# The impact of servicescape on consumer purchasing behavior: A study of Coffee Shops in Colombo, Sri Lanka

# Thilini Lakmini Mudiyanse<sup>1</sup>

<sup>1</sup>(MBA graduate of University of West London) Corresponding Author: Thilini Lakmini Mudiyanse

Abstract: The modern coffee shop culture in Colombo, Sri Lanka seems to be very competitive with the intense rivalry in the café industry. Due to the alluring coffee experience provided by the coffee shops in Colombo, Sri Lanka consumers tend to visit them for different purposes: dine-in, take-away food and beverages, studying, socialization, relaxation, work/business meeting over other alternative options available. Consumer purchasing behavior vary from one to another with the impact of the uniqueness offered in different coffee shops in terms of the servicescape of the coffee shop premises as a powerful marketing tool used by coffee shop managers. Hence, the research problem of this study is to identify and examine the impact of servicescape on consumer purchasing behavior with regards to choosing coffee shops in Colombo, Sri Lanka over the alternatives for different purposes. The study is conducted as a survey with a sample of 300 coffee shop visitors following a hypothetic deductive approach testing the hypothesis developed based on servicescape. The results of the study reveal that servicescape is a successful marketing tool in promoting people to choose coffee shops among other alternatives for purposes such as dining, relaxation, studying and meetings.

**Key Words:** Servicescape; Consumer purchasing behavior; Coffee Shops

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#### I. Introduction

Marketing is being revolutionized where ideas and concepts are being tested and reconsidered in this new era. Traditional mass markets are slowly disappearing and individualization and tailor-made products are playing a vital role in marketing by gaining profits as they have discovered that the advertising is no longer enough with the competitive rivalry resulting the emerge of highly demanding new marketing communication channels illustrating the fragmentation of the market (Hultén, Broweus & Dijk, 2009). An organization's physical facility or the physical environment is defined as 'servicescape' framework, which originated from a research conducted in environmental psychology in order to emphasize the four sensory design dimensions; sight, sound, scent and touch that have a strong positive impact on consumer's emotions and likely to influence the purchase decision and a repeat purchase intention. It is proven that this has a direct stimulation towards consumer's perception of the service experienced. In terms of conceptualizing the three types of the servicescape framework, it is possible to elaborate them as ambient condition, spatial layout and functionality, signs, symbols and artifacts. The ambient condition can be composed through more components such as temperature, voice, background music, smell, quality of air etc. Environmental psychologists point out that the human beings have two reactions in general: approach and avoidance depending on the environment of the place. Approach behavior provides positive vibes making the individual to have a desire to stay, explore, work and affiliate and avoidance behavior takes the negative aspect where the individual is encouraged not to stay, explore, work and affiliate (Mehrabian and Russell 1974). Space and function can be composed of decoration, designs and equipment. Moreover, signs, artifacts and symbols are used in the branded physical environment to successfully communicate the necessities of the consumers. Therefore, the combination of these three simulates the consumer's and the employee's internal cognitive, emotional and psychological responses (Bitner, 1992). Based on this framework, there had been many researches, bridging the connection of the impact of dimensions of servicescape towards consumer's purchasing behavior through different variables. Evidently, there are behavioral effects of consumers depending on the lights, colors, themes, decorations, music. Relating to the coffee shop industry it is safe to emphasize facts such as nice background music which makes people to stay longer, relaxing atmosphere with good interior and exterior design to make people stay more not only to drink coffee, but also to meet others, study and read books. Moreover, parking, landscape attributes, perceived quality, perceived waiting time also influence the purchase intention of consumers. The servicescape model is created specifically targeting certain markets to identify the importance of it towards the customer satisfaction and experience as an effective marketing tool in this digitalized era enabling the increase of customer interaction through digital media (Situmorang, Azmi and Mulyono, 2017).

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Consumer's mental representation of a service which captures an individual's personality can be defined as a servicescape personality (D'Astous and Le 'vesque, 2003). Each individual's personality is strongly affected by interior, exterior and atmospheric elements (Dunne and Lusch, 2007; Israel, 1994; Zimmer and Golden, 1988), which benefit the functionality of the services or products offered (D'Astous and Le 'vesque, 2003; Poddar et al., 2009). Further, it is evident, that the customer behavior and purchase intention are directly affected by the physical surroundings of a place (Bitner, 1992).

In Sri Lanka, servicescape framework is being used for marketing purposes in many industries though it is fairly new, and marketers exercise servicescape branding without having an in-depth knowledge on its effectiveness and the usefulness of the outcome. For example, department stores, top restaurants, franchise businesses, hotels and coffee shops. Though coffee shop culture is relatively novel to Sri Lanka, ultimately the coffee culture has expanded across the country with the fast-growing coffee consumption with multitude of unique blends contributing to the economic growth and the well-being of coffee industry workers.

In relation with the coffee shops and cafes as a hospitality product, it is identified as a mixture of tangible and intangible products and services where "quality of service", "ambience", "atmosphere" and "servicecape" are measured (Pizam, 2010). These mentioned factors are aimed to increase the satisfaction of their customers which result the repeat visits in future where consumers may tend to pay even a higher price for the branded experience offered.

