Role of In-Store Atmospherics and Impulse Buying Tendency on Post-Purchase Regret

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Abstract

Purpose - For marketers and retailers, impulsive buyers constitute a dream segment. Stimulants at the point of shopping create sudden urge among these shoppers and they seek to immediately acquire the products. This desire for spontaneous acquisition and instant gratification can result in negative consequences, including post-purchase dissonance (regret). This paper is an attempt to comprehend and examine the direct and indirect impacts of store atmospherics, urge to buy impulsively and impulsive buying on post-purchase dissonance in the form of regret.

Method - The data for the study was collected using survey method and structural equation modeling was used to analyse the proposed model.

Findings - Result of the study reveals that shoppers’ impulsive purchasing was positively linked to the feeling of regret. The study also noted the influence of positive and negative affect on urge to buy impulsively, which further is directed to impulse buying.

Limitations - This study has been conducted in India. By incorporating cross-cultural aspects, the study shall stand its worth for better generalizations.

Implications - The study findings suggest that retailers and mall developers to invest in improving in-store light and music that might encourage store visitors to devote extra time for browsing various products and these factors has a positive impact on reducing regret.

Originality - A large number of studies have been conducted for analyzing store environment factors effect on impulse buying, however little is known about how these factors influences regret arises from impulse buying. This study attempt to analyses the influence of store environment factors on regret hence addresses that gap in the impulse literature.
Keywords: impulse buying, store environment, impulse buying tendency, regret.


Introduction

Impulse shopping involves buying as an outcome of spontaneous decision at the point of purchase, without any consideration for future outcome. Beatty and Ferrel (1998) described impulse buying as “a sudden and immediate purchase with no pre-shopping intentions either to buy the specific product category or to fulfill a specific buying task.” Crawford and Melewar (2003) stated that as shoppers’ life is becoming hectic, their frequency of visits to retail stores have increased. This has resulted in growth of sales through impulsive purchases. According to a research report, British consumers spent nearly 21.7 billion euro on impulse purchasing. More than half of the consumers made unplanned purchase every time they went for shopping (smartbusiness, 2016). It also reported that one-third of the US shoppers also reported impulsive buying.

This impulsive behavior displayed by shoppers in retail stores has lot of significance for marketers and retailers. In the last two decades, researchers like Beatty and Farrell (1998); Bell et al. (2011); Donovan et al. (1994); Inman et al. (2009); Prashar et al., (2015a & 2015b) and Rook and Fisher (1995); have examined the impact of point of contact on shoppers’ buying. This has led to change in companies focus from conventional marketing tools like advertisements to in-store promotional tools that would stir shoppers’ decisions. Hence, for retail stores it has become pertinent to use shoppers’ impulse buying behavior as a medium to increase their sales through the year.

However, the phenomenon of impulsive shopping has been observed to result in negative consequences too. Rook (1987) noted that financial distress because of excessive spending can lead to the feeling of guilt and/or the fear of disapproval by immediate society. It was observed by Rook and Fisher (1995) that approximately four out of every five shoppers, who have purchased due to sudden urges, experienced negative emotions and feeling. According to these papers, rationality is over-powered by sudden emotional urges that results in purchasing of ‘not-so-needed’ goods.
Contrary to this, Hoch and Loewenstein (1991) posited that shoppers may also regret their decision of not buying a desired product.

There is a huge gap in the current consumer behavior literature on impulse buying and its consequences on post purchasing behaviour such as regret. Most of the existing studies have focused on conceptualizing impulse buying tendency, impulsive buying and the antecedent factors like store environment, price & promotion and products feature etc. influencing impulsive behavior (Beatty & Ferrel, 1998; Mohan et al., 2012; Rook & Fishaer, 1995). Few studies have attempted to explore the importance of regret on consumers’ future buying/ revisiting the retail outlets. However, none of these studies have endeavored to examine the impact of store atmospherics store on regret in impulse buying context. The decipherence of cause-effect relationship between the variables leading to impulsive shopping and post-purchase regret shall equip marketers with strategic understanding of why consumers regret after impulse purchasing.

