A STUDY ON SERVICE QUALITY OF UBER CAB USING SERVQUAL

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ABSTRACT
Service quality is related with the customer satisfaction. Better the service quality higher will be the customer satisfaction. Therefore organizations strive to measure the service quality continuously. It helps organizations to pinpoint the weaknesses of the service. Such weaknesses can be avoided by improving specific quality dimensions. This study makes an attempt to measure the service quality of UBER Cabs service. The purpose is to understand the relationship between demographics and the perceived service quality of UBER and the relationship between overall service quality and service quality dimensions (Tangibility, Reliability, Responsiveness, Assurance, Empathy). SERVQUAL was used to record the responses with respect to perceived service quality. 215 responses were analysed. It was found that demographics and perceived service quality are significantly related. It was also found that 'Overall service quality' is significantly influenced by tangibility, reliability, responsiveness, assurance and empathy of UBER cabs service.
Keywords- SERVQUAL, UBER cabs, Service quality, Quality dimensions

Introduction

Customers do not only respond to the tangible products, but also to advertisement, services, finances, warranty, images and other features that accompany product etc. These factors also equally affect the customers' decision making (Kotler 1973). This signifies that it's not only the tangible product which is important to attract customers but also the service components associated with the product. It has been proven that excellent service quality leads to customer satisfaction. Satisfied customer is an unpaid brand ambassador for any organization. Therefore serving customers with excellent service becomes important for organizations. It is therefore also important to constantly check the service quality in the eyes of customers. Using appropriate tool for measuring service quality is very important. SERVQUAL is one of the available tools to measure it. Many past studies have used SERVQUAL for service quality measurement on 6 different dimensions viz. tangibility, reliability, responsiveness, assurance, empathy and policy.

Uber cab services are operative in India for quite a long time. Inconvenience in hiring traditional taxi, particularly in Tier II city like Pune made people shift to Uber like app based transport facilities. Advancement in technology has made it possible. Uber has brought customer and drivers (with their own car) together using their IT platform. IN this business model drivers/ owners of cars are independent service providers. They have their own issues regarding the commission and mode of payments from Uber. Therefore this business model of Uber itself has given rise to various issues some of which are related to service quality. In addition to this in Indian market Uber is facing stiff competition from OLA. In recent time it was found that users are less satisfied with uber because of some issues such as long waiting time, and cancellation of rides by drivers. This makes it important for Uber to understand how customers are responding to their service and what their perception about service quality is. It can be identified through scientific research Uber can strategies to improve them and hence there is greater possibility that it can retain and grow its share in this market.

This research makes an attempt to measure the perceived service quality of Uber cab/auto in Pune city using SERVQUAL. SERVQUAL is extensively used by past researchers. However its application to UBER or any other cab service providers in India was not studied yet. This study will help understanding the relationship between the service quality perception and demographics of the customers. It will also help in exploring the effect of various service dimensions of SERVQUAL on overall service quality perception of customers.

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Literature review

Parasuraman, Zeithaml and Berry (1988), define service quality as the difference between customer's expectations and actual experience of the service.

Persuraman (1985), developed SERVQUAL. It measures the gap between the expectations of customers and actual experience of the customers with respect to various service dimensions. This instrument contains 44 items of which 22 are for collecting responses for expectations and 22 for perception of service after having experienced it. The difference between expectation and perception results in service gap. The high negative value of this difference is an indication of poor service.

Cronin and Taylor (1992), argued that the there was little empirical/ theoretical evidence of service quality gap theory (SERVQUAL). They developed performance based service quality measurement tool. They called it SERVPERF. SERVPERF takes responses for perception of service quality only. It does not consider the expectations of the service quality.

Rust and Oliver (1994), proposed a three dimensional service quality model. The model is based on customer's evaluation of service on following three dimensions-

- Functional/ Process Quality
- The service setting
- Technical Quality

Edvardsson (1996), concludes that in service experience, customer is co-producer. This research work, explains how customers evaluate service quality and factors which perceived significant by the customers in contributing to quality.

Negi (2009), finds that customer perceived service quality results in increased business competitiveness and satisfied customers. Therefore service quality is now being the point of focus of all service businesses. This is where the measurement of service quality is drawing attention of organizations.

Yap and Kew, (2005) found that both service quality and customer satisfaction have a positive effect on customer's re-patronage intentions showing that both service quality and customer satisfaction have a crucial role to play in the success and survival of any business in the competitive market. This study proved a close link between service quality and customer satisfaction.