#### II. Research Problem

Due to the globalization of coffee culture, growing enthusiasm of high-quality coffee, consumer's preference to study, work and socialize with a cup of coffee, free internet access in coffee houses have contributed this expansion globally for coffee shops to become one of the fastest growing segment of restaurant business resulting the amount of coffee consumed worldwide has exceeded 400 billion cups per year (Coffee Statistics Online 2010).

Reflecting on Sri Lanka, 'Ceylon Tea' has been the market leader for a period of time where coffee shops are slowly continuing to increase the market penetration with the modern global coffee culture. In Sri Lanka, coffee was effectively introduced in the low country in 1825 resulting a huge coffee production in 1870 with the British scale commercial productions enabling Sri Lanka to rank 43rd of largest coffee producers in the world.

As the coffee culture booms, industry giants such as Starbucks are served in some coffee shops in Colombo. In addition to Colombo, Kandy, Galle and Mirissa, more locations throughout the country are expecting to open coffee shops to quench the thirst of caffeine community. Not only the coffee lovers, but also the young adults between the ages of 15 -25 and adults between ages of 25-50 including students, working crowd, couples and business men can be seen gathering in coffee shops in Colombo to study, socialize, and relax as the coffee shops provide the calm atmosphere with the coffee in excellent quality. The market leaders such as The Coffee Bean & Tea Leaf, Barista, White & Co, Java Lounge, The Commons, Coco Verandah and more other attractive coffee shops in Colombo provide the best environment for coffee lovers with their branded atmosphere allowing consumers to hold business meetings, study, to interact socially and to relax. Accordingly, servicescape approach is appealed through different levels in order to attract and retain more customers.

There are many options to fulfill the same purposes other than coffee shops, yet the coffee shops are more popular due to the memorable experience which is offered by the coffee shops blended with branded atmosphere, relaxing and calm environment, nice coffee aroma, beautiful interior designs. Though the coffee owners and marketers are not fully aware about the servicescape model, it is highly exercised in coffee shops, hence it is important and useful to discover the true value and the considerable impact of the concept on consumer purchasing behavior as to find out how to increase profits, how to attract more consumers, how to make the consumers revisit the coffee shops and how to gain the brand loyalty. Many researchers believe that servicescape plays a vital role in to stimulate consumer purchasing behavior and it is examined through this study. Hence some businesses invest on this marketing tool to generate sales for its value creation competency. Yet it is not certain whether the consumers do value this concept or not. Therefore, the research problem of this study is to identify the impact of servicescape on consumer purchasing behavior of choosing coffee shops is Colombo, Sri Lanka.

#### III. Research Objectives

The research objectives for this study are:

To identify dimensions of servicescape

To examine the impact of servicescape on choices of coffee shops

To deliver recommendations for coffee shop marketing professionals to make use of servicescape effectively as a tool of marketing the service and products to influence and stimulate consumer purchasing behavior.

# IV. Significance of the Research

Considering the precise research gap on the usage of servicescape in coffee shops in Colombo as a distinguish marketing tool to gain the satisfaction of consumers, this will be applied to Sri Lankan market to educate coffee shop owners and marketers as how to implement the concept successfully with a transparent view on each dimension of servicescape model revealing the ways and means to invest on servicescape branding as there would be a considerable involvement of cost and the challenges from the initial stage. Though the marketers have a slight awareness on the impact of servicescape, there could be various marketing strategies that have been neglected and ignored when setting up the branded environment in a coffee shop. Furthermore, the result of this study could be used as a guidance for future researchers and academics explaining the relationship and the level of impact of servicescape on stimulating the consumer purchasing behavior.

#### V. Literature Review

#### 5.1 Servicescape

Servicescape is known as the process which delivers the physical evidence of service characteristics and it is highly recognized as one of the most important elements in service marketing as it is about created and physical built environment, man-made that communicate tangibles forms of a service (Yazid, 2008). Many previous researchers have discussed on the impact of the interaction between consumer's satisfaction and their behavioral outcomes while very few researches focused on social servicescape. The presence of other consumers in any hospitality: fellow diners or guest at a restaurant or a hotel, contribute to the experience and plays an important role in servicescape (Kotler et al., 2014). Almost all the researches in different countries have emphasized the fact that the dimensions of servicescape have a direct impact on consumer behavior and can affect the emotional responses (Mehrabian & Russell, 1974; Russell & Lanius, 1984; Russell & Pratt, 1980; Russell & Snodgrass, 1987).

In order for the consumers to feel happy, welcome, comfort and 'at home', the key factors of place attachment are influenced as the servicescape shades a positive light as they are pleased with the physical servicescape. Previous studies have revealed that the consumers often feel a string sense of attachment to places that reflect their own identities (e.g., Kyle, Graefe, Manning, & Bacon, 2004; Proshansky, Fabian, & Kaminoff, 1983). This further result them to feel comfort and a sense belonging and a familiarity which can be identified as key factors in the experience of place attachment (Hummon, 1992).

