

Interior Atmosphere: Does It Really Have an Impact on Consumer Purchasing Behavior at Self-Serving Convenience Stores?

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Abstract

The main aim of this study was to investigate the impact of interior store atmosphere on consumer purchasing behavior at self-serving convenience stores in Ampara District, Sri Lanka. Today, retail industry became highly competitive with the increasing number of convenience and other types of retail stores in the area. Hence, the retailers need to be more customer focused and have to differentiate from their competitors by making their interior atmosphere more attractive to consumers and to encourage them to spend more time, money, to purchase more merchandises and to stimulate their repeat purchase intention. A survey research was employed to collect primary information from 292 customers from convenience stores in Ampara District. Interior atmospheric factors such as, music, scent, light and color were used to identify the impact of interior atmosphere on consumer purchasing behavior. Convenience sampling was employed for data collection using a questionnaire with a five-point Likert scale. SPSS 20.0 was used to analyze the data. Significant interior atmospheric factors that influence consumer purchasing behavior included music, scent, light and it is found out that color has no any impact on consumer purchasing behavior.

Keywords: Interior atmosphere, convenience stores, consumer behavior

1.1 Introduction

Retail market is highly competitive and as a result of that retailers find it difficult to differentiate their retail stores on the basis of product, price, place, and promotion. Store atmospheric elements such as color, lighting, scent, music and other atmospheric attributes have always been considered as having immediate effects on the buying decision making process (McGoldrick, 2002).

Store Atmosphere Store atmospheres are designed environment that create or reinforce the buyers' learning towards buying a product (Kotler et al., 2013). **Consumer purchasing behavior** is the behavior that consumer display in searching for, purchasing, using, evaluating, and disposing of products and services that they expect will satisfy their needs. (Kotler et al., 2013). **Convenience Store** is usually a food oriented-retailer that is well located, is open long hours, and carries a moderate number of items. This type of retailer is small (only a fraction of the size of the conventional super market), has average to above average prices and average atmosphere and customer service (Berman & Evans, 2005). It is very important for business practitioners to understand the effect of store atmosphere on consumer purchasing behavior in crafting business strategies.

1.2 Literature Review

Interior atmospheric factors are the most essential components for retail store atmosphere (Feng et al., 2008). According to Turley & Milliman (2000), general interior variables includes flooring and carpeting, color schemes, lighting, music, scents, tobacco smoke, width of aisles, wall composition, paint and wall paper, ceiling composition, merchandise, temperature and cleanliness. Music, scent, lighting and color were adapted from Turley & Milliman (2000) for this study.

1.2.1 Music

Music has been considered by customers as critical factors that will influence their behaviors (Priyanka et al., 2014). Appropriate background music can help retailers to develop a desirable store atmosphere, which contributes to the image of the store and consumer preference. playing the "right kind" of music, for there is evidence that this has a direct impact on consumer behavior within the store (Farias et al., 2014).

When preferred music is played at the store, customers stay longer, become more comfortable and relaxed while shopping, and are likely to purchase more items. The opposite is also true, when ambient noise is, fast, loud and causing discomfort, customers will spend less time in a retail shop. Arousal induced by music results in increased pleasure levels, which in turn positively influences approach behavior, and satisfaction with the shopping experience (Geetha et al., 2013).

1.2.2 Scent

Scents have a positive effect on consumer patronage although with varying degrees of influence (Clay et al., 2013). According to (Hassan, 2015), as smell is a strong emotional trigger, scent marketing can make a consumer feel comfortable in the store and stimulate good mood of consumers that could positively influence their purchase decisions. It is also shown that pleasant ambient scents can positively affect consumer evaluations, variety seeking behavior, time and spending, especially when scents are semantically compatible with the products being evaluated by the consumers (Herrmann et al. 2013)

Ishita & Suhsma, (2015) as part of store interior, smell is a very strong emotional trigger. Large retail stores may design store scents with fragrances that appeal to specific departmental merchandises with scents that have varying degrees of emotional and psychological appeals to customers in the store (Lovelock & Wirtz, 2011).

