The impact of emotional and demographic factors on impulsive buying behaviour of adolescents in Bangalore, India

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Abstract

Background/Objectives: Impulsive buying is a phenomenon where consumers buy goods spontaneously and in an unplanned manner. Though this behaviour is observed across all age groups, it can vary upon various factors. This study focuses on the various demographic and emotional factors that could affect the impulsive buying behaviour of adolescents in Bangalore, India.

Method: The method of data collection involved an online, structured questionnaire, a form of quantitative research. SPSS Statistics Software was used to analyse the data to find out the impact of emotional intelligence, age, gender, and the average monthly expenditure on the independent variable of impulsive buying behaviour, which was operationalised to impulsive buying tendency measure.

Findings: It was found out that while impulsive buying increases with age, money, and has a higher rate in females; it reduces with an increase in the emotional intelligence of adolescents.

Application: An area of further exploration could be the impulsive buying rates measured in adolescents for different product such as food, clothes, school supplies, etc.

Keywords: Impulsive buying, Emotional Intelligence, Demographic factors, Adolescents in India.

1. Introduction

Impulsive buying is a widely recognised phenomenon which occurs almost every day in our lives. Impulsive buying is a pervasive and distinct aspect of American consumers’ lifestyle and also a focal point of considerable marketing management activity [1]. It is “an unplanned purchase” which is often outlined as “a relatively rapid form of decision-making and a subjective bias in favour of immediate possession” [2]. Impulsive behaviour has been characterized as specious thinking [3], which results in myopic and inconsistent behaviour [4]. It is seen as “a sudden, spontaneous act which precludes thoughtful, consideration of all available information and choice alternatives”[5]. Learning about impulsive buying is essential for both consumers and producers. It helps consumers to become aware of their actions and for producers, to formulate their marketing strategies and product variation to instigate this behaviour. With an estimated $4 billion being spent annually in an impulsive manner, approximately 62% supermarket sales [6] and around 80% sales of luxury goods sales are being accounted for as impulsive buy [7]. Thus, understanding this phenomenon is very important to the retail world. Most researches on impulsive buying address the various factors influencing impulsive buying such as the consumer’s mood [8] trait impulsiveness and norms [9], atmospheric environment in retail shops [10], self-identity [11], age, pocket money available [12], personality [13] and shopping with others [14]. Besides the normative factors, there have been studies which have attempted to examine the impact of constraints on retail spending such as the lack of disposable money and time [15], and mood and emotions [16]. Other studies have focused on understanding the effect of aspects such as the stimulation level [17] and in-store display [18] on the degree of impulsive buying in adults. Needless to say, the importance of this buying culture has only been growing with time and we have gradually able to gain better understanding of its causes. However, all studies concerning impulsive buying mainly focus on the adult population tendency, neglecting an important part of the consuming population, teenagers.
Even though there are a few studies conducted on the adolescents of the present generation, most of their geographical locations are in the western countries or in the countries located in Central Asian region [19]. While, cultural influences largely impact impulsive buying [20-21], it is important to expand this study to the other demographic locations. The consumers’ cultural background not only shapes their needs and wants, but also influences behaviours, attitudes and preferences [22]. This research paper will explore the impact of emotional intelligence and demographic factors like age, gender, and monthly expenditure of the adolescents, aged between 15-19 years, in Bangalore, India on the impulsive buying behaviour. With the expansion of shopping outlets and malls in India, impulsive purchasing behaviour has attained significant monetary impact [6]. So, it is important and relevant to understand which traits impact the impulsive buying tendency of the generation-Z of this country. Since impulsive buying behaviour cannot be measured directly as it is a construct, it is operationalised and measured in the form of impulsive buying tendency. Impulsive buying tendency has been defined as the degree to which an individual is likely to make unintended, immediate, and unreflective purchases [13] and is found to have an explicit positive relationship with impulsive buying behaviour [23]. So a scale to measure impulsive buying tendency developed by [6] will be employed in this study.

