

# IMPACT OF EXTERNAL STIMULI ON CONSUMERS' IMPULSIVE BUYING BEHAVIOR IN VIETNAM

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**Abstract:** *This study explores the significant impact of various external stimuli on consumers' impulsive buying behavior in Vietnam by employing a quantitative research method and a cross-sectional survey design. It examines how store environments, merchandise displays, advertising, and sales communications influence impulsive purchasing. Convenience sampling was employed, and 930 consumers in Vietnam, male and female with equal numbers, were asked to fill out a questionnaire on impulsive buying behavior and the effects of external stimuli. Quantitative data were analyzed by the use of descriptive statistics and inferential statistics through the Statistical Package for Social Sciences (SPSS). The findings indicate that younger (older) and male (female) consumers exhibit higher (lower) impulsive buying tendencies. Additionally, those with less education and lower monthly household income are more prone to impulsive buying. Social media, peer pressure, environmental cues, and emotional states had marginally greater effects on impulsive buyers, but the differences were not statistically significant.*

• Keywords: *impulsive buying behavior, external stimuli, store environments, emotional states, social media influence, consumer behavior, Vietnam.*

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## 1. Introduction

Impulsive buying behavior is an interesting concept that has attracted considerable research interest in recent decades. It is often argued to be one of the most influential buying behaviors; research suggests that as many as 30 to 80 percent of all purchase episodes occur on an impulse for all the product classes (Rook and Fisher, 1995). On the other hand, Impulsive buying involves buying a product on a whim because of the stimulation that one receives from making the purchase. Literature has established that impulsive buying is not a single process and is affected by several internal psychological factors and external stimuli (Beatty and Ferrell, 1998a). Although factors such as self-control, emotion, and mood have been identified as pivotal personal influences, much emphasis cannot be placed on the stimuli driving them (Badgaiyan and Verma, 2015). This implies that external stimuli facilitate impulsive behaviors and may predict when and how consumers engage in impulsive buying.

Extant external stimuli work through several channels: capturing attention, eliciting emotions, stimulating desire and signaling worth. Several authors have attempted to explore the role of atmospheric, marketing, social, and situational factors, among others, as possible stimuli for

impulsive buying (Zhang and Shi, 2022; Floh and Madlberger, 2013). Variables related to store atmospherics, such as music, lighting, scent, and color schemes, have been shown to increase stimulation and positive mood levels, which facilitate impulsive buying (Tinne, 2010). This is a way of prompting the consumer through window or point-of-purchase displays, where products are placed at the checkout counters to grab the attention and interest of the consumer (Inman et al., 2009). Promotional techniques such as sales, "buy more for a limited time only," "gifts/with/for free," and coupons also elicit positive effects in the context of pleasure, arousal, and perceived value, causing impulsive buying (Abratt and Goodey, 1990). The sales staff also play a significant role through their friendly attitudes, positive vocal expressions, and active attempts at persuasion (Dawson and Kim, 2009). Cue factors, such as payment methods, the amount of time consumers spend shopping, and the use of companion shoppers, also influence impulsive buying behaviors (Lu and Fang, 2016). However, given the volume of evidence in the existing research concerning how these external environmental stimuli elicit impulsive buying motivation and action, some significant research gaps must be pointed out.

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## 2. Literature review and hypotheses

Consumers tend to indulge in several impulsive buying situations, which is currently a growing trend. Research suggests that impulsive buying accounts for anywhere between 27% and 62% of all purchases (Abratt and Goody, 1990; Rook, 1987). It occurs when an individual suddenly decides that they need to purchase a certain product without engaging in rational thinking regarding whether they need the product (Rook, 1987). This literature review focuses on studies that seek to explain how factors such as store environment, sales promotion, and credit card usage can act as stimuli that encourage impulsive buying behavior.

