R^2 = 0.273$)	0.324	2.766	Support
Availability money		-0.050	0.710	Not Support
Availability time		-0.032	0.625	Not Support
Impulse buying tendency		0.366	2.293	Support

results of Virvilaite et al. (2009) show that there is relation between the availability of testing the product and impulse buying. Jones et al. (2003) and Beatty and Ferrell (1998), have also confirmed the positive relation between the IBT and impulse buying behavior. Both of situational factors, i.e. availability of time and money not related to impulse buying behavior ($\beta = -0.50$, $p > 0.05$; $\beta = -0.032$, $p > 0.05$). Contrast to this hypothesis, Beatty and Ferrell (1998) and Virvilaite, et al., (2009) have shown the positive relation between the customer's availability time and money and impulse buying behavior.

CONCLUSION AND SUGGESTIONS

The main goal of this paper is to present a model for customers' impulse buying on the basis of environmental stimuli and situational factors. In this regard, the concepts and theoretical foundations of the research were reviewed first and then the research models were read. Regarding the researches in the recent past years, finally a composite model was presented to explain the impulse buying behavior. In this regard, the questionnaires of the research were distributed among the customers of five branches of Shahrvand shopping center. The data were analyzed via the path analysis. The results show that promotions and advertisements have the most effects on customers' IBT; since the promotions and advertisements are influential factors on impulse buying, the managers and policy makers of the retailing stores can facilitate the conditions of purchase by executing lotteries among the customers, discounts for different and exploiting some efficient personnel so that the customers being encouraged to buy. According to the result of present research, the environment and space of the store affects the impulse buying. As mentioned in the literature review, impulse buying usually takes place in long purchases and in big stores more than rapid purchases. Besides, store browsing increases the probability of impulse buying. Much more, the customers walk inside, much more the probability of impulse buying. Thus, the environment of the store can absorb the customer to stay longer there.

Different factors in the sale environment affect purchase behavior. Sale environment like music, arrangements, lightings, and using the colors can significantly affect the consumers' behavior and can help establishing long term interactions with the consumers. The results show that the possibility of testing the product during the purchase is very effective on impulse buying. Evidently, depending on the nature and type of the products, it is not possible to test any product and its real usage during the purchase; however it is suggested that the stores allow the customers to touch the goods and test them as much as possible.

LIMITATIONS AND FUTURE RESEARCH

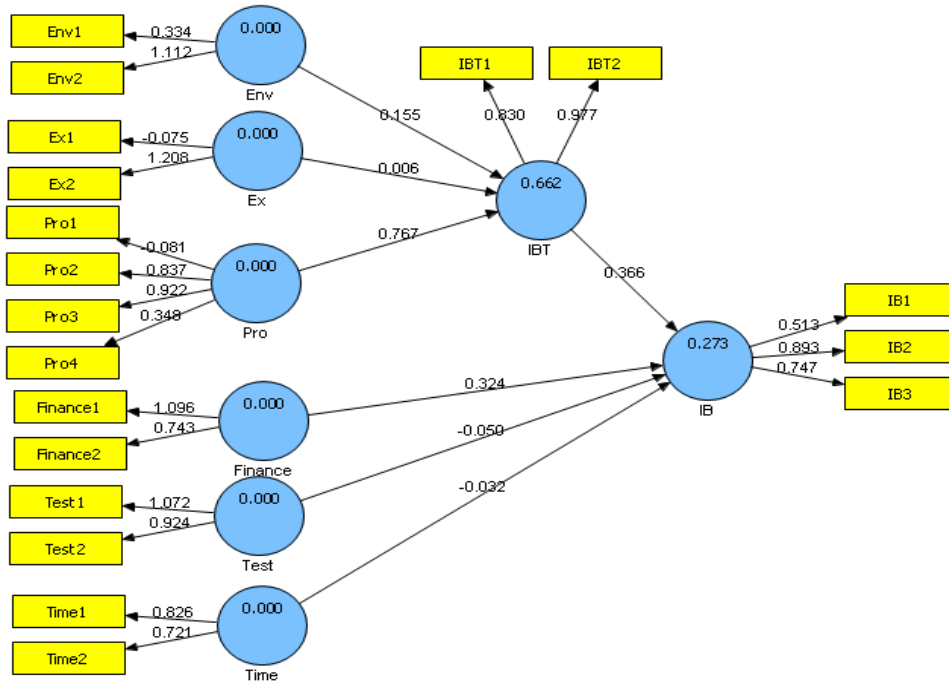
This study has several limitations that need to be highlighted. The data collection took place in Iran. Thus, future research with tested in other cultures, is needed to enhance the generalizability of our findings. Moreover, the study context included a wide range of store types, and it can be argued that impulse buying might be highly context specific. Future work focusing on a single store type might provide additional insight into the role of store-induced stimulation and social factors in influencing impulse buying. Furthermore, other demographic variables should be explored. This would provide a better representation. Other dimensions of impulse could be explored. For instance, future studies could include social influence; internal cues such cognitive and affective state, self control, etc.

