How the Situational Factors Impact the Consumers to Buy Food and Grocery Products Impulsively: A Study Conducted in the Organized Retail Formats of Kolkata

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Abstract

Impulsive purchasing is quickly becoming one of the highly observable behaviour for an increasing number of Indian consumers. Situational factors as experienced by the consumers inside an organized retail format affect the consumers to purchase different food and grocery products impulsively. These situational factors are impacted by a number of socio-economic and technological issues such as increase in online transaction facilities, unavailability of time to shop leisurely, increase in disposable income, financial independence of young shoppers, peer pressure, nuclear family structure etc. Food and grocery retailers might capitalize this change of buying pattern among tech-savvy and time pressed urban consumers by offering a range of technological facilities along with a decent service quality. This research studies the impact of the various situational factors eliciting impulsive buying behaviour among the consumers in the organized retail food and grocery outlets in Kolkata, through consumer survey by a standardized questionnaire.

Keywords: impulse buying, consumer behaviour, situational factors, organized retail food and grocery outlets, survey
1. Introduction

Impulse buying behaviour is an unplanned buying act which can take place in certain circumstances. Usually before purchasing any product the consumers follow some rational steps which are disrupted by the Impulse purchasing behaviour. The situation related factors such as presence of peers, friends and family members while purchasing, availability of free time to explore the retail stores, availability of disposable income and availability of credit facilities, complements this behaviour.

Past studies have showed that buying behaviour among the Indian consumers has been changed dramatically and an increasing number of the Indian consumers are cosseting in the impulsive buying activity. Construction of newer and technologically superior shopping malls, supermarkets and hypermarkets, availability of disposable earnings among the Indian working class consumers, increasing financial independence and freedom among the Indian youth, a rising number of nuclear families in India, availability of an increasing number of Automated Teller Machines installed by different banks and other financial organizations, ease of using debit and credit cards in Point of Sales terminals, are some of the reasons enticing Indian consumers to indulge into impulsive buying behaviour.

A number of previous studies that were undertaken in different parts of the world indicated that consumers generally exhibits situational impulsive purchasing behaviour while shopping in different organized retail formats. But, as far as the Indian retail scenario is concerned, very few studies have been conducted on the Indian consumers to predict about those situational factors which might stimulate such activities.

Thus, in this study the researcher intends to find out the important situation related facets that arouse the consumers to exhibit the impulsive buying activities and to test the strength of association between those inducing factors and the impulsive purchasing behaviour in case of Indian retail formats.

2. Objective of the Study

In this study the two main objectives are
i) To understand the impact of shopping companions on consumers’ impulsive buying behaviour in the organized retail format for food and grocery products.
ii) To examine the effect of availability of leisure time on the impulsive buying behaviour of the consumers in organized retail formats of Kolkata while buying food and grocery products.
iii) To understand the impact of financial capacity of the consumers on the impulsive buying behaviour in organized retail formats of Kolkata while buying food and grocery products.

3. Literature Review

Different researchers have defined impulsive purchasing behaviour in different way such as:
1) Impulse buying is a rapid and instant purchase with no pre shopping intentions either to buy the specific product category or to fulfill a specific buying task (Beatty & Ferrell, 1998);

2) Impulse buying is characterized by high emotional activation, low cognitive control and largely reactive behaviour (Weinberg et al. 1982);

3) An unplanned and sudden buying act, in response to subjective or external stimuli, accompanied by a powerful and persistent urge after the purchase followed by customers emotional, cognitive and behavioural reactions (Xiao & Nicholson, 2012).

4. Situational Factors and Impulsive Buying

Situational factors denote both the environmental factors and the personal factors which are present at the time when the consumer is purchasing impulsively (Dholakia, 2000). These factors include the time available, money available, and impact of peers.

4.1 Impact of peers:

A shopping companion acts like as a spur in the impulse purchase process creating a pleasant environment for the consumers to purchase a product that was not premeditated earlier. Thus the shopping mates perform a role to encourage the impulsive buying behaviour. Research indicated that consumers attempt to follow the group norms and make an effort to satisfy the aspirations of the other members of the group by behaving in a cohesive manner as other fellows of the group. The presence of a shopping partner in a retail environment has mixed effects on impulse buying behaviours because interaction with others has an informational component and it impacts the cognitive aspect of impulse buying (Silvera et al, 2008) which could occasionally decrease the probability of purchasing on impulse. Xueming Luo (2005) indicated the presence of peers augmented the desire to purchase whereas it is reduced in the presence of family members.