1.2.3 Lighting

According to (Elena & Jakub, 2014), various types of lighting indeed change the rhythms of brain activity and that the right hemisphere of the human brain is more involved. This proves that lighting has a significant impact on conscious or subconscious consumer reactions and it is shown that light and lighting is an essential marketing tool that can positively influence and encourage consumers and thus increase sales, light an important marketing tool that can stimulate consumers to purchase.

Lighting affect the speed of transaction in the store, it helps to deliver appropriate service to customers at cashier's tables and it improves the sale. To be more effective, lighting must be uniformly distributed among departments and be bright enough to make customers feel secure in the shop. However, retailers must avoid over-lighting and luminaries must be used to avoid brightness (Clay et al., 2013).

Babin et al. (2013) found that the combination lighting plays a critical role in the store in influencing the purchase intention of consumers and their patronage. Lighting has greater impact on consumer behavior but the consumers are not aware of differences in lighting.

1.2.4 Color

Color has a positive impact on consumer patronage with varying degrees of influence (Farias et al., 2014). The colors produce different reactions in individuals. Thus, following the psychology outlines, colors are used by retailers to bring consumers to a mood state that leads them to purchase products in the store. Color creates a very strong and long-term visual impression and image about a retailer (Lovelock, and Wirtz, 2011)

Levy & Weitz, (2009) stated that colors such as red, gold, yellow, or orange are believed to be warm colors that describe friendliness, love, romance, warmth, and openness among other images. Traditionally, cool colors like blue, white, and green represent a soothing-gentle, serene and calming store environment.

1.2.5 Consumer Purchasing Behavior

The shopping behavior indicates in consumer actual behavior: approach or avoidance to the store atmosphere as part of their total experience. Here, approach means, buying a product at the retail store as a result of a pleasant experience of customers. On the other hand, avoidance means not buying a product due to a poor experience in the store. It is important to emphasize that the shopping behavior, the consumption of the product and post-purchase evaluations are all part of the consumer experience with the retail store atmosphere (Farias et al., 2014).

1.3 Statement of Problem

From the previous researches, it is found that retail store atmosphere is an important factor for the companies engaged in retail business and use store atmospheric as a way of differentiation and to offer positive value to customers, better store atmospherics would increase the number of footfalls and finally would lead to a more satisfying buying experience (Hassan, 2015). Modern retail stores have the advantage of offering a pleasant environment in which to shop for their patrons. Sabrina (2014) stated that store environments have to be considered by dealers, retailers, traders...etc. As a management tool, able to affect positively the emotions of their clients, the number of their purchases, amount of their purchases.

However, Hassan (2014) noted that most of the studies only focused on one store atmospheric stimulus instead of examine few stimuli together at one time. Therefore, those literature reviews may not be appropriate for the real stores since successful retailers always have mixed various stimuli to strengthen their distinctiveness. For this research, the researcher try to use all the relevant interior atmospheric stimuli to interpret its impact on consumer purchasing behavior. By considering different types of interior atmospheric stimuli, it would be more accurate to predict purchasing behavior of consumer. Using wrong interior atmospheric applications may lead to lower customer purchase intention because most of the purchase decision are made inside the retail store.

Few researches regarding to this study were done based on Sri Lanka's retailing industry and the retailing in Ampara district. In addition, more studies are necessary to examine the impact of in-store environment on buying behavior within the convenience store outlets. Therefore, this research intended to study in depth on this area based on Ampara district's retail industry specifically convenience stores which sells food related items to consumers to help local retailers understand well about the impact of store atmosphere on purchasing behavior in the convenience stores in Ampara district, Sri Lanka.

1.4 Research Objectives

The main aim of the study is to investigate the impact of interior atmosphere on consumer purchasing behavior at self-serving retail convenience stores in Ampara District and to extend the knowledge of the impact of interior atmosphere on consumer purchasing behavior at self-serving retail stores.

