PHYSICAL ENVIRONMENT AND EMPLOYEE BEHAVIOR SHAPE CONSUMER PERCEPTION IN RESTAURANTS

Dr. S. S. Bhakar
Director, Prestige Institute of Management, Gwalior
E-mail : ssb1958@gmail.com

Dr. Shailja Bhakar
Assistant Professor, Prestige Institute of Management, Gwalior
E-mail : shailja.bhakar@prestigegwl.org

ABSTRACT

Consumers develop their perception about the quality of services provided by restaurants based on the facilities the restaurant has and the behavior of their employees with consumers. The study was aimed at evaluating the causal effect of physical facilities and the behavior of employees of a restaurant. The data for the study was collected from the consumers immediately after they had enjoyed the services of restaurants located at Gwalior through survey using separate structured questionnaire on each variable. The physical environment of a restaurant has positive significant effect on both the employee behavior and consumer perception. Employee behavior significantly effects consumer perception. Therefore, the ambience (majorly contributed by physical environment) of the restaurant contributes significantly to the employee behavior and perception, consumers form about the restaurant.

Keywords: Physical Environment, Employee Behavior, Consumer Perception,

INTRODUCTION

Customer retention is the most important goal of service organizations. Therefore researchers now days are interested in the area of relationship marketing (Colgate and Danaher, 2000). Customer retention is not only beneficial for the organizations it is also beneficial for the customers as it provides economical, social and psychological benefits to the customers (Gwinner *et al.*, 1998). If service organizations want to compete with other organizations then they have to

understand the customer's perspective better then the competitors (De Wulf *et al*., 2001; Gwinner *et al*., 1998).

Customer's perception can be defined as the matchup between customer's expectation and reality. According to Ittelson et al. (1974), "perception is an information processing system".

That means customer collects lot of cues from the environment and converts these cues into meaningful information. Ittelson et al. (1974) said that there is a strong relationship between perception and behavior. A person's behavior is dependent on his perception if customer form positive perceptions about a product or service after processing information that he has gathered then it can be said that it will be reflected in his behavior. Positive consumer perception about a service organization could lead to positive behaviors.

The major question that arises is how to generate positive customer's perceptions? In past few years lot is research work is done in the area of strategic marketing (Bolton, Grewal and Levy, 2007) specifically the last decade has marked significant attention of researchers in the area of international service industry (Brady et al., 2005; Keillor, Hult and Kandemir, 2004). The output of these researches is crucial knowledge that has been gained in the area of service quality evaluation (Cronin and Taylor, 1992; Parasuraman, Zeithaml and Berry, 1988).

Service quality can be defined as the overall superiority and excellence of services perceived by the consumers (Clow, Kurtz, Ozment, & Ong, 1997; Zeithaml, 1988). Services are evaluated on two bases the tangible part and the intangible part. The physical environment such as the ambience, the design and décor of the building, equipments etc. of a service helps customers to judge a service tangible part on the other hand the intangible part includes the employee behavior that customers encounter during service delivery process. Employees' behaviors are defined as "various sequences of actions carried out by employees within the organization" (Hanna et al., 2004).

With this in mind, recent work into services marketing has highlighted two particular constructs of interest to consumer research that is physical environment and employee behavior. These two variables are hypothesized to play an important role in determining the customer's perceptions about a service (Brady and Cronin, 2001; Yoon, Choi and Park, 2007). Till date lot of research has been done in this area but the combined effect of both physical environment and employee behavior on consumer perception has got little attention from researchers (see, e.g., Brady and Cronin, 2001).

This research seeks to remove this gap, by developing and testing a comprehensive

model of consumer perception, with additional investigation of the antecedent role that physical environment and employee behavior in this process.

LITERATURE REVIEW

Physical Environment

It is true that physical environment in which services are delivered affects human behavior. Till 1960's there were very few researchers who worked in this area but after that lot of psychologists and researchers have evaluated effect of physical environment on human behavior (Russell and Ward 1982; Darley and Gilbert 1985; Holahan 1986; Stokols and Altman 1987). Physical environment affects both the service providers that is, the employees as well as the service receivers that is customers.