The present study endeavors to develop a theoretical model depicting associations of different predictors of store atmospherics like light, music, color, display and sales personnel and impulse buying tendency, with urge to buy impulsively, impulse purchasing and regret. The paper opens with discussion on theoretical framework followed by detailed review of literature on the constructs used in the study. The next section details the research methodology used and analysis of data obtained. The last section concludes with discussion, implication and limitations.

**Theoretical Framework**

To conceptualize the present study, the authors have used Stimulus-Organism-Response (S-O-R) model as proposed by Mehrabian and Russell (1974) (see Figure 1). The framework comprises three components - stimulus, organism and response. Stimulus pertains to elements, which influence an individual’s inner state and stimulating him/her in the process (Eroglu et al., 2001). The aspect of organism discusses the intermediary attitude or emotions that are formed as a result of the stimuli received by an individual (Bagozzi 1986). The resultant behaviour displayed by the subject is termed as response.

Bagozzi (1986) stated that when an individual’s behaviour as a consumer is being studied through the S-O-R framework, the elements of stimuli would be external in nature. This could consist of marketing mix factors or various other factors from the surrounding environment. In the present study, the stimulus factors consist of the retail store atmospherics like light, music, colour, display, and sales employees. These factors invariably influence the behaviour of a shopper inside the retail store. Similarly, organism relates to the positive and negative affect of these variables and shoppers’ urge to buy in the retail store. The final outcome or behavioural response is being measured through shoppers’ impulse buying and their regret behaviour.

Extant literature has suggested that environmental variables such as light, music, colour, display, and sales employee contribute to the perception of positive/
negative affect associated with a shopping experience (Joo et al., 2006; Mohan et al., 2012). Consumers at different levels of positive/negative affect may react to the environment differently. In summary, according to the theoretical framework, consumer perceptions of characteristics of the retail environment would influence positive/negative affect and urge to buy impulsively, which in turn are expected to influence impulse buying or regret behavior.

Figure 1. Theoretical Framework

Proposed Framework and Hypotheses

Clover (1950) has defined impulse buying as an “unplanned buying, any purchase made without advance planning before entering the store.” Later, Rook (1987) argued that impulse buying is more than unplanned buying and described impulse buying as “when a consumer experiences a sudden, after powerful & persistence urge to buy something immediately.” This impulsiveness is multifaceted that might lead to emotional conflict. Usually, impulse buying behaviour is prone to occur with diminished regards for its consequences. Refining the concept further, Beatty and Ferrell (1998) noted, “impulse buying to be a sudden and immediate purchase with no pre-shopping intentions either to buy the specific product category or to fulfill a specific buying task”.

Store Environment, Positive Affect and Urge to Buy Impulsively

Past studies have linked impulse purchasing with impulse buying tendency (Beatty & Ferrell, 1998; Mohan et al., 2012) and pleasant store environment (Donovan et al., 1982; Mohan et al., 2012; Parsad et al., 2017a & 2017b). Yet, the indirect role of these factors on post-purchase regret is not clearly understood. For example, store environment variables like music, lighting etc. is one of the most important antecedents in triggering sudden urge to buy. The presence of pleasant music produces a positive effect in creating an urge to buy impulsively (Garlin & Owen, 2006). Similarly, well-designed and illuminated lighting system in a store makes a product more attractive that leads to excitement and induces positive affect. This also helps shoppers to focus on key sales point (Smith, 1989). The study by Yoo et al. (1998) demonstrated that both light and music together could stimulate positive affect. Extending this, Eroglu and Machleit (1993) predicted that music and light are
important variables in stimulating urge to buy impulsively. The research on retail environment has also suggested the integral role of color in retail interior. Past studies illustrated that color pattern inside the store creates a rainbow effect that leads pleasure and generates urge to buy among the shoppers (Beverland et al., 2006; Chebat et al., 2001; Handayani, 2018; Wu et al., 2013).

Display has been found to be an important variable of store environment. Prominent eye-catching display can significantly influence sales (Hultén & Vanyushyn, 2011). Good displays have direct impact on shoppers’ impulsiveness and may also induce urge to buy (Aghazadeh, 2005; Hultén & Vanyushyn, 2011). Likewise, research on retail environment suggest the role of sales personnel in influencing consumer response (Bitner, 1990), which stirs urge to buy instinctively (Jones, 1999). A sales representative helps and guides shopper in identifying their needs, exploring more product range and thereby prompting urge to purchase. As per Park & Lennon (2006), this behaviour of sales employees contributes to creation of positive feeling and arousing desire to purchase.