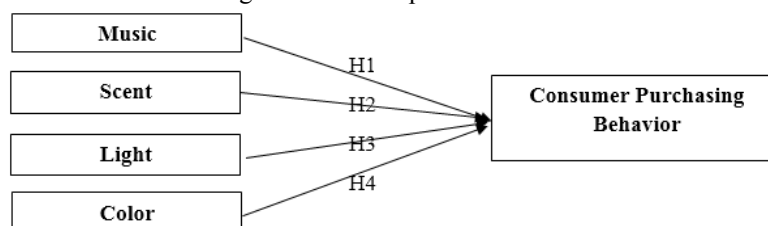
The objectives set out to explore in this research are: To highlight the impact of music on consumer purchasing behavior at self-serving convenience stores, to examine the impact of scent on consumer purchasing behavior at self-serving convenience, to determine the influence of lights on consumer purchasing behavior at self-serving convenience stores, to identify the impact of color on consumer purchasing behavior at self-serving convenience stores and to identify which interior atmospheric factor that has performed the best based on the customers' evaluation.

1.5 Research Methodology

1.5.1 Formulation of Conceptual Model and Hypotheses Development

Based on the extracts of literature review the following conceptual framework was developed. The consumer purchasing behavior as dependent variable, and the music, scent, light and color as independent variables.

Figure 1.1: Conceptual Framework



Interior factors of a retail store are the most important elements for retail store to attract customers to buy and rebuy (Feng et al., 2008). Priyanka et al., (2014) argues that retailers realize the importance of such attributes and systematically try to avail an interior, including appropriate colors, music scent and light that will attract their target customers.

Atmospheric music can influence purchase intentions, sales, decrease the perception of buying time and waiting time in the counters, influence consumer perception of a store and facilitate official interaction of consumer (Farias et al., 2014).

The scent can exert a strong influence on the consumer responses and can help the retailer to achieve competitive advantage through this variable (Herrmann et al., 2013). Pleasing ambient scents can positively affect product and store evaluations as well as consumer spending in the retail store. Pleasant scents lead consumers to spend more time and money in the store because they are more easily processed (Herrmann et al. 2013).

Lighting is one of the atmospheric elements that helps in creating a sense of excitement in the retail store. This means that bright lighting induces buyers to behave positively towards a retail business or a retail brand in the store. It gives an accurate color rendition of the products in the shop. Appropriate light and balanced environments can give products an added appeal and show unique selling points in the store. When the store atmospheres is brighter, which encourages customers see and touch the products in the shop (Vaccaro et al., 2008)

There is a strong feeling among people that bright colors have a much more psychological appeal or impact as compared to the so called cool colors in consumers' mind (Clay et al., 2013).

H1: Music has a positive impact on consumer behavior.

H2: Scent has a positive impact on consumer behavior.

H3: Lighting has a positive impact on consumer behavior.

H4: Color has a positive impact on consumer behavior.

1.5.2 Population, Sampling and Data Collection

The population refers to the entire group of people, events or things of interest that the researcher wishes to investigate. It is the group of people, events or things of interest for which the researcher wants to make inference (Sekeran and Bougie, 2013). In this research the total population of the Ampara district was considered as population, but the actual population during the survey period is not known and the population statistics was not available as it was not done. From the researcher's point of view, target population in this research was all the customers who shop at self-serving retail stores in the Ampara District.

As the population is not known in the Ampara district, convenience sampling was used because it is easy to collect data. This approach is practiced because everybody is a retail store customer nowadays, because the exact number of customers who buy from self-serving retail stores could not be obtained and everyone in the area has a kind of experience in purchasing at any form of self-serving retail stores. In this case the sample size

was 300 respondents as they were considered to provide sufficient input to ascertain findings.

The questionnaire is the most common instrument to collect data. The researcher has chosen a self-administered questionnaire as a tool for the data collection. The questionnaire was in the form of closed-ended (or structured) questions in which respondents were asked to make the choice from a list of possible responses. Close-ended questions are also easy to administer and usually evoke rapid response (Schmidt & Hollensen, 2006). To make the study more effective and efficient, questionnaire consists of closed ended question and five point Likert scale questions.

1.6 Data Analysis

1.6.1 Descriptive Statistics for Demographic Factors

The research focused on some background variables of respondents such as gender, age, marital status, employment status, and monthly income to get some insights of the sample in terms of this research. Out of the 291 respondents, almost 64% of the customers were females and 36% of customers were males. Majority of the customers' average age was in between 31-40 years counting of 30.2% of total and 35% of home makers while the remaining 24% from government and 12% working in private sectors. Further, 47% of sample has no income, 11% of the people income falls in between Rs. 25,000 - Rs. 35,000. The following tables illustrate on these observations. Out of the 291 respondents 42.6% of the customers used to buy from the self-serving retail convenience stores regularly while 57.4% of the respondents visit occasionally.