It has been more than 25 years for Bitner's seminal model, which contributes the conversation on the effects of servicescape towards consumer behavior. Considering the theoretical and empirical relevance, in every cue (e.g., spatial layout) of servicescape or a characteristic of a cue (e.g., seating arrangement, take away establishment) are aimed directly to improve the consistency of consumer behavior in many levels. It has been also revealed that the pleasure and arousal can be identified explicators of consumer's emotional response to the built physical environment as they seem to be the most significant mediators between environment stimuli and consumer responses (Rossiter, 1982). Furthermore, the consumer behavior possesses different viewpoints in Stimuli-response model of Kotler (1997) and the Servicescape framework of Wakefield and Boldgett (1996) where variables in consumer preference are shaped. Therefore, we can confirm that influencing consumer behavior is possible through manipulating a store's servicescape. Moreover, there have been many discussions and empirical studies in servicescape service quality as well. It has been recognized that servicescape component of service quality has the potential to make a remarkable contribution in understanding the behavior and practice if a consumer (Perrone, 2009). Retail setting thereby enhance the positive attributes to the servicescape service quality. Moreover, the built physical environment of a store can serve more as an important differential or competitive advantage in attracting particular consumer audience (Turley & Chebat, 2002). Thus, servicescape attributes will provide more positive experience to consumers where retailers effectively use to portray the specific elements of their product delivery when conveying the customer, a memorable experience (Berry & Parasuraman, 1991). In this set up, where the 'place' itself is being fully maximized through the strong indicators of physical settings, consumers recognize the effort more than a solely functional role of a service (Wakefeild & Boldger 1996, 1994).

Evidently, it is mandatory for consumers to obtain value from marketing activities, hence physical sources play an important role in customer's acquisition of value (Grönroos, 2006). This is why all the materials that are used to build the servicescape must be designed in harmony with the service and presented in a useful way daily for the consumers to feel the money is worth spent. As Lin (2004) mentioned, tourists make their initial contact with the physical environment as soon as they enter a hotel. Considering the fact that they would like to spend more time in hotel than other places, it can be understood that their interaction with the servicescape last for a long period as its important for them to have a positive perception of value by spending large amount of time, energy and money when they are in other countries.

#### 5.2 Consumer Purchasing Behavior

A rapid growth in literature related to consumer behavior and consumer purchasing behavior in marketing field can be witnessed. Customer being the crucial role in the success of any organization, they continuously keep working on influencing others to purchase their products and services expecting to generate more income. Due to the audiences becoming media-savvy, there is a considerable need for more innovative marketing strategies to inspire consumers to keep buying. Consumer behavior is about the study and the method of consumers about their choosing attitude, utilizing purposes towards set of products and services to fulfill their desires and the impact of the same on the consumer and the society they are in. It involves in all sorts of thoughts, feelings and actions they have taken before or while buying a product or rendering a service. This behavior ultimately drives towards the purchasing decision where customer finally decides on a product choice, brand choice, dealer choice, purchase timing purchase amount and purchase frequency (Khaniwale, 2015). Therefore, this whole process is related to at least three streams of social sciences such as individual psychology, social psychology and cultural anthropology.

Consumer behavior is affected by several internal and external factors in the background. The external factors are related to cultural and social factors whereas internal factors can be classified as personal and psychological. In terms of external factors, cultural factors are related to norms, financial values, convictions, moral values, attitudes and habits developed by individuals which highly affect and determine the behavior of them, including the purchasing power. The buyer's consumption pattern is affected by maintenance of socialization as cultural, subcultural influences have become important with the current globalization. Buyer culture is also affected by the thoughts, practices, behavior, norms, language, ethics, lifestyle and technology of the particular society where the consumer lives. Therefore, each individual's different cultural background has different point of view about a particular product or service which suit their culture. The subculture is consisted with nationalities, regions, geographic and racial groups etc. which relate to a group of people who have common experiences and situations. Furthermore, based on the social class which emerged from the income, profession and education who generally have same interest and behavior it varies. Social factors such as children, education, health which show off consumer durables and other status symbol are all relevant to purchasing behavior of individuals, hence reference groups, family, role and status tend to impact on selecting goods and services that suit their position (Khaniwale, 2015).

Besides, the internal factors which are unique to each individual that are influenced by their personal characteristics such as age, sex, occupation, financial status, lifestyle, personality and opinion of self which can be considered as demographically impact, play and important role in the process of purchasing. Especially, the purchasing power which has a direct impact from the economic condition influence and attract the affordable range of product and services of a consumer. As the lifestyle of an individual reflect on the pattern of living, it is more effective than the personality of the buyer which directly links to the acquisition, use and disposition of goods and service (Khaniwale, 2015).

In terms of psychological factors, buyer's perception, beliefs, attitudes, motivation and learning directly link to their purchasing behavior. The purchasing motive is usually driven through each individuals' attitude towards the value of the product along with what he or she believes about it in order to motivate the purchase. These key psychological factors reflect on why consumers' skills and knowledge are linked to learning and predestinate changes of behavior. However, nowadays marketers have excelled the ability to alter the consumer's beliefs and attitudes through their successful aggressive marketing campaigns to generate more income. Hence the main cultural, social, personal and psychological factors of a consumer immensely impact on the buying process (Khaniwale, 2015).

