Impact of In-Store Environment Perception on Impulse Purchasing Behaviour at Supermarkets in Trincomalee District

V R Ragel & K Nirushan
Eastern University, Chenkalady, Sri Lanka
(Received: 28/10/2016; Accepted: 20/03/2017)

Abstract
This study considers impact of in-store environment perception on impulse purchasing activities in the context of supermarkets in Trincomalee district. The data was collected from 200 customers with a structured questionnaire and the data was evaluated with univariate, bivariate and multivariate analyses to explore the levels of the variables, their relationship and their influences. Customers have shown high level of in-store environment perception at the supermarkets in Trincomalee district. It means, all the in-store stimuli have been organized well at the supermarkets. Layout has more influence on creating positive affect as well as negative affect on consumers’ perception. In-store environment perception is useful to explain about 22% of positive effect and 29% of negative effect. Pearson’s correlation shows that positive affect has strong positive relationship ($r = 0.671$) with urge to buy and negative affect has medium negative relationship ($r = -0.341$) with urge to buy. Urge to buy has medium positive relationship (0.441) with impulse purchasing behaviour. Negative affect and positive affect is useful to explain about 45.1% variation of urge to buy and urge to buy is useful to explain about 20% variation of impulse purchasing behaviour of the customer at supermarkets in Trincomalee district.

Keywords: Impulse Purchasing, Physical Evidences, Urge, In-store environment perception
JEL Classification: M3, M31
Paper Classification: Research Paper

Introduction
In this contemporary business world, retail sector has been changing in different format and becomes a major part of service sector. According to the annual report of Central Bank of Sri Lanka in 2014, the Retail Industry drives a larger proportion of the nation’s economy, and hence plays an important role in building up the Gross Domestic Income of the country. Among the service sub sector, the Wholesale and Retail Trade industries recorded a significant growth of 22.8 percent. The supermarket chains in Sri Lanka have emerged as a major segment within the retailing industry and the industry is showing signs of continued robust growth. Within the last five years the supermarket penetration has increased by over 60% (Herath, S.B., 2014).

With the changes in the consumers purchasing patterns, it is very much important for the supermarket to understand what, where and when the customer requires and in which manner. It
is evident that the shoppers are now more and more experience seeking rather than mere product seeking (Moore, 2006). According to Hu and Jasper (2006),

*The customers’ purchasing experience could be determined by the physical stimuli, which is set inside the store and it could induce the impulse purchasing behavior of a customer.*

In Trincomalee district, supermarkets are becoming a preferable choice for customers to do their purchasing. People like to spend their time willing to get an enjoyable experience in supermarkets. Modern customers have busy lives. They want to shop at convenient locations and at convenient times. Therefore people go specifically to a supermarket rather than a local Mom-&-Pop store.

Following supermarkets which are situated in Trincomalee district, are taken into consideration for this study.

- Cargills Food city (2 Branches)
- Malika Store
- Lanka Sathosa
- Co-op city
- Gandhi Kalanchiyam

The focus of this study is on consumer perception, within these above mentioned supermarkets, which are situated in Trincomalee district. The study looks at how these in-store physical stimuli or elements such as Layout, Music, Lighting, Employees and Store crowding would impact the customer impulse purchasing behavior through creating positive and negative moods.

**Literature Review**

Impulse buying is defined by Betty & Farrell, 1998; Weun, Jones & Betty, 1998 as purchases done by shoppers who are not actually looking for products and don’t have previous plans to buy a specific product but purchasing happens as a result of internal states and environmental factors triggering them to make the purchase. Impulse purchasing means an unplanned purchase without prior intentions. It accounts for 62% of supermarket sales and 80% of all sales in certain product types (A. Vinayagamoorthy & P. Kannan, 2015).

The physical environment is the space by which you are surrounded when you consume the service. So for a meal this is the restaurant and for a journey it is the aircraft in which you travel inside. The physical environment is made up from its ambient conditions; spatial layout and functionality; and signs, symbols, and artefacts (Zeithaml 2000); Services as we know are largely intangible. However customers tend to rely on physical cues to help them evaluate the product before they buy it. Therefore marketers develop physical evidence to replace these physical cues in a service. The role of the marketer is to design and implement such tangible evidence. Physical evidence is the material bodies of service. The in-store physical evidences of the supermarket are one of the key elements which influence the purchase decision made by the shoppers. The importance of the store environment is emphasized as buying environment can be decisively designed to persuade particular motive effects in shoppers, thus enhancing their purchasing ability (Kotler, 1974).

