Examining the Differences in Service Quality Dimensions and their Consequences based on the Characteristics of Restaurant Patrons

Gaurav Tripathi [1], Kartik Dave [2]

[1]BIMTECH, India
[2]School of Business, Public Policy & Social Entrepreneurship, Ambedkar University, India

Abstract: *The present study focuses on examining the difference in the perception of service quality dimensions and its consequences viz., customer satisfaction and behavioral intentions among the restaurant consumer segments. Various consumer attributes are used for the comparison of service quality dimensions and its consequences. These include gender, age, occupation, income. The scale items for service quality, customer satisfaction and behavioral intentions are referred from previous studies and are incorporated in the questionnaire on a seven point Likert scale. Data is collected using mall intercept method in the New Delhi region which includes the three cities - New Delhi, Noida and Gurgaon. Only those respondents are chosen who visit a restaurant at least once a month. The items are tested for their reliability and validity using confirmatory factor analysis. In the next step, t-test and ANOVA are used to compare different groups based on their perception of service quality factors and their consequences. Implications were discussed based on the results obtained.*

Keywords: *Service Quality, Restaurant, Consumer Characteristics, CFA, ANOVA*

I. Introduction

In today's highly competitive environment the restaurant services no longer sell exotic and tasty dishes. They sell experience to the customers. Customers simply don't come to eat food in a restaurant. They visit their favorite restaurants to enjoy and experience their typical urban lifestyle. It is also a part of their social behavior. Hence, it can be understood that restaurants just don't offer food but provide a variety of services which are intangible in nature. Customers visit restaurants because they want to feel the ambience and enjoy prompt and personalized services. In other words, customers fulfill their hedonic needs by visiting their favorite restaurants. Visiting a restaurant instead of eating at home evokes the affective aspect of consumer behaviour. The consumer makes decision to visit restaurants in largely emotional in nature. These aspects are among the key service quality variables pertaining to restaurants. These aspects are important for restaurants who wish to sustain the competition. The service quality aspects have to be delivered at high levels on a continuous basis for attaining sustainable competitive advantage (Sulek & Hensley, 2004; Yüksel & Yüksel, 2002).

Service quality is a popular concept among the researchers in the area of marketing. It has been used in various service settings. Service Quality in restaurants has been researched using the popular SERVQUAL model (Parasuraman et al., 1988). Service Quality is all about overall judgment of quality of service rendered by the service providers. This judgment is based on the perception of consumers. Initially, SERVQUAL model was developed considering few service types (or industries). However, the model faced criticism for its limited applicability (Cronin Jr. and Taylor, 1992; Dabholkar et al., 1996; Gaur and Agrawal, 2006). The model finds its limited applicability across service types and different national contexts. Therefore, to overcome this limitation DINESERV model was developed by Steven et al (1995) which comprised of same five factors as that of SERVQUAL however it had different scale items.

For restaurant services, Service Quality is important because it strongly influences customer satisfaction and also the behavioural intentions (Bujisic et al., 2014; Ha & Jang, 2012; Ryu et al., 2012). In addition, customer satisfaction is an antecedent to behavioral intentions. Service quality model focuses on the gap between customer expectations and service performance. The larger this gap more discontent will be the customer. If the gap is minimal or zero then the customers will be satisfied. They will also exhibit frequent patronage intentions and display word of mouth intentions. Hence, reducing the gap to minimum is the key for success for the service providers (Grönroos, 1984). Therefore, a service quality examination for restaurants holds paramount importance.

It is also worth noting that service quality perceptions vary based on consumer attributes. Harrington et al (2011) discussed gender and age as the key attributes, while Ganesan-Lim et al (2008) examined service quality differences based on income groups. This analysis is useful for the purpose of market penetration (Ganesan-Lim et al., 2008).

The present study poses the following research question-

RQ1: Which service quality dimensions and its consequences pertaining to restaurant service quality differ significantly based on consumer attributes?

The review of literature is described in the next section. Review of literature is followed by the research methods under which the research process is described in detail. Methods are followed by the data analysis and related discussion under which the group differences for service quality and its consequences are described. The last section presents the conclusions, implications and limitations of the study.