# 5.2 Relationship between servicescape and consumer purchasing behavior

Though the human behavior is influenced by the physical setting, until 1960s psychologists denied that fact that physical setting influences the human behavior. Ever since, the field of environment psychology brought the topic forward through many pieces of literature bridging the relationship between human being and the built environments around them (Darley and Gilbert 1985; Holahan 1986; Russell and Ward 1982; Stokols and Altman 1987). Environmental psychologists point out that the human beings have two reactions in general: approach and avoidance depending on the environment of the place. Approach behavior provides positive vibes making the individual to have a desire to stay, explore, work and affiliate and avoidance behavior takes the negative aspect where the individual is encouraged not to stay, explore, work and affiliate (Mehrabian and Russell 1974).

Space and function can be composed of decoration, designs and equipment. Moreover, signs, artifacts and symbols are used in the branded physical environment to successfully communicate the necessities of the consumers. Therefore, the combination of these three simulates the consumer's and the employee's internal cognitive, emotional and psychological responses (Bitner, 1992). Based on this framework, there had been many researches, bridging the connection of the impact of dimensions of servicescape towards consumer's purchasing

behavior through different variables. Evidently, there are behavioral effects of consumers depending on the lights, colors, themes, decorations, music. Relating to the coffee shop industry it is safe to emphasize facts such as nice background music which makes people to stay longer, relaxing atmosphere with good interior and exterior design to make people stay more not only to drink coffee, but also to meet others, study and read books. Moreover, parking, landscape attributes, perceived quality, perceived waiting time also influence the purchase intention of consumers (Situmorang, Azmi and Mulyono, 2017).

# VI. Methodology

### 6.1 The conceptual framework and operationalization of concepts

The formulated research question is: "What are the impacts of servicescape on consumer purchasing behavior toward choosing coffee shop for different purposes in Colombo, Sri Lanka?" The conceptual model is generated with the support of literature review and the hypotheses are developed accordingly.

Independent Variables

Characteristics of Servicescape

Interior Design

Ambience

Lighting

Spatial Layout

Dependent Variables

Consumer Purchasing Behavior

Purchasing behavior towards coffee shops for different purposes such as dining, take away, study, work and relaxation.

Figure 1: Conceptual Framework

The hypotheses are developed as follows:

H11: There is a significant impact of on interior design as an element of servicescape towards coffee shops for dining, take away, relaxation, studying, working and others.

H21: There is a significant impact of on ambience as an element of servicescape towards coffee shops for dining, take away, relaxation, studying, working and others.

H31: There is a significant impact of lighting as an element of servicescape towards coffee for dining, take away, relaxation, studying, working and others.

H41: There is a significant impact of on spatial layout as an element of servicescape towards coffee shops for dining, take away, relaxation, studying, working and others.

The process of operationalizing the variables enable the greater specificity for readers to understand researcher's work which is necessary to answer the doubts as this distinguishes explanations and definitions to remove any potential ambiguities (Williamson, 2006).

Table 1: Operationalization of variables					
Concept	Dimension	Indicators			
	Interior Design	Decoration, Furniture, Surface, graphics, theme, walls and hallways			
Compined	Ambience	Background music, Aroma and Temperature, cleanliness			
Servicescape	Lighting	Appealing colors: dark or Bright, ambient, accent, decorative and natural			
	Spatial Layout	Seating arrangement, lay out design, fast faced take-away establishment, coffee bar and kitchen			
Concept	Indicator				
Consumer purchasing	Choices of a coffee shop for dining and take away food and beverages				
Consumer purchasing Behavior	Choices of a coffee shop for the purpose of relaxation				
Denavior	Choices of a coffee shop for the purpose of studying				
	Choices of a coffee shop for the purpose of wok/ business meetings				