Emotional intelligence refers to a capability to acknowledge and comprehend the meanings of emotion and their relationships to different behaviours exhibited. Emotional intelligence is concerned with the capacity to perceive emotions, understand the information that these emotions are trying to convey to others and what they are actually bringing out, and control them effectively [24]. From previous researches, we understand that emotional intelligence can be conceptualised and validly measured as either ability [24-25] or a personality trait [26-27]. Those who understand and regulate their emotions generally maintain a better outlook on life and enjoy better emotional well-being [28]. Some researches indicate that high emotional intelligence is associated with less depression and greater optimism [27]. Thus, given the link of impulsive buying to negative, overpowering emotions and potential harmful consequences, impulsive buying can be considered disadvantageous to adolescents. In [11] found that impulsive buying is notable influenced by the gender of the individual and the motivation derived from the self-concept of the product to purchase it. It can also be understood that since different adolescents have different preferences and tastes, a lot of this differentiation occurs due to their social environment. Gender also plays an important role affecting the impulsive buying behaviour. Studies such as the one conducted by [29] showed that women are more brand oriented, which could prompt them to buying more impulsively. This is because impulsive buying can be related to hedonic consumption, as both traits are greatly swayed by emotions. Since, women generally score higher in hedonic consumption than men, it could be implied that women also have higher rates of impulsive buying behaviour. It could also be because women need to feel things more tangible and tactiley compared to men [30] and consumers who need higher sense of touch engage more often in impulsive buying [31].

Income and monthly expenditure are two of the major factors that influence impulse buying. A person who is earning higher tends to expend more money on purchase of goods [32]. While most researches argue that impulsive buying behaviour arouses from a sudden emotional and wanting need for the product, some studies claim that impulsive buying is a natural phenomenon, which is only applicable when the consumer has a high income. Many researchers found that the person earning more income have increased habit of impulse buying. They usually spend income on the things which influences their buying decisions [33]. The consumers who have high income levels are usually price insensitive [34].India, being a highly populous country consisting of people from different economic backgrounds, provides an appropriate platform to study the correlation between money available and impulsive buying. As most adolescents don’t earn money, their main source of income is the money received from their parents (95% of the participants in this study use the money given by their parents). Since the concept of pocket money is not very widely applicable in India, this research takes into account the average monthly expenditure of adolescents.
2. Materials and Methods

1. Research design

The study used the descriptive cross-sectional design to examine the impact of various factors (emotional intelligence, gender, age, and monthly expenditure) on impulse buying behaviour of adolescents in Bangalore. The study employed quantitative research analysis approach, while collection of data was qualitative.

2. Sample

The sample consisted of 100 adolescents, in the age groups of 15-19 years, who were chosen using convenience sampling technique. All of them were either high school or college students living in Bangalore and it consisted of 44 males and 56 females. To ensure that adolescents with different spending allowances were included, the survey included the monthly expenditure by adolescents. The sample consisted of 6% who spent less than ₹ 500 (approx. less than $7), 14% who spent between ₹500- ₹1000 (approx. between $7-$15), 39% who spent between ₹1000- ₹3000 (approx. between $15-$44), 21% who spent between ₹ 3000- ₹ 5000 (approx. between $44-$73), and 20% who spent more than ₹ 5000 (approx. more than $73).

There was also a variance observed in age groups of the sample as shown in Figure 1.

3. Data collection

The online survey questionnaire (Appendix 1), was an effective medium to understand the personal traits of different participants which could contribute to the behaviour of impulsive buying. The questionnaire consisted of 3 sections: basic personal information, the emotional intelligence test and the determinant of the impulsive buying tendency.

The first section consisted of questions including age, gender, demographic location and monthly expenditure range. The second section consisted of the Schutte Self Report Emotional Intelligence Test (set of 33 questions) which had to be self-reported by the participants on a 5-point Likert scale of 1(strongly disagree) to 5(strongly agree) [35]. These included questions such as “I am aware of my emotions when I experience them, I seek out activities that make me happy, I know what other people are feeling just by looking at them, and I expect I will do well on most things I try. It measured emotional intelligence using four sub scales- emotion perception, utilizing emotions, managing self-relevant emotions and managing others’ emotions [36].The third section consisted of questions to determine the Impulsive Buying Tendency (IBT) of the adolescents using an indigenous scale proposed by [6].
It contained 6 questions: 3 addressing the cognitive factor and 3 addressing the affective factor. The second and third sections were interlinked to avoid any participant bias upon understanding the aim of the experiment. This questionnaire was given to about 132 adolescents in the age group of 15-19 years, who were selected through convenience sampling through online social media in Bangalore and made up the sample of the experiment. To avoid non-response bias, the participants were assured about the confidentiality and anonymity of the study. The sample initially consisted of 66 males and 66 females. After the deletion of the entries that seemed to not be filled with conscious effort, such as those with extreme data points for all questions or those with neutral entries for all questions, the sample was fixed at 100 participants. It was also assumed that the sample would spend the money they received on themselves.