II.   Review Of Literature

2.1 Conceptual Background

The concept of service quality in restaurant has emerged from the based model of service quality known as SERVQUAL (Parasuraman et al., 1988). Basically, the model considers the gap between expectations and performances of a service. If this gap is lower than the service facility is understood to deliver high levels of service quality. However, SERVQUAL model has its limitations because there are a variety of services which are different from each other. The SERVQUAL model has its limitations as it was based on only four services. Data was collected from the subscribers/customers of only four services were hence it cannot be generalized for the whole service industry and also across national boundaries (Cronin Jr. and Taylor, 1992; Dabholkar et al., 1996; Gaur and Agrawal, 2006).

To overcome the limitation of SERVQUAL different models for specific types of services were developed. In the context of restaurant services DINESERV model was developed by Stevens et al (1995). The model also had the same five factors as SERVQUAL had. These factors were Reliability, Assurance, Tangibles, Empathy, and Responsiveness. However, number of scale items was 29 in case of DINESERV so fit with the specific need of the restaurant industry.

Earlier, much of the research works on restaurant service quality used SERVQUAL as the foundation of research. Some of these studies included Bojanic and Rosen (1994), Fu and Parks (2001), Johns and Tyas (1996), Lee and Hing (1995). Later, when DINESERV was developed researchers shifted their focus from SERVQUAL to DINESERV. The research works of Ha and Jang (2012), Kim, Joung, Yuan, Wu and Chen (2009), Ladhari et al (2008), Markovic et al (2010) were the significant contributions in this regard.

2.2 Consequences of Service Quality

One of the main consequences of service quality is customer satisfaction. It is one of the key considerations related to the success of restaurant business. In addition, loyalty and WOM intentions are crucial for the success of restaurant business. Ladhari et al (2008) pointed out that customer satisfaction is the most important determinant of loyalty. It is the response of customers' happiness of something being fulfilled (Oliver, 1997). It is the customers' judgment about the services. It is an indicator of It is about overall contentment derived from the experience/consumption of the service (Andaleeb and Conway, 2006).

It the customer is satisfied, then he/she will revisit the restaurant and enjoy the services. In addition, they would vouch for the restaurant. This way the revenues of the restaurant increase. Hence, it is imperative to find which of factors significantly influence customer satisfaction in the context of restaurant services. There has been a very significant discussion on the relationship between customer satisfaction and behavioral intentions in the extant literature. Jones et al (2000) discussed that the repurchase intention is dependent upon the level of satisfaction from the core-services. In a study involving different services including restaurants Cronin Jr. and Taylor (1992) found similar results for a variety of services including restaurants. BI includes loyalty and word-of-mouth intentions. If the customers are satisfied they will exhibit positive word-of-mouth intentions (Schneider and Bowen, 1999).

Some variations exist in the relationship between SQ and its consequences. Ha and Jang (2012) have investigates the direct effect of service quality factors on behavioral intentions (Ha and Jang, 2012). This is different from the general consensus on the consequences of service quality models where in service quality leads to customer satisfaction which in turn leads to behavior intentions. Other research works indicating the influence of customer satisfaction on loyalty include the studies by Chang (2013), Garbarino and Johnson (1999), Kim et al (2010), Liu and Jang (2009), Loureiro and Kastenholz (2011). According to Ladhari et al (2008), satisfaction has a significant influence on willingness to spend more. This means that the customers are exhibiting loyalty.

Word of mouth is provides an opinion about the services of the service provider (Fong and Burton, 2006) from the peers including friends, colleagues, etc (Söderlund, 1998). It is because of the positive word of mouth from the peers that the perception of risk associated with any service is reduced (Mangold et al., 1999). Hence, it is ascertained that word of mouth is a key influencer in consumers' decision making. In the context of restaurants Ladhari et al (2008) found that customer satisfaction significantly influences word of mouth recommendation.

