

# PERCEPTION AND SATISFACTION OF CAB USERS IN COIMBATORE: AN EMPIRICAL ANALYSIS

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## ABSTRACT

As public transportation facilities grow older, the quality of service dwindles and commuters are left with no option but to accept what is offered (Andreassen, 1994). Mazulla and Eboli (2006) were of the view that the dwindling nature of the services being provided is as a result of public transport operators given too much importance to financial gains at the expense of ensuring service quality delivery in their operations. Service quality has been established as one of the many factors that influence customer satisfaction (Hohanson, 1995). Research works on public transportation has been focused on commuter's perception on service quality (Govender, 2014 and Randheer et.al, 2011), with little to no focus on service quality influence on customer satisfaction. Service quality variables of interest to public transport services should therefore be the focus of providers. Existing literature reveals that behavior of personnel and specific behavior of cab driver, frequency of services, reliability of services as well as time and particularly waiting time seem to be the most crucial factors affecting customer satisfaction (Rabiul et al, 2014). Service frequency, reliability, convenience and responsiveness are service quality variables that are also considered important in customer satisfaction (Cavana and Corbett, 2007; Taylor et al, 2008). Therefore, the present research is important to understand is there any significant influence of cab user perception on customer satisfaction? The main objective is to examine the perception and satisfaction of cab users in Coimbatore. The data were randomly collected from all the major five service points. Commuters were intercepted at the service points while waiting to board taxi to their destinations. In all a sample of 180 commuters were contacted for the survey. Tools used are descriptive statistics and structural equation modeling. It is found that the contribution of reliability leading to satisfaction is 23.1% while, the contribution and affordability was very low at 0.7% and 0.95% respectively. Goodness of fit index recorded excellent fitness level to validate the model. Study clarifies that though there is association between comfort and satisfaction as well as affordability and satisfaction, perception of the respondents was found only marginal whereas, reliability and satisfaction was found to be high contributing construct in the study, which means, cab users in Coimbatore highly rely on the services provided by various service providers viz. OLA, Uber, Fast Track, City, etc. to name a few. There is a need to ensure affordability and also comfort which are found to have marginally below as perceived by the cab users in Coimbatore.

**KEY WORDS: CAB Users, Reliability, Perception, Satisfaction, etc.**

## 1. INTRODUCTION

As public transportation facilities grow older, the quality of service dwindles and commuters are left with no option but to accept what is offered (Andreassen, 1994). Mazulla and Eboli (2006) were of the view that the dwindling nature of the services being provided is as a result of public transport operators given too much importance to financial gains at the expense of ensuring service quality delivery in their operations. Bertini and El-Geneidy (2003) opined that this situation was not to be the case, but rather transport service operators should have an interest in providing good quality service to their passengers, taking into account passenger priorities and requirements.

Service quality has been established as one of the many factors that influence customer satisfaction (Hohanson, 1995). Research works on public transportation has been focused on commuter's perception on service quality (Govender, 2014 and Randheer et.al, 2011), with little to no focus on service quality influence on customer satisfaction. To close this gap in literature, the paper assesses the influence of service quality on customer satisfaction in Cab services (Micro, Mini, Regular and Large Sized Cabs) by using structural model.

Customer satisfaction according to Hensenark and Albinson (2004) is an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfillment of some needs, goals or desire. It is the basis upon which favorable and unfavorable perceptions are formed about

firms' offerings. Satisfied customers form the foundation of any successful business because customer satisfaction leads to repeat purchase, brand loyalty and positive word of mouth (Angelova and Zekiri, 2011). Businesses that seek success therefore invest in developing and implementing programs that aims at bringing satisfaction to its customers.

The dimension of reliability deals with the consistency and the dependability of the service being provided by the company, over and over again or for extended periods of time. It is important that the firm ensures that the services are delivered on time and in a very consistent manner, devoid of any omissions or errors, in order to satisfy the customers. This way of delivering the required, desired and promised services accurately has been termed as reliability (Parasuraman 1988).

