

## DETERMINANT ANALYSIS OF BEHAVIORAL INTENTIONS: EMPIRICAL FINDINGS FROM FOOD CONSUMERS IN KARACHI

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### ABSTRACT

**Purpose** - The purpose of this study is identification of the relationship of variables of servicescape namely facility aesthetics, cleanliness & accessibility of layout on behavioral intentions. Furthermore, it aims to establish the impact of servicescape on behavioral intentions with a mediating role of customer satisfaction.

**Methodology & Design** - The research is explanatory in nature with cross-sectional approach. This research is designed as a quantitative research that used primary data. The sample size was 302 which consisted of restaurant consumers from Karachi. Data was analyzed and hypotheses were tested through SPSS by using Regression on PROCESS Hayes's Model 4.

**Findings** - The research model resulted in establishing a significant direct relationship of aesthetics and future intentions, similarly significant direct relationship of cleanliness with behavioral intentions. However insignificant direct association occurs between layout accessibility and intentions of customers. Secondly, it is found that customer satisfaction has a mediating role on effect of servicescape and behavioral intentions.

**Recommendations** - Service providers and restaurant managements must be aware of the efficient design and layout that will be helpful in fulfilling needs of customers in order to satisfy them. Customer satisfaction leads to repetitive behavior of consumers this may be

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referred to repetitive utilization of services or re-purchasing products. This study provides understanding on information of facility surrounding, design, cleanliness and layout architecture affect the customer's perception and can help service providers in investing time and resources in order to develop the facility plan and create restaurant and services that satisfy the customer needs.

**Keywords:** *cleanliness, customer satisfaction, servicescape, Food Business, restaurant industry, facility aesthetics, layout accessibility, behavioral intention*

## 1. INTRODUCTION

A vast array of products and facilities of services are being offered by different types of industries and the need of understanding and studying the benefits they deliver has become a widely studied concern in the past years; more over there has been an uprising of studies that identify the importance of services and its delivery that customer get (Luiz Corrêa, Ellram, José Scavarda, & Cooper, 2007; Sampson & Froehle, 2009) Characteristics of services are unique as it differentiates them from goods. Due to lack of tangibility, heterogeneity, simultaneity and production and consumption being unable to be separate, quality of service is subjective, abstract and problematic to calculate (Parasuraman, Zeithaml, & Berry, 1985). Few measurements of restaurant image and reputation, service quality, quality of facility aesthetics and food itself tend to be significant factors. These determinants are also strong interpreters of customers' perceived value. (Ryu, Lee & Gon Kim, 2012)

Individual observations are formed when analysis of sensory cues of the firms' surroundings and physical indications is done (Hoffman & Bateson, 2011). The overall efforts of firms and especially service firms is to drive customer loyal toward them, it is found that quality of service provided and satisfaction of customers are the priorities of core marketing that ultimately lead to customer loyalty which is the highest form of customer satisfaction like repeated sales, recommendations, encouragement through word-of-mouth (Han & Ryu, 2009). In literature, many scholars have given attention to the importance of quality of service and its delivery processes and have developed many measuring tools to evaluate the quality of service. One of these is SERVQUAL, which is being used worldwide to gauge

the quality of service provided to customers. SERVQUAL was fabricated for assessing the inconsistency of expectation of customers and their subsequent perception of service performance prior and post service encounter (Parasuraman et al., 1985).

It is required for service providers to accomplish favorable servicescape due to the following multi-fold reasons (Hoffman & Bateson, 2011):

- Packaging the service
- Facilitating flow of service and its delivery processes
- Socializing of customers' and employees' and other customers

For this study, we are going to focus on the restaurant industry in Pakistan which has dine-in facilities, both fast food and formal dining. According to Prof. Dr. Noor Ahmed Memon, (Dean KASBIT) in his report of July 2016, it is said that there are heightened increases in fast food industry in Pakistan, not just fast food but generally dining outside of homes. This change in trend of consumer perception and behavior towards consumption of food in outlets has occurred due to change in lifestyle and existence of multinational chains in a highly competitive environment (Memon, 2016).

The situation is generalized that satisfaction of customers is conditioned by price fairness, customer service (Hanif, Hafeez, & Riaz, 2010), quality of goods and services and waiting time etc. Specifically in service firms, it is observed that customer service and servicescape has an impact on satisfaction and future intentions (Wakefield & Blodgett, 1996).

According to Prof. Dr. Noor Ahmed Memon, (Dean KASBIT) in his report of July 2016, it is said that there are heightened increases in fast food industry in Pakistan. Due to alteration in traditional eating habits, entertainment and life style restaurants in Pakistan are facing high turnover rate of customers (Memon, 2016).

When developing the servicescapes, firms have to contemplate the psychological, biological as well as physical effect of surroundings on their customers', employees' and processes & operations. Keeping account of the target market, the kind of experience they seek, reinforcement of the feelings, employee satisfaction and operations & the effectiveness of strategy and competitiveness of the services cape plan as compared to competitors (Hoffman & Bateson, 2011).

The objective of this study is to find the determinant factors that affect the customer satisfaction and behavioral intentions in regard to servicescape, particularly facility aesthetics, cleanliness and layout accessibility in restaurants, cafes and dining outlets.

## **2. LITERATURE REVIEW**

### **2.1 Servicescape**

It is commonly perceived among service companies that customers prefer surroundings that are open, spacious and free to move around, it provides them with a sense of pleasure and consequently the aspiration to stay in the place may it be a store or dining area (Michael & John, 1991); it also causes increase in intention to purchase (Donovan & Rossiter, 1982).

Over the years, numerous studies have been conducted and different authors such as (Rapoport, 1982) and others that have come to write that non-verbal cues play a vital role in creating customer's experience and act as a stimulus in their beliefs regarding the services and its deliver along with service provider.