Han and Ryu (2006) envisaged behavioral intentions as a combination of repeat visits and word-of-mouth intentions. The former is synonymous to loyalty while the latter encompasses sharing positive outlook about the services of the restaurants. Behavioral intention is a higher order construct which encompasses word of mouth intentions, and future purchase intentions.

Based, on the review of literature above, the model for this study includes behavioral intentions comprising loyalty and WOM intentions as two separate factors. The model includes service quality factors as an antecedent to customer satisfaction. Customer satisfaction leads to loyalty and word of mouth intentions.

III. Methods

3.1 Questionnaire

The questionnaire as divided into two parts. The first part contained questions on the customer profile. Information was sought from the respondents about their gender, age, occupation and income. These were the based on nominal scale. The second part contained questions on 7-point Likert scale. This included 22 items for service quality in restaurants drawn from the previous work by Tripathi and Dave (2014). In addition, scale items were drawn for customer satisfaction (Kim et al., 2006; Meng and Elliott, 2008), loyalty (Kim et al., 2006; Liang and Zhang, 2012; Ryu, 2005) and word of mouth intentions (Kim et al., 2006; Ng et al., 2011).

3.2 Data collection and Sample

Structured questionnaires were used for the collection of data using mall intercept method. The major locations include the mall and popular markets of New Delhi, Gurgaon, Noida and urban areas of Ghaziabad adjoining Delhi. A total of 744 survey forms were received. However, only 508 were retained for final analysis due to significant missing values.

IV. Analysis And Results

Confirmatory factor analysis was run for the 22 service quality items, 4 items for customer satisfaction, 5 items for loyalty and 2 items for word of mouth intentions. The CFA had validity issues due to low factor loadings and hence two items under loyalty were removed. The remaining model provided the CFA results which provide a good model fit. The results were χ^2=895.00, df=389, χ^2/df=2.30, GFI= 0.90, NFI=0.90, IFI=0.94, TLI=0.93, CFI=0.94 and RMSEA = 0.05, SRMR=0.04.

In addition, all the factor loadings in this case were atleast 0.70 and were all significant (p-value <0.001). Squared multiple correlations were all above 0.50. The scale model was reliable as the composite reliabilities were all above 0.70. The construct validity was confirmed based on the three subsets viz., face validity, convergent validity and discriminant validity. Face validity was confirmed as the scale items were considered from the previously published studies and were discussed with the industry practitioners. Convergent validity was confirmed as Average Variance Extracted (AVE) for all the factors was greater than 0.50. This means that all the scale items under each factor reflected the properties of that factor. Discriminant validity was ascertained with all factors having AVE greater and Maximum Shared Variance (MSV) and Average Shared Variance (ASV). In addition, the square roots of AVE for all the factors were greater than the inter-construct correlations. This means that the scale items under each factor do not cross-load with other factors.

Composite of all the factors were calculated using imputation method. These composites were used for the purpose of further analysis. T-test and ANOVA were performed to examine the group wise differences for each of the SQ factor and its consequences. T-test was performed only on gender as there were just two groups. Rest categorical variables were subjected to ANOVA. The respondent profile is listed under table #1. The small size groups are ignored for the purpose of comparison. For example the retired group under occupation is too small for bringing out meaningful results.

Table 1- Respondent Profile

Categorical Variables	Groups	Group Sizes
Gender	Male	289
	Female	219
Age	Below 20	45
	20-29	292
	30-39	105
	40-49	39
	50-59	12
	Above 60	12
Occupation	Business	44

	Student	191
	Private Professional	187
	Housewife	30
	Government Service	43
	Retired	5
Income	Below 3 lakhs	89
	3 lakhs to 5 lakhs	152
	5 lakhs to 10 lakhs	127
	10 lakhs to 20 lakhs	82
	above 20 lakhs	30

