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supermarket. also,
customers may

[Art & Culture](#), [Music](#)



As many buying decisions are made in retail stores, it is interesting to determine which factors, such as noise, lights, music, colours, visual communication have a significant influence on customers' buying behaviour in a supermarket.

Objective: The aim of this study was to examine the role of the various environmental factors in the supermarket as well as how servicescape influences customers' buying behavior. **Methodology:** The questionnaire is customized to collect data on facets in regards to the role of servicescape and customers' buying behaviour in the supermarket. A supermarket chain - Dmart was used for this purpose.

The collected data was analysed with the means of factor analysis and multiple regression methods in order to obtain factors that can influence customers' behaviour in the supermarket. **Findings and Conclusion:** The conducted study resulted that lighting, noise, colours, signs and symbols as well as space conditions such as layout and equipment are the factors that generate an emotionally pleasant environment in the supermarket. Thus, these factors influence customers' moods, attitudes or certain beliefs about the supermarket.

also, customers may feel happier, more satisfied or relaxed in the supermarket, which lead to arousal - stimulation or excitement. As well as, the environmental factors explain the approach behaviour such as exploring the supermarket, spending more time on browsing the products which, consequently, refer to an increased number of items bought.

Keywords- Servicescape, Service environment, Customers' buying behavior

outcomes. 1 Introduction 1. 1 Background The Indian retail industry has emerged as one of the most dynamic and fast-paced industries due to the entry of several new players. It accounts for over 10 percent of the country's Gross Domestic Product (GDP) and around 8 per cent of the employment. India is the world's fifth-largest global destination in the retail space. Indian Retail Industry has immense potential as India has the second largest population with affluent middle class, rapid urbanisation and solid growth of internet.

India's retail market is expected to grow at a Compound Annual Growth Rate (CAGR) of 10 per cent to US\$ 1.6 trillion by 2026 from US\$ 641 billion in 2016. While the overall retail market is expected to grow at 12 percent per annum, modern trade would expand twice as fast at 20 per cent per annum and traditional trade at 10 per cent. Indian retail market is divided into "Organised Retail Market" which is valued at \$60 billion which is only 9 per cent of the total sector and "Unorganised Retail Market" constitutes the rest 91 per cent of the sector. India's Business to Business (B2B) e-commerce market is expected to reach US\$ 700 billion by 2020. Online retail is expected to be at par with the physical stores in the next five years. India's total potential of Business to Consumer (B2C) is estimated to be US\$ 26 billion, of which \$3 billion can be achieved in the next three years from 16 product categories, according to a study by Federation of Indian Chambers of Commerce and Industry (FICCI) and Indian Institute of Foreign Trade (IIFT).

India has replaced China as the most promising markets for retail expansion, supported by expanding economy, coupled with booming consumption rates,

urbanizing population and growing middle class. Supermarkets are not just buildings filled with products on the shelves. The supermarket consists as well of a certain atmosphere inside the store. There are many factors such as noise, lighting, music, colour, layout or visual communication that can be taken into consideration in order to build an environment as customer-friendly as possible. Since the suitable environment of the supermarket can influence customers to spend more time inside the store, this can lead to an increased number of items bought. Therefore, many marketers are trying to adapt supermarkets' interiors to increase customer satisfaction, loyalty, and by doing so, to increase the sales volume. 1. 2 Problem Since servicescape has been identified as an important factor in shaping the consumer's experience in a retail setting.

In a retail store majority of activities happening are services from the time customer enters and exits the store. The environment of the supermarket has big potential to be a powerful and an effective marketing tool if marketers would better understand how to utilize it. Since marketers and retailers want their customers to spend more time in the supermarket, it is necessary to create a relaxed and comfortable environment. What is more, the environmental factors are considered to be crucial elements that determine success for the marketers. Even if one has not been in a particular supermarket, one's first impression may have a great influence on buying intentions (Nguyen & Leblanc, 2002). Moreover, since buying decisions made in the supermarket can be influenced by the environmental factors, retailers and marketers should take as much advantage as possible (Converse & Spencer, 1942).

Every year retailers spend large amounts of money to build, design and refurbish stores. However, marketers are unable to inspect the appropriate mix of the environmental factors/service scope that attracts customers' in supermarkets and make them to spend more time in supermarkets. 1. 3 Scope Since service scope is a marketing tool through which marketers attract customers and give them extra utility. It's really important to understand which environment factor influences the most, so marketers can get appropriate mix of environment factors and spend accordingly.

This research study is going to help the marketers to understand appropriate mix of environment factors, get the maximum return on their investment as well as help them to attract and satisfy maximum number of customers. 1. 4 Objectives 1- To determine which environment factors influence customers' buying behaviour in the supermarket. 2- To provide the appropriate mix of environment factors to marketers. 2. Methodology 2. 1 Research Design The questionnaire is customized to determine which environment factors influence the customers' buying behavior and to find appropriate mix of environment factors.