1.6.2 Principal Component Analysis

Principal component analysis is used as a method of reducing data, this technique appropriate when a large sample size is used. Principal component analysis was used here because the sample size was 300 which is good to conduct principal component analysis. KMO and Bartlett's Test used to check 1. Whether it is appropriate to conduct factor analysis, 2. Communalities used to extract the items and 3. The Eigen values used to explain the variables by combining items using the rule of thumb.

Table 1.2: KMO and Bartlett's Test for IVs and DV

Variables	KMO Measure of Sampling Adequacy	Sig
Exterior	0.799	0.000
Interior	0.805	0.000
Design	0.706	0.000
Social	0.758	0.000
Atmosphere	0.662	0.000
Consumer Purchasing Behavior	0.810	0.000

(Source: Survey Data)

1.6.3 Regression Analysis

The regression analysis is used to reveal how different interior atmospheric factors affect the consumer purchasing behavior at self-serving convenience stores. Several independent variables may contain information about the variables that are trying to predict or understand.

Table 1.3: Results of Regression Analysis

Predictors	Beta	P	t	VIF
Music	.314	.019	2.214	1.709
Scent	.190	.042	3.659	1.607
Light	.603	.000	4.040	1.486
Color	.011	.729	.347	1.510

Dependent Variable: Consumer Purchasing Behavior

(Source: Survey Data)

Notes: $F=22.309$, $P < 0.05$, $R^2 = .619$, $Adjusted R^2 = .591$, $n = 291$

Constant = 1.295, $X_1 = .448$, $X_2 = .203$, $X_3 = .670$, $X_4 = -.012$,

The overall model explains the fit for the research. R^2 in the table given above shows this aspect. This coefficient is a measure of how well the regression equation fits the data. According to the above table 1.3, the R^2 is 0.619 (62 percent), hence, the regression equation apparently have a fit with the data. It can be predicted that 62% of the variance (R -square) in dependent variable has been significantly explained by the four independent variables (music, scent, lighting, and color). Here, $p = 0.000 < 0.05$ and $ANOVA$ table shows that the F value of 22.309 is significant at the 0.000 level. So the model is significant and model exists.

When the individual variables are focused, at first, considering the music is considered; $p = 0.019 < 0.05$, hence, highly significant and explain a much about the dependent variable. Scent values; $p = 0.042 < 0.05$, highly significant to the model. Light values; $p = 0.000 < 0.05$, highly significant to the model. Color value $p = 0.729 > 0.05$ not significant to model.

1.6.4.1. Multicollinearity

Multicollinearity used to test whether the predictors of one variable are correlated with other predictors.

Multicollinearity arise when the multiple factors of the model that are correlated not just to the dependent variable, but also to each independent variables. Multicollinearity increase the standard errors of the coefficients. Increased standard errors in turns means that coefficient for some independent variables may be found not to be significantly different from 0. Without multicollinearity and with lower standard errors, those coefficient might be significant. VIF value is used to explain the multicollinearity in this research.

If the VIF = 1 there is no multicollinearity among factors, but if the VIF > 1, the predictors may be moderately correlated. The above table shows that the VIF for the independent variables are in between 1.5 – 1.7, which indicates some correlation, but not enough to be overly concerned about. The rule of thumb is, a VIF between 5 and 10 indicates high correlation that may be problematic. And if the VIF > 10, it is assumed that the regression coefficients are poorly estimated due to multicollinearity.

According to above table 1.3: results of Regression Analysis, the VIF < 0.05, it means that there is no significant multicollinearity problem and therefore, the regression coefficients are estimated well.

1.6.4.2 Coefficient of the variables

The *Coefficients* table indicate the most important independent variables among four that influence most of the variance in consumer purchasing behavior. The *standardised coefficient* shows that the highest number in the beta is 0.603 for light, which is significant at the 0.000 level. This indicates that the consumer purchasing behavior at self-serving convenience stores is influenced by light in great extent.