Service quality of Uber e-hailing was investigated in small city in Malaysia by Azudin (2018). The study used SERVQUAL to check the perception of quality of uber in small city. The study found that there is no evidence that Uber service is lower in small cities of Malaysia. The five service quality indicators were not highly ranked compared to other indicators.

Perception of service quality of retail in Indonesia was studied by Haming (2018). They used SERVQUAL questionnaire to investigate the perception of all five dimensions of quality. 150 housewives were interviewed based on the questionnaire at the retail stores viz. Alfa Mart, Alfa Midi and Indomart. The study concluded based on their data analysis, that product layout and lighting condition of the stores should be enhanced further for good customer experience. Problem solving process and peak time load conditions should also be prioritise by these stores for better customer satisfaction.

In Internet banking, Raza (2020) investigated the service quality aspects and how they affected customer loyalty and satisfaction. Through the use of several conceptions, this study attempted to examine the structural relationship between the quality of Internet banking service, electronic customer happiness, and electronic customer loyalty. A quantitative strategy was used. The information was acquired from 500 Pakistani bank customers using structured questionnaires, and partial least square structural equation modelling (PLS-SEM) was used to test the theoretical model. Additionally, convergent and discriminant validity were evaluated. The findings indicate that customer satisfaction is positively and significantly influenced by all of the categories, and that customer loyalty is positively and significantly influenced by customer satisfaction. According to the findings, service quality is crucial to every culture since it now serves as the foundation for how customers perceive online banking and, ultimately, how it interacts and functions with other online services.

Joshi (2022) tried to assess the service quality dimension using SSTQUAL scale for Ola and Uber cab service providers in Nagpur city. Total 121 online users were surveyed using the structured questionnaire. The study concluded that enjoyment, security and assurance were the most important factors from customers' perspective,

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which Ola should focus on for better service. Whereas enjoyment and security were found to have significant factors from customers' perspective for Uber, which needs improvement for better service.

Research Methodology

SERVQUAL is adapted from the study of Persuraman (1988). It consists of 22 items. The same 22 items were used twice to record the responses for expectations of service quality and perceived service quality after experiencing service. Convenient sampling technique is used to select samples. The samples were approached in markets and malls. They were requested to respond to self-administered questionnaire. Total 300 people of Pune city in India were approached for this purpose. 237 samples responded to the questionnaire, others denied responding. From 237 responses 22 questionnaires were having many missing values. Therefore they were excluded from analysis. Therefore total 215 responses were considered for final analysis. The responses were coded in MS-Excel. The Gaps between expectations and perceptions of service quality are calculated for all 22 items. These differences are then coded in SPSS for further analysis.

Objectives

1. To evaluate relationship between the service quality perception and demographics of Uber customer
2. To exploring the effect of various service dimensions of SERVQUAL on overall service quality perception of Uber customers.

Hypotheses of the study

H_1- There is significant impact of different service quality dimensions on overall UBER service quality
H_2- Demographic profile and perceived service quality are significantly related.

Analysis and results

Reliability of the scale

To test the reliability of the scale the gap score (Perception-Expectation) are recorded in SPSS. 22 items of SERVQUAL were used in the questionnaire. Demographic profile was collected through 6 forced items. The reliability of the scale is tested using Cronbach's alpha value. Table no. 1 shows that the Cronbach's alpha value is more than .7 (Tavakol and Dennick 2011). Therefore the scale was considered as reliable.

Cronbach's Alpha	N of Items
.782	28

Table no. 1 Reliability Statistics

		Frequency	Percent
Gender	Male	104	48
	Female	111	52
	Total	215	100
Age	18-25	22	10
	26-30	34	16
	31-35	54	25
	36-45	43	20
	45-55	39	18
	55 and above	23	11
	Total	215	100
Income	Less than 3 lakh	54	25
	3-6 lakh	65	30
	More than 6 lakh	96	45
	Total	215	100
Occupation	Student	15	7
	Working Professional	57	27

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	Self-employed	36	17
	Housewife	43	20
	Retired person	54	25
	Others	10	5
	Total	215	100

Table no. 2- Respondents' profile

Gap Analysis of Service quality dimensions

Scores received for Expectation of service quality are subtracted from scores received for perceived service quality. These scores (service quality dimension wise) are represented below in table no. 3.