Based on above arguments, this study proposes that store environment factors are perceived to create a positive affect leading to urge to buy impulsively and resulting more impulse purchasing. Considering store environment and positive affect, it is hypothesized:

\[ H1: \text{A good store environment will intensify positive affect.} \]

\[ H2: \text{Positive affect is associated with urge to buy impulsively.} \]

**Store Environment, Negative Affect and Urge to Buy Impulsively**

In endeavoring to design an “appropriate” store atmosphere, it is pertinent for retailers and marketers to understand the right combination of store environmental factors. According to Bitner (1992), loud or improper music may create discomfort for shoppers. Such loud music irritates them and may induce negative affect (d’Astous, 2000). Similarly, too bright or dull light reduces the “visual acuity,” the prime component for completing environmental task (Areni & Kim, 1994; Mohan et al., 2012). Past research illustrates that lighting inside the store impacted the shopping behavior of the consumer (Beverland et al., 2006; Chebat et al., 2001; Prasher et al., 2015b).

As noted by Oliver and Swan (1989), sales employees behavior inside the retail store would have an impact on shoppers’ satisfaction. This satisfaction is with both the employees, as well as the retailers, and has an affective basis (Westbrook & Oliver, 1991). As the good behaviour of sales personnel increases the positive affect, improper behaviour might cause the negative affect (Jones, 1999). Such negative affect induces shoppers to withdraw from retail store, resulting in reduced intention to buy (Eroglu & Machleit, 1993). Hence, the probability to induce urge to buy more also decreases.

Accordingly, it can be postulated that improper store environment leads to negative affect that might impact an individual’s urge to buy impulsively.
H3: Inappropriate store environment is associated with high level of negative affect.

H4: High level of negative affect is associated with reduced urge to buy impulsively.

Impulse Buying Tendency (IBT) and Urge to Buy Impulsively

Earlier studies describe impulse buying as an ‘unintended’ purchase or purchase ‘not planned before entering store’ (Stern, 1962). Products were segregated as impulsive and non-impulsive ones (Stern, 1962). However, recent studies have criticized this approach and linked this behaviour with individual characteristics rather than product features. According to psychologists, everyone has a different tendency to act impulsively. Consumer researchers have explained differing buyers’ proclivity in their impulse shopping (e.g. Beatty & Ferrell, 1998; Rook & Fisher, 1995). In one of the earlier studies, Beatty and Ferrell (1998) explored the impact of IBT on shoppers’ urge. Consistent with previous research, Jones et al. (2003) described the impulse-buying tendency as the “degree to which an individual is likely to make unintended, immediate, and unreflective purchase.” Based on this, it is hypothesized:

H5. Shoppers’ IBT will have a positive impact on urge to buy impulsively

Urge to Buy Impulsively and Impulse Buying

It has been observed that when shoppers browse products in retail outlets, they continuously experience urge for buying more (Rook, 1987; Beatty & Ferrell, 1998; Mohan et al., 2012), and most of the time, shoppers are not able to resist their urge to purchase more (Baumeister, 2002). As per Dholakia (2000), those shoppers who experience spontaneous urges while shopping find it difficult to control these desires. Hence, a positive link is being postulated between urge to buy impulsively and impulsive buying.

H6. Urge to buy impulsively will have a positive association with shoppers’ impulsive buying

Impulse Buying and Regret

Rook (1987) observed that consumers buy products impulsively because they “fall in love” with them and their "grabbing" looks. Emotionally attracted to the product, an impulsive customer seeks instant gratification (Hoch & Loewenstein, 1991). This desire for instant gratification leads to negative consequences, including regret after purchasing (Hausman, 2000; Wood, 2005). Impulse buying is always linked to financial pains (over expenditure), guilt feeling, and social disapproval (Rook, 1987). Rook & Fisher, (1995) claims that approximately eighty percent of the impulse purchasers remembered and associated negative experiences with impulse buying. Latest research also shows that intensity of guilt experienced by the shoppers
had a positive effect on planning to reduce impulse buying (Yi & Baumgartner, 2011). Verplanken and Sato (2011) noted that consumers want to reduce their impulsive shopping owing to guilt and regret filling. Accordingly, the hypothesis is:

**H7. Impulse buying is associated with regret of the shoppers.**

Figure 2 summarizes all the proposed hypotheses.