Store lighting refers to the proper amount of lighting availability inside the store for the customers to better view the products available at the store and helps to get buyer’s attention to
the key sales points. The appropriate use of lighting such as product spotlight and dim ambient lighting was effective in establishing a play mentality for the shoppers to enhance enjoyment inside the store (Paul W. Ballantine, 1992).

The background music can play an important role in providing entertainment for shoppers but they have also mentioned that too much music and too much of sounds will be conflicting to the customers and disrupt them (Turley and chebat, 2002).

Store layout is the way by which the store is arranged. According to Bitner (Bitner et al., 1997) if the store layout is convenient and easy to find the products, customers feels this as a positive purchasing experience and most of the time they are looking for a logical store layout and sufficient signage.

The employees of the store act as the agents of the store who are in direct contact with the customers. The shop staff can make a positive impact on the customer buying behavior or help make the purchase or even make a negative state in the customer’s mind. Buyer’s behaviour can be crucially influenced by employee’s responses (Bitner, 1990).

Store crowding creates a sense of losing privacy and usually develops psychological pressure (Stokols, 1972). Huge shop densities make consumers reduce shopping time, adjourn purchases, reduce interpersonal skills and concentrate only on shopping lists (Turley and chebat, 2002).

Urge is a form of desire that is experienced upon coming across an object in the shopping location such as a specific product, model or brand (Rook, 1987; Dholakia, 2000). It is unprompted, sudden and clearly leads to the actual impulse action (Beatty and Ferrell, 1998). As shoppers look around in a store, they experience more and more urges, and it creates possibility of high impulse purchase (Beatty and Ferrell, 1998).

Research gap and Contribution of the Study

Previous studies on impulse buying identified its many previous circumstances, including individual characteristics such as impulse buying tendency (Weun et al., 1998) and ideal stimulation level (Sharma et al., 2010a), product category variables such as association (Jones et al., 2003) situational factors such as time, money and convenience (Beatty and Ferrell, 1998).

Present researches on store environment explore the influence of its several essentials on consumer behavior. For example, behavior and actions of the store employees can influence the customer’s attitudes towards purchasing and service quality (Hu and Jasper, 2006). Similarly, some factors such as convenience, quality, variety and value, can lead to positive attitude toward private labels (Collins-Dodd and Lindley, 2003; Vahie and Paswan, 2006) and store brands (Semeijn et al., 2004).

Beatty and Ferrell (1998) recommended a model of impulse buying including some situational variables (time and money available) and consumer traits (impulse buying tendency, shopping enjoyment tendency) but did not include store-level factors. Likewise, Baker et al. (2002) studied the impact of store environment on patronage, but not on impulse buying. Sherman et al. (1997) explored the impact of store layout, environment, and sales personnel on unplanned buying. They did not consider behavior of the customer (Stern, 1962).

It is very essential to investigate the impact of physical evidences on impulse purchasing behavior to understand the importance of store level factors on sales growth. This research addresses this major gap in existing literature by studying the impact of five elements of store
environment (music, light, layout, employees and in-store crowd) and, in line with prior research, this research included positive and negative affect (Beatty and Ferrell, 1998), and the urge to buy impulsively (Dholakia, 2000) as mediators of the influence of store environment and individual variables on impulse buying behavior.

Conceptual Framework
From the literature survey, following conceptual model was developed. This conceptual framework shows link between In-store environment perception and Impulse purchasing behaviour.

![Figure 1: Conceptual Model](modified_model.png)

(Modified Model, adopted from the study done by Geetha Mohan, Bharadwaj Sivakumaran and Piyush Sharma, 2011)

Variables Studied and their detailed definition
The store environment perception: The store environment perception means, Customers’ emotional thinking about the physical surrounding of the store through some features such as music, lighting, layout, sign and persons, can also be divided into external and internal environment (the interior and the exterior of the store).