4.2 Availability of Time:

When a consumer has a lot of leisure time the probability that the individual will behave impulsively will be greater and the consumer devotes extra time to explore the store (Beatty and Ferrell, 1998). Probability of buying impulsively will increase when the buyer devotes more time as the shopper will find and view the impulse generating products inside the store (Jeffrey & Hodge, 2007). Thus the availability of time has positive consequence on impulse purchase, whereas time pressure has a negative influence on unplanned buying behaviour (Beatty & Smith, 1987). Beatty and Ferrell (1998) found that there is significant influence of available time on impulse buying. Time is an important factor in retail setting because there is a simple correlation between the lengths of time the buyer spends at the store and the amount spent on purchasing (Yalch and Spangenberg, 2000).
4.3 Availability of Money:
Since the money plays the role of a catalyst to purchase the desired products, the researchers have identified the association between the availability of money with the impulse purchasing behaviour. Consumers like to avoid purchasing the products and also the shopping environment in case they feel the shortage of the required money. When the consumers feel that they have enough money it generates a better shopping mood and this increases the tendencies of impulsive purchasing behaviour (McGoldrick, 2002).

4.4 Availability of Credit Card:
In today’s retail scenario, for most of the purchase done in the organized retail formats such as in the shopping malls, the payment is usually made with a credit or debit card or money transfer. The availability of credit cards has been regarded as having a positive influence on impulsive purchase behaviour as indicated by a number of researchers. Having a credit card stimulate consumers to exhibit impulse purchase behaviour (Maha Jamal, Samreen Lodhi, 2015). Consumers do not indeed feel like spending money when the payments are made using credit cards (Dittmar & Drury, 2000).

4. Research Methodology
In this research the positivist philosophical approach was followed. The gathered data was also influenced by its external environments and also with the individual bias of the respondents.

4.1 Hypothesis Formulation
“A hypothesis can be defined as a tentative explanation of the research problem, a possible outcome of the research, or an educated guess about the research outcome” (Sarantakos, 1991). Based on the review of literature and conceptual framework stated before the hypotheses are formulated as follows:

4.2 Research Hypotheses
$H_{01}$: The impulse buying behaviour of consumers is not affected when the consumer is shopping food and grocery products with shopping companions in organized retail formats of Kolkata city.

$H_{a1}$: The impulse buying behaviour of consumers is affected when the consumer is shopping food and grocery products with shopping companions in organized retail formats of Kolkata city.

$H_{02}$: The impulse buying behaviour of consumers is not affected when the consumer has availability of leisure time while shopping food and grocery products in organized retail formats of Kolkata city.

$H_{a2}$: The impulse buying behaviour of consumers is affected when the consumer has availability of leisure time while shopping food and grocery products in organized retail formats of Kolkata city.

$H_{03}$: The impulse buying behaviour of consumers is not affected when the consumer has enough financial capacity while shopping food and grocery products in organized retail formats of Kolkata city.
H_03: The impulse buying behaviour of consumers is affected when the consumer has enough financial capacity while shopping food and grocery products in organized retail formats of Kolkata city.

4.3 Research Technique Used for this Research

In this study Survey is used as a research technique. The information gathered from the secondary sources / literature review has facilitated to form the questionnaire. The survey questionnaire consists of two sections. The first part was designed primarily to collect the demographic information of the consumers. The second part of the questionnaire comprises a number of statements which aims to identify the situation related issues inducing the impulsive buying behaviour of the respondents. To collect the responses of the respondents a five point Likert Scale is used. One hundred and twenty five consumers were participated correctly and returned the completely filled up questionnaire. Both male and female respondents were surveyed across different age groups, who buy food and grocery products from different organized retail formats in Kolkata city.

4.4 Sampling Technique

Stratified random sampling method is followed in this study. Shoppers visiting the organized retail formats of Kolkata comprise the populations of this study. The entire population of consumers is divided into different strata depending on the geographical location of the organized retail formats in the city of Kolkata. The consumers were also sampled according to shopping time of the consumers. That is in a particular geographic area consumers are surveyed in morning, afternoon and even hours of weekdays and weekends.