![Figure 2. Conceptual Model](image)

The proposed model comprised of two exogenous variables - store environment and impulsive buying tendency that act as stimuli and five endogenous variables, of which three variables - urge to buy, positive affect, negative affect behave as organism, while remaining two endogenous - impulse buying and regret are ‘response’ elements.

**Research Methodology**

Cross-sectional in nature, this research study is an outcome of both exploratory and conclusive phases.

**Survey Instrument**

The survey instrument comprised of statements that addressed retail store environmental features, positive and negative affect, IBT, urge to buy, impulse buying and regret. To examine buyers’ perceptions about the role of store environmental features - music, light, display and sales person, Mohan et al. (2012) scale was adapted. To decipher the influence of color, scale from Chebat et al. (2001) was used. For measuring the positive and negative affects, scales developed by Watson et al. (1988) were used. To examine IBT, the scale developed by Rook and Fisher (1995) was
adopted. Beatty and Ferrell (1998) scale consisting of three items was used to measure consumers’ urge to buy impulsively. The two scales developed by Hausman (2000) were applied for measuring the constructs of impulse buying and regret. A seven-point Likert’s scale was used to record the responses, where ‘1’ represented “Strongly disagree” and ‘7’ signified “Strongly agree.”

Data Collection

For conducting the study, it was decided to approach shoppers carrying a shopping bag (sampling extent) using the mall-intercept method at various malls of Indian cities of Delhi, Mumbai, Hyderabad and Raipur. The surveyors collected data during the months of November and December 2016. To remove random bias, the process of data collection was carried out by altering the time and location of contacting the shoppers during the day. The sequence of questions in the survey was also varied. After eliminating incomplete/ erroneous responses, data from 203 respondents were taken for further analysis.

Sample Profile

Two-third of the respondents were male. More than eighty percent of the survey participants were of the age between 21 and 30 years. Forty percent of them had a monthly family income in between INR 50,000 – 100,000 and approximately thirty five percent respondents had more than INR 100,000. (See Table 1)

<table>
<thead>
<tr>
<th>Table1: Respondent Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Under 21</td>
</tr>
<tr>
<td>21-30</td>
</tr>
<tr>
<td>30-40</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Marital status</td>
</tr>
<tr>
<td>Unmarried</td>
</tr>
<tr>
<td>Married</td>
</tr>
<tr>
<td>Educational Qualification</td>
</tr>
<tr>
<td>Graduation</td>
</tr>
<tr>
<td>Post graduation</td>
</tr>
<tr>
<td>Professional</td>
</tr>
</tbody>
</table>
### Data Analysis and Findings

Using AMOS 22.0, the collected data was analyzed opting a two-stage structural equation modeling approach as suggested by Anderson & Gerbing (1988). The measurement model was first analyzed applying confirmatory factor analysis, followed by testing the structural model using path analysis.

### Measurement Model

Being influenced by perception about the role of sales person, display, music, lighting and color, store environment was used as a second order construct. Goodness-of-fit statistics for the proposed model were checked to examine the fit of the model with the data. The ratio of chi square minimum to degree of freedom (CMIN/DF) was 2.8, which is lower than cut-off criterion of 3.00 (Hair et al., 2006), indicating a good fit between the postulated model and the data. Since the values for other indices like goodness-of-fit index (GFI = 0.936), comparative fit index (CFI = 0.966), incremental fit index (IFI = 0.966), Normed Fit Index (NFI = 0.950) and Tucker-Lewis index (TLI = 0.933), were also more than 0.9, the fitness of model with the data is confirmed (Hair et al., 2006). The value of root mean square error of approximation (RMSEA = 0.099), being less than 0.1, further confirmed the fitness (Hair et al., 2006). The confirmatory factor analysis result reflect that loading for all the items and average variance extracted (AVE) were greater than cut off value 0.50. (See Table 2) Composite reliability values were also more than 0.70 these values signifying reliability of the constructs (Netemeyer et al., 2003).

