

The Moderating Effect of Time of the Day on the Relationship between Perceived Crowding and Emotional Responses; with Special Reference to Fast Food Industry in Sri Lanka

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ABSTRACT

The main purpose of conducting this research study is to identify the impact of perceived crowding on emotional responses of the shoppers and identify the moderating effect of time of the day on the relationship between perceived crowding and emotional responses. And fast food industry in Sri Lanka has been taken as the research base to identify the fast food consumers' perception on the crowding. Moreover, perceived crowding observed as a major concern for shoppers as well as a challenge for organizations which was also addressed in International context. That issue encouraged this particular study and it will be further examined and tested broadly throughout this research study. And the other concern is what types of moderating effect can be seen on the relationship between perceived crowding and emotional responses. Therefore, this research study has examined the effect of "time of the day" on the main relationship. A well-structured questionnaire was used to obtain primary data for the study. A total of 405 Sri Lankan fast food clients were chosen as the sample for the study. The sampling method was convenience sampling, and the data was analyzed using SPSS 25 software. The multiple regression analysis was used to analyze the data. Charts and graphs are used to display the research findings. The study's findings demonstrated it can be concluded that it indicates that 12.2% of dependent variable (Emotional Responses) is explained by independent variables (Perceived Crowding). And we may conclude that in the Sri Lankan fast food market, there is no moderating effect of time of the day on the relationship between perceived congestion and emotional responses.

KEYWORDS: *Perceived Crowding Effect, Emotional Response, Fast Food Industry*

INTRODUCTION

In marketing, psychological state of the customer is an important factor. Hence, the areas such as consumer behavior, consumer thinking patterns, consumer perceptions and consumer intentions have been attractive areas for researchers. When referring earlier studies which were carried out in international context, there can be found some areas which has not been either addressed much or not been considered much by local researchers. In Sri Lankan context, some attractive research areas of marketing are still left to study further.

Due to intensive competition, organizations are trying their best to stand out of the competition to have a

larger customer base and healthy customer retention rate which helps them to sustain in the long run. Organizations are carrying out various strategies to get the attention of customers. But the problem is since the customer has the power to take decisions, effectiveness of organizations' strategies can't explain by only their effort, capabilities or any other advantages they have. At that point, the importance of above mentioned consumer behavior and psychological factors can be identified.

The role of perception is a major theory in consumer behavior. The way customers perceive things significantly matters in Marketing

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(Kahaduwa&Rasanjalee, 2021). Today many retail marketers view the store environments as increasingly important to satisfying their customers by providing a positive total shopping experience and use a communication tool to position the store in the consumers' mind (Grewal et al., 2018). Hence, there can be observed what kind of perceptions that consumers have on their mind when they are taking a decision on deciding a shop or brand? What kind of a role "perceived crowding" plays when deciding a shop? Perceived crowding is one of the major psychological states that can be identified in consumer behavior. It is important to know how crowding effects the customer shopping experience (Almeida et al., 2019). Perceived crowding is a reason behind the fact that nowadays many organizations use various strategies for crowd management.

Earlier some research studies were carried out with the base of perceived crowding in international context. But the problem is how perceived crowding effect on Sri Lankan shoppers and organizations. That problem is the reason behind the idea of proceeding with this particular research study. Moreover, "How do Sri Lankan customers perceive the crowding?" will be testing throughout the research process.

Perceived crowding can have an impact on many shoppers related psychological and physical outcomes. Eroglu and Machleit (2005) has shown that the perception of overcrowding during shopping often accompanies certain emotions, thus influencing customers' purchasing decisions. This research mainly focuses on the impact of perceived crowding on psychological shopping outcomes. There are different types of psychological outcomes can be found in the prior literature. More specifically this research study focuses on emotional mind of the consumers.

The fast food industry in Sri Lanka has selected as the base to conduct the research because that particular industry looks one of the most suitable industries with identified area of the consumer behavior. Since it's a service industry, those behaviors can be observed at the time of purchase and the time of consumption together.

The main purpose of conducting this research study is to identify the impact of perceived crowding on emotional responses of the shoppers and identify the moderating effect of time of the day on the relationship between perceived crowding and emotional responses. And fast food industry in Sri Lanka has been taken as the research base to identify the fast food consumers' perception on the crowding. The following research objectives are identified

through the literature review in accordance with the research questions.