According to Elsbach & Pratt (2007) "Physical environment entails all the material objects and stimuli (e.g., buildings, furnishings, equipment, and ambient conditions such as lighting and air quality) as well as the arrangement of those objects and stimuli (e.g., open space office plans and flexible team work spaces) that people encounter and interact with in organizational life." Previous empirical research has shown that physical environment is closely related to the employees' performance, morale, commitment, satisfaction, performance, productivity, engagement etc. (e.g., Brewer et. al. 2007; Huisman et.al. 2012; Janakiraman et. al. 2011; Srivastava 2008; Chandrasekar 2011; Weerarathna & Geeganage 2014) or it can be said physical environment effects overall behaviors of employees. Therefore it can be hypothesized as:

H_{01}: Physical Environment of restaurants affects Employee Behavior significantly.

In service organization physical environment act as a tangible cue for customers for making judgments (Jang and Namkung, 2009). Lot of researchers has indicated that customers respond emotionally to physical environment such as design, ambient factors etc (e.g. Bitner, 1992; Baker et al., 1994; Sherman et al., 1997; Wakefield and Baker, 1998). According to Kotler (1973) Physical environment (atmosphere) is an effort to provide such an environment, including vision, audition, tactile and olfaction sense, to customers that increases purchase intentions and generates specific effects of purchase in them. Davis (1984) defined physical environment as the physical structure, physical stimuli, symbolic artifacts etc. of and organization. He further explained physical structure as the architectural design that influences and controls social interactions and the placement of furniture. Antony et. al. (2004) said physical environment includes physical facilities, equipments, furniture, employee appearance and their uniform.

Since 1970's many researchers were interested in studying the relationship between physical environment and individual customers but still there is dearth of researches in this area. Especially there has been little research to know the effect of physical environment in consumption process (Bitner, 1992). Physical environment is also called servicescapes where services are delivered (Bitner, 1992) and these servicescapes are controlled by the organizations to increase or limit customer's actions.

Physical environment is the only tangible element that helps customers to create an image of the service in their mind (Bitner, 1992). It helps them make perceptions about the service and evaluate it. Physical environment along with generating emotional responses (such as satisfaction, pleasure, excitement etc) (Han & Ryu, 2009; Ryu & Jang, 2007), should also help customers to make cognitive evaluations of a service (Kim & Moon, 2009) and help them in making decision about further action or behaviors (Berry & Wall, 2007; Jang & Namkung, 2009). According to Gardner and Siomkos (1986) customers take informational cues from the physical environment of a service. In line with this Olshavsky (1985) argued physical environment has significant impact on customer's perception. Customers come across a number of physical facilities in service environment and that helps them in forming perceptions about a service. Based upon this, we hypothesize the following:

H_{02}: Physical Environment of restaurants affects Customer Perception about restaurants significantly.

Employee Behavior

Gatignon and Xuered (1997) defined employee behavior in service organization as "the activities that employees undertake such as identifying, evaluating, understanding and responding to customer needs". Lot of studies have indicated friendly behavior of employees with customers leads to improved service outcomes as well as long term relationship with them (Sparks, 1994). Pugh (2001) indicated in his study that when service employees show gratitude, have smile on their face while service delivery, make eye contact, greet customers it all leads to positive emotions in customers. Tsai and Huang (2002) also supported this finding and indicated that sales people affective service delivery would lead to positive customer's emotions.

Success of service organizations is based on the people who deliver service therefore service oriented employee behavior is the major contributor towards service organizations success (Anderson and Sullivan, 1993; Brady and Cronin, 2001). Customer orientation is necessary for customers to have positive perceptions about a service. Dubinsky and Staples (1981) suggest that employees should be

involved into identifying customers need, focus on the benefits, attempt to provide and maximize satisfaction. According to Deshpande et al. (1993) keeping customer's interest first is what makes and organization customer oriented.
Literature review indicates number of studies that have focused on the relationship between employee behavior and customer perception about service. Andreassen (1994) found that customer centric service delivery by employees significantly effects the quality perception by customers towards the service as well as the service oriented employee behavior. Similarly, Krepapa et al. (2003) also indicated that employee behavior significantly effects customer's perception about a service Boles *et al.* (2001) advocated that service organizations with very positive attitude towards service oriented employee behavior continuously strive for culture with highest priority to customers need.