### Table 2: Measurement Model (CFA)

<table>
<thead>
<tr>
<th>Items</th>
<th>Standardized Loading estimates</th>
<th>Average Variance Extracted (AVE)*</th>
<th>Composite Reliability (CR)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Well-lit store</td>
<td>0.72</td>
<td>0.62</td>
<td>0.76</td>
</tr>
<tr>
<td>Pleasant lighting</td>
<td>0.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The background music played</td>
<td>0.69</td>
<td>0.53</td>
<td>0.77</td>
</tr>
<tr>
<td>Terrible music</td>
<td>0.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pleasant music</td>
<td>0.72</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Analysis of the Structural Model: Hypothesis Testing

<table>
<thead>
<tr>
<th>Salesperson</th>
<th>Helpful employees</th>
<th>0.9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Well-dressed and groomed employees</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>Store employees influence my buying decision</td>
<td>0.66</td>
</tr>
<tr>
<td></td>
<td>Friendly employees</td>
<td>0.84</td>
</tr>
<tr>
<td>Colour</td>
<td>Fashionable colors</td>
<td>0.88</td>
</tr>
<tr>
<td></td>
<td>Pleasing colour scheme</td>
<td>0.82</td>
</tr>
<tr>
<td>Display</td>
<td>Exclusive displays</td>
<td>0.65</td>
</tr>
<tr>
<td></td>
<td>Attractive product displays</td>
<td>0.84</td>
</tr>
<tr>
<td>Urge to buy</td>
<td>Sudden urges to buy</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>Tempted to buy many items</td>
<td>0.87</td>
</tr>
<tr>
<td></td>
<td>I experience no sudden urge to buy</td>
<td>0.66</td>
</tr>
<tr>
<td>IBT</td>
<td>Buy things spontaneously</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>Buy things according to how I feel at that moment</td>
<td>0.63</td>
</tr>
<tr>
<td></td>
<td>“I see it, I buy it”</td>
<td>0.72</td>
</tr>
<tr>
<td></td>
<td>I am a bit reckless about what I buy</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>“Just do it”</td>
<td>0.83</td>
</tr>
<tr>
<td></td>
<td>I often buy things without thinking</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>I feel like buying things on the spur-of-the-moment</td>
<td>0.85</td>
</tr>
<tr>
<td></td>
<td>“Buy now, think about it later”</td>
<td>0.78</td>
</tr>
<tr>
<td>Impulse buying</td>
<td>Buying more than I had planned to buy</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>I spend more money than I had originally planned</td>
<td>0.78</td>
</tr>
<tr>
<td>Positive affect</td>
<td>I felt enthusiastic while shopping today</td>
<td>0.84</td>
</tr>
<tr>
<td></td>
<td>I felt excited on this shopping</td>
<td>0.89</td>
</tr>
<tr>
<td></td>
<td>I felt happy during this shopping</td>
<td>0.61</td>
</tr>
<tr>
<td>Negative affect</td>
<td>I felt bored on this shopping</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>I felt lethargic while shopping today</td>
<td>0.91</td>
</tr>
<tr>
<td></td>
<td>I felt upset during this shopping</td>
<td>0.83</td>
</tr>
</tbody>
</table>

*AVE: rule of thumb- should exceed 0.5; **CR: rule of thumb - exceed 0.7*
Structural equation modeling was used to evaluate the research model. The two exogenous and five endogenous variables were tested to ascertain the strength of the proposed model and the stated hypotheses.

The overall fit indices for the proposed research model were as follows: ratio of chi square minimum to degree of freedom (CMIN/df = 2.43), comparative fit index (CFI = 0.96), goodness of fit index (GFI = 0.93), adjusted goodness of fit index (AGFI = 0.86), normed fit index (NFI = 0.94), incremental fit index (IFI = 0.96), Tucker-Lewis index (TLI = 0.94) and root mean square error of approximation (RMSEA = 0.08). All the indices indicated a very good fit of the proposed model with the data. This goodness of model provides a sound basis for testing the hypothesized paths. Table 3 reflects the results of the structural model.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Estimate</th>
<th>t-value</th>
<th>p ≤</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Store environment → Positive affect</td>
<td>0.77</td>
<td>14.020</td>
<td>0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2: Positive affect → Urge to buy impulsively</td>
<td>0.07</td>
<td>1.784</td>
<td>0.074*</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3: Store environment → Negative affect</td>
<td>0.42</td>
<td>6.139</td>
<td>0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4: Negative affect → Urge to buy impulsively</td>
<td>-0.07</td>
<td>-1.625</td>
<td>0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5: IBT → Urge to buy impulsively</td>
<td>0.73</td>
<td>12.602</td>
<td>0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>H6: Urge to buy impulsively → Impulse buying</td>
<td>1.06</td>
<td>13.111</td>
<td>0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>H7: Impulse buying → Regret</td>
<td>0.34</td>
<td>5.216</td>
<td>0.001</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Goodness of fit indices: CMIN/df=2.43; CFI=0.96; GFI=0.93; AGFI=0.86; NFI=0.94; IFI = 0.96; TLI = 0.94; RMSEA = 0.08
* Accepted at 10% level.