Table 1: Operationalization of variables

#### 6.2 Research Design & Data Collection

The research has followed the theoretical concept "research onion" model of Saunders et al. (2006) as depicted below in figure 03. Raithatha (2017) has accepted this as an effective methodology as it is consisted with main philosophy, choosing approaches, methods and strategies as well as defining time horizons which leads from research logic to research design along with main techniques, procedures, data collections and analysis. Hence, this study has adapted the positivism to carry out the research according to the concept defined by Saunders, Lewis and Thornhill (2007). The analysis is followed using quantitative techniques and a logical calculation is developed to construct explanatory theories, hence it is suitable to positivism as the research philosophy. As explained, this study followed the deductive approach as all four hypotheses are evolved on an existing theory. It further tests the similarity and the differences and examine the impact indifferent context without creating a new theory. Moreover, quantitative data collection approach and highly structured nature, clarification of relationship between variables are supported as to why the deductive approach is chosen. In this study, the data is obtained through the survey method to find the impact of servicescape towards consumer purchasing behavior when choosing coffee shops over other alternatives to come up with accurate results. Due to the limitation of the study, data will be collected only through one method in quantitative manner where a structured questionnaire is distributed to come up with a good analysis on the subject. Another limitation is being unable to generalize the study to the entire population with few cases. Hence, data will be collected from many convenience samples representing the entire population. As a result of the relationship between the variables not being complicated, it was decided to continue the survey strategy. Therefore, positivist philosophy will be used with the assistance of a structured questionnaire as a quantitative method to collect the data and for numerical data analysis. The statistical test is applied through a deductive approach and the qualitative data will be used to gain the results of the quantitative data at a minor scale. In terms of studying the impact of servicescape towards consumer purchasing behavior is not complex but a straightforward study. Hence, there is no need of repeat studies and it doesn't take long period to complete a one either. Yet, there was a limitation to conduct a cross-sectional examination hence the data collection and analysis process would be limited to two or three weeks of time. As per the steps mentioned above, researchers have followed the same starting from identifying the problem and then the statement of the problem in introduction chapters. The hypotheses development and operationalization are indicated in the research methodology chapter. Following chapters will be consisted with the data collection, data analysis and the interpretation of data which lead to a proper conclusion of the study. The population of this study contain coffee lovers and others who visit coffee shops such as working crowd, students, couples, families, foreigners for the purpose of dining, take-away, relaxation, study and work in Colombo, Sri Lanka. The majority of the population can be assumed as the young adults between the ages of 15-24 and the adults between the age of 25-50 and the age above 50. The total population of this study can be considered as all the people who visit coffee shops which is approximately more than 300,000. The total population of Colombo is 648,034 (World population review, 2020). According to the decision model table of Krejcie and Morgan (1970) when the population is more than 75,000, the sample size is recommended to be 384. Hence, the determined sample size is 300 and to be later generalized to the population. Data collection was centered to primary data where a structure questionnaire is distributed. The research strategy will be the survey method.

There will be Likert scale questions and multiple-choice questions in the structure questionnaire. A pilot study is conducted to assess the validity and the reliability of the questionnaire. Furthermore, it also included different sections related to respondents' demographic information, perception towards servicescape and the general viewpoint on the impact of servicecape towards consumer purchasing behavior which leads to cover the whole illustration in the operationalization. As mentioned before, the structured questionnaires are distributed among random coffee shop visitors of Colombo, Sri Lanka through internet-based methods; Google forms, email.

Therefore, reliability is measured through inter-item consistency reliability which analyzes the consistent of the responses given by the respondents. This is the technique to assess internal consistency using Cronbach's alpha value. The common rule is that the Cronbach's alpha value should be 0.70 or greater in order to meet the decision criteria. The Data analysis was conducted using SPSS (Statistical Package for the Social Sciences) software for gathered numerical data with descriptive statistics, correlation analysis and simple linear regression analysis.

#### VII. Findings

The responses received through the structured questionnaire are analyzed thoroughly in different segments after studying the validity and the reliability of the measures along with the analysis of demographics, analysis of descriptive statistics and hypotheses testing.

#### 7.1 Analysis of demographic factors

Highest percentage of the participants are in the age category of 21-30 which amounts to 43% and the lowest percentage of participants 4% are in the age category of "over-50". The majority is mostly educated up to graduate and post graduate levels (24% and 26% respectively) and 20% of the sample were undergraduates. Most of the coffee shop visitors (27%) were relatively low-income earners with monthly household income LKR 60,000 and below. Highest percentage of the participants of 59% visit coffee shops to socialize and they spend 31 minutes to 1 hour in the coffee shops followed by the lowest percentage of customers of 3% visit coffee shop for work and spend more than two hours. However, the monthly spending in coffee shops were between LKR 1000-2000 for 44% of the sample. The analysis of the demographics reveal that coffee shops were much visited by relatively more educated and low-income earning individuals. Further, coffee shops are mostly chosen for the purpose of socializing.

The results of demographic analysis of coffee shop visitors are shown in table 2.

Table 2: Analysis of Demographic Factors

Variable	Characteristic	0/0
Gender	Male	36%
	Female	64%
Age	11- 20 years	12%
	21- 30 years	43%
	31-40 years	32%
	41- 50 years	9%
	Over 50 years	4%
Educational Level	Ordinary Level	4%
	Advanced Level	15%
	Undergraduate	20%
	Graduate	24%
	Professional Qualification	11%
	Postgraduate	26%
Occupational Level	Student	27%
	Unemployed	6%
	Self-employed	8%
	Part-time employee	6%
	Full-time employee	50s%
	Other	3%
Income	LKR 60,000 and below	27%
	LKR 60,001 – LKR 100,000	20%
	LKR 100,001 – LKR 150,000	20%
	LKR 150,001 – LKR 200,000	9%
	LKR 200,001 and above	24%
Often Visit	Daily	3%
	Weekly	17%
	Monthly	28%
	Rarely	52%
Main reasons to visit coffee shops	Study	5%
•	Socialize	59%
	Business Meetings	8%
	Breakfast/Lunch	8%
	Work	3%
	Take-away food and beverage	17%

# 7.2 Analysis of quantitative data collected through 5-point Likert scale

# 7.2.1 Testing the reliability and validity of data

Initially, a factor analysis was conducted to test uni-dimensionality of variables and to analyze reliability and validity of data. The sample taken for the study is based on the three hundred (300) responses of coffee shop visitors in Colombo. "Rotated Component Matrix" (table 3) shows how variables are merged together as groups, as the outcome of the analysis of the factor loadings. The indicators of each factor are numbered. For example, the questions under interior design are presented through ID1 to ID5.