## 2. LITERATURE REVIEW

According to Parasuraman<sup>1</sup> et al. (1985), the incompatibility that arises in the service quality is the discrepancy between the expectations and perceptions, and greater this degree of this, greater is the dissatisfaction of the consumers (Parasuraman<sup>2</sup> et al. 1988). He has proposed a simple abbreviated equation, using short forms for expected service as ES and perceived service, being denoted by PS. The three states then are a)  $ES > PS$ , b)  $ES = PS$  and c)  $ES < PS$ . Situation one means, inferior service quality, while the second is an ideal satisfactory situation and the third, is a better state, where the service has reached quality levels.

The SERVQUAL model (Parasuraman, Zeithaml & Berry,<sup>3</sup> 1988) clearly elucidates that the customers' would evaluate the performance of any general class of service providers, with the other providers in the same class, and that their final assessment would be dependent on the actual performance among that class of providers, and thus the perceptions of quality is to be considered as foremost important factor. Hence the first step that should be taken by any service provider is to look into the satisfaction of customers and ascertain the customer's assessment of service quality. There is no clear consensus among the investigators whether satisfaction of the customer is linked up always with high degree of service quality. Hence, the work done by Bitner<sup>4</sup> et al (1990) can be considered most valid, where he proposed an alternative method and have clarified that the customer's overall impression, of the service quality is reflective of the relative inferiority/superiority of a firm and its service offerings.

## 3. STATEMENT OF THE PROBLEM

Public transportation in general becoming tedious due to over-crowdedness, excessive waiting times, and long and inconsistent travel times coupled with poor and unreliable services. Hence, the lack in quality of service becomes important aspects of commuters to choose private cab services to realize. Taxi services in many countries are a share responsibility of government and private individuals. Dridi, Mesghouni and Borne (2005) suggest that public transportation services should guarantee high service quality through following regular schedules and being safe and rapid. Service quality variables of interest to public transport services should therefore be the focus of providers. Existing literature reveals that behavior of personnel and specific behavior of cab driver, frequency of services, reliability of services as well as time and particularly waiting time seem to be the most crucial factors affecting customer satisfaction (Rabiul et al, 2014). Service frequency, reliability, convenience and responsiveness are service quality variables that are also considered important in customer satisfaction (Cavana and Corbett, 2007; Taylor et al, 2008). Therefore, the present research is important to understand is there any significant influence of cab user perception on customer satisfaction?

## 4. STUDY OBJECTIVE

- To examine the perception and satisfaction of cab users in Coimbatore.

## 5. HYPOTHESES

### H<sub>0</sub>: Null hypotheses for the study

- There is no significant relationship between Comfort and Satisfaction H<sub>01</sub>(a)
- There is no significant relationship between Affordability and Satisfaction H<sub>01</sub>(b)
- There is no significant relationship between Reliability and Satisfaction H<sub>01</sub>(c)

## 6. METHODOLOGY

The study is descriptive type and the research design deals with describing the characteristics of a particular individual or groups. A cross-sectional study is undertaken in the City Limits and Important customer access points in Coimbatore District. Initially area sampling is conducted, which also known as geographical sampling is used to identify the major accessing points such as 1) Main Bus Stands (Omni Bus Terminal and Outstation Government Service Bus Terminal), 2) Railway Stations, 3) Air Ports, 4) Malls (Fun Mall and Brook Fields) and other various important access points required taxi (cab) services within the city and randomly selected terminals to be included in the sample. Overall, the data were randomly collected from all the major five service points. Commuters were intercepted at the service points while waiting to board taxi to their destinations. In all a sample of 180 commuters were contacted for the survey. Tools used are descriptive statistics and structural equation modeling.

## 7. ANALYSIS AND RESULTS

### Demographic Variables

Demographic variables of the cab users in Coimbatore are classified based on their age, gender, marital status, educational qualification and monthly income is presented in the Table-1.