From the table, it is observed that all the hypotheses were accepted. Accordingly, perception about store environment plays a significant role in creating either positive affect (β =0.77, p =0.001) or negative affect (β =0.42, p =0.001), supporting hypotheses H1 and H3 respectively. The acceptance of hypothesis H4 (β =-0.07, p =0.001) indicates the significant influence of negative affect on urge to buy impulsively. Positive affect is also found significantly associated with urge to buy (β =0.07, p =0.074) supporting hypothesis H2, albeit at the 10% level. The results also indicate that shoppers’ impulse buying tendency has a positive impact on the urge to buy (β =0.76, p =0.001). As anticipated, the results suggest that urge to buy impulsively has a positive effect on impulse buying (β =1.06, p =0.001), and high level of impulse buying is associated with shoppers' regret (β =0.34, p =0.001), supporting H6 and H7 respectively.
Testing for Mediating Role of Positive and Negative Affects and Urge to Buy Impulsively

To test the mediating role of positive affect, negative affect and urge to buy impulsively, it was decided to use method suggested by Iacobucci et al. (2007). The model first includes all direct paths from positive affect, negative affect to impulse buying and regret, later an indirect path via urge to buy impulsively and impulse buying to regret. With the values of CMIN/DF = 2.35; RMSEA = 0.08; AGFI = 0.87; NFI = 0.95; IFI = 0.97; and TLI = 0.95, the model also indicated a good fit. The analysis revealed that the direct effect of store atmospherics on urge was not significant. However, the same it was observed that all the indirect path coefficients were significant (refer Figure 2), indicating the presence of some mediation effect (Iacobucci et al., 2007).

![Figure 3. Structural Model (with Direct and Indirect Effects)](image)
(Solid lines represent direct path and dotted lines represent indirect path)

To further confirm the mediation effect, pair-wise inter-correlations matrix was used (Table 4). This further supports mediated model as against non-mediated or partially mediated models. The correlation figures for positive affect and negative affect with urge to buy impulsively (0.32 and 0.35 respectively) are greater than those with regret (0.05 and 0.16 respectively). The correlation of urge to buy impulsively with regret is 0.36, which is much below its correlation with impulse buying (0.67). Moreover, impulse buying and regret are also positively correlated (0.35). Hence, it confirms the role of the three constructs as mediator.

<table>
<thead>
<tr>
<th>Table 4. Correlation Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBT</td>
</tr>
<tr>
<td>IBT</td>
</tr>
<tr>
<td>Store Environment</td>
</tr>
</tbody>
</table>
### Discussions and Implications

This study was aimed at examining the influence of store environment in triggering positive and negative affects, impact of these affects and impulse buying tendency on urge to buy impulsively. Further, it was endeavored to assess the role of this urge on impulse buying and regret, if any. This comprehensive study is pioneer in exploring the effect of store environment on regret in impulsive buying context. In this process, the study has also delineated the impact of positive affect and negative affect on post-purchase dissonance. Besides this, there is hardly any study that has attempted to explore the relationship between various factors related to impulse buying dimension of consumer behavior in the context of developing markets like India.

From the study, it is observed that store environment and IBT act as ‘stimuli’ in stirring the urge to buy impulsively. The factors constituting store environment create this urge directly as well as via positive affect and negative affect. These ‘organism’ variables cause ‘response’ that is manifested through shoppers’ impulsive buying, which may or may not result into regret. In the retail store context, it is worth noting that urge to buy impulsively and impulse buying mediate the relationship between store environment-generated affect and regret.