REFERENCES

- Babin BJ, Kim K (2001). International students' travel behavior. *J. Travel Tourism Mark.*, 10(1): 93-106.
- Barclay DW (1991). Interdepartmental conflict in organizational buying: the impact of the organizational context. *J. Mark. Res.*, 28(2): 145-59.
- Beatty SE, Ferrell ME (1998). Impulse buying: modeling its precursors. *J. Retail.*, 74(2): 169-91.
- Bellenger D, Korgaonkar PK (1980). Profiling the Recreational Shopper. *J. Retail.*, 56(3): 77-92.
- Bellenger DN, Robertson DH, Hirschman EC (1978). Impulse buying

- varies by product. *J. Advert. Res.*, 18(6): 15-18.
- Bowers KS (1973). Situationism in psychology: an analysis and critique. *Psychol. Rev.*, 80: 307-36.
- Butkeviciene V, Stravinskiene J, Rutelione A (2008). Impact of consumer package communication on consumer decision making process. *Inzinerine Ekonomika-Eng. Econ.*, (1): 57-65.
- Darden WR, Erdem O, Darden DK (1983). A comparison and test of three casual models of patronage intentions. *Patronage Behavior and Retail Management*. NY: North Holland.
- Dawson S, Kim M (2009). External and internal trigger cues of impulse buying online. *Direct marketing. Int. J.*, 3(1): 20-34
- Dawson S, Kim M (2010). Cues on apparel web sites that trigger impulse purchases. *J. Fashion Market. Manage.*, 14 (2): 230-246
- Dholakia UM (2000). Temptation and resistance: an integrated model of consumption impulse formation and enactment. *Psychol. Mark.*, 17(11): 955-82.
- Fornell C, Bookstein FL (1982). Two structural equation models: LISREL and PLS applied to consumer exit-voice theory. *J. Mark. Res.*, 19(4): 440-52.
- Fornell C, Larcker D (1981). Evaluating structural equation models with unobservable variables and measurement error. *J. Mark. Res.*, 18: 39-50.
- Frings GS (1999). *Fashion: From concept to customer* (6th ed). Upper Saddle River. New Jersey: Prentice-Hall.
- Han YK (1987). Impulse buying behavior of apparel purchasers. Unpublished master's thesis. Colorado State University. Fort Collins.
- Han, YK, Morgan, GA, Kotsiopoulos, A, Kang-Park, J (1991). Impulse buying behavior of apparel purchasers. *Cloth. Textile Res. J.*, 9: 15-21.
- Harmancioglu N, Finney RZ, Joseph M (2009). Impulse purchases of new products: an empirical analysis. *J. Prod. Brand Manage.*, pp. 27-37
- Hausman A (2000). A multi-method investigation of consumer motivations in impulse-buying behavior. *J. Consum. Mark.*, 17(5): 403-19.
- Hulland JS (1999). Use of partial least squares in strategic management research: a review of four recent studies. *Strateg. Manage. J.*, 20(2): 195-204.
- Jarboe GR, McDaniel CD (1987). A profile of browsers in regional shopping malls. *J. Acad. Mark. Sci.*, 15: 46-53.
- Jones MA, Reynolds KE, Weun S, Beatty SE (2003). The product-specific nature of impulse buying tendency. *J. Bus. Res.*, 56(7): 505-512.
- Kacen JJ, Lee JA (2002). The influence of culture on consumer impulsive buying behavior. *J. Consum. Psychol.*, 12(2): 163-176.
- Kim J (2003). College Student's apparel impulse buying behaviors in relation to visual merchandising. A Thesis Submitted to the Graduate Faculty of The University of Georgia in Partial. Athens.