Music: Sound from instruments or vocals in such a way as to create beauty of form, harmony, and expression of emotion (oxford dictionary). Inside the supermarkets, customers usually concentrate on style of music and volume level.

Lighting: The arrangement or type of light in a place (oxford dictionary). It is difficult to find out the appropriate lighting level. Based on the climates or the atmosphere, customers need different level of lighting.

In-Store layout: Store layout means, overall design of the store interior. Convenient and comfort store layout can attract the customers. Generally buyers seek for spacious and well arranged stores.

Employees: Individual persons working for a firm or organization get paid for their work. This study, only investigate the behaviour of the employee towards the customers. But employees appearance also influences customer purchasing behaviour.
**Store Crowding:** Number of people involved in purchasing activities inside the store. Store crowding may influence customer positively as well as negatively.

**Impulse buying behavior:** Impulse buying behaviour refers to purchasing behaviour of the customers without any prior purchasing intention or idea. They seek to buy a product at the moment when they see. (Bayley and Nancarrow, 1998).

**Methodology**
This section specifies how this study has been conducted to examine the impact of in-store environment perception on impulse buying behavior at supermarkets in Trincomalee district.

**Research Design**
Research design plans and provides the path to do the study to obtain the validity of the findings (Mouton, 1996). According to the research design, the structured questionnaires were issued to the respondents (customers of supermarkets) by visiting the selected supermarkets. Thereafter, data so collected was entered in databases and databases were consolidated into one database for analysis. Descriptive analysis, correlation and regression analysis were employed to test the hypotheses. After analyses were preformed, findings were discussed. As a result of the findings, conclusions were drawn.

**Sampling Method**
This study considers the customers of 5 supermarkets, namely Cargils food city (2 Branches), Lanka sathosa, Co-op City, Malika store and Gandhi Kalanchiyam in Trincomalee district. Therefore sample size is limited to 200, based on a similar research study done by Ariyanayagam, Saranya and Ragel, V. R.. (2014). For the ease of access, convenience sampling method was used to select the respondents.

**Data Collection**
This study totally depends on primary data. The primary data were obtained through questionnaires from 200 customers of the supermarkets in Trincomalee district. Questionnaires were distributed to the customers at above-mentioned supermarkets with the permission of respective person. The questionnaire consists of two parts: personal information and research information.

Primary data were collected through closed ended statements in both questionnaires. Likert scale of 1-5 which ranges from “strongly disagree” to “strongly agree” was employed to identify the responses from customers.

**Method of Data Analysis and Assessment**

**Univariate Analysis**
Central tendency of mean median mode is considered. Mean value of every dimension and variable is evaluated with its standard deviation, coefficient of variance, standard error of mean, maximum data, minimum data, number of variables, and lower and upper limits of the mean result in combining standard error of the mean and standard normal deviate (Z-value).
The mean value is lying in the range of 1-5 and the value of each respondent for a variable is compared with the mean/median value 3, since it is assumed that (a) every respondent is unbiased and represents neutral state of agreement of 3 in the Likert’s scale, which (as population mean value 3) lies in a normal distribution with the 95% confidence limit; and (b) the 95% confidence limit is determined with sample standard deviation, since its population parameter is unknown.

Based on this confidence limit, data of the respondents (Xi) for a dimension/variable can be categorized into three as in Senthilnathan and Tharmi(2012) and Senthilnathan and Thusyanthy(2013).

### Table 1: Decision Criteria for Univariate Analysis

<table>
<thead>
<tr>
<th>Range for Decision Criteria</th>
<th>Decision Criteria</th>
<th>Decision Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X_i &lt; (3-Z \sigma_x)$</td>
<td>$X_i &lt; 3$</td>
<td>Low Level</td>
</tr>
<tr>
<td>$(3-Z \sigma_x) \leq X_i \leq (3+Z \sigma_x)$</td>
<td>$X_i = 3$</td>
<td>Moderate Level</td>
</tr>
<tr>
<td>$X_i &gt; (3+Z \sigma_x)$</td>
<td>$X_i &gt; 3$</td>
<td>High Level</td>
</tr>
</tbody>
</table>

Where $X_i$ = mean value of an indicator/dimension/ variable, $\sigma$= standard deviation, $Z$ = value of the 95% confidence limit in normal distribution and $\sigma_x$ = standard error of the mean.