4. Data analysis

1. Analytical tools

The analysis done in this study is mainly through the use of statistical methods and tests. Statistical methods which have been used are Cronbach’s alpha, independent samples t-test, multiple regression analysis, and Likert scale. The data was analysed using the IBM SPSS Statistics software. Cronbach’s alpha was a scale developed by Lee Cronbach in 1951 to provide a measure of the internal consistency of a test. It is expressed in a range of 0 to 1. The calculated Cronbach’s alpha coefficient [37] of the data attained in this study is 0.881, which shows there is good consistency in the internal reliability.

2. Multiple regression analysis

Multiple regression models is used to understand the relationship of each independent variable (EI, gender, money, age) with the dependent variable, and is used to understand the strength of each one of the independent variables on the results [38]. The multiple regression analysis using the SPSS Software generated the below results as shown in Table 1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Intelligence</td>
<td>-0.276</td>
</tr>
<tr>
<td>Gender</td>
<td>1.381</td>
</tr>
<tr>
<td>Age</td>
<td>0.037</td>
</tr>
<tr>
<td>Money spent per month</td>
<td>0.213</td>
</tr>
<tr>
<td>Constant</td>
<td>35.589</td>
</tr>
<tr>
<td>Test results</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>0.724</td>
</tr>
<tr>
<td>R squared</td>
<td>0.525</td>
</tr>
</tbody>
</table>

This regression model expressed in the linear form is

\[ Y = AX_1 + BX_2 + CX_3 + DX_4 + E \]

Where

- \( X_1 \) = Emotional intelligence
- \( X_2 \) = Gender
- \( X_3 \) = Age
- \( X_4 \) = Money spent per month

\( A = -0.276 \), which indicates that a unit increase in the emotional intelligence of a person, will result in the impulsive buying behaviour decreasing by 27.6%. Therefore, the emotional intelligence of a person is inversely proportional to impulsive buying tendency.

\( B = 1.381 \), which indicates the gender of a person is important in understanding their impulsive buying behaviour.
C= 0.037, which indicates that a unit increase in the age of a person, will result in an increase by 3.7% in the impulsive buying behaviour. Therefore, the age of a person is directly proportional to impulsive buying tendency.

D= 0.213, which indicates that a unit increase in the amount of money spent by a person, will result a 21.3% increase in the impulsive buying behaviour. Therefore, the amount of money spent by a person is directly proportional impulsive buying tendency.

E= 35.589, the value of this constant shows that, if there is no independent variables then the impulsive buying tendency of the person is equivalent to E.

Plugging these values into the equation you get,

\[ Y = -0.276X_1 + 1.381X_2 + 0.037X_3 + 0.213X_4 + 35.589 \]

The R value in this study is found out to be 0.724, which indicates that all the independent variables have a 72.4% correlation with the dependent variable. Since the R squared value is 0.525, it can be understood that 52.5% of the variance is taken into account.

3. Independent samples t-test

The Independent samples t-test was used to ensure that there is a significant correlation between the impulsive buying tendency and the emotional intelligence of a person [39] as shown in Table 2.

<table>
<thead>
<tr>
<th>Table 2. Summary of group statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI</td>
</tr>
<tr>
<td>----</td>
</tr>
<tr>
<td>IBT</td>
</tr>
<tr>
<td>IBT</td>
</tr>
</tbody>
</table>

Table 3. Summary of t-test of emotional intelligence and impulsive buying tendency

<table>
<thead>
<tr>
<th>IBT</th>
<th>Equal variances assumed</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBT</td>
<td>6.36</td>
<td>99</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

In this test, it can we observed that the value of df=99, which means that critical value must be above 1.98 according to the student’s t table. In the test performed, the t value obtained is 6.364, which is greater than the critical value and so emotional intelligence and impulsive buying tendency have a statistically significant correlation [40] as shown in Table 3.