The coefficient of color in the interior atmosphere is a determinant factor of Consumer Purchasing Behavior, a one percent increase in color would rise to a 0.011 percent increase in Consumer Purchasing Behavior (see table 1.4). Conversely, Coefficient of music is a determinant factor of Consumer Purchasing Behavior which would give 0.314 percent increase in Consumer Purchasing Behavior, a one percent increase in scent would give 0.190 percent increase in Consumer Purchasing Behavior. all these were significant to the model at 0.05 level. Hence, the following Model fit regression equation is derived.

$$Y = 1.295 + 0.448 X_1 + 0.203 X_2 + 0.670 X_3 - 0.012X_4$$

$Y = \text{Consumer Behavior}, X_1 = \text{Music}, X_2 = \text{Scent}, X_3 = \text{Light}, X_4 = \text{Color}$

1.7 Hypotheses Testing

After the analysis of the data, hypothesis was tested to make sure the assertion in the light of the data analyzed. The most common policy in statistical hypothesis testing is to establish a significance level, denoted by α , and to reject H_0 when the p – value falls below it. Here, the hypotheses are tested at 5% confidence level ($\alpha = 0.05$).

Table 1.4: Hypotheses Testing

Variables	Hypothesis (Null + Alternative)	P - Value	$\alpha = 5\%$	Null Hypothesis	Alternative Hypothesis
Music	H_0, H_1	.019	0.05	Reject	Accept
Scent	H_0, H_2	.042	0.05	Reject	Accept
Light	H_0, H_3	0.000	0.05	Reject	Accept
Color	H_0, H_4	0.729	0.05	Accept	Reject

1.8 Conclusion

This study was designed to see the impact of interior atmospheric variables of self-serving convenience stores on consumer behavior. The literature search revealed that the interior atmospheric factors such as music, scent, light and color have significant impact on consumer purchasing behavior

Four hypotheses were proposed to investigate the impact of store atmosphere on consumer purchasing behavior, and the results of the hypotheses tests supported three hypotheses and one was rejected. These results provided valuable insights for understanding the stimulus of consumer purchasing behavior at self-serving convenience stores.

Based on the analysis, it is found out that music, scent and light have significant and positive impact on consumer behavior while color has not. As the finding imply, self - serving convenience stores have to find out the best mix of interior atmospheric factors / cues that increases the intention to spend more time and money, purchase more items and the repeat purchase intention.

Previous studies (Adriana et al., 2014; Elena & Jakub, 2014; Clay et al., 2013; Geetha et al., 2013) were found that the interior atmospheric factors such as color, light, scent and music have significant impact on consumer behavior which also influence customers' impulse purchasing which is unplanned and stimulated by the interior atmosphere. Similar to the above, Feng et al., (2008) summed up that the interior factor as the most critical atmospheric factor followed by participant factor, exterior, design and display.

1.9 Managerial Implications

This study provides a validated instrument to measure the relationship between store atmosphere and consumer purchasing behavior and its serves as a tool for understanding the impact of various store atmospheric cues.

Findings of this study suggest that in an effort to increase the number of foot falls in to the retail store an attempt should be made to explicitly focus on effectively tailoring the interior atmospheric factors.

With respect to such attributes related to interior factors such as color, light, scent and music, we found out that these factors have a positive effect on shopping behavior. Using the right light in a retail store is a fundamental importance. Use of lighting combination can attract the customers and also that leads them in the right mood to buy. Retailers creatively need to adjust the color compatible with the store environment. Infact, retailers have the benefit of selecting their store's theme color since they must be attach and synchronize with merchandises they sell. Scents can shape consumer preferences and choices systematically consistent with the retailer's goals and strategy. More specifically, using a scent in retail stores that sell mixed quality products may drive sales toward products.

1.10 Limitations and Future Research

From a larger retail industry the self-serving convenience stores type and the location of study is Ampara District area being selected for this research. Further, the customer base of the study limits to the end user consumer of self-serving convenience stores which mainly sell food items not a fashion or the customers of other retail types. Population consist only the customers who shop at self-serving retail convenience stores who are customers of one or many self-serving retail stores in Ampara District and those selected conveniently to administer questionnaires. Furthermore, the customers' responses are not comparatively studied based on different players in the industry. Finally, the variables restricted only to a specific constructs of four independent variables but there are many other motivators are not taken to the study. All these should be considered in the future researches to improve the generalizability of the findings.

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