### Bivariate Analysis

Bivariate analysis explores the relationship between the two variables (Babbie, 2009). In this context, the correlation analysis is carried out to measure the strength of relationship between the variables. Correlation analysis measures the magnitude (the coefficient of correlation $= r$) of the association of variables. The value “r” lies between -1 and +1.

This study assesses the significance of relationship variables, if the respective p-value is less than 0.05. However, irrespective of the significance level of the association between variables, the correlation becomes meaningful to an extent as indicated in following table as in Senthilnathan and Rukshani (2013).

### Table 2: Decision Criteria for Bivariate Analysis

<table>
<thead>
<tr>
<th>Range</th>
<th>Decision Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>$r = 0.5$ to $1.0$</td>
<td>Strong positive relationship</td>
</tr>
<tr>
<td>$r = 0.3$ to $0.49$</td>
<td>Medium positive relationship</td>
</tr>
<tr>
<td>$r = 0.1$ to $0.29$</td>
<td>Weak positive relationship</td>
</tr>
<tr>
<td>$r = -0.1$ to $-0.29$</td>
<td>Weak negative relationship</td>
</tr>
<tr>
<td>$r = -0.3$ to $-0.49$</td>
<td>Medium negative relationship</td>
</tr>
<tr>
<td>$r = -0.5$ to $-1.0$</td>
<td>Strong negative relationship</td>
</tr>
</tbody>
</table>

Note: Table 4.3 implies no correlation between two variables, if the range of $r$ is: $-0.1 < r < +0.1$.

### Findings

#### Level of physical evidences in In-store environment perception

Overall in-store environment perception has the mean value of 3.481 with standard deviation 0.403. This implies that level of in-store environment perception of the samples at supermarket in Trincomalee is high and it is also noted that about 100 percent of the respondents have the same
high level of attribute of in-store environment perception. It is also noted that all of the dimensions of in-store environment perception are found to be at high level in aggregate.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Music</th>
<th>Light</th>
<th>Employees</th>
<th>Layout</th>
<th>Store Crowd</th>
<th>IEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.271</td>
<td>3.942</td>
<td>3.523</td>
<td>3.517</td>
<td>3.151</td>
<td>3.481</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.148</td>
<td>0.707</td>
<td>0.757</td>
<td>0.828</td>
<td>0.803</td>
<td>0.403</td>
</tr>
<tr>
<td>Coefficient of Variance</td>
<td>0.351</td>
<td>0.179</td>
<td>0.215</td>
<td>0.236</td>
<td>0.255</td>
<td>0.116</td>
</tr>
<tr>
<td>Minimum</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Maximum</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>No of data</td>
<td>200</td>
<td>200.000</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Standard Error of mean</td>
<td>0.0811</td>
<td>0.0500</td>
<td>0.0535</td>
<td>0.0586</td>
<td>0.0568</td>
<td>0.0285</td>
</tr>
<tr>
<td>Z value (95%) CL</td>
<td>1.96</td>
<td>1.96</td>
<td>1.96</td>
<td>1.96</td>
<td>1.96</td>
<td>1.96</td>
</tr>
<tr>
<td>Low Level of mean (&lt;)</td>
<td>2.841</td>
<td>2.902</td>
<td>2.895</td>
<td>2.885</td>
<td>2.889</td>
<td>2.944</td>
</tr>
<tr>
<td>Upper Level of mean (&gt;)</td>
<td>3.159</td>
<td>3.098</td>
<td>3.105</td>
<td>3.115</td>
<td>3.111</td>
<td>3.056</td>
</tr>
<tr>
<td>Decision Attribute</td>
<td>HIGH</td>
<td>HIGH</td>
<td>HIGH</td>
<td>HIGH</td>
<td>HIGH</td>
<td>HIGH</td>
</tr>
</tbody>
</table>

Where IEP = In-store Environment Perception

This result finds that mean values of in-store environment perception reveals high level in overall as 3.481 at supermarkets in Trincomalee. The results reveal that all of the in-store environment perception’s dimensions have high level of attribute on in-store perception of the given sample of customer. The dimensions of Light, Employee and Layout have high level of attribute to the overall in-store environment perception (Light = 3.946, Employees = 3.523 and Layout = 3.517).