- To identify the impact of perceived crowding on emotional responses in fast food industry of Sri Lanka.
- To identify the moderating effect of time of the day on the relationship between perceived crowding and emotional responses in fast food industry of Sri Lanka

LITERATURE REVIEW

Perceived crowding

Crowding is a strong impression about the customers' responses in a commercially valuable environment. It can be said to result from a combination of the perceived physical, social, and personal factors. The interplay of these factors even make the individual more sensitive to actual or potential problems that may arise from scarce space (Stokols, 1972a). Retailors use number of strategies for the crowd management, under the above circumstances to affect the behaviors of different kind of customers. There are two types of perceived crowding namely human crowding and spatial crowding. Human crowding denotes to a locked, limited sensitivity experienced by high human density. If people like more to go a place, it will be crowded. Spatial crowding may result from the combined feeling of crowding experienced when one shops at different areas of the store plus the feeling evoked by the height of the ceiling and the lighting (Li et al., 2009).

Emotional responses of the shoppers

Businesses always pay attention on satisfying customers through their products, since it is the heart of marketing. Pleasure means the happy or joy of a person to be in a place. If someone is not happy he does not like to work with them again. Perceived crowding can create a tension as well as arousal, not only pleasure. The feeling of overcrowding may also influence shoppers' shopping behavior. Shopper may face different emotions due to overcrowding during a shopping trip (Li et al., 2009). During crowding, the shopper may experience different kind of behavioral changes with these various emotions. Because of that, shopper should attempt to evade those circumstances. This impact for different buying behaviors. Customer satisfaction is a crucial factor to a business for its survival and to retain the customer, a firm should ensure that it satisfied that customer in its maximum possible manner and customer's judgement on his shopping experience is positive (Shavitt et al., 2000).

Perceived crowding on emotional responses of the shoppers

The most important aspect of this research review is the impact of perceived congestion on emotional

responses. This section will focus on how these two variables have behaved in prior studies on the subject after a basic understanding of perceived crowding and emotional responses. There are a few studies on the same topic or comparable issues that are similar to this one. In this section, we'll look at some of those studies to see how other researchers have identified this link and how literature has accumulated in the field.

(Sriwardiningsih, 2011) used store design and satisfaction as independent and dependent variables to investigate the effect of store design on perceived congestion and impulse buying behavior. In addition, they employed impulse purchasing behavior as a moderator variable. They used a five-point Likert scale questionnaire to collect main data. They conducted a primary study with only 30 participants before doing the advanced level data collection with questionnaires, and then they collected data from 1000 respondents. They discovered that human crowding promotes feelings of pleasure and dominance, whereas spatial crowding, on the other hand, boosts the shopper's sentiments of arousal and dominance due to the perception of greater things being available in a limited space. Finally, after reviewing data from 1000 respondents, they concluded that a properly built store may have the volume to increase shopper fulfillment, thereby boosting the inclination to shop more, and that the independent and dependent variables had a positive association. They also imply that, if done strategically, store design might lead to more joyful purchasing. Because it has a direct impact on increasing emotional responses as well as shopper pleasure.

The impacts of congestion and consumer choice on the service experience were investigated by (Hui & Bateson, 1991). Perceived crowd control was the independent variable, while consumer choice on service experience was the dependent variable on perceived crowd control. While conducting their research, they discovered that the detrimental effects of high consumer density can be easily mitigated by restricting client numbers to a particular level. They are not claiming that there should be complete control, but they are claiming that there should be enough control to reduce the detrimental impact. According to them, a greater degree of choice may be a reason for customers' perceptions of congestion to be reduced. Providing situational and emotional information has also been shown to have similar effects in previous research. To find the relevant data for the study, they used 115 and 117 respondents in two shops, all of whom were between the ages of 25

and 40. With the help of 115 persons and these questionnaires, they were able to infer that there is a significant impact of perceived control on customer choice and density on the emotional and behavioral outcomes of the service encounter, as well as a positive relationship.

(Machleit et al., 1994) conducted a study with the help of three other studies in order to acquire preliminary data for determining how "the human versus geographical dimensions' influences on crowding perceptions in retail environments." Human and spatial dimensions, as well as crowding perceptions in retail spaces, were their independent and dependent variables, respectively. As a moderator variable, they used measurement and the influence on consumer satisfaction. They discovered numerous concerns linked to the topic during their examination. According to this study, human and partial congestion can have a variety of effects on the store's image. If the stuff is strewn about in a crowded store, it may provide the impression of a discount to customers. If a business has a large number of daily clients (what we refer to as a high human crowding condition), it can project an exciting or infrequent store with high-value items or services. As previously stated, this study gathered data through three different studies: a series of laboratory experiments and two different field studies. They also put two different crowding metrics to the test. There were 76 people who took part in the initial study, 45 males and 31 women between the ages of 20 and 38. There were 140 participants in the second study (which is a field study). All of these customers are between the ages of 18 and 63. The final study was also a field study, and it was conducted to corroborate some of the findings. They polled 117 adults who were out shopping. They used a university book store for a video recording and written scenario, as well as the space for the second research. Two mutual retail environments, a grocery store and a discount store, were nominated for the third one. After obtaining all of the data and conducting the research, they came to the conclusion that perceived retail crowding has discrete human and spatial dimensions that effect pleasure in opposite directions. There was a strong bond between the two of them.