**Table 3:** Factor Analysis

Rotated Component Matrix <sup>a</sup>						
	Component					
	1 2 3 4					
ID1	.765					
ID3	.727					

ID4	.716			
ID2	.669			
ID5	.589			
LT1		.777		
LT2		.758		
LT3		.691		
AM4			.766	
AM3			.683	
AM5			.647	
AM2			.569	
SL3				.774
SL4				.707
SL2				.627
SL1				.539

As a step to reach an acceptable Factor Loadings and to arrive at a fair grouping of the variables under the Rotated Component Matrix, certain indicators of variables were dropped and those indicators are shown in the below Table.

**Table 4:** Dropped Questions

Variable	Indicator Dropped
Ambience (AM)	AM1, AM6
Lighting (LT)	LT4, LT5, LT6
Spatial Layout (SL)	SL5

Summary of factor analysis is given in the below table, which indicates that the threshold values of KMO and the Bartlett's Test of Sphericity have been achieved.

**Table 5:** Factor Analysis

Variable	KMO Value (Threshold Value >0.5)		KMO Classification According to (Urrutia, et	Bartlett's Test of Sphericity (Sig.) (Threshold Value <0.05)		AVE (Threshold Value >0.5)	
	Initial Value	Value After Dropping Questions	al., 2015)	Initial Value After Value Dropping Questions		Initial Value	Value After Dropping Questions
Interior Design (ID)	.807	Not Applicable	Middling	.000	Not Applicable	.559	Not Applicable
Ambience (AM)	.801	.707	Meritorious	.000	.000	.464	.532
Lighting (LT)	.773	.681	Middling	.000	.000	.417	.659
Spatial Layout (SL)	.737	.702	Middling	.000	.000	.451	.526
Purchasing Behavior (PB)	.789	Not Applicable	Meritorious	.000	Not Applicable	.542	Not Applicable

As per the given below summary of the Convergent Validity test, it is clear that the Convergent Validity Test is successful. Reliability test was performed using the Cronbach's Alpha Value. According to the summary of the Reliability Test appeared under the Table-5, the threshold value of the Cronbach's Alpha has been achieved.

**Table 6:** Results of Convergent Analysis and Reliability Analysis

Variable	AVE (Threshold Value >0.5)	Composite Reliability (Threshold Value >0.7)	Cronbach's Alpha (Threshold Value >0.7)
Interior Design (ID)	.559	0.893	0.800
Ambience (AM)	.532	0.950	0.705
Lighting (LT)	.659	0.898	0.739
Spatial Layout (SL)	.526	0.904	0.788
Purchasing Behavior (PB)	.542	0.936	0.787

As shown in the given below summary of the Discriminant Validity test, since the AVE value of each dimension is greater than the Squared Coefficient value of each dimension owns with other dimension, the Discriminant Validity Test has been satisfied.

**Table 7:** Discriminant validity statistics

Variable	Interior Design (ID)	Ambience (AM)	Lighting (LT)	Spatial Layout (SL)
Interior Design (ID)	AVE=.559			
Ambience (AM)		AVE=.532		
Pearson Correlation Squared Correlation	.450**			
	.203			
Lighting (LT) Pearson Correlation Squared Correlation	.477**	.496**	AVE=.659	
	.228	.246		
Spatial Layout (SL)				AVE=.526
Pearson Correlation				
Squared Correlation	.426**	.425**	.413**	
	.181	.181	.171	

As per the statistics provided in above table, each construct has AVE greater than the squared correlation it has with other constructs, ensuring a satisfactory level of discriminant validity. Consequently, with all the results of the reliability and validity analyses, the questionnaire of the research is highly acceptable to achieve the research objectives.

As shown above, goodness of data represents the reliability which is recognized as the measurement accuracy and the validity which makes sure whether the right things are measured. This refers to the extent to which a concept is accurately measured as per the quantitative study (Heale and Twycross, 2015). Furthermore, the logical validity and the criterion related validity are ensured through the operationalization of variables. Moreover, the congruent validity is evaluated through convergent validity analysis and discriminant validity analysis.

Convergent validity is examining the degree to which a measure is correlated with other measures that it is theoretically predicted to correlate with conducted through the use of different measures including Kaiser Meyer-Olkin (KMO) measure of sampling adequacy, Bartlett's test of sphericity, analysis of average variance extracted and composite reliability (Urrutia, et al., 2015).