Table # 2: Comparisons based on consumer profile

Factors	T-test/ANOVA results			
	Gender	Age	Occupation	Income
WOM Intentions	0.002**	0.623	0.537	0.217
Loyalty	0.2	0.868	0.206	0.116
Satisfaction	0.028*	0.862	0.522	0.001***
Cultural Orientation	0.926	0.865	0.067	0.576
Ambient Environment	0.11	0.132	0.768	0.223
Privacy and Entertainment	0.213	0.312	0.573	0.756
Empathy	0.167	0.496	0.035*	0.174
Reliability and Responsive...	0.063	0.319	0.485	0.001***
Aesthetics	0.151	0.558	0.474	0.098
Impression	0.535	0.45	0.092	0.775

*p-value <0.05, **p-value<0.01, ***p-value<0.001

V. Discussion

In the present study, comparison was made for the SQ factors, customer satisfaction and behavioral intentions based on demographic characteristics viz., gender, age, income, and occupation. T-test and ANOVA were the analytical methods deployed for comparison based on consumer characteristics.

The difference in SQ factors and its consequences were examined under table #2. Gender differences were not found for any of the service quality factors. This means that both males and females did not perceive SQ factors differently. However, pertaining to the consequences of SQ factors the differences were witnessed. WOM intentions and customer satisfaction differed significantly however, no significant difference between the two genders was found for loyalty. The t-test performed was a two-tailed test in which the direction of the comparison was unclear. Therefore, further probing was done to determine the direction of the comparison for which the calculated value of t-statistic was useful. Female consumer scored high on WOM intentions and Satisfaction. Female customers were scored higher on loyalty which although was not significantly different than the score for the male consumers. Therefore, it is highly important for the restaurants to work towards improving the male consumers' satisfaction levels. This will ultimately translate into more positive WOM intentions. A good idea would be to launch rewards for the present customers for the referrals they are making. Hence, satisfied customers will exhibit WOM intentions. It is however critical that the referral program should not be planned exclusively for males else there can be negative WOM intentions from the females as their WOM intention levels are very high as against the males.

Age groups did not reveal any significant difference for any of the SQ factors and customer satisfaction, loyalty and WOM intentions. It can also be understood that a large set of respondents is the youth and hence behave in a similar way when they go for eating out. A further probe was made using the post hoc tests for the age groups 20-29 and 30-39 as they were the largest. There wasn't any significant difference found hence it is concluded that the consumers' perception about restaurant service quality and its consequences do not vary among the age groups. Hence, segmentation based on age groups is not recommended.

Based on the occupation of the respondents there wasn't any evidence of significant difference among the groups for any of the factors. However, empathy produced a significant difference among the groups. Therefore, post hoc tests were analyzed for further probing into the differences among the groups. It was found that the respondents with business class as their occupation gave more importance to the empathy. The retired segment is dropped from any further discussion due to very small number of respondents in that segment.

Private professionals also gave strong importance to empathy but after the business class segment. This was followed by government employees, students and homemakers. People with various occupations in the Delhi region travel a lot everyday to their offices, which consume a significant amount of their daily time. Hence, cooking at home is not the best suited option. They are highly stressed require seek more comfort. In fact, these people need a hassle free meal which makes them comfortable and relaxed and hence the restaurants need to exhibit a high degree of empathy with their customers.

The last group considered was based on the annual family incomes of the respondents. Two factors were found significant – one from the SQ factor and one from the consequences, *Satisfaction* and *reliability and responsiveness* produced significant difference among the income groups. It was found that higher the income levels the perception of satisfaction was higher. However this came up with a slight exception between the top two income groups. This can be due to higher level expectation among the high income groups. Broadly it can be understood that that high income consumers exhibit higher satisfaction levels because they have the capability to choose the best of the restaurant services to match with their expectations. It is more like the perceptual relationship between price and quality where higher price is associated with high quality levels. The highly expensive restaurants cater to the high income segment, which provide a variety of services to their customers thereby leading to higher satisfaction levels. For the restaurants, which are less expensive value for money offerings would be the best as the satisfaction levels under lower income groups is lower which means that their expectation levels are higher. Values for money offerings are useful and this segment is highly important because the people under this segment are generally the biggest among the population. The

The SQ factors which produced significant difference among the income groups is reliability and responsiveness. The pattern of difference among the groups is quite similar to the pattern of perception of satisfaction. This has strong implications for restaurants as the customers expect higher level of reliability and responsiveness to their needs and expectation from the restaurant if they have the capability to pay more. Restaurants need to be near perfect with their services. The customers with high income levels would not compromise in terms of timely delivery of services and also the order should be delivery as it was promised and understood at the time of receiving the order.