Time of the day: Day time or Night time

It's crucial to understand the importance of the time of day in the fast food industry, because few previous research have identified it as a multi-dimensional component that influences consumer purchase behavior. In 2017, the British Food Journal conducted research, defining time intervals as 6.00 a.m. to 11.59 a.m. for morning, 12.00 p.m. to 5.59 p.m. for

afternoon, 6.00 p.m. to 11.59 p.m. for evening, and the remaining hours as night from 12.00 a.m. to 5.59 a.m. Second, they examined knowledge from food sociology regarding the time of day when people in Denmark normally eat their main meals to allow for potential mental energy recharging through meals. According to studies of Nordic people, people in Denmark eat breakfast between 6 and 7 a.m., lunch between 12 and 1 p.m., and dinner between 6 and 7 p.m. (Punta et al., 2011, Holm et al., 2019).

Heisley et al., (1991) is yet another study worth looking into because it characterizes customer motives and behaviors. Apart from the time intervals defined above, four categories of consumers were identified in this study based on their arrival times: Die-Hards (between 06.00 a.m.-7.30 a.m.), Sociable Die-Hards (between 7.30 a.m.-9.00 a.m.), Very Sociable (between 09.00 a.m.-11 a.m.), and Late People (between 09.00 a.m.-11 a.m.) (between 11.00 a.m. to 2.00 p.m.) The authors discover considerable disparities in their market experiences and selections among the aforementioned categories, implying that consumer behavior and experiences are influenced by the time of day.

Dacko, (2012) Morningness-eveningness is a physiological consumer trait, according to Time of Day. Individuals who are accurately referred to as morning types are characterized by their desire for early waking times, the ease with which they begin their days in a refreshed state of mind and body, and their preference for early end-of-day sleep times. On the other hand, some people are classified as evening types because they enjoy late morning waking times, sluggishness upon waking, and late end-of-day sleep times (Dacko, 2012).

In terms of customer demographics, the study also reveals that there are considerable variances in consumers' Time of Day (TOD) service preferences. Merz et al., (2009) used data from 37,000 time use diaries collected from customers in Germany between 2001 and 2002 to draw clear findings on the type and breadth of significant differences in TOD preferences for services across consumers of known demographic backgrounds. They discovered at the conclusion of the study that the inactive jobless prefer to request services in the morning, whilst the active employed prefer to request services in the afternoon and up until 5.00 p.m. This is a clear example to show how demographical factors has been combined and linked with the Time of the Day factor making it a more complex scenario to be understood and analyzed.

While a new idea called TOD service marketing has been prevalent in the modern marketing industry, all of the above described components were formed based on the variable, Time of the Day (TOD). Understanding how and to what extent customers display morningness or, conversely, eveningness has important consequences for service marketers, as it can lead to more effective service timing tactics, service mix strategies, and/or service communication strategies. Firms take steps to produce superior value by strategically deploying their resources and key capabilities throughout the day, taking into account the behavioral, physiological, and demographical aspects discussed above. Customer satisfaction may be influenced, and service businesses have a clear chance to gain a competitive edge and engage in non-price rivalry. (Dacko, 2012)

With reference to the previous literature H1 and H2 were developed.

H1: There is a significant impact of Perceived crowding on emotional responses of shoppers in fast food industry of Sri Lanka.

H2: There is a moderating effect of time of the day on the relationship between perceived crowding and emotional responses of shoppers in fast food industry of Sri Lanka.

Conceptual framework

Conceptual framework reflects the researchers' own position on the problem and it gives direction to the study. Conceptual framework has been developed based on the literature review. In this study, three variables have been deliberated as independent, dependent and moderating. Finally, the Perceived crowding recognized as the dependent variable and emotional responses of the shoppers recognized as the independent variable while time of the day recognized as the moderating variable. The following conceptual framework shows the theoretical relationship between those variables.