This study supported the validity of store environment construct and two of individual behaviour construct (IBT and urge to buy impulsively) as being significant predictors of impulse buying. The results of the study also validated the significant positive relationship between impulse buying and regret. The outcome of the paper supported the suggested framework and hypotheses.

The results of the present study noted that store environment factors induce impulse buying through positive affect and urge to buy impulsively. This is in line with outcomes of earlier studies like Mohan et al. (2012) and Bellini et al. (2017). Another striking finding relates to the negative relationship between negative affect and urge to buy impulsively. This suggests that a high negative affect lowers an individual’s urge to buy impulsively. However, prior studies like Beatty & Ferrel (1998), Mohan et al. (2012) and Bellini et al. (2017) failed to support this negative association. Hence, this study is pioneer in supporting the negative association and opens a new avenue for future research that can further strengthen this outcome.
In line with other existing studies like Dholakia (2000), Baumeister (2002) and Bellini et al. (2017), this study also observed that shoppers who are high on urge to buy impulsively would show more impulsive buying. The most valuable contribution of this paper pertains to the observation that shoppers indulging in impulsive buying also feel regretful during their post-purchase phase. This might be because of the feeling that they have diverted from their planned purchasing, which can lead to losses like financial or social loss (Rook & Hoch, 1985). These regretting shoppers may refrain from shopping trips. Thus, it may be inferred from the model that impulse buying leading to post-purchase regret, might lower the tendency of impulsive shopping in the near future.

These findings provide new insights that would help retailers and marketers to cater impulsive buyers. Since, store environment is noted to influence both positive affect and negative affect, which determine urge to buy impulsively that leads to impulsive shopping. For retailers, this is positive cue as the atmospheric factors including light, music, color, display and sales personnel are designed and driven by management. Requisite environment strategies must be developed after carefully studying demographic, psychographic and other relevant factors of the store visitors. On the other side, if a marketer resorts to undermining the importance of in-store factors, it would negatively influence the impulsive spending propensity of shoppers. Baker et al. (2002) has also warned of such consequences on shoppers’ patronage.

Further, the study noted the relatively higher significance of light and music among the store environmental factors in influencing urge to buy impulsively. Indian retailers and mall developers are however, focusing on creating outlets with large spaces and ignoring the importance light and music. It becomes pertinent for managers to invest in improving in-store light and music that might encourage store visitors to devote extra time for browsing various products. This shall elicit impulsive responses from the shoppers.

They must formulate strategies that would assist shoppers in reducing the feeling of regret in order to make them a regular visitor. As shown in Figure 2, the indirect effect of positive affect is negatively linked to regret. This suggests that by increasing positive affect among shoppers, retailers can reduce the feeling of regret. The store atmospherics has the ability to lower the post-purchase regret. Retailers must induce new and innovative tools aimed at sustaining positive affect of shoppers over a longer time. Positive affect can also be enhanced by dynamically designing retail outlets that extends positive feeling to shoppers every time they visit the stores.

Regarding shoppers’ negative affect, the study found its negative indirect association with regret. This shouldn’t be taken as a variable for reducing post-purchase regret. Also, Huddleston et al. (2004) has observed a negative association between ‘negative affect’ and store patronage and loyalty. Therefore, mall managers must be careful and make that the strategies developed by them should not create negative affect.
Besides this, marketer must broaden all the shoppers’ attraction strategies from just in-store promotional tools to other touch points available in the shopping cycle. This will create new reasons and motives for them to visit stores, search for new products (arrivals), compare with their present systems of consumption/expenses and finally buy products. In this process, marketers will widen their connect with shoppers throughout their shopping cycle. In all, this will reduce the feeling of impulsive shopping even when shoppers are still buying the products, and thus the post-purchase regret might be lowered.

Conclusion

This pioneer research contributes to the present body of knowledge on impulse buying and post-purchase regret. A prominent study by Beatty and Ferrell (1998) has proposed a model that predicts impulse buying, however, it didn’t consider store level variables. Later studies like Peck and Childers (2006) and Zhou and Wong (2003) confirmed the role of store environment on impulse purchasing. Modifying Beatty and Ferrell model, Mohan et al. (2012) added store environment variables for predicting impulse buying. However, all these studies ignored impulsive shoppers’ post-purchase dissonance. The present study fills this gap by adding ‘regret’ as response element.