Service enclosures are designed by the use of physical evidences and inanimate objects put into place to attract the customers. Physical evidences like signs, symbols, logos, artifacts, pictures, colors, lights, sound, smell and combination of few or all of these brings a holistic impression on customers opinion regarding the service delivery and process, since all services are intangible customers rely on invisible cues to perceive them (Hoffman & Bateson, 2011). Similarly, Hoffman and Bateson describe another perspective of servicescape: facility exterior and facility interior. Facility interior denotes physical evidences related to aesthetics and overall looks inside the service surroundings/building such as equipment, machines, layout, air quality and temperature. On the contrary, facility exterior is related to landscaping, parking space, building design and signage. Managing servicescape is as important as identifying the correct combination of elements of physical evidence to create positive customer perceptions.

In overview, theory about servicescape explains the following notions. Firstly, there is close interaction between customers and

contact personnel and/or service provider reason being customers have increased involvement in most service delivery processes, hence creating a need of certain physical evidence. Secondly, servicescape acts as an influencer that creates customers' perception and helps them in classifying services, such as in case of restaurants into fine dining or fast food chains (Bitner, 1992). Thirdly, elements of servicescape are carefully selected and combined that help in performance of services in a particular industry (Ostrom et al., 2010). For example, in a hospital a profounder and more detailed servicescape will be designed than post offices or insurance providers (Hoffman & Bateson, 2011).

The principal emphasis of earlier studies such as of (Bitner, 1992) illustrated servicescape's physical factors that affect customer perception value, however in the later years (Arnould, Price & Tierney, 1998) identified that customer experiences and perception are staged by both the substantive (physical and functioned cues) as well as by communicative (social and human cues) of servicescape. Therefore the examination of service surroundings must be done in both perspectives, physical and social exchanges between the customers, employees, contact personnel and/or service provider as the overall environment is affected by these (Nilsson & Ballantyne, 2014).

## **2.2 Facility Aesthetics**

Facility aesthetics refers to the signs, symbols, logo, colors, designs, and smell or combination of the elements with a purpose to create an environment where service is being provided in a way that arouses the customers' feelings and creates a desire to purchase or dine from the respective store again. Use of facility aesthetics distinguishes companies, businesses and restaurants; it acts a form of creation of a brand. While experiencing ethnic or exotic restaurants customers of today are willing to spend and consume good quality food, but not at the expense of poor service and substandard physical surroundings. Therefore, in order to satisfy customers' expectations and give an overall excellent dining experience, good atmosphere and top-level service combined with tasty food is required of restaurants to reach levels of success.

The basic idea while developing servicescapes is managing the stimuli created that trigger the senses. When developing the

servicescapes, firms have to contemplate the psychological, biological as well as physical effect of surroundings on their customers, employees and processes & operations. Managing the senses of individuals includes sight, scent, touch, sound and taste.

Firstly, discussing about the sight appeals; size, color and shape are the most basic forms of stimuli to trigger the sight of individuals. Based on interpretations from visual stimuli, individuals distinguish different establishments into different modes of use. For example, a facility with high details and bright colors that depicts excitement and enjoyment is not suitable for business meetings. The psychological impacts that colors have on customers' emotions are different due to difference of hue, value and intensity of colors. Based on hues colors are classified into warm and cool colors. The following Table 1 categorizes colors into warm and cool colors:

**Table 1.** Categorization of colors into warm and cool colors:

WARM COLORS			COOL COLORS		
RED	YELLOW	ORANGE	BLUE	GREEN	VIOLET
Love	Sunlight	Sunlight	Coolness	Coolness	Coolness
Romance	Warmth	Warmth	Aloofness	Restfulness	Shyness
Sex	Cowardice	Openness	Fidelity	Peace	Dignity
Courage	Openness	Friendliness	Calmness	Freshness	Wealth
Danger	Friendliness	Gaiety	Piety	Growth	
Fire	Gaiety	Glory	Masculinity	Softness	
Sin	Glory		Assurance	Richness	
Warmth	Brightness		Sadness	Go	
Excitement	Caution				
Vigor					
Cheerfulness					
Enthusiasm					
Stop					

According to the scale described by Lewison and on a broader observation, warm colors generate feelings of comfort and informality such as color red invokes feelings of love and romance or danger and yellow is a happy color associated with friendship and orange shows openness and creativity, red color is used mostly in restaurants to grab attention over food.

Secondly, the stimulus of sound has its importance. Numerous studies have concluded that sound appeals in services are used for 3 purposes: mood setting, attention grabbing and informing. Restaurants that played slow soft music saw higher gross margins (

Dubé, Morin, & Chebat, 2007; Hoffman & Bateson, 2011). Thirdly, sensory cues of scent can upset and ruin the entire experience, it plays a vital in customer satisfaction. One of the studies suggested that stores/restaurants that are scented pleasantly have positive affect on customers and it increases sales.

### **2.3 Cleanliness**

Cleanliness may refer to the overall tidiness and hygienic environments, especially at the entrances. This is where customers start to formulate their impressions of the service firm before even receiving any service or interacting with contact personnel. Upsetting sight of worn carpets, torn or scuffed wall, unattractive arts and unskilled employees create an unwanted intimation on the customer and is usually the beginning of a bad experience. A study based on professional baseball, football and casinos regarding leisure activities results were found that facility aesthetics and cleanliness positively impact the customer's perception of quality (Bitner, 1992). Many studies have been conducted by scholars concerning relationship of service for satisfaction, quality, evaluation and restaurant cleanliness (Stevens, Knutson & Patton, 1995). In a study conducted by (Brewer & Rojas, 2008) investigated relationship between customer attitude and food safety issues and stated that 47% of customers considered safe food very significant. A study focused on safety of food and sanitation processes in relation to customer insight used 3 items, dining room cleanliness, restroom cleanliness and food safety issues, found if safety of food and cleanliness were not observable to customers, they were not satisfied with service delivery process and quality (Bienstock, DeMoranville & Smith, 2003)

### **2.4 Layout Accessibility**

Layout accessibility denotes the placement of equipment, managing area capacity and operations setups in a way to provide efficiency in processes and include safety of staff and individuals involved. As (Hoffman & Bateson, 2011) have illustrated that while planning the layout of an establishment, manufacturing or service, (office or restaurant/café) firms need to ponder over the following 3 aspects: the type of architecture that will attract the maximum number of desired target market, the layout that will maximize the efficiency of service production processes and the type of design that is cost effective. (Wakefield & Blodgett, 1996) Facility layout also leaves

several imprints on the customers regarding the type of business, its strengths and the price of its service.