- Kollat DT, Willett RP (1967). Consumer impulse purchasing behavior. *J. Market. Res.*, 4: 21-31.
- Lee J (2008). Relative and interaction effects of situational and Personal factors on impulse Buying. College of Design Universit of Minnesota.
- Lee JA, Kacen JJ (2008). Cultural influences on consumer satisfaction with impulse and planned purchase decisions. *J. Bus. Res.*, 61: 265-272.
- Levy M, Weitz B (2007), *Retailing Management*, 6th ed., McGraw-Hill/Irwin, Boston, MA.
- Mattila AS, Wirtz J (2008). The role of store environmental stimulation and social factors on impulse purchasing. *J. Serv. Mark.*, 22(7): 562-567
- Narasimhan, C, Neslin, SA, Sen, SK (1996). Promotional elasticities and category characteristics. *J. Mark.*, 60: 17-30.
- Nichols J, Li F, Roslow S, Kranendonk C, Mandakovic T (2001). Inter-american perspectives from mall shoppers: chile-united states. *J. Global Mark.*, 15 (1): 87-103.
- Parboteeah DV (2005). A model of online impulse buying: An empirical study. Washington state university, Department of Information Systems.
- Park EJ, Kim EY (2008). Effects of Consumer Tendencies and Positive Emotion on Impulse Buying Behavior for Apparel. *J. Korean Soc. Cloth. Textiles*, 32(6): 980-990
- Park J, Lennon SJ (2006). Psychological and environmental antecedents of impulse buying tendency in the multichannel shopping context. *J. Consum. Mark.*, 23(2): 56-66
- Piron F (1991). Defining Impulse Purchasing. *Adv. Consum. Res.*, 18: 509-514.
- Rook DW (1987). The buying impulse. *J. Consum. Res.*, 14: 189-99.
- Rook DW, Fisher, RJ (1995). Normative influences on impulsive buying behavior. *J. Consum. Res.*, 22: 305-13.
- Sivera DH, Lavack, AM, Kropp, F (2008). Impulse buying: the role of affect, social influence, and subjective wellbeing. *J. Consum. Mark.*, pp. 23-33
- Sosik JJ, Kahai SS, Piovoso MJ (2009). Silver Bullet or Voodoo Statistics? A Primer for Using the Partial Least Squares Data Analytic Technique in Group and Organization Research. *Group Organ. Manage.*, 34(5).
- Stern H (1962). The significance of impulse buying today. *J. Mark.*, 26: 59-63.
- Underhill P (1999). *Why we buy: The science of shopping*. New York: Simon & Schuster.
- Verplanken B, Herabadi A (2001). Individual differences in impulse buying tendency: feeling and no thinking. *European J. Personal.*, 15: 71-83.
- Virvilaite R, Saladiene V, Bagdonaite R (2009). Peculiarities of Impulsive Purchasing in the Market of Consumer Goods. *Inzinerine Ekonomika-Eng. Econ. Vol. 2*.
- Welles G (1986). We're in the habit of impulsive buying. *USA Today*, 21(May): 1.
- Weun S, Jones MA, Beatty SE (1998). The development and validation of the impulse buying tendency scale. *Psychology Report.*, 82: 1123-33.
- Wittmann, M, Paulus, M (2008). Intertemporal Choice: Neuronal and Psychological Determinants of Economic Decisions. *J. Neurosci. Psychol. Econ.*, 2(2): 71-74
- Youn SH, Faber RJ (2000). Impulse buying: its relation to personality traits and cues. *Adv. Consum. Res.*, 27: 179-185

APPENDIX



Appendix 1. Partial least square (PLS) structural model output