5. Data Analysis and Findings

Collecting substantial data from the consumers, the data was coded and edited to facilitate the analysis of the collected data. The coded data was analysed through different statistical techniques in order test the hypotheses formed. Analysis was conducted with the help of SPSS software. First Pearson chi square test, likelihood ratio and linear by linear association tests were used to analyze collected the data. Then exploratory factor analysis was done for the reduction of the variables.

5.1 Measurement of Reliability of the Questionnaire

Cronbach's alpha is a measure of internal consistency, i.e., how closely related a set of items are as a group. In most social science research, the acceptable value of the Cronbach's alpha is 0.6 or more.

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.697</td>
<td>.692</td>
<td>7</td>
</tr>
</tbody>
</table>

The alpha coefficient for the seven items is 0.697, indicating that the items have acceptable level of internal consistency.
5.2 Assumptions for Pearson Chi-Square test

In this study the Pearson Chi-Square test was conducted using SPSS software based on the collected data. The situational variables are analyzed by the Pearson chi-square test for independence of attributes to test the hypothesis of no association of columns and rows in tabular data. The level of significance was kept at five per cent. If the p-value for any situation related attribute against the purchase behaviour is lower than that (five per cent), the null hypothesis of no association between the corresponding attribute and impulse purchase behaviour is rejected. Therefore, it can be concluded that the corresponding attribute significantly affect purchase behaviour. Otherwise the null hypothesis can’t be rejected based on the available data and the study concludes that the corresponding attribute does not significantly affect purchase behaviour.

Table -2 P value of the Situational variables for Food and Grocery Product

<table>
<thead>
<tr>
<th>Statement No</th>
<th>Factors influencing Buying</th>
<th>Pearson Chi-Square</th>
<th>Likelihood Ratio</th>
<th>Linear -by-Linear Association</th>
<th>P value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>Usually I purchase a product suddenly when I am shopping alone.</td>
<td>49.797</td>
<td>49.734</td>
<td>44.753</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>ii</td>
<td>Usually I purchase a product suddenly when I am shopping with my friends/peers.</td>
<td>24.846</td>
<td>24.039</td>
<td>21.057</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>iii</td>
<td>Usually I purchase a product suddenly when I am shopping with my family members.</td>
<td>13.207</td>
<td>15.967</td>
<td>10.789</td>
<td>0.01</td>
<td>Significant</td>
</tr>
<tr>
<td>iv</td>
<td>I used to purchase in holidays because I can spend a lot of time to explore the stores.</td>
<td>19.603</td>
<td>17.817</td>
<td>10.832</td>
<td>0.001</td>
<td>Significant</td>
</tr>
<tr>
<td>v</td>
<td>I often purchase unintentionally when I spent more time inside the store.</td>
<td>42.498</td>
<td>38.533</td>
<td>36.533</td>
<td>0.000</td>
<td>Significant</td>
</tr>
</tbody>
</table>
I purchase a lot of unintended products when I have enough cash in my wallet. 15.282 13.924 12.057 0.004 Significant
I generally use Credit Card to buy Products. 36.375 36.422 28.696 0.000 Significant

**Situational Factors crosstab:**

From statement - i), ii) and iii) we reject the Null Hypothesis \( H_{01} \) and conclude that the impulse purchasing behaviour of shoppers regarding the food and grocery items in organized retail formats of Kolkata city is affected by shopping companions.

From statement - iv) and v) we reject the Null Hypothesis \( H_{02} \) and conclude that the impulse purchasing behaviour of shoppers is affected by the availability of leisure time of consumers while shopping food and grocery products in organized retail formats of Kolkata city.

From statement - vi) and vii) we reject the Null Hypothesis \( H_{03} \) and conclude that the impulse purchasing behaviour of shoppers is affected by the financial capacity of the consumers while purchasing food and grocery products in organized retail formats of Kolkata city.

**5.3 Exploratory Factor Analysis**

In this study **Exploratory Factor Analysis** was conducted with the help of this one hundred and twenty five respondent data. The numbers of variables are reduced to simplify the analysis, thereby interpreting the results easily. All the items contained in the second part of the questionnaire were all exposed to the Exploratory Factor Analysis (EFA) to group the statements under different heads. Principal component analysis was used with rotation Varimax to generate the factors.

