EFFECT OF FACTORS OF PHYSICAL ENVIRONMENT ON CUSTOMER SATISFACTION WITH REFERENCE TO RESTAURANT INDUSTRY IN NAGPUR CITY

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ABSTRACT- It is a combination of two words, Service and Quality where we find emphasis on the availability of quality services to the ultimate users. The six dimensions of physical environment on which this research is focusing are servicing staff, facility aesthetics, layout, ambience, dining equipment and lighting. For the majority of customers having a memorable experience especially for dining, not just eating out of home, seems to be very prominent. It is asserted that they seek quality food and services to have an unforgettable experience at restaurants. This study concludes that all the dimensions of service quality have significant relation with overall service quality and the overall service quality has strong association with customer satisfaction. Therefore, this study has also tested whether the customer satisfaction leads to customer loyalty or not. After analysis researcher found that there is a strong association between customer satisfaction and customer loyalty.

KEYWORDS: Restaurant industry, physical environment, price perception, customer loyalty, customer satisfaction

I.   INTRODUCTION

Service Quality: It is a combination of two words, Service and Quality where we find emphasis on the availability of quality services to the ultimate users. The term quality focuses on standard or specification that a service generating organisation promises. We can't have a clear-cut boundary for quality. Sky is the limit for quality generation. inventions and innovations make the ways for the generation of quality. More frequency in innovations, less gap in the process of quality up-gradation.

Like the goods manufacturing organisations even the service generating organisations are found instrumental in promoting research and devising something new that makes the services, schemes distinct to the competitors and creates profitable market opportunities to capitalise on. It is against this background that in the developed countries, the process of innovation is found more frequent.

The created quality shapes the boundary of expectations since the users tasting the sweetness, of world-class services expect the same from other organisations. The expectations pave the avenues for satisfaction or dissatisfaction. If we succeed in fulfilling the expectations of users, they are found satisfied and the satisfaction makes the ways for increasing the market share.

1.1   Physical Environment:

It is defined as the objects and physical factors controlled by companies that can affect employees and customers.

Physical Environment not only influences the customers pre-purchase decision but also the post-purchase quality assessment and satisfaction in terms of the related goods and services (Bitner, 1992)

The six dimensions of physical environment on which this research is focusing are servicing staff, facility aesthetics, layout, ambience, dining equipment and lighting.

1.2   Price Perception:

From the customer's perspective, price is what the customer pays or gives for obtaining the product or service. Fairness of price is a psychological factor that plays an important role in the customer's reaction to the paid price (Kim et al, 2006)

1.3   Customer Satisfaction:

It is defined as the customer's response to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product as perceived after its consumption (Caruana, 2002)

1.4   Customer Loyalty:

It is defined as a strong and deep commitment to re-purchase or continuous purchase of a preferred product or service in the future which despite potential or actual environment effects or marketing efforts of the rivals for changing the customer buying behaviour is a rebuy of the same brand or brand series (Oliver,1999)

1.5   Effect of Service Quality in Restaurant Industry:

For the majority of customers having a memorable experience especially for dining, not just eating out of home, seems to be very prominent. It is asserted that they seek quality food and services to have an unforgettable experience at restaurants (Ryu and Han, 2011). Service quality is defined as the result of a comparison established between the customers' expectation about the service and their perception of the actual services or the way such services are being provided (Akbaba, 2006). By taking into account the above mentioned definition, it is realized that service quality without regarding the customers' perspective could not be even defined appropriately. Parasuraman et al., (1985) hypothesized that services entails three essential aspects, namely the intangibility, heterogeneity, and inseparability. Therefore, it is difficult to evaluate the service production in comparison with goods. In this context, consumers' expectation along with process and outcome is important in evaluating the service quality.

Based on Hogreve and Gremler (2009) if company cannot meet their customers` expectation toward service quality, perceived quality is decreased. Since, customers have higher expectation of service industries (Wu et al., 2012). Lin (2005) stated that companies which cannot understand and meet their customer expectations would be out of market between seven to nine years. To perceive service quality not only customer expectation is important, but also the factor by which customers compare their expectation with real service is considerable (Conrad et al., 2005; Wilkins et al., 2007). Nilsson-Witell and Fundin (2005) argued that the customers value a service differently based on their attitudes and diverse conditions. For example, a service which is classified as fulfilled by one customer may be still expected by another. According to Kotler et al. (2002) several factors affect customer expectation such as communication, past experience, and personal needs. According to Wilkins et al. (2007) service quality is evaluated by customer throw their expectations about the experience. In fact, customers use a number of intrinsic and extrinsic cues to evaluate likely performance standard.