In service firms, customers form basic part of the production method in contrast to manufacturing firms. High contact service firms have to satisfy the physical and psychological needs of their customers, their outlets must be spacious with signage to direct customers, with free pathways to bring their family and friends and enough room to move freely, and setups along the way that are not cluttered such as Subway.

## **2.5 Customer Satisfaction**

Customer satisfaction is formed due to emotions felt by customers after experiencing the service delivery. As defined by (Bagozzi, Gopinath, & Nyer, 1999), emotions are “positive or negative reactions or mental stages of readiness that arise as a consequence of specific events or circumstances”.

The fundamental notion and idea of marketing on which all efforts revolve around is customer satisfaction i.e. meeting and fulfilling the expectation of customers to keep them contented (Spreng, MacKenzie & Olshavsky, 1996). There are numerous ways the customer satisfaction has been defined by but the most relevant method of identifying satisfaction is the evaluation process. As defined by Hunt (1977) customer satisfaction in the bare minimum equation of receiving and consumption of the service as at least as it ought to be. By this concept, we understand that the gap of perception between past experience and the actual consumption is a judgment process of evaluation by the customer (Han & Ryu, 2009).

## **2.6 Behavioral Intention**

As written in literatures, behavior intentions are generally described as the extent of decision formulation and plans made on cognition to perform future behavior (Warshaw & Davis, 1985). Positive behavioral intentions designate the bonding of customers with the service firms, sharing concerns, recommending the services to friends and family and being comfortable with spending higher in respective of premium prices and maintaining conscious loyalty to the firm (Zeithaml, Berry & Parasuraman, 1993)

Among the many models that explain the mechanism of customer responses, the widely addressed is the Stimulus-Organism-



Response (SOR) model; it was established by Mehrabian and Russell (1974) (Mari & Poggese, 2013). The SOR model describes external stimuli, emotional states and responses of customers to those states. Stimuli (S) from the environment affect individuals' internal assessments (O) that impact behavior responses (R). The stimuli can be lights, sound, smell, the visible and invisible cues that affect the human senses, other customers and even the organization processes and system; organism component of the model can be customers and the employees or contact personnel/service providers; and lastly responses can be approach or avoidance depending upon the service encounter. There are three emotional states that result in outcomes of approach or avoidance, which are as follows - PAD:

- Pleasure/displeasure
- Arousal/non-arousal
- Dominance/submissiveness

Approach states the willingness to continue shopping/dining and explore its offerings, whereas avoidance is discomfort faced in service encounter and the wish to leave the environment. The pleasure/displeasure states of emotions imitate the level of customer satisfaction from the service encounter; arousal/non-arousal depicts if customers and employees feel stimulated and enthusiastic in the service process & dominance/submissiveness represents the degree of freedom to act and sense of control customers have during the service encounters (Hoffman & Bateson, 2011).

## **2.7 Relationship of Servicescape and Satisfaction of Customers**

Customer behavior after the purchase of product and in case of services after receiving the delivery process is influenced by customer satisfaction which is a result of servicescape or physical evidence or service firm, is described in many studies (Knutson & Patton, 1993; Mattila & Wirtz, 2001; Wakefield & Blodgett, 1994). The importance of servicescape has also been illustrated by Knutson & Patton where five crucial measures of quality of service were found, one of which is physical environment such as aesthetics that affect customer satisfaction (Knutson & Patton, 1993). In regards to hotel industry, guest satisfaction is found to be highly interrelated with service quality encompassing physical environment like designing and aesthetics of guest room and cleanliness (Dubé, Johnson & Renaghan, 1999).

The spacious and effective layout accessibility convinces a positive customer assessment of the service experience. In support of earlier studies to create a favorable level of customer satisfaction, (Dubé et al., 2007) playing music in service ambience adds a favorable character to customer satisfaction, and likely will result in positive evaluation. One of the characteristics of services and that differentiates them from good/products is that the utility and benefit of services is delivered after the consumption of it and due to intangibility, predictability or assessment is difficult of services. For example: in hotel industry, room service cannot be projected until experienced, similarly in restaurant industry, quality of food is not anticipatable before the consumption of the elements. As a result of this, one of the factors used to convince customers by service provides is the use of favorable, innovative and creative physical evidence to overcome the risk or uncertainty that helps in predicting the service experience. (Valarie, Parasuraman, & Berry, 1990) found that customers rated those restaurants with having poor and low quality of service that were not up to mark with standards of food handling and cleanliness as anticipated by customers.

### **Relationship between Satisfaction and Behavioral Intentions of Customers**

Customer satisfaction and behavioral intentions tend to be directly as well as positively related in many studies, that is resale, repurchase, recommendations and commitment to the brand or service firm and the send of loyalty (Han & Ryu, 2009). Satisfaction while dining at restaurants significantly influences post- dining behavioral responses (Kivela, Inbakaran & Reece, 1999). Studies conducted by (Namkung & Jang, 2016) establish that behavioral intentions were linked positively with customer satisfaction in mid to upscale restaurants. Other studies have suggested that according to Kim (2009) there was a positive relation of customer satisfaction and intention to shop again, and constructive word-of-mouth validation in university dining operations (NG, 2001; Ryu et al., 2012). Servicescapes can be composing of 3 things of physical evidence such as aesthetics, cleanliness, facility layout and accessibility, with strongly influence the customer satisfaction, which therefore has directly/indirectly effects loyalty and intention to return and encouraging word- of- mouths (Han & Ryu, 2009). Customers that express arrival objectives and endorse services to others are viewed to be affected by emotions (Kuo, Chang, Chen & Hsu, 2012).