**Table 1: Demographic characteristics of Cab Users**

Demography	Frequency (180 Nos.)	Percent (100)
<b>Age</b>		
21 to 30 years	30	16.7
31 to 40 years	59	32.8
41 to 50 years	66	36.7
Above 50 years	25	13.9
<b>Gender</b>		
Male	103	57.2
Female	77	42.8
<b>Marital Status</b>		
Married	152	84.4
Unmarried	28	15.6
<b>Educational Qualification</b>		
School level	46	25.6
Technical Education (Diploma, ITI)	55	30.6
Graduates / Post Graduates	62	34.4
Professionals	17	9.4
<b>Occupation</b>		
Government concern	15	8.3
Private companies	58	32.2
Business	47	26.1
Dependent respondent	60	33.3
<b>Income</b>		
Below Rs.15000	20	11.1
Rs.15,001 to 20000	56	31.1
Rs.20001 to 25000	67	37.2
Above Rs.25000	37	20.6

Table shows 36.7% respondents are in the age of 41 to 50 years, 32.8% in the age between 31 and 40 years, 16.7% are in the age of 21 to 30 years and the remaining 13% are in the age above 50 years. Most (57.2%) are male and 42.8% are female cab users surveyed for the study. Majority (84.4%) are married and 15.6% unmarried. Maximum (34.4%) of the cab users indicated that they are graduates / post graduates, 30.6% opined Technical Education (Diploma / ITI), 25.6% stated their education completion upto school level and the remaining 9.4% of them are professionally qualified. Maximum (33.3%) are dependent respondents in the family, 32.2% are working in private organizations, 26.1% are conducting their own business and the remaining 8.3% are working in government companies. Maximum (37.2%) of the respondents are earning between 20001 and 25000, 31.1% are earning Rs.15001 to Rs.20000, 20.6% are earning above Rs.25000 and the remaining 11.1% are earning below Rs.15000.

## DESCRIPTIVE STATISTICS: PERCEPTION AND SATISFACTION

Table-2: Item Statistics of Perception and Satisfaction

Code	Items	Mean	Std. Deviation	Cronbach's Alpha
<b>Reliability</b>				
R1	Arriving on Time	4.07	.833	0.726
R2	Notification on delays / Delays enroute	3.86	.975	
R3	Appropriate pick-up point	4.07	.791	
<b>Comfort</b>				
C1	Quality of seating and leg room	3.98	.858	0.827
C2	Smooth Ride	3.86	.985	
C3	Air Conditioning and Cab Interior Ambience	3.73	1.171	
<b>Affordability</b>				
A1	Free trip incentives	4.07	.863	0.774
A2	Economical and Value for Money	4.28	.853	
A3	Cost consistency at all times	3.66	1.173	
<b>Satisfaction</b>				
S1	Ease of Booking and Provision of Information	3.63	.717	0.766
S2	Ride Comfort	3.52	.736	
S3	Safety and Professionalism of driver during Cab services	3.20	.815	

Table 1 shows perception and satisfaction items statistics with four constructs namely, reliability, comfort, affordability and satisfaction. Mean scores of Reliability are R1:4.07, R2:3.86 and R3:4.07. Comfort shows C1: 3.98, C2: 3.86, C3:: 3.73, Affordability shows A1: 4.07, A2: 4.28, A3: 3.66 and finally, Satisfaction shows S1: 3.63, S2: 3.52 and S3: 3.20. Reliability of all constructs are above the recommended criteria (0.7) in which alpha value of comfort is highest (0.827) and Reliability construct recorded lowest (7.26).

**CFA MODEL**

To measure the validity reliability and consistency of the constructs using Confirmatory factor analysis (CFA) based on perception and satisfaction of cab users for which for dimensions are taken for the study, viz. Reliability, Comfort, Affordability and Satisfaction of customers using Cab services in Coimbatore. Apart from internal consistency and validity, goodness of fit index are also examined in the study. The CFA model followed by its results explains all necessary information in the study.