If employees of an organization are service oriented it can have positive influence on perception of service quality (Hogan and Busch, 1984; Yoon, Choi and Park, 2007). This is because, employees who are service oriented are more cautious and try to provide best possible service experiences to customers (Gwinner et al., 2005; Saura et al., 2005). This would lead to customers positive perception towards every service encounter they go through and would finally lead to positive customer perceptions towards overall service quality (Schneider, Parkington and Buxton, 1980). Service orientation can include competence of employees, courtesy (Schneider and Bowen, 1985), customer's quality perception (Schneider, Parkington and Buxton, 1980) and behavioral intention (Beatson, Lings and Gudergan, 2008), and overall business performance (Yoon, Choi and Park, 2007). Based upon this, we hypothesize the following:

H_{03}: Employee Behavior affects Customer Perception about restaurants significantly.

OBJECTIVE OF THE STUDY

The main objective of the study was to evaluate the relationship between physical environment and employee behavior as independent variables and Consumer Perception as dependent variable.

1. To evaluate cause and effect relationship between physical environment and employee behavior as independent variables and consumer perception about service quality as dependent variable.
2. To evaluate the relationship between physical environment and perceived service quality.
3. To evaluate the relationship between employee behavior as independent variable and perceived service quality as dependent variable.
4. To test the structural Model

RESEARCH METHODOLOGY

The study was causal in nature where survey method was used to conduct the study. Individual customers of restaurants in Gwalior region were the sample element. The respondents in the age category of above the age of 18+ were included in the study. Both male and female respondents were included. Totals sample size was 300 respondents and the sample was selected using non probability purposive sampling technique. Proportionate representation from all the demographic groups was ensured to minimize sampling error.

The data was collected by the researchers themselves after developing rapport with the respondents. Although standardized measures were available to evaluate physical environment, employee behavior, and consumer perception in western context, the same had not been tested in the Indian context. Majority of the research using these variables had been conducted in developed countries. The experiences and perception of Indian consumers with respect to restaurant service might be different and therefore self designed questionnaires were used to measure these variables. Separate measures were prepared to evaluate each variable. The data was collected on the scale of 1-7 where 1 indicated minimum agreement with the statement and 7 indicated maximum agreement.

The measures were tested for internal consistency reliability and validity after completion of data collection phase. Reliability of all four measures was established separately. Cronbach's Alpha reliability coefficient was calculated using PASW 18 separately for all the measures. Reliability of factors identified through factor analysis was also evaluated through calculation of construct reliability coefficients. Principle axis factoring was carried out with Oblimin rotation and Kaiser Normalization. The measure was checked for sample adequacy and Sphericity using KMO and Bartlett test. The factors extracted through PAF were named and described. The cause and effect relationship between physical environment and employee behavior as independent variables and consumer perception on service quality as dependent was tested using Structural Equaton Modelling.

RESULTS

Reliability Measure

The internal consistency reliability of the three variables of the study, Physical Environment, Employee Behavior and Customer Perception were established through computation of Cronbach's Alpha separately for each variable. The Cronbach's Alpha results are posited in the table below:

Table1: showing Reliability statistics for physical environment

Variable	Cronbachs Alpha
Physical Environment	0.834
Employee Behavior	0.921
Customer Perception	0.973

The reliability of all the three variables is high as the Cronbach's Alpha coefficient values are all above 0.7.

Table 2: Showing KMO Bartlett test applied on – Physical Environment

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.855
Bartlett's Test of Sphericity	Approx. Chi-Square	817.748
	df	55
	Sig.	.000

The data collected on Physical Environment variable was checked for its suitability to carry out exploratory factor analysis (EFA). The data was evaluated for sample size adequacy using KMA and the value of KMO was found to be 0.855 The minimum KMO value required for EFA is 0.5; the calculated value of KMO is far higher than the required minimum for Exploratory factor analysis. The second requirement is that the item-to-item correlation matrix should not be an identity matrix. The difference between the item-to-item correlation matrix and identity matrix was evaluated using Bartlett's test of Sphericity.