## **2.8 Relationship between Servicescape and Behavioral Intentions**

According to a study implemented by (Chang, 2012) both music and facility aesthetics and design were important factors that determined behavioral intentions of restaurant consumers, however his research established that the main motivating factor of behavioral intentions was facility aesthetics. Prior studies show the relationship of facility aesthetics and other similar factors and have found facility aesthetics has positive impact on emotion and future intentions of consumers (Kim & Moon, 2009).

Cleanliness is used in aspect of service as a tangible factor as well as motivator for consumers. Positive reactions are seen in consumers' behaviors when cleanliness is seen better than expected, vice versa negative customer reactions are seen when cleanliness is worse than expected (Vilnai-Yavetz & Gilboa, 2010).

Cognitive responses are formed on perception of physical environment of services (Bitner, 1992). According to (Ryu & Jang, 2007) in regards to layout accessibility "spatial layout that makes people feel confined may have a direct effect on customer perceptions, excitement levels, and indirectly on their desire to revisit".

## **2.9 Hypotheses**

Based on aforementioned literature, following are the hypotheses under study:

H<sub>1</sub>: Facility aesthetics will have a positive effect on behavioral intention.

H<sub>2</sub>: Customer satisfaction with servicescape mediates the relationship between facility aesthetics and behavioral intention.

H<sub>3</sub>: Cleanliness will have a positive effect on behavioral intention.

H<sub>4</sub>: Customer satisfaction with servicescape mediates the relationship between cleanliness and behavioral intention.

H<sub>5</sub>: Layout accessibility will have a positive effect on behavioral intention.

H<sub>6</sub>: Customer satisfaction with servicescape mediates the relationship between layout accessibility and behavioral intention.

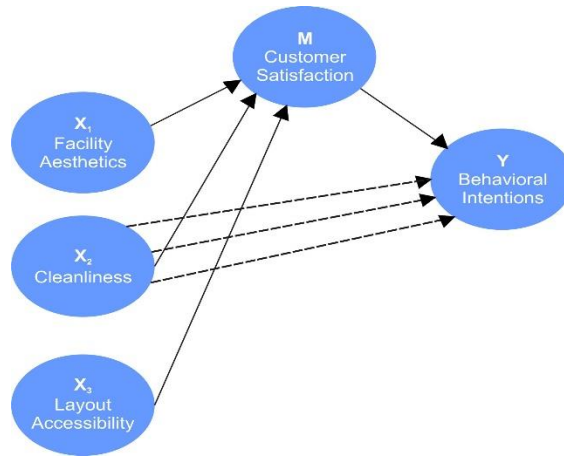


Figure 1 Conceptual Framework

### 3. METHODOLOGY

#### 3.1 Research Approach & Type

This research is a cross-sectional study based on deductive approach (hypotheses are derived from literature review) as it tries to explain a occurrence at a given point (Saunders et al., 2009) such as effect of service escape on contentment in restaurants. Type of research done is explanatory, as it tries to create a causal relationship between 2 or more variables (Saunders et al., 2009).

#### 3.2 Research Design

This research was modelled as a quantitative research that used primary data and data collection method was survey questionnaires due to the nature of the study. Considering the ease of floating maximum number of questionnaires to obtain responses from food consumers in Karachi, online Google form was created and shared on different social networks like Facebook, WhatsApp, Emails and LinkedIn as posts, in groups, blogs and private messages. Also, hard copies of questionnaires were handed out to individuals (food consumers of restaurants) in universities like Bahria University and

Iqra University, along with offices. The survey questionnaire was framed by the adapts strategy.

### **3.3 Research Population**

Population of Pakistan is around 200 million people. As stated by the Pakistan Bureau of Statistics, population of Karachi as of Population Census 2017 is 16.05 million (16,051,521) people, in reference to statistics published on website of Pakistan Bureau of Statistics in Province Wise Provisional Results of Census - 2017. Out of these, almost 68-70% fall under the age brackets 15 and above, that are food consumers of restaurants, café and dining facilities.

### **3.4 Sample Size & Sampling Technique**

In this research technique for sampling was non-probabilistic convenience sampling, reason being lack of resource, easy to execute and inexpensive. Also due to unavailability of sample frame, probabilistic random sampling could not be used.

Sample size targeted for this study was 384 as population size is greater than 1 million, with a level of confidence of 95% with 5% chance of uncertainty (Saunders et al., 2009). However due to lack of resources, 302 responses were collected mainly through online mediums and handing out survey questionnaires to food consumers.

### **3.5 Research Instrument**

Questionnaire survey is used as in instrument to collect responses. Online form and hard copies of survey were distributed. The questionnaire contained 28 items on a 7 scale Likert scale related to variables and 6 control variables, total of 34 items.

It was modified from 2 different questionnaires used in prior studies by (Miles, Miles, & Cannon, 2012) and (Wakefield & Blodgett, 1996). Online survey was created to catalyze the process of data collection as respondents felt easier to fill on devices as compared handing hard copies to individual which was time consuming and less cost effective. Out of 302 surveys filled, 254 were submitted online and 48 were collected as hard copies. Table 2 contains the summary of variables along with their number of items in the questionnaire. Items of questionnaire of each variable are illustrated in Appendix section.