This means when the customers are paying more for restaurant services they expect higher level of reliability and responsiveness from their service providers. Hence, the restaurants which provide a wide range of services (which are mostly the FSRs) should be more spot-on in terms of reliability and responsiveness. When the customer is paying high the restaurants cannot compromise with timeliness of delivering the services and also any variations in the delivery of the order with the order taken must be avoided.

References

[1] Andaleeb, S. S., & Conway, C. (2006). Customer satisfaction in the restaurant industry: an examination of the transaction-specific model. Journal of Services Marketing, 20(1), 3-11.
[2] Bojanic, D. C., & Rosen, L. D. (1994). Measuring service quality in restaurants: an application of the SERVQUAL instrument. Journal of Hospitality & Tourism Research, 18(1), 3-14.
[3] Bujisic, M., J. Hutchinson & Parsa, H. G. (2014). The effects of restaurant quality attributes on customer behavioral intentions, International Journal of Contemporary Hospitality Management, 26(8), 1270-1291.
[4] Chang, K. C. (2013). How reputation creates loyalty in the restaurant sector. International Journal of Contemporary Hospitality Management, 25(4), 536-557.
[5] Cronin Jr, J. J., & Taylor, S. A. (1992). Measuring service quality: A reexamination and extension. Journal of Marketing, 56(3), 55-68.
[6] Dabholkar, P. A., Thorpe, D. I., & Rentz, J. O. (1995). A measure of service quality for retail stores: scale development and validation. Journal of the Academy of Marketing Science, 24(1), 3-16.
[7] Fong, J., & Burton, S. (2006). Electronic word-of-mouth: A comparison of stated and revealed behavior on electronic discussion boards. Journal of Interactive Advertising, 6(2), 61-70.
[8] Fu, Y. Y., and Parks, S. C. (2001). The relationship between restaurant service quality and consumer loyalty among the elderly. Journal of Hospitality & Tourism Research, 25(3), 320-326.
[9] Ganesan-Lim, C., Russell-Bennett, R., & Dagger, T. (2008). The impact of service contact type and demographic characteristics on service quality perceptions. Journal of Services Marketing, 22(7), 550-561.
[10] Garbarino, E., & Johnson, M. S. (1999). The different roles of satisfaction, trust, and commitment in customer relationships. Journal of Marketing, 63(2), 70-87.
[11] Gaur, S. S., & Agrawal, R. (2006). Service quality measurement in retail store context: a review of advances made using SERVQUAL and RSQS. The Marketing Review, 6(4), 317-330.
[12] Grönroos, C. (1984). A service quality model and its marketing implications. European Journal of Marketing, 18(4), 36-44.
[13] Ha, J., & S. Jang (2012). The effects of dining atmospherics on behavioral intentions through quality perception, Journal of Services Marketing, 26(3), 204-215.
[14] Han, H., & Ryu, K. (2006). Moderating role of personal characteristics in forming restaurant customers' behavioral intentions: An upscale restaurant setting. Journal of Hospitality & Leisure Marketing, 15(4), 25-54.
[15] Harrington, R.J., Ottenbacher, M.C. & Kendall, K.W. (2011). Fine-Dining Restaurant Selection: Direct and Moderating Effects of Customer Attributes. Journal of Foodservice Business Research, 14(3), 272-289.
[16] Johns, N., & Tyas, P. (1996). Use of service quality gap theory to differentiate between foodservice outlets. Service Industries Journal, 16(3), 321-346.
[17] Jones, M. A., Mothersbaugh, D. L., & Beatty, S. E. (2000). Switching barriers and repurchase intentions in services. Journal of Retailing, 76(2), 259-274.

[18] Kim, H. S., Joung, H. W., Yuan, Y. H. E., Wu, C., & Chen, J. J. (2009). Examination of the reliability and validity of an instrument for measuring service quality of restaurants. Journal of Foodservice, 20(6), 280-286.