The difference was evaluated using chi square test and the value of chi square was 817.748 significant at 0.00 % level of significance. Therefore the item-to-item correlation matrix is not an identity matrix and therefore the data is suitable for EFA.

Principle component Analysis was applied as a method of convergence and Varimax method was used for rotating the factors. The process converged after 7 iterations on two factors. The factor loading of all the variables is displayed below in table 3.

Table 3: Sowing the Results of Exploratory Factor Analysis Applied on Physical Environment

Factor name	Eigen Values	% of Var.	Items Converged	Factor Loads
Differentiating	2.458	24.583	9. Comfortable temperature is maintained	.771
			11. The table tops/table covers are clean.	.715
			7. Noise disturbance is low.	.645
			12. Soft and soothing music is played	.618
			8. Sufficient parking space	.516

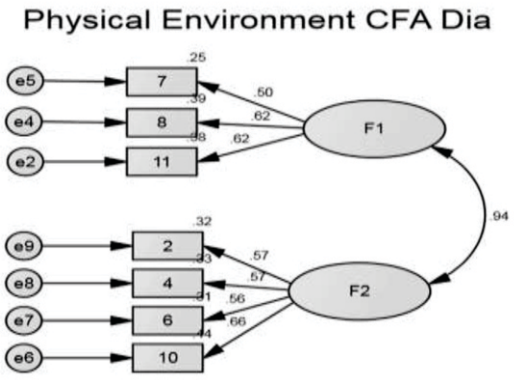
Essential	2.404	24.043	2 Proper sitting arrangement is available	.758
			1 Proper lighting facility is available	.720
			6 Warm friendly atmosphere inside the restaurant.	.653
			10. The utensils used for the food are clean	.532
			4 The interior design of the premises is good	.520

Every restaurant must have the minimum physical environment to attract customers. The physical environment variables that converged on this factor are listed above under factor essential. Adhering to minimum requirement of physical environment may attract few customers first time and some customers as repeat customers, but long term success of the restaurant depends on the performance of restaurant on variable converged on differentiating factor. The variables that converged on differentiating factor are listed above under this factor.

Table 4: Showing Results of Confirmatory Factor Analysis Applied on Physical Environment

Indicator	Chi Square	P	CMin/df	GFA	AGFA	IFI	CFI	TLI	RMSEA	RMR
Critical Value		>0.05	< 2.0	>0.9	>0.9	>0.9	>0.9	>0.9	<0.05	Least
Default Value	14.905	0.313	1.141	.986	.970	.995	.995	.992	.022	0.06

Fig 1: Showing the CFA Diagram of Physical Environment Variable



The CFA model of Physical environment was tested for goodness of fit of the model. The global goodness of fit was tested using CMin (Chi Square) test. The Chi Square test is applied between the original covariance matrix and covariance matrix computed using the factor structure. The difference between the covariance matrices should not be significant therefore, the p-value for the Chi Square test must be greater than 0.05. The value for the current model is 0.313 far higher than 0.05, indicating that the model is good fit to the data. The Cmin/df value should be smaller than 2 to consider the model good fit to the data. The value of Cmin/df for

the physical environment model is 1.141, again indicating that the model is good fit to the data. The values of GFA (Goodness of Fit) Index, AGFA (Adjusted goodness of Fit) Index, IFI (Incremental Goodness of Fit) Index, CFI (Comparative Goodness of Fit) Index, and TLI (Tucker Lewis) Index should all be greater than) 0.9. All these indexes have values greater than 0.9, indicating good fit of the model to data. The badness of fit indexes RMSEA should have a value less than 0.05 and the RMR value should be lowest. The value of RMSEA is 0.022 and the value of RMR is 0.06 for the model, indicating good fit of the model.