**Over all Physical evidence’s influence on positive affect**

<table>
<thead>
<tr>
<th>Model</th>
<th>R2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music</td>
<td>0.003</td>
<td>.415</td>
</tr>
<tr>
<td>Light</td>
<td>0.118</td>
<td>.000</td>
</tr>
<tr>
<td>Employees</td>
<td>0.001</td>
<td>.628</td>
</tr>
<tr>
<td>Layout</td>
<td>0.076</td>
<td>.000</td>
</tr>
<tr>
<td>Store_crowd</td>
<td>0.024</td>
<td>.025</td>
</tr>
</tbody>
</table>

According to the Table 4, P value less than 0.05 indicates that physical evidences have significant influence on positive affect. The R value is 0.472, which indicates a medium positive relationship between in-store environment stimuli and positive affect. The R2 value 0.223 indicates the independent variables Music, Light, Layout, Employees and Store crowd are useful to explain about 22.3% variation of positive affect in supermarkets.
Multiple regression analysis illustrated in Table 5 reveals the influence of each physical stimuli on positive affect of the customers. Light and Layout have p-value 0.000, and Store crowd has the p-value 0.025, which are less than 0.05. It means those three variables have significant influence on positive affect. Music and Employees have p-value higher than 0.05, which are 0.415 and 0.628 respectively. It reveals Music and Employees have no significant influence on positive affect at 0.05 level at supermarkets, and it should be dropped from the model.

Over all Physical evidence’s influence on negative affect

Table 6: Model Summary of Impact of overall Physical evidence on negative affect

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>-0.554a</td>
<td>.306</td>
<td>.167</td>
<td>0.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), MUSIC, LAYOUT, STORE CROWD, LIGHT, EMPLOYEES

Above table shows the P value is 0.000 which is less than 0.05 indicates physical evidences have significant influence on negative affect. The R value is -0.554, which indicates a strong negative relationship between in-store environment stimuli and negative affect. The R2 value 0.306 indicates the independent variables Music, Light, Employees and Store crowd are useful to explain about 30.6% variation of negative affect in supermarkets.

Impact of each Physical evidence on negative affect

Table 7: R² and P-values of each physical evidence in negative affect

<table>
<thead>
<tr>
<th>Model</th>
<th>R²</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music</td>
<td>0.100</td>
<td>.000</td>
</tr>
<tr>
<td>Light</td>
<td>0.011</td>
<td>.090</td>
</tr>
<tr>
<td>Employees</td>
<td>0.004</td>
<td>.306</td>
</tr>
<tr>
<td>Layout</td>
<td>0.260</td>
<td>.000</td>
</tr>
<tr>
<td>Store crowd</td>
<td>0.016</td>
<td>.043</td>
</tr>
</tbody>
</table>

From the multi regression analysis, above table shows the influence of each variable on negative affect of the customers. Music and Layout have p-value 0.000 and Store crowd has p-value 0.043, which are less than 0.05. It means those three variables have significant influence on negative affect. Light and employees have p-value higher than 0.05, which are 0.090 and 0.306 respectively. It reveals light and employees have no significant influence on negative affect at 0.05 level in supermarkets, and it should be dropped from the model.

Correlation between positive affect and urge to buy

Table 8: Correlation between positive affect and urge

<table>
<thead>
<tr>
<th>Positive Affect</th>
<th>Urge</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
<th>200</th>
<th>200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Affect</td>
<td>1</td>
<td>.671**</td>
<td>0.000</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Urge</td>
<td>Pearson Correlation</td>
<td>.671**</td>
<td>1</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>N</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
The table above shows a Pearson Correlation value of 0.671. The correlation lies between 0.5 and 1.0, thus confirming a strong positive significant relationship between positive affect and urge to buy. Correlation results between positive affect and urge to buy is significant at the 1% level (r = 0.671, p=0.00 < 0.01).