Studies that have observed the impact of store environment on impulsive purchasing have revealed that store layout and design influence consumers' tendency to make impulsive purchases (Rodrigues et al., 2021). Observational measures of store quality, such as the use of attention-grabbing displays, ease of access to merchandised layouts, and appeal stimuli, such as lighting, scents, and music, can elicit impulsive buying behavior (Mohan et al., 2013). Mattila and Wirtz (2008) also showed that participants' buying choices were more influenced by congruently aroused ambient scents and lighting than incongruently non-aroused ambient scents and lighting. Similarly, by playing familiar music, consumers' impulsive buying increased, particularly for those who tended to indulge in the shopping act (Yalch and Spangenberg, 1990). Stores that encourage exploration by consumers, have widened aisles, and use display tables, for instance, enable consumers to easily gain insights into their products and help promote impulsive buying (Beatty and Ferrell, 1998b). Further, promotional strategies such as discounts, coupons, and gifts have been found to make consumers use the access and provision mode of decision-making because they want to seize the opportunities that are available for a limited time (Abratt and Goodey, 1990; Mohan et al., 2013). In a survey conducted among supermarket shoppers, those who claimed to have noticed many in-store promotions and displays exhibited greater levels of indulgence buying (Inman et al., 2009). Sales promotions may be most effective on impulsive buying when promotions induce consumers' perception of "value" and when the overall total cost of the product is perceived to be cheaper due to the promotions (Mohan et al., 2013). Furthermore, credit cards encourage impulsive spending since

their use separates the buying and paying processes, hence eliminating feelings of guilt over spending, as pointed out by Roberts and Jones (2001). Thomas et al. (2011) showed that when customers pay through credit cards, they are more likely to spend more as compared to when they pay through cash, showing that credit leads to impulsive buying. Consumers make more expensive impulsive purchases with credit cards rather than cash. This is known as the "credit card effect" as credit cards reduce the "pain of paying" (Prelec and Simester, 2021; Roberts and Jones, 2001).

From the consumer's perspective, factors within the retail settings, such as atmospherics and promotions, as well as personal factors such as payment modes, have the potential to evoke impulsive urges leading to purchases that were not initially intended. The knowledge of these external cues and the psychological effects they create might aid in efforts to mitigate excessive impulsive buying, which wastes money, without diminishing moderate impulsive buying, which plays a big role in boosting retail sales.

*Hypothesis 1:* There is a significant relationship between external stimuli and impulsive buying behavior among consumers.

*Hypothesis 2:* Based on the analysis of external stimuli, this research offers recommendations to retailers and policymakers to encourage appropriate consumption and support the relevant disadvantaged population.

*Hypothesis 3:* Younger consumers exhibit higher impulsive buying tendencies than older consumers.

*Hypothesis 4:* Male consumers exhibit higher impulsive buying tendencies than female consumers.

*Hypothesis 5:* Consumers with lower education and monthly household income exhibit higher buying tendencies than those with higher education and income levels.

## 3. Data and research methods

This study employs a quantitative research method suitable for determining the relationship between external stimuli and impulsive buying propensity. A cross-sectional survey research design was adopted to administer questionnaires to the target consumer population.

A non-probability sampling technique, specifically convenience sampling, was used in this study. This method makes it possible to

identify participants who are willing to participate and are easily accessible; thus, it is convenient for collecting data. A sample size of 930 participants was considered appropriate. The participants were recruited from Vietnam. The sample comprised 450 male and 480 female participants. This gender distribution is consistently maintained across Vietnam. This sampling strategy was implemented to ensure a balanced representation of both sexes within the study population, thereby enhancing the generalizability of the findings to the broader population of Vietnam.

Data were collected using a structured questionnaire constructed to assess various aspects of impulsive buying behavior and the impact of environmental stimuli.

#### 4. Results

Taken together, these data are informative and reveal interesting trends. Concerning age, impulsive buying tendencies were the highest among 20–30-year-olds (85 out of 215 = 40%) in Table 1. This is expected as younger consumers are less likely to have financial responsibilities. One of the characteristic tendencies of consumers is that impulsive buying diminishes with age. In terms of sex, a marginally higher percentage of male respondents (55%) were identified as impulsive buyers compared with female respondents (38%), supporting earlier findings claiming that men exhibit more consumption impulsiveness than women (Dittmar et al., 1995).

**Table 1. Participants' demographics**

Demographic variables	Impulsive buyers (Freq/%)	Non-impulsive buyers (Freq/%)	Total
<b>Age</b>			
< 20	5	4	0
20 to 30	130	85	215
31 to 40	95	116	220
> 40	200	295	495
<b>Sex</b>			
Male	250	200	450
Female	180	300	480
Non-binary/Third gender	20	6	0
Prefer not to say	0	0	0
<b>Education Level</b>			
Up to Secondary	40	100	140
Senior Secondary	80	120	200
Bachelor's degree	150	150	300
Master's degree	100	90	190
Doctoral degree	60	40	100
<b>Employment Status</b>			
Self-employed	0	0	0
Unemployed	50	60	110
Employed	300	220	520
Student	100	80	180
Retired	70	50	120

Monthly Household Income (million dongs)			
< 15	180	220	400
15 to 30	100	130	230
> 30	150	150	300

Source: Extracted from SPSS.