Table 5: KMO and Bartlett's Test Results for Employee Behavior

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.854
Bartlett's Test of Sphericity	Approx. Chi-Square	665.400
	df	45
	Sig.	.000

The data collected on Employee Behavior variable was checked for its suitability to carry out exploratory factor analysis (EFA). The data was evaluated for sample size adequacy using KMA and the value of KMO was found to be 0.854 The minimum KMO value required for EFA is 0.5; the calculated value of KMO is far higher than the required minimum for Exploratory factor analysis. The second requirement is that the item-to-item correlation matrix should not be an identity matrix. The difference between the item-to-item correlation matrix and identity matrix was evaluated using Bartlett's test of Sphericity. The difference was evaluated using chi square test and the value of chi square was 665.400 significant at 0.00 % level of significance. Therefore the item-to-item correlation matrix is not an identity matrix and therefore the data is suitable for EFA.

The raw scores of 14 items that were subjected to exploratory factor analysis using principle component analysis as the convergence method and Varimax rotation as the method of rotation converged on two factors after three iterations.

Table 6 : Exploratory Factor Analysis Results for Employee Behavior

Rotated Component Matrix					
Factor	Eigen Value	Var.		Component	
				1	2
Customer Orientation	2.655	26.547	14. Special care of the vehicles in the parking area.	.753	
			12. Problem solving behavior.	.697	
			3. When they promise to do something, it will be done so.	.633	
			11. Treat customers courteously on the telephone.	.628	
			13. Able to handle customer complaints.	.623	
			4. Performing service right at the first time.	.518	

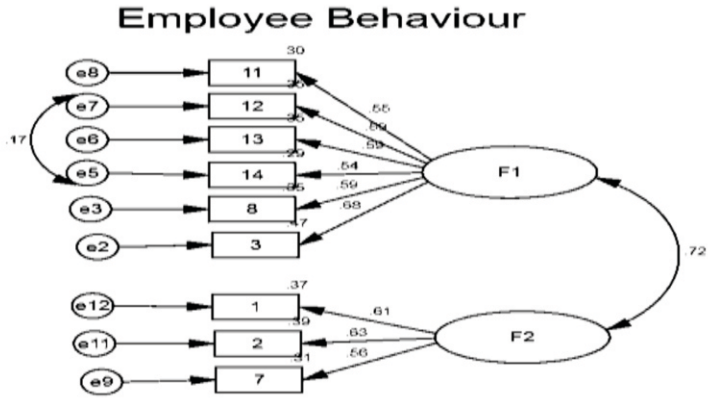
Competence	2.183	21.827	Individual attention.		.748
			5. Error free sales transactions and records..		.660
			Helping customers which they require		.658
			7. The behavior is instills confidence in customers.		.613
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 3 iterations.					

Employees in service organizations are responsible to contribute major part of the service bundle. Competence of the employees therefore, is essential to provide right quality services to the customers. The employees need to customer orientation in addition to having right level of competence to deliver quality services to the customers. Therefore, the two factors of employee behavior jointly ensure right quality service delivery to the customers. Since the operations in restaurants require involvement of customers in delivery of service, employee behavior becomes absolutely important in developing perception of good quality service delivery.

Table 7: Showing Results of Confirmatory Factor Analysis Applied on Physical Environment

Indicator	Chi Square	P	CMin/df	GFA	AGFA	IFI	CFI	TLI	RMSEA	RMR
Critical Value		>0.05	< 2.0	>0.9	>0.9	>0.9	>0.9	>0.9	<0.05	Least
Default	28.752	0.274	1.150	. .980	..965	.	.993	.990	.022	0.067
Value						.993				

Fig 2: Showing the CFA Diagram of Employee Behavior



The CFA model of Employee Behavior was tested for goodness of fit of the model. The global goodness of fit was tested using CMin (Chi Square) test. The Chi Square test is applied between the original covariance matrix and covariance matrix computed using the factor structure. The difference between the covariance

matrices should not be significant therefore, the p-value for the Chi Square test must be greater than 0.05. The value for the current model is 0.274 far higher than 0.05, indicating that the model is good fit to the data. The Cmin/df value should be smaller than 2 to consider the model good fit to the data. The value of Cmin/df for the physical environment model is 1.150, again indicating that the model is good fit to the data. The values of GFA (Goodness of Fit) Index, AGFA (Adjusted goodness of Fit) Index, IFI (Incremental Goodness of Fit) Index, CFI (Comparative Goodness of Fit) Index, and TLI (Tucker Lewis) Index should all be greater than) 0.9. All these indexes have values greater than 0.9, indicating good fit of the model to data. The badness of fit indexes RMSEA should have a value less than 0.05 and the RMR value should be lowest. The value of RMSEA is 0.022 and the value of RMR is 0.067 for the model, indicating good fit of the model.