**Relationship between negative affect and urge to buy**

<table>
<thead>
<tr>
<th>Negative Affect</th>
<th>Urge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>200</td>
</tr>
</tbody>
</table>

**Table 9: Correlation between negative affect and urge to buy**

**. Correlation is significant at the 0.01 level (2-tailed).

According to the test results, it is shown that the relationship which exists between the two variables is not positive, in fact it is negative. The correlation lies between -0.3 and -0.49, thus confirming a medium negative relationship between positive affect and urge to buy. Correlation results between negative affect and urge to buy is significant at the 1% level (r = -0.349, p=0.00 < 0.01).

**Relationship between urge to buy and Impulse purchasing behavior**

<table>
<thead>
<tr>
<th>Urge</th>
<th>Impulse Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>200</td>
</tr>
</tbody>
</table>

**Table 10: Correlation between urge to buy and impulse purchasing behavior**

**. Correlation is significant at the 0.01 level (2-tailed).

The table above shows a Pearson Correlation value of 0.447 which lies between 0.3 and 0.49. Thus, confirming a medium positive relationship between the two variables. Correlation results between urge to buy and impulse buying behaviour is significant at the 1% level (r = 0.447, p=0.00 < 0.01).

**Conclusion and Recommendation**

Entirely, customers have highly perceived the in-store environment of supermarkets in Trincomalee district. It means all the in-store stimuli have impacted at appropriate level. Within the five tested in-store stimuli, light has been perceived at higher level than other factors. It reveals lighting system has already set in apposite level. But still, most of the super markets are investing...
more money in enhance the lighting system. Store crowd has been perceived at lower level. While this study investigated the store crowds’ behaviour, it is difficult for the company itself to control or modify the behaviour of the store crowd, but if the supermarkets try to do something to ensure the well behaviour of the store crowd, it will lead to the high level of in-store environment perception than which have been found currently. Results of this study imply that, individual customers had some bad experience regarding the behaviour of the other customers (store crowd) inside the supermarkets in Trincomalee. Therefore, the sample of this study expressed comparatively low level perception in store crowd. Ensuring the well behaviour of the customer inside the supermarkets in Trincomalee, will enhance the customers’ perception. Even though, it is difficult to change the store crowds’ behaviour inside the supermarket, this study suggests some following activities to influence the customers’ behaviour. Paste some quotes which can increase the relationship between the customers, such as “Say hello to your next one”, “Ask help from your friends, near to you” and “Keep smiling always”, introduced some combined useable products, meaning, if a customer wants to get the usage of a particular product he or she should do with the help of another one. (Eg Coca-cola-Twist)

Physical evidences are useful to explain about 22.3% variation of positive affect in supermarkets in Trincomalee district. Layout, Store crowd and Light have significant influence on positive affect. Layout has more influence on positive affect, but inside the supermarkets in Trincomalee, layout has been perceived at lower level than light and employees. Here employees did not have significant influence on positive affect. So, Supermarkets in Trincomalee district should give more importance to the layout of the store than the employees. Store crowd also has significant influence on customers’ positive affect. But this study’s finding discloses that, comparatively store crowd is perceived at low level inside the supermarkets in Trincomalee district. Therefore owners or the management of the supermakets should take some action to ensure the well behaviour of the store crowd.

Lower level perception about in-store stimuli creates negative mood in customers’ mind. In this study, out of 5 in-store stimuli; Music, Layout and Store crowd have been perceived at low level and also these three physical evidences have significantly influenced customers’ negative affect. Specifically, layout has more influence on both positive and negative affects. Findings of this study indicate that, poor arrangement of layouts will cause high level of negative affect in customers’ mind inside the supermarkets in Trincomalee district. Enhancing the inside layout of the supermarkets facilitate more convenience of purchasing and attract the customer through well featured displays, playing some understandable and enjoyable music at appropriate volume and taking some action to control the disturbed behaviour of the customer and letting them behave well inside the store which can keep the other customer inside the store for long time.

Positive affect has a strong positive relationship with urge to buy \( r = 0.671 \). It specifies that, if the supermarkets’ owners or the management give a way to prompt the positive affect on the customers, it will create more urges during the purchase. This study also found the elements, which have significant influence on the positive affect of the buyer. By enhancing the arrangements of these in-store stimuli, positive affect can be induced. Invest more on the improvement of Layout and Lighting system which can highly influence the positive affect. Employees did not have significant influence on customers’ positive affect. So, minimize the cost of training and development of the employees and use that amount of money for the installation of some kind of modern lighting system and facilitation of attractive and convenient layout. According to the findings, positive affect can only create 45% of urges during the purchasing. So, identify the other factors and enhance their contribution in creating high level of urges, such as
discounts, packaging and advertisements.