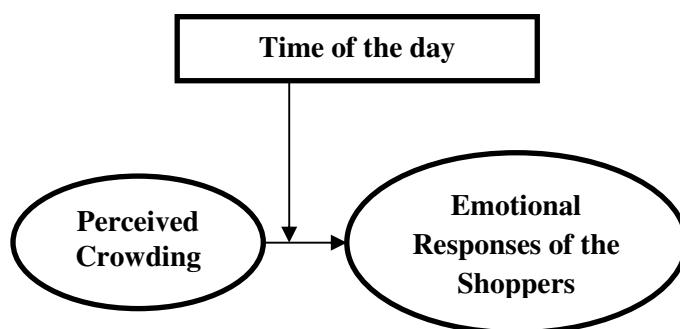


Figure 1 Conceptual Framework

METHOD

The analysis is driven by descriptive research since the research's goals are to investigate the influence of perceived congestion on emotional responses of shoppers with the moderating variable time of day. The sample size 405 includes men and women of diverse ages, income levels, and race categories. A convenience sample method will be used to represent the researcher's convenience. The survey was conducted via a questionnaire, with the first questionnaire being reviewed by a small group of people to identify technical terms that are unknown to those outside of academic setting. SPSS software was used in arriving at the statistical inferences testing the hypothesis and assert how perceived crowding affect emotional responses of the shoppers with time of the day as a moderator.

MEASURES

The study was conducted through a questionnaire, in order to gather data. It consisted 16 questions including 11 questions related to perceived crowding and emotional responses, two screening questions and three demographic questions. A five-point Likert scale was used to analyze the independent and dependent variable with 1 representing "Strongly Disagree" and 5 representing "Strongly Agree." The overall influence of perceived crowding on emotional responses of the shoppers was assessed using a 5-point Likert Scale. Other questions focused on the respondent's general demographics, including gender, age, education level and screening questions, including time of the day and frequency of visiting.

Reliability and validity of measures

As demonstrated in Table 1, all of the constructs' Cronbach's values were near to or above 0.7, ensuring internal consistency. The content, construct, convergent, and discriminant validity of the measuring model used in the study were all evaluated to validate it (Hair et al., 2019). For the study, a thorough literature review was conducted, which confirmed the content validity. The Average Variance Extracted (AVE) must be greater than 0.5 to demonstrate construct validity and convergence. Table 1 shows the AVEs for the evaluated constructs that were validated on construct validity and convergent with values greater than 0.5. According to Hair et al. (2019), to accept a dimension under component analysis, the composite dependability must be more than 0.7, as indicated in Table 1. To evaluate discriminant validity, the shared variances among constructs can be compared to the AVE (average variance extracted) on the individual constructs, as mentioned in (Sekaran & Bougie, 2010). As demonstrated in Table 1, the discriminant validity of the respective notions has also been validated.

Table 1: Results of Reliability and Validity of Measures

Construct	Cronbach's Alpha	Composite reliability	AVE	Discriminant Validity			
				1	2	3	4
Human Crowding	0.89	0.923	0.821	0.821			
Spatial Crowding	0.79	0.864	0.700	0.009	0.700		
Pleasure	0.80	0.881	0.719	0.002	0.001	0.719	
Dominance	0.71	0.866	0.780	0.008	0.001	0.001	0.780

Note: The information was derived through the analysis using SPSS software

AVE (Bolded values along the diagonal) > r^2 value of other dimensions

RESULTS

Only 405 questionnaires were useable for this study and met the required inclusion criteria out of a total of 437 responses. Because the discovered outliers were eliminated for subsequent studies, 32 questionnaires were declared unsuitable. There were 194 females and 211 males in the sample. 174 respondents, or 43 percent of the sample, are below the age of 20, the highest proportion. The age group of 20-24 has 87 responses, accounting for 21.5 percent of the sample. The age groups of 25-29, 30-34 and 35 years and above include 84, 42 and 18 responses, respectively, accounting for 20.7%, 10.4% and 4.4% of the total. GCE A/L qualification holders make up a sizable portion of the sample, accounting for 51.9 percent of the total. The next greatest group of respondents have passed up to degree or similar qualification with a total of 126 respondents and representing 31.1 percent of the sample studied. The lowest representation is 4.4 percent of respondents who have completed a MBA or above qualification.

The correlation and regression results for each of the variables of perceived crowding are shown in Table 2. The Pearson correlation coefficient "r" for the test of Perceived crowding and Emotional responses is +0.350, indicating a weak positive relationship.