Table 8: KMO and Bartlett's test Results for Consumer Perception

The raw scores of 16 items were subjected to factor analysis to find out the factors that contribute towards 'Consumer Perception'. After factor analysis two factors were identified.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.913
Bartlett's Test of Sphericity	Approx. Chi-Square	1334.423
	df	105
	Sig.	.000

Exploratory factor analysis using principle component analysis for convergence and varimax for rotation converged on two factors.

Table 9: Exploratory Factor Analysis Results for Consumer Perception

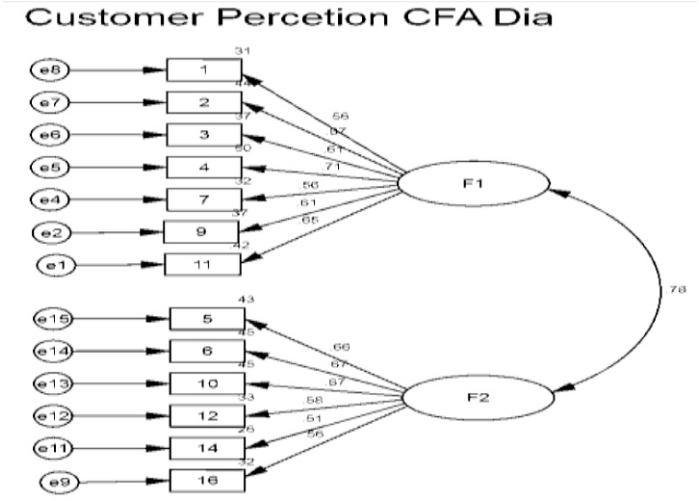
Rotated Factor Matrix					
Factor	Eigen Values	Var.	Items Converged	Factor Loads	
Satisfaction	3.881	25.583	4. The service providers are neatly dressed	.736	
			2. Take care of the cleanliness	.714	
			11 Staff is polite and courteous	.705	
			1 The food quality of the restaurant is very good	.634	
			9 The environment of the restaurant is very good	.599	
			3 Never heard any complaints regarding the services	.574	
			7 My friends also suggest me this restaurant only	.556	
			8 The restaurant is best in this areas	.550	
Loyalty	3.019	20.123	15 If the restaurant is closed I would not like to go to any other restaurant.		.717
			6 Service is fast.		.688
			10 Everyone is treated specially		.627
			16 Always choosing this restaurant only		.556
			14 If I have to wait for the delivery of food then also I will choose this restaurant only.		.553
			12 Flexible service to each individual.		.543
			5 They give personal care to each other.		.532

Table 10: Showing the Results of CFA Test applied on Consumer Perception

Indicator	Chi Square	P	CMin/df	GFA	AGFA	IFI	CFI	TLI	RMSEA	RMR
Critical Value		>0.05	< 2.0	>0.9	>0.9	>0.9	>0.9	>0.9	<0.05	Least
Default Value	71.847	0.184	1.159	. .967	.951	. .991	.991	.988	.023	0.072

The CFA model of Consumer Perception was tested for goodness of fit of the model. The global goodness of fit was tested using CMin (Chi Square) test. The Chi Square test is applied between the original covariance matrix and covariance matrix computed using the factor structure. The difference between the covariance matrices should not be significant therefore, the p-value for the Chi Square test must be greater than 0.05. The value for the current model is 0.184 far higher than 0.05, indicating that the model is good fit to the data. The Cmin/df value should be smaller than 2 to consider the model good fit to the data. The value of Cmin/df for the physical environment model is 1.159, again indicating that the model is good fit to the data. The values of GFA (Goodness of Fit) Index, AGFA (Adjusted goodness of Fit) Index, IFI (Incremental Goodness of Fit) Index, CFI (Comparative Goodness of Fit) Index, and TLI (Tucker Lewis) Index should all be greater than) 0.9. All these indexes have values greater than 0.9, indicating good fit of the model to data. The badness of fit indexes RMSEA should have a value less than 0.05 and the RMR value should be lowest. The value of RMSEA is 0.023 and the value of RMR is 0.072 for the model, indicating good fit of the model.