II.   LITERATURE REVIEW

2.1 Physical Environment:

The role of the physical environment in influencing customer behaviour and in creating a provider's image is especially pertinent in a service industry such as the restaurant industry (Booms & Bitner, 1982). Indeed, customers consciously (or unconsciously) sense the physical surroundings before, during, and after the meal when dining out in a restaurant. While the food and the service must be of acceptable quality, pleasing physical surroundings, such as decor, artifacts, layout, and music may determine, to a large extent, the degree of overall customer satisfaction and subsequent customer behavior. That is, customers may respond to more than just the quality of the food and service when evaluating their experience and building their attitudes toward a provider. Kotler (1973) indicated that, in some situations, the atmosphere of the place can be as much important as the product itself (e.g., foods and services) in purchasing decision making. Creative use of physical design in a restaurant operation would be essential in enhancing specific marketing objectives such as positive customer perception of quality, positive evaluation of experience, and positive attitudes.

- **Servicing staff:** It includes behavior of the servicing staff, their manner of communicating with customers and their uniform.
- **Facility aesthetics:** It contribute to the attractiveness of the physical environment.

- **Spatial layout:** It refers to the arrangement of objects such as furniture, equipment.
- **Ambience:** It refers to the intangible background characteristics that generally have a subconscious effect on customer perceptions and their responses.
- **Dining equipment:** It includes the quality of dining utensils like plate, spoon, glass.
- **Lighting:** It refers to the various lighting conditions depending upon the type of the restaurant.

2.2 Price Perception:

Many studies in marketing suggest that the variability in product/service performance across different consumption experiences increases customer uncertainty. This uncertainty leads to decreased reliance on prior expectations of the product/service. In this situation, from the customer's point of view, price is often used as a cue in their expectations of the product/service performance (Dodds, Monroe, & Grewal, 1991performanc O'Neill, 2003). Furthermore, customers tend to use price as a cue in evaluating their experiences with a product/service and in shaping their attitude toward a provider (Bolton & Lemon, 1999; Varki & Colgate, 2001). The role of the price in influencing customer behaviors would be more salient to the restaurant industry because customer experiences will not be identical; high human involvement while delivering services ensures differences in experience. This variability in restaurant services may foster the use of price as a cue of expectation, evaluation, and decision making.

2.3 Customer Satisfaction:

Customer satisfaction is a central concept in marketing because it is crucial to meeting the needs and wants of customers (Spreng, Mackenzie, & Olshavsky,1996; Yi, 1990). Firms deliver a product as well as satisfaction to customers, and obtain profits in return (Yi, 1990). While customer satisfaction has been defined in many ways, researchers generally agree that an evaluation process is an essential element underlying customer satisfaction (Yi, 1990). Hunt (1977) defined satisfaction as "an evaluation rendered that the consumption experience was at least as good as it was supposed to be" (p. 459). Based on previous theoretical and empirical evidence, Engel and Blackwell (1982) conceptualized satisfaction as "an evaluation that the chosen alternative is consistent with prior beliefs with respect to that alternative" (p. 501). These conceptualizations all suggest that customer satisfaction is an overall judgment process of the perceived discrepancy between prior expectation and actual consumption.

2.4 Customer Loyalty:

Some researchers suggest that customer loyalty comprises both a behavioral dimension and an attitudinal dimension (Julander, Magi, Jonsson, & Lindqvist,1997; Kandampully & Suhartanto, 2000). While the behavioral dimension considers consistent repeat patronage or repeat purchase frequency, the attitudinal dimension considers psychological (decision-making or evaluative) commitment toward the store/brand (Julander et al., 1997; Kandampully & Suhartanto, 2000). That is, loyalty is a consequence of consistent repeat patronage/repeat purchase frequency of a single store/brand as well as favorable attitude.

Especially in the hospitality industry, the attitudinal approach to assessing the level of customer loyalty should be more focused (Back, 2005; Schall, 2003). Unlike the manufactured (or consumer good) industry, repeat purchase frequency would not be an adequate indicator of customer loyalty because loyalty in the hospitality field involves attitudinal and emotional commitment to a provider/brand (Schall, 2003). Many customers have multiple memberships in various branded restaurants or hotels (Mattila, 2001). Repeat purchases may not always indicate that the customer keeps on recommending or maintaining a favorable attitude toward the provider (Bowen & Chen, 2001). Accordingly, in this study, the attitudinal approach was used to assess restaurant customer loyalty by specifically gauging a particular range of potential behaviors triggered by overall experiences in a specific restaurant. Once a customer is deeply committed or has strong intentions to repurchase, recommend, and spend more, he/she is likely to remain loyal to a company (Getty & Thompson, 1994).