Quality Dimension		Expected Mean	Perceived Mean	Gap (P-E)	Average Gap
	TA1	3.35	3.28	-0.07	
	TA2	3.23	3.28	0.05	
	TA3	3.63	3.35	-0.28	
Tangibility	TA4	3.79	3.58	-0.21	-0.13
	RL1	3.65	3.23	-0.42	
	RL2	3.42	3.23	-0.19	
	RL3	3.40	3.28	-0.12	
	RL4	3.44	3.44	0.00	
Reliability	RL5	3.28	3.02	-0.26	-0.20
	RS1	3.53	3.19	-0.35	
	RS2	3.44	3.21	-0.23	
	RS3	3.44	3.19	-0.26	
Responsiveness	RS4	3.28	3.26	-0.02	-0.22
	AS1	3.40	3.23	-0.16	
	AS2	3.49	3.35	-0.14	
	AS3	3.30	3.23	-0.07	
Assurance	AS4	3.65	3.12	-0.53	-0.23
	EM1	3.33	3.21	-0.12	
	EM2	3.63	3.21	-0.42	
	EM3	3.26	3.12	-0.14	
	EM4	3.21	3.07	-0.14	
Empathy	EM5	3.28	3.21	-0.07	-0.18

Table no. 3 Gap Analysis of Service quality dimensions

From table no. 3 shows that RL2 and EM2 service dimensions have highest negative gap values. This indicates that 1. 'when you have a problem, the UBER CAB/ AUTO show a sincere interest in solving it' perception AND 2. 'The UBER CAB/ AUTO have operating hours convenient to all its customers' these two statements are highly negatively rated by customers compared with other statements. Whereas TA2 statement 'The UBER CAB/ AUTO's physical features are visually appealing' received the highest positive gap score (0.05). Assurance and Responsiveness have highest negative average gap in customers' perception. Uber needs to improve on these two quality dimensions although the Average gap score is not too big.

Rating of Preference on the Service Quality Dimensions

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Respondents were asked to rate the service quality dimensions so that the sum of the scores should come to 100. All the responses for one dimension are averaged. The average responses are represented below.

Quality Dimension	Points
Tangibility	20
Reliability	22
Responsiveness	19
Assurance	21
Empathy	18
Total	100

Table no.4 Rating Service Quality Dimensions

From table no. 4 it is observed that Reliability of UBER has received the highest rating from customers. At the other hand Empathy has received the lowest rating.

Weighted Scores

Using the ratings from table no. 4 the weighted scores are derived as shown in table no. 5

Dimensions	Un-Weighted Score (From table no. 2)	Weights	Weighted Score
Tangibility	-0.13	0.21	-0.027
Reliability	-0.2	0.22	-0.044
Responsiveness	-0.22	0.19	-0.043
Assurance	-0.23	0.21	-0.047
Empathy	-0.18	0.18	-0.033

Table no.5 Weighted Scores of Service dimensions

From weighted scores it is realized that assurance is the dimension to receive highest negative weightage. It should also be noted that the weighted scores are not very high, which shows that the service quality of UBER is good in customers' opinion.

Hypothesis Testing

H_1- There is significant impact of different service quality dimensions on overall UBER service quality

Regression analysis is used to test this hypothesis. The results of regression analysis are given below.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.999	0.998	0.998	0.02742

a. Predictors: (Constant), Empathy, Tangibility, Responsiveness, Assurance, Reliability

Table no. 6 Model Summary

Table no. 6 shows that adjusted R Square value for the model is very high (.998). This signifies that 99.8% variations in the overall service quality are explained by 5 dimensions of service quality (Tangibility, Reliability, Responsiveness, Assurance, Empathy).

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	80.664	5	16.133	21453.45	.000[a]
	Residual	0.157	209	0.001		
	Total	80.821	214			

a. Predictors: (Constant), Empathy, Tangibility, Responsiveness, Assurance, Reliability

b. Dependent Variable: Overall Service Quality of UBER

Table no. 7 One-way ANOVA (for fitness of model.)

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From ANOVA table it is observed that the significance value of F test is less than .01. Therefore the null hypothesis 'independent variables do not explain the variations in the dependent variable' is failed to be accepted. Therefore we accept that the variations in dependent variable (overall service quality) are significantly explained by the independent variables. In other words, this model is good fit.

Model		Unstandardized Coefficient		Standardised Coefficient	t	Sig.
		B	Std. Error	Beta		
1	Constant	0.000	0.002		-0.201	0.841
	Tangibility	0.178	0.003	0.197	54.210	0.000
	Reliability	0.221	0.003	0.312	63.487	0.000
	Responsiveness	0.189	0.004	0.221	51.979	0.000
	Assurance	0.174	0.004	0.227	49.513	0.000
	Empathy	0.227	0.004	0.270	55.987	0.000

a. Dependent Variable: Overall Quality of UBER

Table no. 8 Coefficients

The coefficient table shows that the p values of t tests for all service quality dimensions are less than .01 ($p<.01$). This indicates that all 5 service quality dimensions influence overall service quality perception of customers significantly.