### Table 3  KMO and Bartlett’s Test

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>0.678</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett’s Test of Sphericity</td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>184.018</td>
</tr>
<tr>
<td>df</td>
<td>21</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**Kaiser-Meyer-Olkin Measure of Sampling Adequacy:** The value of the KMO statistic is 0.678, which is well above the minimum criterion of 0.5 and can thus be concluded that the sample size is adequate for factor analysis.

**Bartlett’s Test of Sphericity:** The significance of Bartlett’s Test of Sphericity is 0.000 which is less than 0.05. Therefore, the null hypothesis that the correlation matrix is an identity matrix can be rejected This indicates that correlation matrix is significantly different from an identity matrix and the correlations between variables are (overall) significantly different from zero and therefore factor analysis can be applicable.
Table – 4 Total Variance Explained

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
<td>Cumulative %</td>
</tr>
<tr>
<td>2</td>
<td>1.346</td>
<td>19.228</td>
<td>55.719</td>
</tr>
<tr>
<td>3</td>
<td>1.064</td>
<td>15.199</td>
<td>70.918</td>
</tr>
<tr>
<td>4</td>
<td>.670</td>
<td>9.566</td>
<td>80.484</td>
</tr>
<tr>
<td>5</td>
<td>.584</td>
<td>8.341</td>
<td>88.824</td>
</tr>
<tr>
<td>6</td>
<td>.414</td>
<td>5.907</td>
<td>94.732</td>
</tr>
<tr>
<td>7</td>
<td>.369</td>
<td>5.268</td>
<td>100.000</td>
</tr>
</tbody>
</table>

The total variances explained are presented in Table 4 and the Scree plot is in Figure 1. Seven factors explain the total variance of the model. But, the scree-plot shows that only three factors having eigenvalues greater than one need to be retained, explaining 70.92% of the variance. Results from EFA are shown in Table 5.

The scree plot is shown above. It plots the eigenvalue against the component number. From the third component on, it can be seen that the line is almost flat, meaning the each successive component is accounting for smaller and smaller amounts of the total variance. Here only those principal components whose eigenvalues are greater than 1 are considered only.

**Rotated Component Matrix**

The Varimax rotation method is used to get a rotated component matrix which clubs all the seven items into three components. All the items with a factor score of more than 0.5 which is the accepted criterion for analysis (Hair et al., 2006), were taken into considered for the analysis.

![Figure - 1 Scree Plot](image-url)
Table – 5 Rotated Component Matrix

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usually I purchase a product suddenly when I am shopping alone.</td>
<td>.781</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usually I purchase a product suddenly when I am shopping with my friends/peers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usually I purchase a product suddenly when I am shopping with my family members</td>
<td>.857</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I used to purchase in holidays because I can spend a lot of time to explore the stores</td>
<td></td>
<td></td>
<td>.879</td>
</tr>
<tr>
<td>I often purchase unintentionally when I spent more time inside the store.</td>
<td></td>
<td>.835</td>
<td></td>
</tr>
<tr>
<td>I purchase a lot of unintended products when I have enough cash in my wallet</td>
<td></td>
<td>.901</td>
<td></td>
</tr>
<tr>
<td>I generally use Credit Card to buy Products.</td>
<td></td>
<td></td>
<td>.586</td>
</tr>
</tbody>
</table>

**Component** – The columns under this heading are the principal components that have been extracted. As we can see, three components were extracted (the three components that had an eigenvalue greater than 1). Here, the component scores are used for data reduction. In case same item appears for any two components or if the same item appears for the each of the three components, we will associate the item to that component where the component score is greater.

Here we associate 1st and 3rd item (marked yellow) to component 1 as their values are the greatest for the component 1 with respect to component 2 and component 3. Similarly we associate 5th and 6th item (marked green) to component 2 and 4th and 7th item to component 3 (marked pink).

Hence from total 3 items (marked yellow) we construct the component 1 and from total 2 items (marked green) we construct component 2 and from total 1 item (marked pink) we construct component 3.

The situational factors related statements are grouped in the following factors:

- **Factor 1** ------- Shopping partners
  - i) Purchasing when shopping alone, ii) Purchasing when shopping with family members.