In this study, results derived from the correlation analysis concluded; that negative affect has negative relationship with urge to buy (r = -0.349). It implies that, negative affect would not create urges to buy. On other hand higher level of negative affect will decrease the desire of buying. But many researches explored that, inside the supermarkets at many times urges led to the impulsive purchases. Therefore, negative affect should be controlled to encourage high level of urges as well as impulsive purchase. This study identified the factors, which had negative affect, such as Music, Layout and Store crowd. If the supermarkets owners or the management are able to enrich the satisfaction of the customers regarding these three variables, it will highly reduce the negative affect of the customer. Stores should reduce the volume of music and make the customer relaxed during their purchasing, ensure the correct assortment of the products in the tracks to enhance the convenience of the customers and ensure the safety and “free of threats” environment (sexual harassments, ethnical conflicts) during the purchasing.

Urge and impulsive purchasing behavior have medium positive relationship (r = 0.447) between them. However, this study identified that, positive affect creates high level of urges (45%) but urges only end-up with lower level (20%) of impulse purchasing. Because affects can create urges without any cost. But if an urge conclude with an impulse purchase, customer should have money and willingness to spend the money. Purchasing power has two components (1) Willingness to purchase, (2) Demand of money. At most of the time customers had willingness to purchase (urge) with limited amount of money or budget. Because of that they lost their purchasing power and dropped the impulse purchase. Increase in the level of urges induces the positive affect and reduces the negative affect by satisfying the expectation of the customers towards the in-store environment and in-store stimuli. Continuous improvement in in-store stimuli will increase the urges and keep the customers with their urges at every time through a confortable purchasing environment.

Limitations of the Study

- Selected samples are a number of 200 in Trincomalee Town and Gravets. If any study considers biggest sample size about 500 or above, the findings of this study can be further confirmed.
- Each statement is measured with Likert’s scale (1-5). However, the outcome of this research study can be endorsed while using other scale beyond 5.
- This study considers 5 dimensions of physical environment perception and 5 indicators for impulse purchasing behaviour, respectively. If a study considers more dimensions of variables, including the study dimensions, our findings would be supported in detail.
- Under the Bivariate analysis, this study considers correlation analysis only to explore the relationship between the study variables. If the analysis is extended to regression analysis, our findings would be reemphasized and supported in detail.
- This study has investigated supermarkets in Trincomalee district only. If any study considers more shops in both private and public sectors with different geographical areas, the results of this study would be most possibly endorsed, consistently.

Implications for future research

This research study is conducted with the intention of identifying the impact of in-store environment perception on the impulse buying behaviour of the customer at supermarkets in
Trincomalee district. Following areas are recommended for future studies:

- Urges are the main cause and induce the impulse purchasing. But practically urges do not only determine the impulse purchasing. So, further research should be carried out along with some cost related variables.
- It would be better to conduct the same research with a large sample size, and different areas, which would give more precise results.
- Further research should be carried out to find the factors which have an impact on the impulse purchasing such as situational factors, advertisements etc.

References


Annual report, Central Bank of Sri Lanka (2014)


Authors’ Profile

**V R Ragel** is Dean, Faculty of Commerce and Management, Eastern University, Sri Lanka. She holds M.Sc (Management) from University of Sri Jayawardenepura, Sri Lanka and BBA (Hons) from Easter University, Sri Lanka. She is an accredited teacher from SEDA and possess Certificate in Teaching Higher Education (CTHE) from University of Colombo, Sri Lanka. She has published number of research papers in National and International Journals. Her research interests includes Service Marketing, Branding, Emotional Intelligence etc.

**K Nirushan**, currently working at Bank of Ceylon, Sri Lanka. He gained his Bachelor of Business Administration with first-class from Eastern University, Sri Lanka. He was an Assistant Lecturer at Trincomalee campus, Eastern University Sri Lanka. His research interest areas are Service Marketing, Consumer Behavior and Green Marketing.