From coefficient table following regression model is developed

Overall Service quality perception= 0.178(Tangibility) +0.221(Reliability) +0.189(Responsiveness) + 0.174(Assurance) +0.227(Empathy)

H_2- Demographic profile and perceived service quality are significantly related.

One way ANOVA test was run in SPSS for testing this hypothesis. The result of the ANOAV is shown in table no. 9.

Quality Dimension	Demographic Characteristic		Sum of Squares	Df	Mean Square	F	Sig.
Tangibility	Age	Between Groups	52.96539313	11	4.81503574	4.42309915	.000
		Within Groups	220.9880952	203	1.08861131		
		Total	273.9534884	214			
	Gender	Between Groups	0.573737241	1	0.57373724	1.24218684	0.266
		Within Groups	98.37975113	213	0.46187677		
		Total	98.95348837	214			
	Family Income	Between Groups	113.2801772	11	10.2981979	4.89641064	.000
		Within Groups	426.952381	203	2.1032137		
		Total	540.2325581	214			

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Reliability	Age	Between Groups	77.64396456	14	5.54599747	5.65025819	.000
		Within Groups	196.3095238	200	0.98154762		
		Total	273.9534884	214			
	Gender	Between Groups	1.125213091	1	1.12521309	1.50291706	0.222
		Within Groups	159.4701357	213	0.74868608		
		Total	160.5953488	214			
	Family Income	Between Groups	231.3635105	14	16.525965	10.7009525	.000
		Within Groups	308.8690476	200	1.54434524		
		Total	540.2325581	214			
Responsiveness	Age	Between Groups	77.58444075	12	6.46537006	6.65076685	.000
		Within Groups	196.3690476	202	0.972124		
		Total	273.9534884	214			
	Gender	Between Groups	0.71958592	1	0.71958592	1.39330407	0.239
		Within Groups	110.0059955	213	0.51646007		
		Total	110.7255814	214			
	Family Income	Between Groups	91.25934385	12	7.60494532	3.42158264	.000
		Within Groups	448.9732143	202	2.22263967		
		Total	540.2325581	214			
Assurance	Age	Between Groups	63.25477042	13	4.86575157	4.64177512	.000
		Within Groups	210.6987179	201	1.04825233		
		Total	273.9534884	214			

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	Gender	Between Groups	5.024529096	1	5.0245291	8.13679895	0.005
		Within Groups	131.5289593	213	0.61750685		
		Total	136.5534884	214			
	Family Income	Between Groups	201.0338402	13	15.4641416	9.16363267	.000
		Within Groups	339.1987179	201	1.68755581		
		Total	540.2325581	214			
Empathy	Age	Between Groups	101.0443975	14	7.21745696	8.34826778	.000
		Within Groups	172.9090909	200	0.86454545		
		Total	273.9534884	214			
	Gender	Between Groups	0.490960749	1	0.49096075	0.91737966	0.339
		Within Groups	113.9927602	213	0.53517728		
		Total	114.4837209	214			
	Family Income	Between Groups	231.0052854	14	16.5003775	10.6720066	.000
		Within Groups	309.2272727	200	1.54613636		
		Total	540.2325581	214			

Table no. 9 ANOVA- Demographic profile and perceived service quality

From table no. 9 it is observed that the p values of F test for Age and Family income are less than .01 ($p<0.1$). Moreover the p value of F test for assurance dimension and gender is less than .05 ($p<.05$). This indicates that we fail to accept null hypothesis 'Demographic profile and perceived service quality are not significantly related' and thus H_2 is accepted.

Conclusion

This study shows that the users of UBER service are satisfied with the service of UBER since the gap scores are very small. However to remain in the competitive position UBER must not overlook the gap in service quality recorded with respect to Empathy and Responsiveness. UBER will have to improve service in this area to improve overall service quality perception.

It was found that the overall service quality is significantly influenced by individual service quality dimensions. Therefore all the five dimensions covered in this SERVQUAL are important if overall service quality perception is to be improved.

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Demographic profile of the customers affects their service quality perception significantly. Further study is required to find which customer segment is more satisfied with the UBER service.

This study does not study the direct effect of perceived service quality on customer satisfaction. Future study can study such relationship. Further the relationships between perceived service quality, customer satisfaction and repurchase intention can also be studied. The small sample size restricts the findings from being generalised. Also the study is conducted in Pune city only, which is also limitation of the study. Future studies can have wider geographical area.

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