#### 4. ANALYSIS & RESULTS

##### 4.1 Respondent Profile

The following table contains the demographic (control variables) of food consumers that were quantified, it includes frequencies quantified through Descriptive analysis on SPSS:

**Table 2.** Summary of Descriptive Analysis

		Frequency	Percentage
<b>Gender</b>	Male	168	55.6
	Female	134	44.4
<b>Age</b>	Less than 20	34	11.3
	21 - 30	226	74.8
	31 - 40	31	10.3
	41 - 50	9	3
	More than 50	2	0.7
<b>Education Level</b>	Matriculation / O Levels	4	1.3
	Intermediate / A Levels	23	7.6
	Undergraduate	79	26.2
	Graduate	105	34.8
	Post Graduate	91	30.1
<b>Income Group</b>	Less than 20,000	33	10.9
	21,000 - 30,000	49	16.2
	31,000 - 40,000	46	15.2
	41,000 - 50,000	44	14.6
	More than 50,000	52	17.2
	Not applicable	78	25.8

##### 4.2 Reliability Analyses

The reliability of the data collected is presented in the Table 5 below which were tested through SPSS reliability analysis. This test shows the consistency of data in terms of Cronbach Alpha. The data is said to be reliable when Cronbach Alpha co-efficient is 0.7 or greater (Tavakol & Dennick, 2011). Variables such as facility aesthetics, cleanliness, layout accessibility, customer satisfaction and behavioral intentions have reliable data as shown:

**Table 3.** Summary of Reliability Analyses

Variable	Cronbach's alpha	No. of Items
Facility Aesthetics	0.884	4
Cleanliness	0.901	4
Layout Accessibility	0.879	7
Customer Satisfaction	0.938	8
Behavioral Intentions	0.921	5

### 4.3 Correlation Analyses

According to the below table, facility aesthetic, cleanliness, layout accessibility, and behavioral intentions have affirmative and significant relationship with customer satisfaction as their correlation values are 0.608, 0.679, 0.718, and 0.840, respectively which are all positive and their significance level is 0.000, 0.000, 0.000, and 0.000, respectively which are less than 0.05. Similarly, facility aesthetic, cleanliness, layout accessibility, and customer satisfaction have a positive and significant relationship with customer satisfaction as their correlation values are 0.598, 0.638, 0.624, and 0.840, respectively which are all positive and their significance level is 0.000, 0.000, 0.000, and 0.000, respectively which are less than 0.05. The strongest relationship is between satisfaction and behavioral intentions as it has the highest value of correlation which is 0.840 and significant level is 0.000 which is less than 0.05.

**Table 4.** Correlation Analyses

		Customer Satisfaction	Behavioral Intentions
<b>Facility Aesthetics</b>	Pearson Correlation	.608**	.598**
	Sig. (2-tailed)	.000	.000
	N	302	302
<b>Cleanliness</b>	Pearson Correlation	.679**	.638**
	Sig. (2-tailed)	.000	.000
	N	302	302

<b>Layout Accessibility</b>	Pearson		
	Correlation	.718**	.624**
	Sig. (2-tailed)	.000	.000
	N	302	302
<b>Customer Satisfaction</b>	Pearson		
	Correlation	1	.840**
	Sig. (2-tailed)	-	.000
	N	302	302

#### 4.4 Hypothesis Testing

##### Hypothesis 1

H<sub>1</sub>: Facility aesthetics will have a positive effect on behavioral intention.

Outcome Variable : BI

Model Summary

R	R <sup>2</sup>	MSE	F	df1	df2	p
0.8467	0.7169	0.4666	378.5457	2.0000	299.0000	0.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	0.1931	0.1965	0.9828	0.3265	-0.1936	0.5798
FA	0.1463	0.0411	3.5595	0.0004	0.0654	0.2271
CS	0.8311	0.4260	19.4923	0.0000	0.7472	0.9150

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
0.1463	0.041	3.559	0.000	0.065	0.227	0.114	0.138
	1	5	4	4	1	3	0

In reference to the output shown above, it is denoted that effect of variable X (Facility aesthetics) on variable Y (Behavioral Intentions) is significant direct effect, since the coefficient of p-value is 0.004 which is less than significance level of 0.05. Hence, the hypothesis is not rejected.



**Hypothesis 2**

H<sub>2</sub>: Customer satisfaction with servicescape mediates the relationship between facility aesthetics and behavioral intention.

Outcome Variable : CSModel Summary

R	R <sup>2</sup>	MSE	F	df1	df2	p
0.6082	0.3699	0.8556	176.1388	1.0000	300.0000	0.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	2.1573	0.2351	9.1756	0.0000	1.6946	2.6200
FA	0.5862	0.0442	13.2717	0.0000	0.4993	0.6731

Outcome Variable : BIModel Summary

R	R <sup>2</sup>	MSE	F	df1	df2	p
0.8467	0.7169	0.4666	378.5457	2.0000	299.0000	0.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	0.1931	0.1965	0.9828	0.3265	-0.1936	0.5798
FA	0.1463	0.0411	3.5595	0.0004	0.0654	0.2271
CS	0.8311	0.0426	19.4923	0.0000	0.7472	0.9150

Indirect effect(s) of X on Y

	Effect	BootSE	BootLLCI	BootULCI
CS	0.4872	0.0499	0.3906	0.5861

It can be seen from the sections of tables above that the relationship between FA and CS is significant p-value is 0.000 which is less than 0.05. Relationship between CS and BI is also significant since p-value is 0.000 which is less than 0.05. Since the effect is 48.7% of the total direct and indirect effect & values both of LLCI and ULCI are seen as positive, it can be said that the indirect relationship is significant, CS

mediates the relationship between FA and BI. Therefore hypothesis is not rejected. Both the direct and indirect effects are significant, therefore, this mediation is said to be a partial mediation.

### **Hypothesis 3**

H<sub>3</sub>: Cleanliness will have a positive effect on behavioral intention.

#### Outcome Variable : BI

##### Model Summary

R	R <sup>2</sup>	MSE	F	df1	df2	p
0.844		0.472				
7	0.7136	0	372.4947	2.0000	299.0000	0.0000

##### Model

	coeff	se	t	p	LLCI	ULCI
Constant	0.1812	0.2053	0.8828	0.3780	-0.2227	0.5851
CL	0.1413	0.0468	3.0164	0.0028	0.0491	0.2334
CS	0.8285	0.0463	17.8753	0.0000	0.7373	0.9197

##### Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
0.1413	0.0468	3.0164	0.0028	0.0491	0.2334	0.1104	0.1271

According to the output shown above, it is denoted that effect of variable X (Cleanliness) on variable Y (Behavioral Intentions) has significant direct effect, since the coefficient of p-value is 0.0028 which is less than significance level of 0.05. Therefore, the hypothesis is not rejected.