This study illustrates the relationship between urge to buy impulsively, impulse shopping and regret that is consequent in the scenario. Accordingly, store environment causes either positive or negative affect on urge to buy impulsively, which ultimately leads to impulse buying. It also posits that urge to buy impulsively acts as a mediator between store environment and impulse buying. One of the most noteworthy finding is that the impulse buying leads to post-purchasing dissonance (regret). It is observed that positive affect can be used by marketers to decrease regret.

Limitations and Future Research

Though the present research significantly contributed to the body of literature on impulse buying, some findings may be used as openings for potential research. As is the case with any social science research, the present study also has its own set of limitations. This study has been conducted in India. By incorporating cross-cultural aspects, the study shall stand its worth for better generalizations. Also, the researchers have used only store environment related factors and IBT as independent variables. Future research can also be used IBT as a moderator between urge to buy intention and impulsive purchase. Shoppers in the real scenario, are influenced by multitude of other factors like product involvement, product category, promotional offers, etc. It may also be worthwhile to consider the influence these variables on consumers’ impulsive buying and regret. Data has been collected using respondents’ self-reporting approach. Researchers in the future may use experimental designs to validate the current findings by designing store environment.
References


Appendix

Dear Sir/Madam,

This study is about impulse buying behavior among shoppers. Impulse buying is unplanned, and when one suddenly feels the urge to buy something immediately. This questionnaire will only be used for academic purpose and all the data will be confidential.

Thanks for your participation.

_____________________________________________________________________

Section -1: Please tick the option that you find most suitable
2. Gender? □ Male □ Female
3. Marital Status: □ Unmarried □ Married □ Other
4. Education level? □ Schooling □ Graduation □ Post-Graduation □ Professional Qualification
5. Family's monthly income level (INR)? □ Less than 25,000 □ 25,001 - 50,000 □ 50,001 - 100,000 □ More than 100,000

_____________________________________________________________________

Section -2: Please provide your best responses to the following statements on scale of 1 to 7, where 1 represents “Strongly disagree” and 7 represents “Strongly agree.”

<table>
<thead>
<tr>
<th>Statements</th>
<th>1</th>
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</thead>
<tbody>
<tr>
<td>I often buy things spontaneously</td>
<td></td>
<td></td>
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<td>I buy things according to how I feel at that moment</td>
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<td>“I see it, I buy it” describes me</td>
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<td>Sometimes, I am a bit reckless about what I buy</td>
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<td>“Just do it” describes the way I buy things</td>
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<td>I often buy things without thinking</td>
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<td>Sometimes, I feel like buying things on the spur-of-the-moment</td>
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<td>“Buy now, think about it later” describes me</td>
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<td>Pleasant music stirs the buying mood</td>
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<td>Pleasant lighting in the store influences my buying</td>
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<td>I walk out of the store that has terrible music</td>
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<td>The store employees influence my buying decision</td>
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<td>A well-lit store influences my buying decision</td>
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<td>Well-dressed and groomed employees will have influence on my buying decision</td>
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<td>Helpful employees in the store have influence on my buying decision</td>
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</table>
The background music played in the store induces my purchase
I tend to purchase more in the stores with friendly employees
I prefer to shop at a store where it is easy to locate products/merchandise
Attractive product displays stimulate me to buy
The pleasing colour scheme in the stores excites me to buy
The exclusive displays used in shops for certain products provoke me for buying spontaneously
While shopping, I buy things that I had not intended to buy.
The fashionable colours used in the store stimulate my purchase intent
The pleasing decor of the store provokes me for unplanned purchases
I am a person who makes unplanned purchases
When I see something that really interests me, I buy it without considering the consequences
It is fun to buy spontaneously
I experience sudden urges to buy unplanned items
I am tempted to buy many items that are not on my list
I experience no sudden urge to buy unplanned items
I end up buying more than I had planned to buy
Mostly I spend more money than I had originally planned

**Do you regret your impulse buying?**

Yes, all the time and I try to cut it down
Yes, all the time, but I can’t stop it
Sometimes and I don’t like impulse buying.
Sometimes but I still enjoy impulse buying.

Thank You!
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