2.5 Relationship Between Physical Environment and Price Perception:

Price is an important variable that affects consumers' purchasing preferences. Perceived price is the price that the consumer is willing to pay. In other words, it is sacrifice. (Zeithaml, 1988). The price is evaluated psychologically and rationally by consumers. While psychological factors include reputation and image and rational factors are quality and value (Kurtulus&Okumus, 2006). The relationship between the physical environment and price is also psychologically addressed. In the literature, there are studies examining the relationship between the physical environment and price of restaurants. In addition, the

relationship between the physical environment and perceived value includes the relationship between the physical environment and perceived price (Han & Ryu, 2009). Han and Ryu (2009) states that the price perception is affected by the physical environment elements and the decoration affects the most. In the study conducted by Kucukergin and Dedeoglu (2014) for fast food restaurants the effect of the physical environment on price perceptions and the tendency to repurchase through price perceptions was examined. They concluded that the decoration does not affect the perception of price, and the layout and ambience affect the perception of price. Also, the effect of price perception on the intention to repurchase was found to be positive and meaningful.

2.6 Relationship Between Price Perception, Customer Satisfaction and Customer Loyalty:

It is known that there is a positive relationship between price and satisfaction and loyalty (Nguyen& Leblanc, 2002; Reimer &Kuehn, 2005,Ryu& Jang, 2007; Han & Ryu, 2009). This relationship is related to whether the price is fair or not. Customers are satisfied with fairness when making price perception and realize repurchase. Price perception shapes consumer behavior. The price perception can create a satisfied customer as well as a dissatisfied customer (Jiang & Rosenbloom, 2004, Han & Ryu, 2009). Studies conducted in the literature show that the price perception is effective in the tendency to buy again (Bei & Chiao, 2001; Jiang & Rosenbloom, 2004). Bolton and Lemon (1999) states that the fairness or unfairness price has a significant effect on customer satisfaction and loyalty. Han and Ryu (2009) found that there was a significant relationship between price perception and satisfaction. One of the results is that the price directly or indirectly affects loyalty. Chen et al., (2011) states that price perception in the fast food sector has a significant effect on customer satisfaction. In the light of the literature, it can be inferred that price perception is a significant driver of customer satisfaction and loyalty. Many studies support a significant relationship between customer satisfaction and loyalty (Hallowell, 1996; Anderson & Fornell, 2000; Oh, 2000; Babin et al., 2005; Ladhari et al., 2008; Han &Ryu, 2009; Sun & Lin, 2010; Jalil et al., 2016). Satisfied customers are assumed to be potential loyal customers. There are studies defending the opposite of this view. It is stated that the dissatisfied customer may also be a loyal customer. The absence of any other alternative can be effective in this situation. Oh (1999) states that satisfied customers have a high tendency to buy and recommend again. Weiss et al., (2004) concluded that food quality and physical environment affect satisfaction and support the trend of repurchase in their satisfaction. In their study, Han and Ryu (2009) stated that customer loyalty is achieved through the physical environment of restaurants, price perception and customer satisfaction. As a result, in the light of the literature, hypothesis was established assuming that satisfaction is the determine factor in affecting loyalty.

III.   RESEARCH METHODOLOGY

3.1 Sampling Technique:

In selecting the respondents, a simple random sampling method was used to have equal chance of being selected in the sample then Judgemental Sampling Technique was used after respondent meeting the criteria of having used restaurant services. Responses have been collected from the customers visiting to Restaurant. Sample was selected from the Nagpur because the scope of research is limited to Restaurants of Nagpur City. It was to ensure that our study findings and conclusions are not short term. We have collected responses from total 130 respondents.

3.2 Sampling Scale:

Scales of measurement refer to ways in which variables/numbers are defined and categorized. Each scale of measurement has certain properties which in turn determines the appropriateness for use of certain statistical analyses. The four scales of measurement are nominal, ordinal, interval, and ratio.

A Likert scale is a psychometric scale commonly involved in research that employs questionnaires. It is the most widely used approach to scaling responses in survey research. Here we have used a 5-point scale for the study. 5 points in the scale are defined as follows:

Ratings	Meaning
5	Strongly Agree
4	Agree
3	Neutral
2	Disagree
1	Strongly Disagree

3.3 Sample Size:

Data is collected through a structured questionnaire. Sample size is 130 and respondents are the working and non-working individual includes both men and women of every age group. Each participant is asked to respond to the same set of questions, as it provides an efficient way for collecting responses from a sample of frequent visitors of Restaurant.