**Hypothesis 4**

H<sub>4</sub>: Customer satisfaction with servicescape mediates the relationship between cleanliness and behavioral intention.

Outcome Variable : CS

## Model Summary

R	R <sup>2</sup>	MSE	F	df1	df2	p
0.6787	0.4606	0.7324	256.2177	1.0000	300.0000	0.0000

## Model

	coeff	se	t	p	LLCI	ULCI
constant	1.3921	0.2427	5.7351	0.0000	0.9144	1.8698
CL	0.6857	0.0428	16.0068	0.0000	0.6014	0.7701

Outcome Variable : BI

## Model Summary

R	R <sup>2</sup>	MSE	F	df1	df2	p
0.8447	0.7136	0.4720	372.4947	2.0000	299.0000	0.0000

## Model

	coeff	se	t	p	LLCI	ULCI
constant	0.1812	0.2053	0.8828	0.3780	-0.2227	0.5851
CL	0.1413	0.0468	3.0164	0.0028	0.0491	0.2334
CS	0.8285	0.0463	17.8753	0.0000	0.7373	0.9197

It can be seen in tables above that the relationship between CL and Indirect effect(s) of X on Y

	Effect	BootSE	BootLLCI	BootULCI
CS	0.5681	0.0560	0.4593	0.6798

CS is significant because p-value is 0.000 which is less than 0.05. Relationship between CS and BI is also significant since p-value is 0.000 which is less than 0.05.

Since the effect is 56.8% of the total direct and indirect effect & values both of LLCI and ULCI are seen as positive, it can be said that the indirect relationship is significant, CS mediates the relationship between CL and BI. Therefore, hypothesis is not rejected. Both the direct and indirect effects are significant, therefore, this mediation is said to be a partial mediation.

### **Hypothesis 5**

H<sub>5</sub>: Layout accessibility will have a positive effect on behavioral intention.

#### Outcome Variable : BI

##### Model Summary

R	R <sup>2</sup>	MSE	F	df1	df2	p
0.840		0.484				
2	0.7059	7	358.7690	2.0000	299.0000	0.0000

##### Model

	coeff	se	t	p	LLCI	ULCI
constant	0.3822	0.2044	1.8701	0.0625	-0.0200	0.7845
LA	0.0543	0.0544	0.9986	0.3188	-0.0528	0.1615
CS	0.8879	0.0495	17.9241	0.0000	0.7904	0.9854

##### Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
0.054 3	0.054 4	0.998 6	0.318 8	- 0.052 8	0.161 5	0.0425	0.045 0

As per output shown above, variable X (Layout accessibility) has insignificant direct effect on variable Y (Behavioral Intentions), since the coefficient of p-value is 0.318 which is greater than significance level of 0.05. Thus the hypothesis is rejected.

### **Hypothesis 6**

H<sub>6</sub>: Customer satisfaction with servicescape mediates the relationship between layout accessibility and behavioral intention.

#### Outcome Variable : CS

##### Model Summary

R	R <sup>2</sup>	MSE	F	df1	df2	p
0.7177	0.5151	0.6585	318.6380	1.0000	300.0000	0.0000

##### Model

	coeff	se	t	p	LLCI	ULCI
constant	1.2207	0.2276	5.3639	0.0000	0.7728	1.6685
LA	0.7885	0.0442	17.8504	0.0000	0.7016	0.8755

#### Outcome Variable : BI

##### Model Summary

R	R <sup>2</sup>	MSE	F	df1	df2	p
0.8402	0.7059	0.4847	358.7690	2.0000	299.0000	0.0000

##### Model

	coeff	se	t	p	LLCI	ULCI
constant	0.3822	0.2044	1.8701	0.0625	-0.0200	0.7845

LA	0.0543	0.0544	0.9986	0.3188	-0.0528	0.1615
CS	0.8879	0.0495	17.9241	0.0000	0.7904	0.9854

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Indirect effect(s) of X on Y						
	Effect	BootSE	BootLLCI		BootULCI	
CS	0.7001	0.0708	0.5684		0.8448	

The tables above show that the relationship between LA and CS is significant because p-value is 0.000 which is less than 0.05. Relationship between CS and BI is also significant since p-value is 0.000 which is less than 0.05. Since the effect is 70.0% of the total direct and indirect effect & values both of LLCI and ULCI are seen as positive, it can be said that the indirect relationship is significant, CS mediates the relationship between CL and BI. Therefore, hypothesis is not rejected. Direct relationship between LA and BI is insignificant and indirect relationship is significant, hence it can be said that CS is showing full mediation.

## 5. DISCUSSION

The objective of this study is to find the determinant factors that affect the customer satisfaction and behavioral intentions in regards to servicescape, particularly facility aesthetics, cleanliness and layout accessibility in restaurants, cafes and dining outlets.

Prior studies have examined the relationship between Facility aesthetics and other similar factors and have found that facility aesthetics has positive impact on emotion and future intentions of consumers (Kim & Moon, 2009). Similarly, this research has tried to examine the direct relationship between facility aesthetics and behavioral intentions and concluded in accordance with prior researches to have positive relationship amongst them.

This research complements perspective of evolving service forums of Pakistan in addition to existing studies that are carried worldwide. This study makes contribution to current literature in sense of sample size distinguished from other studies i.e Karachi, Pakistan as of 2018-19. Despite the change of demographic factors, most of the results are similar to previous studies.

High levels of customer satisfaction, higher levels of valuation and affirmative behavior reactions are observed in matching ambient conditions, (Mattila & Wirtz, 2001) studies the effect of matching

ambient stimuli of consumers in retail environments and found ambient scents and music that complement the service facilities lead to higher customer evaluations. Likewise, this study also concludes that facility aesthetics along with customer

As per previous study conducted by Hoffman, service firms with low cleanliness standards and practices faced lowest customer retention rates and were not able to attract the lost customers' attention again resulting in avoidance approach (Vilnai-Yavetz & Gilboa, 2010). Therefore, similar results are prompted in this research; cleanliness seems to be directly related to behavioral intentions of restaurant consumers.