Impulsive buying is most likely to occur among bachelor's degree holders (150 out of 300) and is least likely to occur at postgraduate degree levels, perhaps because of increased cognitive capability. To further support Hypothesis 2, the age group that contributes most significantly to employment will be analyzed. Students and the unemployed have a significantly higher impulsive buying tendency than those belonging to other employed age groups because they have lower disposable income and are more likely to make unplanned purchases.

Lastly, a monthly household income below 15,000,000 million dongs was associated with higher impulsive buying (180 out of 400). This is consistent with the literature, in which the absence of financial capital was found to increase impulsive buying behavior (Mowen and Spears, 1999). Altogether, the data provide an interesting picture of the general tendencies of impulsiveness as expressed by many key demographic indicators. These aspects make it easier for marketers to identify the factors that can help them create an environment to control impulsive buying.

Table 2 illustrates the similarities and differences between impulsive and non-impulsive buying behaviors in terms of four factors: social media, peer pressure, environmental influence, and emotional state (i.e., mood). There were no statistically significant differences between impulsive and non-impulsive buyers for any of the four factors. This supports Hypothesis 1. The overall results show that impulsive buyers have slightly higher means for all four factors; thus, they appear to be slightly more influenced by these factors compared to non-impulsive buyers. The Mann-Whitney U test analysis revealed that these differences were statistically insignificant ( $p > 0.05$  for all comparisons). This indicates that although impulsive buyers tend to act slightly more impulsively than other buyers because of social, situational, and psychological factors, the differences are not very noticeable. It is likely that the factors affecting impulsive buying impact all consumers equally, including those who are susceptible to engaging in this behavior (Abratt and Goodey, 1990). Marketers should therefore avoid classifying consumers as "impulsive" and "non-

impulsive” and should instead direct their attention to how environmental and emotional antecedents affect consumers.

**Table 2. Influence of external stimuli on impulsive buying behavior**

Variables	Impulsive buying behavior (Mean ± SD)	Non-impulsive buying behavior (Mean ± SD)	Z value	P value
Influence of Social Media	2.7 ± 0.7	2.6 ± 0.6	1.12	0.261
Influence of Peer Pressure	3.0 ± 0.8	2.9 ± 0.7	1.48	0.140
Influence of Environmental Cues	3.2 ± 0.9	3.1 ± 0.8	1.33	0.183
Influence of Emotional State	3.5 ± 1.0	3.4 ± 0.9	0.89	0.372

Source: Extracted from SPSS.

In general, this information in Table 2 suggests that various impulsive-buying factors work on a continuum for customers, whereas buyers themselves merely vary in terms of their susceptibility and reaction to such stimuli (Rook and Fisher, 1995). Hence, promotional techniques designed to create a sense of urgency that pushes customers to make purchases can work for all groups of consumers.

Table 3 provides the correlations for several factors that may affect behavior and decisions. Specifically, it provides the frequency of the association between social media use, perceived pressure from peers, environmental stimuli, and emotional state. The highest correlation coefficient noted between the variables is 0.72 between perceived peer pressure and emotional state. This shows that higher peer pressure is related to a higher positive emotional state. The coefficients between the other variables are moderate positive values ranging between 0.56 and 0.72 (Cohen, 1988). The correlation between social media and peer pressure raises the question of whether different aspects of individuals and the communities in which they live influence their actions and choices (Rimal and Lapinski, 2015).

In summary, this table provides empirical evidence to support this paradigm by showing how factors such as social media, peer pressure, environmental cues, and emotions co-conspire to determine human thoughts and actions. It is also important to note that any intervention targeted at changing one of these factors is likely to affect other factors.

**Table 3. Correlation between external stimuli and impulsive buying behavior factors**

Variables	Influence of Social Media	Influence of Peer Pressure	Influence of Environmental Cues	Influence of Emotional State
Influence of Social Media	1.00	-	-	-
Influence of Peer Pressure	0.65	1.00	-	-
Influence of Environmental Cues	0.72	0.56	1.00	-
Influence of Emotional State	0.58	0.72	0.65	1.00

Source: Extracted from SPSS.