**KMO index**: Ranges from zero (0) to one (1) and the value should be greater than 0.5 to meet the minimum threshold to satisfy the decision criteria and value being bigger the better.

Bartlett's test of sphericity: was conducted at a .05 level of significance

**Average Variance Extracted (AVE)**: A measure of the shared or common variance in a latent variable and the value to be greater than 0.5 to be valid

Discriminant validity: refers to the extent to which the items are indeed novel and not simply a reflection of some other variable.

According to Heale and Twycross (2015) Reliability is the consistency of the measure and it is the stability and consistency of the questionnaire (Sekaran and Bougie, 2006). Therefore, the reliability is measured through inter-item consistency reliability which analyzes the consistent of the responses given by the respondents. This is the technique to assess internal consistency using Cronbach's alpha value. The common rule is that the Cronbach's alpha value should be 0.70 or greater in order to meet the decision criteria. The data analysis of the study is very important as the chosen tools should match with the purpose of the study. Hence, the the SPSS (Statistical Package for the Social Sciences) software is utilized to examine and present the gathered numeric data. Along with the numeric data gathered, the tables of statistics and diagrams, histograms of the statistics will be presented to produce a constructive analysis of information (Bryman & Bell, 2007). Main purpose of carrying out the Validity Test and the Reliability Tests is to measure the goodness of Data. Measuring the right thing is called the Validity (Urrutia, et al., 2015) and, as depict in the Figure-10 below, the Validity of a dataset can be assessed through the Convergent Validity and the Discriminant Validity. The accuracy in the measurement is called the Reliability (Urrutia, et al., 2015) of the dataset, which can be measured through the Reliability Test.

#### 7.3 Univariant Analysis

With the intention of analyzing the variables unidimensional style, the Univariant Analysis of all the variables is performed.

Measure	Interior Design (ID)	Ambience (AM)	Lighting (LT)	Spatial Layout (SL)	Purchasing Behavior (PB)
N Valid	277	277	277	277	277
Mean	3.8996	4.0776	3.8243	3.7193	3.3264
Std. Error of Mean	.03141	.03252	.03416	.03327	.04433
Median	4.0000	4.0000	4.0000	3.7500	3.4000
Mode	4.00	4.00	4.00	4.00	4.00
Std. Deviation	.52271	.54117	.56858	.55369	.73784
Variance	.273	.293	.323	.307	.544
Skewness	062	714	229	499	236
Std. Error of Skewness	.146	.146	.146	.146	.146
Kurtosis	1.014	1.900	.690	1.461	120
Std. Error of Kurtosis	.292	.292	.292	.292	.292
Range	3.20	3.50	3.00	3.25	4.00
Minimum	1.80	1.50	2.00	1.75	1.00
Maximum	5.00	5.00	5.00	5.00	5.00
Sum	1080.20	1129.50	1059.33	1030.25	921.40

**Table 8:** Univariant Analysis of all variables

The responses are in the range of 1.0 (Minimum) to 5.0 (Maximum). Furthermore, majority of the responses are varied from 4 to 5. All the measures pertained to the central tendency (Mean, Median and the Mode) are around the value of 4. This means that the majority of respondents have agreed with the elements of Interior Design, Ambience, Lighting, Spatial Layout which were measured via the questionnaire. Purchasing Behavior, Mode is 4, hence highest number of respondents have agreed with elements of Purchasing Behavior measured through the survey questionnaire. However, Mean and the Median is around 3. This means majority of respondents bear a neutral opinion on the Purchasing Behavior elements measured through the questionnaire.

#### 7.4 Hypotheses Testing

Determining the Factors affecting the consumer Purchasing Behavior towards choosing Coffee Shops over other alternatives in Colombo, Sri Lanka, is main intention of is survey. In here, to assess the direction and the strength of the relationship between the independent and the dependent variables the Correlation Analysis has been performed and to determine the extent of the impact, the Regression Analysis has been used.

Purchasing Behavior can be determined by applying the below Linear Regression Equation.

Y = b0 + b1 X, Where;

Y = The Dependent Variable,

b0 = The Intercept

b1 = The Slope

X = Independent Variable.

Therefore:

Purchasing Behavior = (Intercept) + (Slope)\*(Independent Variable)

Followings are the Developed Hypothesizes for this research.

**Table 9:** Hypothesis Analysis

Hypothesis	Variable	Pearson Correlation Regression Analysis		Result of the Hypothesis		
		Pearson Coefficient	Significance	R Square	Significance	
H1	Interior Design	0.408	0.000	0.337	0.000	Accepted
H2	Ambience	0.401	0.000	0.303	0.000	Accepted
Н3	Lighting	0.405	0.000	0.309	0.000	Accepted
H4	Spatial Layout	0.422	0.000	0.413	0.000	Accepted

In conclusion, although Interior Design, Ambience, Lighting and Spatial Layout (Independent Factors) can have a Moderate Relationship with the Purchasing Behavior in coffee shops, as far as all the said Independent Variables are considered as a combination of factors, only the Spatial Layout can have a significant impact (Moderate Positive) on the Purchasing Behavior.