Table 4. Summary of t-test of gender and impulsive buying tendency

<table>
<thead>
<tr>
<th>IBT</th>
<th>Equal variances assumed</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBT</td>
<td>3.45</td>
<td>87</td>
<td>0.01</td>
<td></td>
</tr>
</tbody>
</table>

This t-test indicated that the value of df = 88, which means that the critical value must be greater than 1.66. As observed above, the t value is 3.45 which is greater than 1.66. Thus, there is a statistically significant relationship between the 2 variables of gender and impulsive buying tendency as shown in Table 4.

Table 5. Summary of t-test of monthly expenditure and impulsive buying tendency

<table>
<thead>
<tr>
<th>IBT</th>
<th>Equal variances assumed</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBT</td>
<td>3.36</td>
<td>55</td>
<td>0.001</td>
<td></td>
</tr>
</tbody>
</table>

This t-test indicated that the value of df = 55, which means that the critical value must be greater than 2.00. As observed above, the t value is 3.36 which are greater than 2. Thus, there is a statistically significant relationship between the 2 variables of gender and impulsive buying tendency as shown in Table 5. This t-test indicated that the value of df = 99, which means that the critical value must be greater than 1.98. As observed above, the t value is 2.63 which is greater than 1.98. Thus, there is a low statistically significant relationship between the 2 variables of gender and impulsive buying tendency as shown in Table 6.
The t-test was used to measure the effect of emotional intelligence, gender, monthly expenditure and age on impulsive buying tendency. There was a statistically significantly relationship observed between emotional intelligence and impulsive buying tendency (t=6.36, p<0.0001). The participants who had a low emotional intelligence had a higher impulsive buying tendency (M=26.95) and those with high emotional intelligence had low impulsive buying tendency (M=19.66).

For the variable of gender, it was found out that though females did have a slightly higher mean (23.61) compared to the males (21.91), there was significant statistical importance to this criterion (p= 0.01, t=3.45).

There was also a difference observed in the average IBT across participants having different monthly expenditures. Adolescents who spent less than ₹500 per month (approx. less than $7) had an average IBT of 20.0, those spending between ₹.500 to ₹.1000 (approx. $7-$15) it is 22.7, those spending between ₹1000-₹3000 (approx. $15-$44) it is 24.68, those spending between ₹3000-₹5000 (approx. $44-$73) it is 25.6, and those spending more than ₹5000 (approx. $73) it is 26.625. It was observed in the t-test performed that the impact of the monthly expenditure is not as significant as the emotional intelligence of the individual (t=2.79, p=0.0294). This implied that higher the amount of monthly expenditure for the participant, higher is the value of the Impulsive Buying Tendency and Impulsive Buying Behaviour.

The results show that age is a marginal factor in determining the impulsive buying tendency of an adolescent. While teens aged 15 years had an average IBT of 19.75, teens aged 19 years have an average IBT of 33. Using the t-test analysis, it was understood that there is a statistically low significance of age to the Impulsive Buying Behaviour. (t=2.36, p=0.018). Thus, as the age of an individual increases, the impulsive buying tendency of an individual also increases. In cases where the adolescent’s age is at the lower bound, they usually have lower impulsive buying tendency.

5. Conclusion

The results of this study clearly demonstrated that there is a significant correlation between impulsive buying and emotional intelligence. It was observed that people with high EI, usually have low IBT, while people with low EI have a high IBT. Previous studies such as the one conducted by [19] illustrate that there is a strong relationship between impulsive buying behaviour and the value of the Impulsive Buying Tendency, thus establishing a significant relationship between impulsive buying behaviour and emotional intelligence. It can also be inferred that people with high EI have a greater emotional well-being and mental state. These people are well prepared to control their emotions, making them more neutral and in a better position to understand themselves and others. Consequently, they will less likely engage in impulsive buying as they are able to control their desires and urges better than the adolescents with low EI.

The study also demonstrated high relevance of the gender of adolescents to the impulsive buying behaviour. This is however in contradiction to various studies including the research conducted by [41-42] which suggest that males have high impulsive buying behaviour; however it must be considered that all these studies were conducted on the adult population, and females in the phase of adolescents could have a higher chance of exhibiting impulsive buying behaviour. The monthly expenditure has little significance in the impulsive buying behaviour of an adolescent. While various studies demonstrate that the income of an adult plays an important role in the impulsive buying behaviour, it can be understood that in adolescents this is not completely true.