Fig 3: Showing the CFA Diagram of Consumer Perception



Structural Model

Since exploratory factor analysis has identified two factors for each of the two independent variables Physical Environment & Employee Behavior and the dependent variable Consumer Perception; structural equation model cannot be tested using factor structure as indicator variables (minimum requirement is three indicator variables for each variable). Therefore, the model for Structural Equation modeling was developed using original indicator variables for all the three variables.

Structural model shown in Fig.1 above was tested using AMOS. The displayed good fit to the data. The goodness of fit indices are displayed in annexure under table 1.

Structural Model: Antecedents of Consumer Perception

Structural Equation Models are evaluated in two stages. In first stage the model is tested for goodness of fit and in second stage the results of hypothesis are evaluated.

Fig 4: Structural Diagram of the antecedents of Consumer Perception

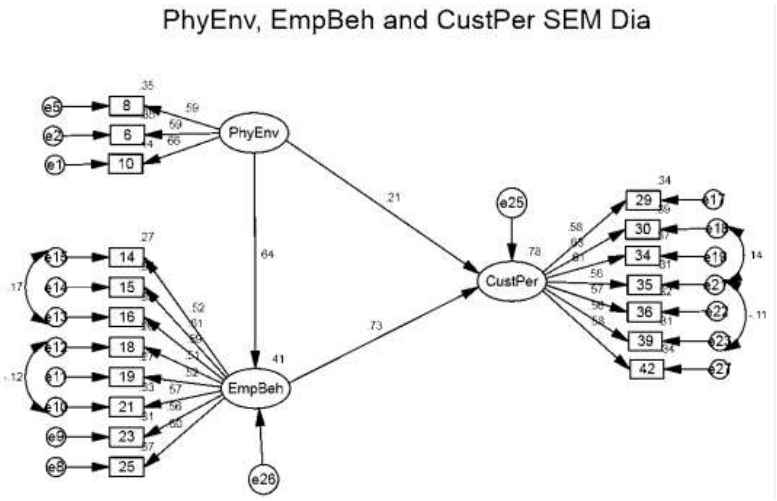


Table 11: Showing the Results of SEM Applied on Antecedents of Consumer Perception

Indicator	Chi Square	P	CMin/df	GFA	AGFA	IFI	CFI	TLI	RMSEA	RMR
Critical Value		>0.05	< 2.0	>0.9	>0.9	>0.9	>0.9	>0.9	<0.05	Least
Default Value	151.631	0.076	1.185	0.947	0.929	0.982	.982	.978	.025	0.085

The global goodness of fit index Chi Square value was 151.631 was significant at 0.076 level indicating good fit. Because chi square is restrictive in nature it is always good to evaluate models using other indices (Kenny and McCoach, 2003). The weakness of chi square test based on sample size can be taken care of by using CMIN/DF (Wheaton et al, 1977). The value of CMIN/DF is 1.185 for the default model above; the index value is lower than the required minimum i.e. < 2.

The Goodness Fit Index (GFI = 0.947) and Adjusted Goodness of Fit Index (AGFI = 0.929) values are both higher than the required 0.9. GFI is inflated by higher sample size (Bollen, 1990; Miles and Shevlin, 1998) and is also sensitive to number of parameters and degree of freedom (Sharma et al, 2005). AGFI is adjusted for degree of freedom (Tabachnick and Fidell, 2007) but is sensitive to sample size. Though both the indices indicate good fit of the default model to data, they need to be supported using other goodness fit indices.

The incremental fit indices are also called comparative or relative fit indices (Miles and Shevlin, 2007; McDonald and Ho, 2002) do not use chi square in its raw form and compare chi square of default model with base line model. The three incremental fit indices Incremental Fit Index (IFI = 0.982), Tucker Lewis Fit Index (TLI = 0.978) and Comparative Fit Index (CFI = 0.982) are higher than 0.9, indicating that the structural model has good fit to the data. Comparative fit index is considered one of the best indicators of goodness of fit as it is least sensitive to sample size (Fan et al, 1999).