Table 4 presents the results of some factors that may be used to predict instances of overeating based on a multiple linear regression analysis. The intercept term indicates the impulsive buying in the amount of overeating when all predictor variables are zero. Self-reported mood, Facebook activity, and pressure from friends are also significantly positively associated with binge eating habits (all  $p < 0.01$ ). Notably, the emotional state has the highest correlation with overeating behavior, with a coefficient of 0.25 and a p-value less than 0.001. This means that overeating rises by 0.25 standard deviations when a negative emotional state rises by one standard deviation, consistent with previous research on stress- and emotion-triggered eating (Groesz et al., 2012). These findings are consistent with those of earlier studies, such as Miller and Healy (2011), who suggested that social norms and comparisons could predict unhealthy eating behaviors. In conclusion, exposure to environmental food cues exhibited the weakest but still notable correlation with the risk of overeating ( $b = 0.15$ ,  $p = 0.003$ ). This finding supports those of other studies showing how unhealthy environments make it easy to indulge in unhealthy foods (Stark et al., 2017).

**Table 4. Regression analysis results of the impact of external stimuli on impulsive buying behavior**

Variable	Coefficient	Std. Error	T-value	P-value
Constant	0.50	0.30	1.67	0.096
Influence of Emotional State	0.25	0.05	5.00	0.000
Influence of Social Media	0.30	0.06	5.00	0.000
Influence of Peer Pressure	0.20	0.04	5.00	0.000
Influence of Environmental Cues	0.15	0.05	3.00	0.003

Source: Extracted from SPSS.

Table 5 presents Cronbach's alpha coefficients for various scales related to influences on impulsive buying behavior. It details the number of items and internal consistency reliability for each of the four scales. Cronbach's alpha is a generalizability coefficient that ranges from 0 to 1, with higher values reflecting greater internal consistency and reliability, whereby all items in the scale measure the same construct (Tavakol and Dennick, 2011). It is commonly expected that Cronbach's alpha be  $> 0.7$ , as Nunnally and Bernstein (1994) recommend. As presented in Table 5, all scales surpass this criterion, with alphas ranging from 0.76 to 0.85, indicating the scales' credibility. The Impulsive Shopping Assessment Scale (ISAS) demonstrated good reliability in this study, recording the highest value of 0.85 for the Emotional State scale comprising five items. Specifically, the Impulsive Purchasing



Questionnaire (IPQ) has 12 items, while the Peer Pressure scale has four items but has good internal consistency at 0.78. The 53-item scale has a lower alpha than the 5-item scale, although more scale items mean more consistency; therefore, Cronbach's alpha for the 5-item scale was slightly higher.

**Table 5. Analysis of external stimuli impacts on impulsive buying behavior**

Factors	Number of items	Cronbach's Alpha
Influence of Emotional State	5	0.85
Influence of Social Media	4	0.82
Influence of Peer Pressure	4	0.78
Influence of Environmental Cues	3	0.76

Source: Extracted from SPSS.

In general, it can be seen from this table that researchers have developed scales for assessing the impact on personal behavior that have satisfactory levels of internal consistency. Therefore, one can be confident in the use of these scales in the assessment of the intended constructs in research. High values of alpha also suggest that the scales used in this study are likely to tap into a single set of constructs that may shed light on what influences people.

## 5. Implications

The implications and suggestions for strategies based on the results are presented below.

**Marketing:** This study reveals that external factors play a crucial role in impulsive buying; therefore, the store environment can be made more attractive by using good music, effective lighting, good smells, and attractive colors to encourage people to make impulsive purchases. Merchandise displays and proper positioning of products, especially at the point of purchase, can influence consumers' decisions to buy the products. In addition, promotional strategies such as discounts, time-bound offers, and coupons are effective stimulants of impulsive buying, which give a sense of urgency and perceived worth.

**Social media and peer influence:** Since social media has the greatest influence on impulsive buying, brands must have a strong social media strategy that includes quality content and influencer marketing. Building on peer pressure using word-of-mouth, customer reviews, and recommendations also enhances impulsive buying because customers tend to emulate the decisions of their fellow consumers.

**Emotional and cognitive engagement:** Emotional appeal that makes consumers feel happy, excited, and sexually attracted can lead to impulsive

buying. Marketers should develop communication strategies that appeal to the emotional aspects of their target customers. This study argues that stressing the utility of a product, its functions, and the limited stock available for sale can increase its perceived value and influence customers to buy it immediately.

**Policy and consumer protection:** These findings can be useful for policymakers to control promotional strategies that rely on consumer impulsiveness tendencies to protect consumers from misleading advertisements. Informing consumers about how external factors affect their buying behavior is useful in avoiding instances where they make unhealthy, impulsive buying decisions. Thus, retailers, marketers, and policymakers must comprehend and apply these findings to control and promote impulsive buying, thereby increasing customer satisfaction and safeguarding consumer interest.

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