3.4 Objectives:

- To study the effect of Price Perception and Customer Satisfaction on Customer Loyalty.
- To study the important factors of Physical Environment effecting consumers.

IV.   DATA ANALYSIS

Objective 1: To study the effect of Price Perception and Customer Satisfaction on Customer Loyalty.

H1: Price Perception and Customer Satisfaction is related to Customer Loyalty.

Regression Statistics	
Multiple R	0.71
R Square	0.51
Adjusted R Square	0.50
Standard Error	0.45
Observations	130.00

The R square value is 0.51 which means that Price Perception and Customer Satisfaction account for 51% of the variance in Customer Loyalty.

ANOVA

	df	SS	MS	F	Significance F
Regression	2	27.04	13.52	66.40	0.00
Residual	127	25.86	0.20		
Total	129	52.89			

Summary of Regression Analysis treating Price Perception and Customer Satisfaction is shown in above table. It was observed that the overall regression model was significant. It was suggested that Price Perception and Customer Satisfaction explained 45% of the variance in the customer's overall rating.

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.597	0.290	2.057	0.042	0.023	1.170	0.023	1.170
Price Perception	0.761	0.092	8.286	0.000	0.579	0.942	0.579	0.942
Customer satisfaction	0.072	0.068	1.059	0.291	-0.062	0.205	-0.062	0.205

Y = 0.59 + 0.76X1 + 0.07X2

Price Perception and Customer Satisfaction was statistically significant. The higher the value of t-statistic, more is the contribution of factors explaining it's impact on Customer Loyalty.

Objective 2: To study the important factors of Physical Environment effecting consumers.

H1: Servicing staff is related to customers.

H2: Dining equipment is related to customers.

H3: Facility aesthetics is related to customers.

H4: Spatial layout is related to customers.

H5: Ambience is related to customers.

H6: Lighting is related to customers.

POPULATION MEAN	3	3	3	3	3	3
SAMPLE MEAN	3.97	3.96	3.89	3.90	3.81	3.76
STANDARD DEVIATION	0.55	0.60	0.62	0.67	0.68	0.64
TOTAL NO OF RESPONDENTS	130.00	130.00	130.00	130.00	130.00	130.00
STANDARD ERROR	0.048	0.053	0.055	0.059	0.060	0.056
Z CAL	20.15	18.15	16.19	15.26	13.45	13.67
Z CRI	1.65	1.65	1.65	1.65	1.65	1.65
DECISION	REJECT	REJECT	REJECT	REJECT	REJECT	REJECT

As shown in the above table, Z-test was applied to test the hypotheses. Since in each case z-calculated is greater than z-critical so the hypotheses is rejected.
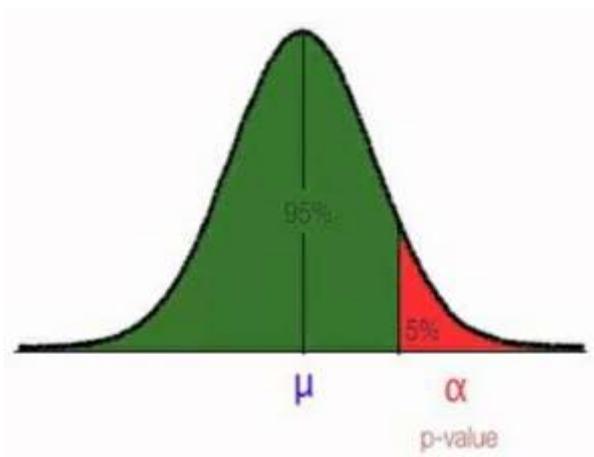

Fig: Z-test (one tail)

V. CONCLUSION

This research paper investigates on identifying the dimensions of service quality in retailing and its impact on customer loyalty. Using a well-structured questionnaire data were collected from 130 respondents. Questionnaire consisted of 35 statements. The research was conducted only in Nagpur city. Further, the concept like service quality should be connected with customer loyalty and customer retention.

This research builds on the previous findings on the relationships of service quality with customer satisfaction and ultimately customer loyalty. It has examined these relationships under a new perspective that associates the importance of service quality dimensions. Further, this study associates the importance of service quality dimensions with the strength of their relationships with customer satisfaction. Following are the findings of this study:

Price Perception and Customer Loyalty account for 51% of the variance in Customer Loyalty.Physical Environment factors account for 42% of the variance in Customer Loyalty. This study concludes that all the dimensions of service quality have significant relation with overall service quality and the overall service quality has strong association with customer satisfaction. Therefore, this study has also tested whether the customer satisfaction leads to customer loyalty or not. After analysis researcher found that there is a strong association between customer satisfaction and customer loyalty.

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