Two parsimony fit indices were developed by (Mulaik et al, 1989). The two parsimony fit indices; Normed Parsimony Fit Index (NPFI = 0.749) and Parsimony Comparative Fit Index (PCFI = 0.821) are both higher than 0.5. Parsimony fit indices are adjusted for complexity of models and therefore the values of parsimony fit indices are nearer 0.5 for smaller models and go up as the complexity of the model increases.

Root Mean Square Residuals (RMR) are square root of differences between sample covariance matrix and hypothesized models. Values of RMR that are smaller than .05 indicate good fit of the model to data (Byrne, 1998; Diamantopoulos and Siguaw, 2000), however values up to .1 are acceptable (Hu and Bentler, 1999). The computed value of RMR for the default model under test is 0.085. entler, 1999). The computed value of RMR for the default model under test is 0.085.

The RMSEA indicates the level of fit the population covariance matrix with optimally chosen parameter estimates (Byrne, 1998). The RMSEA values up to 0.06 are acceptable (Hu and Bentler, 1999). The computed value of Root Mean Squared Error Approximation for the default model is 0.025.

RESULTS OF HYPOTHESIS TESTING

Table 12: Regression Weights: Antecedents of Consumer Perception Default model

			Estimate	Std. Reg.	S.E.	C.R.	P
EmpBeh	<---	PhyEnv	.641	.641	.097	6.075	***
CustPer	<---	PhyEnv	.191	.210	.084	2.258	.024
CustPer	<---	EmpBeh	.727	.735	.118	6.163	***

H_{01}: Physical Environment of restaurants affects Employee Behavior significantly.

The standardized regression weight computed between physical environment as independent variable and Employee behavior as dependent variable is 0.641, significant at 0.000 level of significance. The hypothesis is supported. Finding of this research find support in Ariffin and Aziz (2012) where in they found that environment and its innovativeness effect employee behavior.

H_{02}: Physical Environment of restaurants affects Customer Perception about restaurants significantly.

The standardized regression weight computed between physical environment as independent variable and Customer Perception as dependent variable is 0.210, significant at 0.024 level of significance. The hypothesis is supported.

H_{03}: Employee Behavior affects Customer Perception about restaurants significantly.

The standardized regression weight computed between Employee Behavior as independent variable and Customer Perception as dependent variable is 0.735, significant at 0.000 level of significance. The hypothesis is supported.

IMPLICATIONS OF THE STUDY

1. Restaurants

- The results of our study have strong implications for the restaurants, as the results indicate that physical environment and employee behavior have strong positive effect on consumer perception about the services provided by the restaurant. The restaurant owners need to pay more attention to the ambience of the restaurants, which is directly affected by the physical environment. Also, the restaurants need to ensure that there employee are trained on all aspects of service that they are involved in, as the employee behavior also has strong positive relationship with the consumer perception about the services offered by the restaurant.

2. Students

- Students can use the results of this study for supporting the results of their studies in similar areas.
- Students can use the literature review for support literature review of their studies in similar areas.
- Students can use the reference for understanding the topic in detail and for doing further studies in this area.
- Students can use the standardized questionnaire for physical environment, employee behavior and consumer perception developed in the study for doing studies in similar areas.

CONCLUSION

The study has resulted in standardized and reliable measures of physical environment, employee behavior and consumer perception with the respect to restaurant services. All the three measures are reliable as indicating by their reliability measure which is higher than 0.7.

Cause and effect relationship has been established between physical environment as individual independent variable and consumer perception as dependent variable using simple linear regression equation. Physical environment has significantly high positive relationship with consumer perception.

Cause and effect relationship has been established between employee behavior as individual independent variable and consumer perception as dependent variable using simple linear regression equation. Employee behavior has significantly high positive relationship with consumer perception.

Cause and effect relationship has been established using multiple regression equation between physical environment, employee behavior as independent variable and consumer perception as dependent variable. Physical environment and employee behavior both have significant relationship with consumer perception.

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