Questionnaire was made on the close ended questions, which were based on Likert scale. 2. 1. 1 Quantitative research method The quantitative method was chosen, the quantitative research method is widely used while examining customers' attitudes and opinions. Since we wanted to investigate which environment factors influence the customers' buying behavior the quantitative research method was justified to be used in this study. Also, one of the main advantages of using quantitative research is its clarity,

since numbers can be easier to understand and interpret in comparison with hundreds of coding categories.

2.1 Descriptive research It is a Descriptive research study that aims to determine which environment factors influence the customers' buying behavior and to find an appropriate mix of environment factors.

2.2 Sampling Size and Method A sample of 245 customers is selected from Dmart. Primary data will be collected by a pre-tested questionnaire.

In this study, judgemental non-probability sampling was used. In the judgemental sampling, the units were selected based on the researchers' judgement about which units would be the most suitable, useful or representative in the research.

2.3 Data Collection and Method Primary data was collected based on a survey, a structured questionnaire created to determine which environment factors influence the customers' buying behavior and to find an appropriate mix of environment factors.

Questionnaire was made on the close ended questions, which were based on Likert scale.

2.3.1 Questionnaire The questionnaire was composed of four types of questions. Questions were related to: (1) ambient conditions, (2) space/function, (3) signs, symbols and artifacts, (4) customers' behaviour in the supermarket. These four types of questions contain seven environment factors, (1) Lightning and colours, (2) Signs and symbols, (3) Customers' behaviour in Dmart, (4) Space/function and noise, (5) Design and music (6) Products and browsing, (7) Bright colour and dark lightning. Questions in the first section were asked in order to understand what respondents think about

colours, lighting and the noise level in Dmart. also, respondents also had to give their opinion whether they would like to hear music in Dmart.

Questions in the second section were asked in order to understand whether customers are satisfied with the layout of Dmart. Questions in the third section were asked in order to analyze respondents' opinion when it comes to, billing desk, directional signs and other types of communication, displayed in Dmart. Questions in the fourth section were asked in order to analyze general customers' attitude towards Dmart. Likert scale allows the respondent to choose a degree of disagreement or agreement with each of the statements. In the research, 7-point Likert scale was adopted.

Respondents were asked to indicate in each statement a degree they agree or disagree with particular statements from strongly disagree (= 1) to strongly agree (= 7).

3 Data Analysis To analyze the data, two multivariate techniques were conducted. These techniques are suitable for analyzing data when there is more than one measurement of each element and the variables are analyzed simultaneously, factor analysis and multiple regression were conducted. 3.

1 Factor Analysis Factor analysis is a technique that is used to reduce and summarize a large number of variables into fewer numbers of factors. This technique extracts maximum common variance from all variables and puts them into a common score. As an index of all variables, we can use this score for further analysis. Factor analysis is part of general linear model (GLM) and this method also assumes several assumptions: there is linear relationship, there is no multicollinearity, it includes relevant variables into

analysis, and there is true correlation between variables and factors.

The variables that were investigated are following: 'ambient conditions', 'space/function' and 'signs, symbols and artifacts'. 3. 1.

1 Principle Component Analysis Principle component analysis method was used. This is the most common method used by researchers. PCA starts extracting the maximum variance and puts them into the first factor. After that, it removes that variance explained by the first factors and then starts extracting maximum variance for the second factor. This process goes to the last factor. 3. 2 Multiple Regression Multiple regression is an extension of simple linear regression.

It is used when we want to predict the value of a variable based on the value of two or more other variables. The variable we want to predict is called the dependent variable (or sometimes, the outcome, target or criterion variable). The variables we are using to predict the value of the dependent variable are called the independent variables (or sometimes, the predictor, explanatory or regressor variables). Multiple regression is a general as well as an flexible data analytic system. According to Cohen, Cohen, West and Aiken (2003), it can be conducted when a quantitative variable (a dependent variable) is to be studied in relationship to any factors of interest (independent variables). In this case the dependent variable was 'customers' behaviour in Dmart', and the rest of the variables were independent variables. Multiple regression analysis was conducted to see the impact of the servicescape variables and customers' behaviour in Dmart.

It is usually used to determine how much of the variance in dependent variable ('customers' behaviour in Dmart') can be explained by independent variables ('lighting and colours', 'signs and symbols', 'space/function and noise'). Since only four factors were retained after conducting factor analysis, three of them were used as independent variables and one as the dependent.

4 Results and Discussions

4.1 Descriptive Statistics

Descriptive statistics is a way to summarize numerical data to make it easier to interpret, also, it includes mean and standard deviation. The 7-point Likert scale was used in the questionnaire, where 1 means 'strongly disagree' and 7 'strongly agree'. In this case, the statement 'The lighting in Dmart is appropriate' has a mean of 5.

68. It indicates, that the respondents agreed and had a positive opinion towards this question. On the other hand, 'I think that Dmart has too many products for the size of the store' has a mean of 2.6 which points out that the majority of the respondents rather disagreed with this statement. Standard deviation measures the spread of a set of observations. The larger the standard deviation was, the more spread out the observations. A low score means that the responses were concentrated, hence, the respondents had the same opinion about a statement and scored similar. For example, 'I am satisfied with the general impression of Dmart' has the standard deviation of 1.