It was found that customers rated those restaurants with having poor and low quality of service that where not up to mark with standards of food safety, hygiene and cleanliness as anticipated by customers. Similar results were found in our study where cleanliness positively affects customer satisfaction and subsequently impacts future intentions (Zeithaml et al., 1990).

According to (Ryu & Jang, 2007) in regards to layout accessibility, closed layout may directly affect the perceptions of customers and arousal. And indirectly affect the behavioral intentions. This is in contrast with the result of this study that layout accessibility is directly affecting behavioral intentions (Wakefield & Blodgett, 1994)'s research concludes that planning and development of service firms and retail outlets should be done to accommodate enough space and area for customers to move around for exploration and encourage probing; facilities must let the customers feel excited and stimulated to add to their service experience like in high- end and family restaurants. The spacious and effective layout accessibility convinces a positive customer assessment of the service experience. Therefore, this literature supports the hypothesis that layout accessibility affects behavior intentions as customer satisfaction acts as mediator.

## **5.1 Recommendations**

The impact of servicescape is seen on future intentions of customers with mediating role of customer satisfaction. This study provides understanding on information of facility surrounding, design, cleanliness and layout architecture affect the customer's perception and can help them in investing time and resources in order to develop the facility plan and create restaurant and services that satisfy the customer needs. By carefully exploring the results of this research,

service providers might be able to offer delightful and pleasurable service delivery to its customers by the use of servicescape.

## **5.2 Limitations of the Research and Future Research**

One of confinements was lack of respondents. The intended size of sample was 384 according to population of more than 1 million people and responses collected were 302 due to the cultural dilemma of Karachi, Pakistan collecting authentic responses was a challenge, since general public is unaware and avoids being a part of such studies. The approach of this study was cross-sectional, meaning all the responses were collected at a given time frame and convenience sampling was used from food consumers from all types of dining restaurant consumers, this way the generalization of results is not absolute.

This study focuses only on the 3 variables (FA, CL and LA) of servicescape that affect customer satisfaction and behavioral intentions. There is still chance of other researches to be conducted that include factors like sound, smell, temperate and colors in the facility along with CL and LA and how these affect service quality and perception of customers' experience in relation to thematic restaurants and service facilities.

Additional research can be conducted with the inclusion of different personal aspects of consumers to the research like type of customers, their back grounds, past experiences, regular customers or first timers & test the effect of servicescape on satisfaction and future behavior.

Future researches might provide clearer perceptions about the servicescape and behavioral intentions if other mediation factors are added like contact personnel, other customers, service quality, restaurant image and past experience of the same facility. Effects of moderation and mediation can also be studied that predict effects of perceived quality on personality of customers and their level of satisfaction.

Further examination relative to similar topic of servicescape can be conducted that collect data from questionnaires that are thoroughly developed to assess the service as compared to the assessing research on basis of generally accepted and commonly used items of questionnaires, like done in this study.



## **6. CONCLUSION**

Few measurements of restaurant image and reputation, service provided, quality of facility aesthetics and the food itself are significant factors. These determinants are also strong interpreters of customers' perceived value. Customers' satisfaction is derived from customers' perceived value and in turn contentment dictates customer's behavioral intentions (Ryu et al., 2012).

This research aimed at finding the relationship between servicescape, customer satisfaction and behavioral intentions where customer satisfaction acts as a mediator. Responses collected from questionnaires from restaurant consumers from Karachi gave the results that facility aesthetics and cleanliness directly affect behavioral intentions; however, layout accessibility doesn't directly affect behavioral intentions. Facility aesthetics, cleanliness and layout accessibility positively affect behavioral intentions when customer satisfaction acts as a mediator.

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## APPENDIX

**Service scope, Customer Satisfaction and Behavioral Intentions**  
**Items**

Facility aesthetics (items scored on a scale of 1: “strongly disagree” to 7: “strongly agree”):

- FA1: This facility is painted in attractive colors.
- FA2: The interior wall and floor color schemes are attractive.
- FA3: The facility architecture gives it an attractive character.
- FA4: This facility is decorated in an attractive fashion.

Cleanliness (items scored on a scale of 1: “strongly disagree” to 7: “strongly agree”):

- CL1: This facility maintains clean restrooms.
- CL2: This facility maintains clean food service areas are attractive.
- CL3: The facility maintains clean walkways and exits.
- CL4: Overall this facility is kept clean.

Layout accessibility (items scored on a scale of 1: “strongly disagree” to 7: “strongly agree”):

- LA1: The facility layout makes it easy to get to the kind of food service you want.
- LA2: The facility layout makes it easy to get to your seat.
- LA3: The facility layout makes it easy to get to the restrooms.
- LA4: Overall this facility’s layout makes it easy to get where you want to go.
- LA5: Products are easy to find at this store/ restaurant.
- LA6: There is plenty of room in the walkways of this facility.
- LA7: The seating arrangements and walkways are arranged to provide space for browsing.

Customer satisfaction (items scored on a scale of 1: “strongly disagree” to 7: “strongly agree”):

- CS1: I am satisfied with product knowledge sales support.
- CS2: I am satisfied with the time for receive customer service.
- CS3: I am delighted with the shopping/ dining experience.
- CS4: This store is my first choice “x” merchandise.
- CS5: I have good feelings when shopping/ dining at this service.
- CS6: I am satisfied with the product quality.

CS7: I am satisfied with the service quality.

CS8: I am satisfied with the service delivery performance.

(Items scored on a scale of 1: "worse than expected" to 7: "better than expected").

Behavioral Intentions (items scored on a scale of 1: "strongly disagree" to 7: "strongly agree"):

BI1: I enjoy spending time in this facility.