According to Table 2, for the regression tests conducted on the relationships between the predictor variable and the dependent variable, independent variable received significance value less than 0.05 (alpha value), indicating

that the alternative hypothesis H1 can be accepted, confirming that variable considered have a significant impact. As a result, all of the parameters that must be met as outlined in the literature study were met satisfactorily.

Table 2: Correlation and Regression Results

Variable	Coefficient	R	Coefficient Beta	Sig
Perceived Crowding	0.350	0.122	0.373	0.000

Note: The information was derived through the analysis using SPSS software

A Dummy variable is added to the study to examine the moderating effect. On the Time of Day variable, a dummy variable was generated. There are two historical values for the time of day: one for daytime and two for nighttime. When there are two values, a dummy variable must be created for one of them. As a result, the dummy variable Daytime is constructed based on the value of day time. The regression test was created later. On table 3, you can see the updated R square value.

Table 3: Model Summary: Moderating variable – Time of the day

Variable	R	R Square	Adjusted R Square	Standard error of the Estimate
Time of the day	0.350	0.122	0.116	0.71582

The R square value is the same as it was previously. As a result, there is no evidence of a moderating influence of time of day on the link between perceived crowding and emotional responses.

DISCUSSION AND CONCLUSIONS

This study shows that there is a significant impact of perceived crowding on the emotional responses with the R square value of 0.122. Based on the model summary, it can be concluded that it indicates that 12.2% of dependent variable (Emotional Responses) is explained by independent variables (Perceived Crowding).

These results are almost similar to the previous research findings which has stated in the literature review chapter.

The research study's subjected outlet is still a thriving restaurant in the Nugegoda neighborhood. However, it is quite popular among students in tuition classes and young people. When compared to other well-known restaurants in town, it has a small storefront and a limited number of customer seats. As a result, the overcrowding can be easily detected. Furthermore, people's emotional responses to crowding might be influenced by their perceptions of being controlled or constrained by the store environment. Aside from the "McDonalds" establishment, any fast food store could be overcrowded at any time. It could have happened as a result of a high human or physical density.

Regression using a Dummy Variable was utilized to see if time of day had a moderating effect on the link between perceived crowding and emotional responses. A re-specification technique employing variables that take just two values, usually 0 or 1, was used to generate a dummy variable for the time of day. As a result, day time=1 and night time=0, with day time serving as the predictor and night time serving as the reference.

According to the regression test, the mode's R Square value was 12.2 percent, implying that time of day explains 12.2 percent of the variance in Emotional Responses (Dummy Variable). The new R value is identical to the previous R value. It signifies that the model did not alter as a result of the moderating variable's effect. As a result, we may conclude that in the Sri Lankan fast food market, there is no moderating effect on the relationship between perceived congestion and emotional responses.

Though literature shows there is a significant difference in Time, according to this study it doesn't show any time differences with relation to the perceived crowding and emotional responses in the fast food industry.

The absence of studies on perceived crowding in the Sri Lankan context is one of the research gaps mentioned previously in this study. As a result, this research study might be regarded as a one-time value addition in that domain.

The outcomes of this study will be used to help future research and will generate a number of new research ideas.

Because the findings show that perceived crowding has a substantial impact on shoppers' emotional responses, store managers must manage crowding, which means they must also manage their store space, atmosphere, and customers. Managers of retailers, on the other hand, must be concerned about the emotional results of their customers. They must ensure that their clients have a nice experience when they enter and leave the store. It will result in increased client retention as well as favorable word-of-mouth.

LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH AREAS

The study focused primarily on customers in the western provinces, and any conclusions drawn from this sample may not represent the entire Sri Lankan population. Furthermore, because the respondents were simple to reach via an online questionnaire, the majority of those who took part in the poll were employed workers. The findings, on the other hand, are based on the opinions of 405 consumers in Sri Lanka.

This research was started with the idea of perceived congestion in mind. Other than emotional responses, different circumstance characteristics were identified while referring to literature linked to perceived crowding. It could be a physical or psychological circumstance. Those characteristics can be taken into account by researchers in future study projects.

Another key advice for future research is that, while this study was completely focused on the Sri Lankan fast food business, a similar study could be started using any other industry as a base that could be affected by perceived crowding or any other customer attribute.

Future research should look at a broader and more representative sample of Sri Lankan contemporary clients. Because Perceived crowding is such a dynamic topic and hope to include some new dimensions in future studies will result in more useful data. Furthermore, the researcher feels that combining quantitative and qualitative research methodologies in future studies will be more efficient in detecting the true impact of perceived crowding on emotional responses.

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