132. and, the higher standard deviation means that the respondents had different opinion towards the same statement. For example, the statement 'I would prefer if Dmart would play music', formed the standard deviation of 2.

165. 4. 2 Factor Analysis To measure the reliability of factors, the Cronbach's Alpha was used.

The scores of the Cronbach's Alpha for 'lightning and colours', 'signs and symbols', 'customers' behaviour in Dmart', 'space/function and noise' factors formed high reliability that leads to acceptable scales (respectively 0.890; 0.867; 0.823; 0.764). It can be concluded that the higher the respondents scored the questions about 'lightning and colours', 'signs and symbols', 'customers' behaviour in Dmart', 'space/function and noise', the higher their intentions to stay or explore Dmart. Apart from that, the scores of the Cronbach's Alpha for 'design and music', 'products and browsing' and 'bright colours and dark lightning' formed low reliability which leads to unacceptable scales (respectively 0.

19; 0.417; 0.462). Cronbach's Alphas for all factors The Cronbach's Alphas for only the first four factors are scored above 0.6 which stands for a reliable scale. This indicates a strong internal consistency among the items included in a particular factor. Essentially, this can be interpreted that respondents who selected a low score for one item tended to select low scores for the other items included in the factor, and conversely, the respondents who tended to select a high score for one item tended to select high scores for the others within the same factor. Hence, knowing the score for one item, it is possible to predict with some accuracy the possible scores for the other items within the same factor.

The rest factors have a low reliability as the Cronbach's Alphas are scored respectively 0.187; 0.425; and 0.452 – thus, they do not create a reliable

scale. which means, that the ability to predict scores from one item is not possible. so, only the first four factors will be retained for further analysis. 4. 2 Correlations and multicollinearity It can be seen that all independent variables show a relationship with the dependent variable.

correlations suppose to be higher than 0. 3. In this result we can see that, ' lightning and colours', ' signs and symbols', and ' space/function and noise' correlate with ' customers' behaviour in Dmart' (0. 501; 0. 563; and 0. 509) and create a positive correlation, since all scores are between 0 and 1. All three factors create large relationships between dependent and independent variables, as they score above 0. 5.

Also, we can see that most correlated factor, hence, the strongest relationship exists between ' customers' behaviour in Dmart' and ' signs and symbols'. 5 Conclusion To conclude, four main factors such as ' lightning and colours', ' signs and symbols', ' customers' behaviour in Dmart', and ' space/function and noise' were obtained. The higher the customers scored questions in each of those factors, the higher their intentions to stay or explore Dmart, as well as more satisfaction. The factor ' lightning and colours' has the highest reliability which shows a high degree to which each item correlates with a total score. The ' lightning and colours' is followed by the ' signs and symbols' component. These four factors create an emotionally pleasant environment in the supermarket. This means that those factors influence customers' mood, attitude or certain beliefs about the supermarket. As well as make customers feel happy, satisfied and relaxed in the supermarket which leads to stimulation or excitement.

also, environmental factors mentioned above explain the approach behaviour -exploring the supermarket, spending more time on browsing the products which refers to the increase of number items bought as well as increase in sales for the marketers. Multiple correlation was conducted based on four components created by factor analysis. three factors created by factor analysis, namely 'lightning and colours', 'signs and symbols', and 'space/function and noise' stand for the independent variables, whereas 'customers' behaviour in Dmart' for the dependent variable. Multiple correlation showed that all independent variables ('lightning and colours', 'signs and symbols', and 'space/function and noise') play an important role to influence the 'customers' purchase, customers satisfaction and their revisit in Dmart. To satisfy customers and make them stay longer and brought more and more product marketers should focus of three main factors such as 'lightning and colours', 'signs and symbols', and 'space/function and noise'. 5

Limitations of the study

1. Small sample size which did not allow to come to concrete observations
2. Paucity of time
3. Area constricted to nearby places of Electronic city, Bangalore.

? 4. Small sample size in comparison to the wide spread reach and effect of marketing strategies. ? 5 Managerial Impact In retail industry servicescape play important role to attract customers and generate sales. Marketers spend good chunk of amount on servicescape, every year but appropriate mix of environment factors is still not available.

They don't know what proportion of money, they should spend on particular environmental factor. Which factor is going to influence customer the most

and make them stay longer with them.” This study is going to help to discover environmental factors that create physical environment in the supermarket and are used in determining customers’ impression of the store. Since those factors lead to the approach behaviour – such as willingness to explore the supermarket, spend more time on browsing, which refer to intention to revisit the supermarket, an increased number of items bought as well as an increase in sales for the marketers; understanding environmental factors allows both retailers and marketers to make improvements in these areas. Even this research did not make the attempt to determine what kind of colours customers prefer or what genre of music they would like to hear in the supermarket, the findings show extra caution and should be carefully considered when designing or redesigning the store”.