### Table 6. Summary of t-test of age and impulsive buying tendency

<table>
<thead>
<tr>
<th>IBT</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal variances assumed</td>
<td>2.63</td>
<td>99</td>
<td>0.018</td>
</tr>
</tbody>
</table>

4. Results and Discussion
There could be 3 possible reasons for this behaviour: (i) the adolescents are not fully aware of the budget of the family, (ii) the parents agree on buying whatever is being asked for, (iii) though the child is aware of the family income and budget, his/her emotions are overpowering the buying necessity. There was also a less significant relationship between age and the impulsive buying tendency. It was observed that as age increases, the impulsive buying tendency of the person also increases. This is in accordance with the study conducted by [43] which suggested that the impulsive buying behaviour increases marginally with age.

It is important to understand the impulsive buying behaviour of adolescents, to enable companies to build product strategies targeting this age group. By easily swaying with a teenager’s emotions through effective marketing strategies, the companies are able to earn higher profit margins. Though the behaviour of teens is similar to the adults, it can be understood that the teenagers don’t have complete and full knowledge of what they want, and can often buy things in haste. They enjoy buying things spontaneously. Additionally, shopping has been identified as a daily activity for many adolescents [19]. To ensure that the teens spend their money wisely, elders should be cognizant of this behaviour and try to reduce its negative impact on the teenagers [19].

6. **Appendix: The questionnaire**

   **Section 1- Demographic details**
   1. Age: ________
   2. Gender: ____________
   3. The average amount of money spent per month
      - Less than ₹500
      - ₹500 - ₹1000
      - ₹1000 - ₹3000
      - ₹3000 - ₹5000
      - More than ₹5000

   **Section 2- Impulsive buying tendency measure and emotional intelligence measure [44]**
   Please input your response in a scale of 1-5, where 1= strongly disagree and 5= strongly agree
   1. “I know when to speak about my personal problems to others.”
   2. When I am faced with obstacles, I remember times I faced similar obstacles and overcame them.
   3. I expect that I will do well on most things I try.
   4. Other people find it easy to confide in me.
   5. I find it hard to understand the non-verbal messages of other people.
   6. Some of the major events of my life have led me to re-evaluate what is important and not important.
   7. When my mood changes, I see new possibilities.
   8. Emotions are one of the things that make my life worth living.
   9. I am aware of my emotions as I experience them.
   10. I expect good things to happen.
   11. I like to share my emotions with others.
   12. When I experience a positive emotion, I know how to make it last.
   13. I arrange events others enjoy.
   14. I seek out activities that make me happy.
   15. I am aware of the non-verbal messages I send to others.
   16. I present myself in a way that makes a good impression on others.
   17. When I am in a positive mood, solving problems is easy for me.
   18. When I am in a positive mood, I am able to come up with new ideas.
   19. By looking at their facial expressions, I recognize the emotions people are experiencing.
   20. I know why my emotions change.
   21. I have control over my emotions.
22. I easily recognize my emotions as I experience them.
23. I motivate myself by imagining a good outcome to tasks I take on.
24. I compliment others when they have done something well.
25. I am aware of the non-verbal messages other people send.
26. When another person tells me about an important event in his or her life, I almost feel as though I have experienced this event myself.
27. When I feel a change in emotions, I tend to come up with new ideas.
28. When I am faced with a challenge, I give up because I believe I will fail.
29. I know what other people are feeling just by looking at them.
30. I help other people feel better when they are down.
31. I use good moods to help myself keep trying in the face of obstacles.
32. I can tell how people are feeling by listening to the tone of their voice.
33. It is difficult for me to understand why people feel the way they do.
34. Most of my purchases are planned in advance.
35. Before I buy something I always carefully consider whether I need it.
36. I carefully plan most of my purchases.
37. I sometimes buy things because I like buying things, rather than because I need them.
38. I buy what I like without thinking about consequences.
39. I buy products and services according to how I feel at that moment.
40. It is fun to buy spontaneously.”[44]

A sample of the Likert scale used is:

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1 2 3 4 5
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7. References


40. What is a statistically significant relationship between two variables? https://simplyeducate.me/2014/05/29/what-is-a-statistically-significant-relationship-between-two-variables/. Date accessed: 29/05/2014.


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