- **Factor 2** ------- Shopping time and money
  - i) Unintentional purchasing when spending more time inside the store, ii) Having enough cash

- **Factor 3** ------- Shopping convenience
  - i) Purchase on holidays, ii) Using Credit Card

**6. Conclusion**

The consumers in general follow some rational steps of decision making before
purchasing any product. But the Impulse buying behaviour disrupts this rational decision making process. It is rapid and instantaneous in nature.

In this study the researcher’s objective is to identify the situation related issues that causes the consumers to impulsively purchase food and grocery products in the organized retail formats in Kolkata city. Survey is the research technique that is employed in this study. To collect the data from the shoppers a five point Likert Scale was designed in this study. A total of one hundred and twenty five shoppers filled up the questionnaire correctly which serves as the sample size for the purpose of this research. Stratified random sampling method was used while conducting the survey among the consumers.

In this study the value of Cronbach's alpha is also found to be 0.697 which indicates that the multiple-question Likert Scale surveys are reliable.

To test to hypotheses of this study the Pearson Chi-Square test for independence of attributes was performed using SPSS software.

To reduce the number of variable in the questionnaire the Exploratory Factor Analysis of all the items in the questionnaire was performed in this study to find out the latent variables. With this analysis, three latent variables (Shopping partners, Shopping time and money and Shopping convenience) are identified in the Situation related statements as responded by the buyers, triggering the consumers to buy food and grocery products impulsively.

7. Managerial Implications

Based on the various analysis of this study a few business implications can be suggested. These are:

i) Shopping partners influence the consumers to purchase impulsively. Depending on the type of shopping partners (friend/peers and family members) the individual preference of the shoppers are modified. Therefore, manufacturers need to design the products depending on the functionality and usefulness of the products. In presence of the friends/peers, shoppers might be tempted buy food and grocery products which are ready to eat and technologically modern and suits the busy life-style of the young urban consumers. Similarly, in presence of the family members consumers usually look for the usefulness and efficacy of the food products. Keeping this in view the product managers need to design the product innovatively and should give proper attention while designing the layout of the package. To draw the attention of the time pressed consumers and to stand out of the product clutter, the aesthetics and colour schemes of the packages need to be designed creatively. To assure the conscious urban consumers about the quality of the product, product ingredient related information should be displayed on the packages clearly so that consumers can easily read those at a glimpse. Package should be designed
keeping a view to the ease of usage of the products.

ii) Shopping convenience also influence the impulsive buying tendency of the consumers. Availability of online transaction facilities especially ease of using debit and credit cards in Point of Sales terminals plays a crucial role for the busy tech-savvy urban shoppers. Young urban consumers usually prefer to use credit card while purchasing a product because of many reward facilities. When consumers use credit cards they don’t get anxious while purchasing because it gives them a feeling they are not spending money. Also, the urban office goers prefer to shop on holidays as they get the adequate time. Therefore, the working hours need to be extended on holidays and full strength of sales staff must be present on holidays to assist the shoppers. Additionally, the different service utilities like escalators, parking facilities, clean drinking water and clean washroom facilities should be available on all holidays.

8. Limitations of This Study

1. In this research a survey of one hundred and twenty five buyers was conducted because in the post Covid situation many of the consumers are buying food and grocery products online rather than visiting brick and mortar stores. This has created a problem as far as the data collection for the organized retail formats is concerned. However, a better result could have been achieved if the number of respondents were more than the currently surveyed number.

2. Only the consumers who visit the organized retail formats in Kolkata city were surveyed in this study. The survey could have been done in many other cities of West Bengal and India to get a more comprehensive interpretation about the impulsive buying behaviour of the consumers.

3. In this study, the researcher has conducted Pearson Chi square analysis and Exploratory Factor analysis using SPSS software. However, a binary logistic regression analysis could have been conducted to predict whether a particular consumer will buy food and grocery products impulsively or not based on factor scores. Some additional statistical tests such as analysis of variance, cluster analysis, confirmatory factor analysis etc. might have also been performed.

4. In this study, the collected data was analysed with the help of the SPSS software. Some other statistical software such as the Stata or AMOS could have been used to infer the result more clearly.

9. Scope for Future Research

By reviewing the past literature the study hypothesized that the impulsive buying behaviour of the consumer depends only on a few situational variables. Accordingly the survey questionnaire was designed to measure the different facets of these situational variables only. However, impulse buying behaviour can also depend on some other situational variables that the current study might have been omitted. These factors need to be included in the future research.
References