BI2: I like to stay in this facility as long as possible.

BI3: I would recommend this facility to friends and family.

BI4: I would visit this facility again.

BI5: The overall feeling puts me in a \_\_\_\_\_ mood. (Items scored on a scale of 1: "worse than expected" to 7: "better than expected").

### **SPSS Output – Facility Aesthetics, Customer Satisfaction and Behavioral Intentions**

\*\*\*\*\*

Model : 4  
Y : BI  
X : FA  
M : CS

Sample  
Size: 302

\*\*\*\*\*

OUTCOME VARIABLE:  
CS

Model Summary

R	R-sq	MSE	F	df1	df2	p
.6082	.3699	.8556	176.1388	1.0000	300.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	2.1573	.2351	9.1756	.0000	1.6946	2.6200
FA	.5862	.0442	13.2717	.0000	.4993	.6731

\*\*\*\*\*

OUTCOME VARIABLE:  
BI

Model Summary

R	R-sq	MSE	F	df1	df2	p
.8467	.7169	.4666	378.5457	2.0000	299.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	.1931	.1965	.9828	.3265	-.1936	.5798
FA	.1463	.0411	3.5595	.0004	.0654	.2271
CS	.8311	.0426	19.4923	.0000	.7472	.9150

\*\*\*\*\*TOTAL EFFECT MODEL\*\*\*\*\*

OUTCOME VARIABLE:  
BI

Model Summary

R	R-sq	MSE	F	df1	df2	p
.5976	.3571	1.0559	166.6437	1.0000	300.0000	.0000



## Model

	coeff	se	t	p	LLCI	ULCI	
constant	1.9859	.2612	7.6033	.0000	1.4719	2.5000	
FA	.6335	.0491	12.9091	.0000	.5369	.7300	

## \*\*\*\*\*TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

## Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
.6335	.0491	12.9091	.0000	.5369	.7300	.4951	.5976

## Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
.1463	.0411	3.5595	.0004	.0654	.2271	.1143	.1380

## Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
CS	.4872	.0499	.3906	.5861

## Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
CS	.3808	.0304	.3210	.4418

## Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
CS	.4596	.0387	.3805	.5332

## \*\*\*\*\*ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:  
95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:  
5000

----- END MATRIX -----

### **SPSS Output – Cleanliness, Customer Satisfaction and Behavioral Intentions**

\*\*\*\*\*

Model : 4

Y : BI

X : CL

M : CS

Sample

Size: 302

\*\*\*\*\*

OUTCOME VARIABLE:

CS

Model Summary

R	R-sq	MSE	F	df1	df2	p
.6787	.4606	.7324	256.2177	1.0000	300.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1.3921	.2427	5.7351	.0000	.9144	1.8698
CL	.6857	.0428	16.0068	.0000	.6014	.7701

\*\*\*\*\*

OUTCOME VARIABLE:

BI

Model Summary

R	R-sq	MSE	F	df1	df2	p
.8447	.7136	.4720	372.4947	2.0000	299.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	.1812	.2053	.8828	.3780	-.2227	.5851
CL	.1413	.0468	3.0164	.0028	.0491	.2334
CS	.8285	.0463	17.8753	.0000	.7373	.9197

\*\*\*\*\*TOTAL EFFECT MODEL \*\*\*\*\*

OUTCOME VARIABLE:

BI

## Model Summary

R	R-sq	MSE	F	df1	df2	p
.6384	.4075	.9731	206.3593	1.0000	300.0000	.0000

## Model

	coeff	se	t	p	LLCI	ULCI
constant	1.3345	.2798	4.7697	.0000	.7839	1.8851
CL	.7094	.0494	14.3652	.0000	.6122	.8066

## \*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

## Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
.7094	.0494	14.3652	.0000	.6122	.8066	.5544	.6384

## Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
.1413	.0468	3.0164	.0028	.0491	.2334	.1104	.1271

## Indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI
CS	.5681	.0560	.4593 .6798

## Partially standardized indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI
CS	.4440	.0348	.3772 .5150

## Completely standardized indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI
CS	.5113	.0431	.4253 .5967

## \*\*\*\*\*ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

----- END MATRIX -----

**SPSS Output – Layout Accessibility, Customer Satisfaction and Behavioral Intentions**

\*\*\*\*\*

Model : 4

Y : BI

X : LA

M : CS

Sample

Size: 302

\*\*\*\*\*

OUTCOME VARIABLE:

CS

Model Summary

R	R-sq	MSE	F	df1	df2	p
.7177	.5151	.6585	318.6380	1.0000	300.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1.2207	.2276	5.3639	.0000	.7728	1.6685
LA	.7885	.0442	17.8504	.0000	.7016	.8755

\*\*\*\*\*

OUTCOME VARIABLE:

BI

Model Summary

R	R-sq	MSE	F	df1	df2	p
.8402	.7059	.4847	358.7690	2.0000	299.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	.3822	.2044	1.8701	.0625	-.0200	.7845
LA	.0543	.0544	.9986	.3188	-.0528	.1615
CS	.8879	.0495	17.9241	.0000	.7904	.9854

\*\*\*\*\*TOTAL EFFECT MODEL \*\*\*\*\*

OUTCOME VARIABLE:

BI

## Model Summary

R	R-sq	MSE	F	df1	df2	p
.6244	.3898	1.0022	191.6576	1.0000	300.0000	.0000

## Model

	coeff	se	t	p	LLCI	ULCI
constant	1.4661	.2808	5.2218	.0000	.9136	2.0186
LA	.7545	.0545	13.8440	.0000	.6472	.8617

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

## Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
.7545	.0545	13.8440	.0000	.6472	.8617	.5897	.6244

## Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
.0543	.0544	.9986	.3188	-.0528	.1615	.0425	.0450

## Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
CS	.7001	.0708	.5684	.8448

## Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
CS	.5472	.0434	.4673	.6373

## Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
CS	.5794	.0484	.4873	.6814

\*\*\*\*\*ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

----- END MATRIX -----