# VIII. Conclusions

According to many researchers, dimensions of servicescape have a direct impact on consumer's physical and psychological reactions which eventually influence the products and services for a purchase intention. Few of the adopted sayings include; the interior design, architectural design and décor strongly contribute to the attractiveness of the dining environment and also enables both attraction, interaction and retaining of consumers (Cobe, 2007). This further influence the consumer traffic at cafes, restaurants while impacting positively towards the revenue of the dining place (Barbas, 2002). Furthermore, the appeal of the dining area's architectural design, color schemes, walls and floor coverings, furniture, pictures, paintings, plants, flowers, wall decorations perceived quality of dining environments while evoking emotions and influencing the behaviors of consumers as it is considered to arouse consumer's pleasure, behavioral intention in an upscale context of a restaurant (Ryu and Jang, 2008). The business retailers are aware on the impact on the aroma which influence the consumer's desire to make a purchase. Moreover, the ambient scent has a significant impact on consumer's mood, subjective feeling state and emotions (Chebat et al., 2009). The case study of Ryu and Jang (2007) critically reveals that the level of consumer satisfaction is affected by the ambience of the place and also the ambient conditions possess the highest association with perceived service quality and the second highest correlation with pleasure-feeling. Therefore, servicescape is considered as a most influencing marketing tool for better sales approach as presented in literature as well as the research findings. The study of Knez and Kers (2000) has emphasized that there is a noticeable relationship from indoor lighting towards the gender, age, mood and cognitive performance. It further indicated that the indoor lighting of a store is an effective source to convey meanings differentiated by gender and age. Accordingly, it is also evident that the lighting of a restaurant, café or a hotel can be one of the most powerful physical stimuli as restaurants like McDonald's use bright light to symbolize quick service at low prices while upscale restaurants use warm lighting symbolizing the full service at high price. In terms of spatial layout, the study of Ryu and Jang (2008b) has similar findings that the interesting and effective spatial layout of a place facilitate the fulfillment of consumer's pleasure and hedonic needs effecting on consumer quality perceptions and excitement levels increasing the desire for a revisit. Lin

(2004) clearly emphasized the fact that the arrangements of table set up also has a tremendous effect on overall experience of a consumer as the same set up provide the sense of privacy, portray the desired functionality and operate as a boundary for the consumers. The results illustrated and the hypothesis conducted confirmed that each of the dimensions of the servicescape namely; interior design, lighting, ambience and spatial layout have a strong positive impact on the consumer's purchasing behavior in choosing a coffee shop over other alternatives for dining and take-away, relaxation, studying, working and other purposes.

# IX. Implications and Recommendations

The results of the study are very useful for the coffee shop owners in the Colombo district. As per the outcomes, it is evident that all the variables have significant impact on the purchasing behavior of the consumers. Hence the owners, should focus on their all the variables which were used in the study. Interior design should be aligned with a unique nature and should utilize much freedom to spend time with peace mind for customers. Lightings also needs to be focused to enhance the attraction and some dark places and high lightened places in the same location need to be placed to attract both types of consumers. Ambience also plays a vital role as it is evidently a significant factor. Hence, a well-trained staff is required to provide the service. Further, the coffee shop managements have to keep assessing the satisfaction level of their consumers through the help of surveys and should also implement better and effective strategies to enhance consumer purchasing intention as suggested consumer surveys may help in identifying the consumer requirements. Spatial layout of the shops needs to be changed occasionally as changing structures may could easily enhance the attraction of the consumers and every change be implemented according to the referred necessary evaluations. As a result of working from home due to Covid 19 situation, there is a considerable concern that the people are eager to look for places where they can sit and work peacefully other than home. Further to that requirement, the coffee shops owners should consider this situation as an advantage and implement ways and means to enhance the consumer attraction towards their shops in the future. This study could contribute in numerous positive ways not only to coffee shops, but also different types of business to improve their sales by understanding on their role on implementing the marketing tools and serivcescape related strategies. Though the "modern coffee culture" is quite new to Sri Lanka, coffee shops are slowly continuing to increase the market penetration with the modern global innovative ideas of coffee culture. Hence it is beneficial for coffee shop managers to gain competitive advantage over other by appealing through interior design, ambience, lighting and spatial layout where the consumers can be strategically manipulated in gaining their loyalty to achieve sales. Moreover, it is worthy to learn and gain knowledge on how effective dimensions of servicescape towards stimulating consumer purchasing behavior and transmitting the concept into practicalities of coffee shops. With reference to the information gathered, one dimension of a servicescape alone cannot successfully be implemented for a growth of sales and therefore two or more appeals would expand the positive impact. For example, the coffee shop could set up the atmosphere better by using store design and layout with appealing lights and colors including the matching interior and exterior elements which stimulate the sight of the consumers while playing the type of music that suits the environment with the right aroma to attract more consumers to the coffee shops as the ideal combinations of these dimensions of servicescape enhance the expected business growth. However, it is advisable to first identify the perfect combination or right set of dimensions of servicescape to pay attention to as it is important for consumers to feel why they should choose coffee shops over other alternatives.

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