[19] Kim, W. G., Lee, Y. K., & Yoo, Y. J. (2006). Predictors of relationship quality and relationship outcomes in luxury restaurants. Journal of Hospitality & Tourism Research, 30(2), 143-169.

[20] Kim, Y. G., Suh, B. W., & Eves, A. (2010). The relationships between food-related personality traits, satisfaction, and loyalty among visitors attending food events and festivals. International Journal of Hospitality Management, 29(2), 216-226.

[21] Ladhari, R., Brun, I., & Morales, M. (2008). Determinants of dining satisfaction and post-dining behavioral intentions. International Journal of Hospitality Management, 27(4), 563-573.

[22] Lee, Y. L., & Hing, N. (1995). Measuring quality in restaurant operations: an application of the SERVQUAL instrument. International Journal of Hospitality Management, 14(3), 293-310.

[23] Liang, R. D., & Zhang, J. S. (2012). The effect of service interaction orientation on customer satisfaction and behavioral intention: The moderating effect of dining frequency. Asia Pacific Journal of Marketing and Logistics, 24(1), 153-170.

[24] Liu, Y., & Jang, S. S. (2009). Perceptions of Chinese restaurants in the US: what affects customer satisfaction and behavioral intentions? International Journal of Hospitality Management, 28(3), 338-348.

[25] Loureiro, S. M. C., and Kastenholz, E. (2011). Corporate reputation, satisfaction, delight, and loyalty towards rural lodging units in Portugal. International Journal of Hospitality Management, 30(3), 575-583.

[26] Mangold, W. G., Miller, F., and Brockway, G. R. (1999). Word-of-mouth communication in the service marketplace. Journal of Services Marketing, 13(1), 73-89.

[27] Marković, S., S. Raspor, and K. Šegarić (2010). Does restaurant performance meet customers'expectations? An assessment of restaurant service quality using a modified DINESERV approach. Tourism and Hospitality Management, 16(2), 181-195.

[28] Meng, J. G., & Elliott, K. M. (2008). Predictors of relationship quality for luxury restaurants. Journal of Retailing and Consumer Services, 15(6), 509-515.

[29] Ng, S., David, M. E., & Dagger, T. S. (2011). Generating positive word-of-mouth in the service experience. Managing Service Quality: An International Journal, 21(2), 133-151.

[30] Oliver, R. L. (1997). Satisfaction: A behavioral perspective on the customer. New York.

[31] Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL. Journal of Retailing, 64(1), 12-40.

[32] Ryu, K. (2005) .DINESCAPE, emotions, and behavioral intentions in upscale restaurants. Retrieved September 10, 2015, from http://krex.k-state.edu/ dspace/bitstream/handle/2097/71/KisangRyu2005.pdf?sequence=1

[33] Ryu, K., Lee, H. R., and Kim, W. Gon (2012). The influence of the quality of the physical environment, food, and service on restaurant image, customer perceived value, customer satisfaction, and behavioral intentions. International Journal of Contemporary Hospitality Management, 24(2), 200-223.

[34] Schneider, B., & Bowen, D. E. (1999). Understanding customer delight and outrage. Sloan Management Review, 41(1), 35-45.

[35] Söderlund, M. (1998). Customer satisfaction and its consequences on customer behavior revisited. International Journal of Service Industry Management, 9(2), 169-188.

[36] Stevens, P., Knutson, B., & Patton, M. (1995). DINESERV: A tool for measuring service quality in restaurants. The Cornell Hotel and Restaurant Administration Quarterly, 36(2), 56-60.

[37] Sulek, J. M., & Hensley, R. L. (2004). The relative importance of food, atmosphere, and fairness of wait the case of a full-service restaurant. Cornell Hotel and Restaurant Administration Quarterly, 45(3), 235-247.

[38] Yüksel, A. and F. Yüksel (2002). Measurement of tourist satisfaction with restaurant services: A segment-based approach. Journal of Vacation Marketing, 9(1), 52-68.