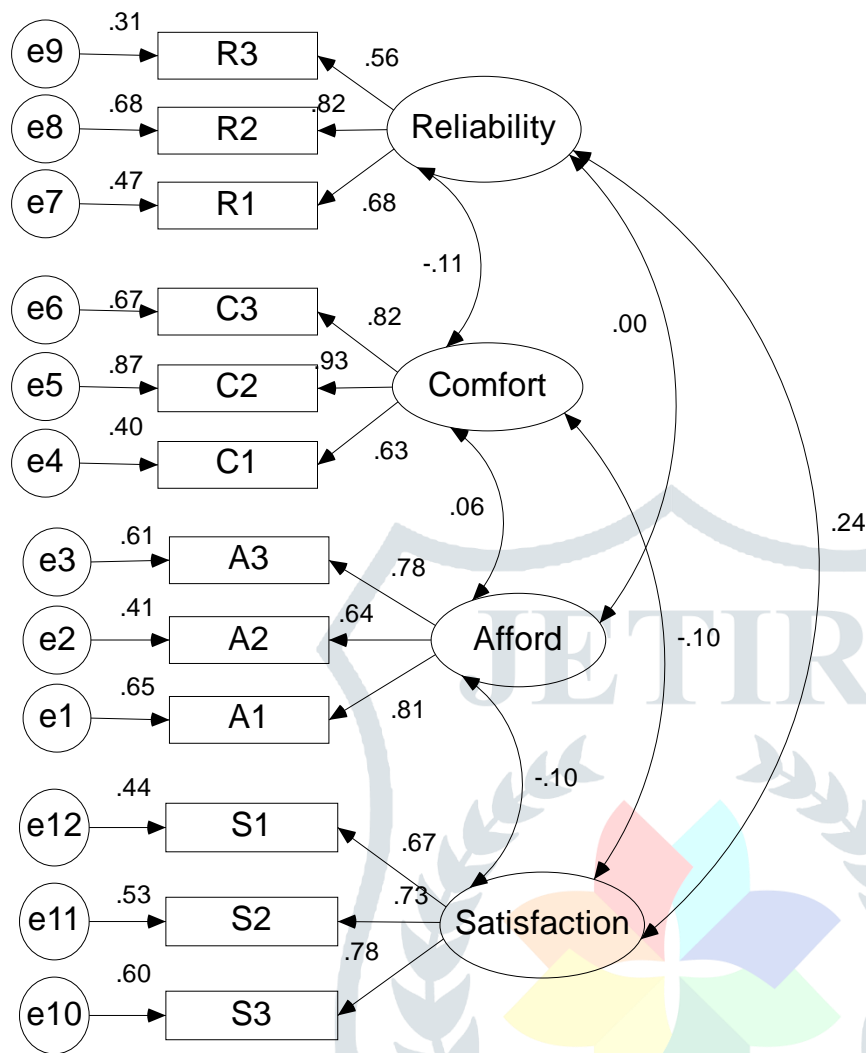
Almost all constructs had loaded the lambda above 0.7 which is a good index approving the discriminate validity and convergent reliability of the constructs. Further, results prove the same is presented as table hereunder.

Table 3: Convergent and Discriminate validity measuring perception and satisfaction of cab users

	CR	AVE	MSV	Afford	Comfort	Reliability	Satisfaction
<b>Afford</b>	0.789	0.557	0.010	<b>0.746</b>			
<b>Comfort</b>	0.842	0.645	0.012	0.059	<b>0.803</b>		
<b>Reliability</b>	0.733	0.484	0.057	-0.003	-0.109	<b>0.696</b>	
<b>Satisfaction</b>	0.768	0.525	0.057	-0.100	-0.101	0.239	<b>0.725</b>

Only one variable in the reliability construct loaded below the threshold (0.5) was retained because the average variance extracted was marginally low.

CFA measuring perception and satisfaction of cab users



Highest score in the Reliability construct was achieved by R2=0.82, while comfort loaded two items as maximum contributors viz. C2=0.93 and C3=0.82. Third construct affordability loaded two items as major contributors with A1=0.81 and A3=0.78 and finally, Satisfaction loaded two variables contributing high with 0.73 and 0.78 (S2 and S3).

Table 4: Regression Weights showing Perception and Satisfaction of Cab Users

Code	Direction	Constructs	Estimate	S.E.	C.R.	P
A1	<---	Afford	.760	.096	7.918	***
A2	<---	Afford	.592	.079	7.465	***
A3	<---	Afford	1.000			
C1	<---	Comfort	.569	.064	8.834	***
C2	<---	Comfort	.961	.091	10.576	***
C3	<---	Comfort	1.000			
R1	<---	Reliability	.710	.116	6.097	***
R2	<---	Reliability	1.000			
R3	<---	Reliability	.549	.096	5.696	***
S3	<---	Satisfaction	1.000			
S2	<---	Satisfaction	.848	.116	7.305	***
S1	<---	Satisfaction	.755	.106	7.128	***

All variables exhibited excellent internal consistency with the critical ratio and P values (<0.000) are significant to further carryout final structural model.

Model measuring Perception and Satisfaction of Cab Users

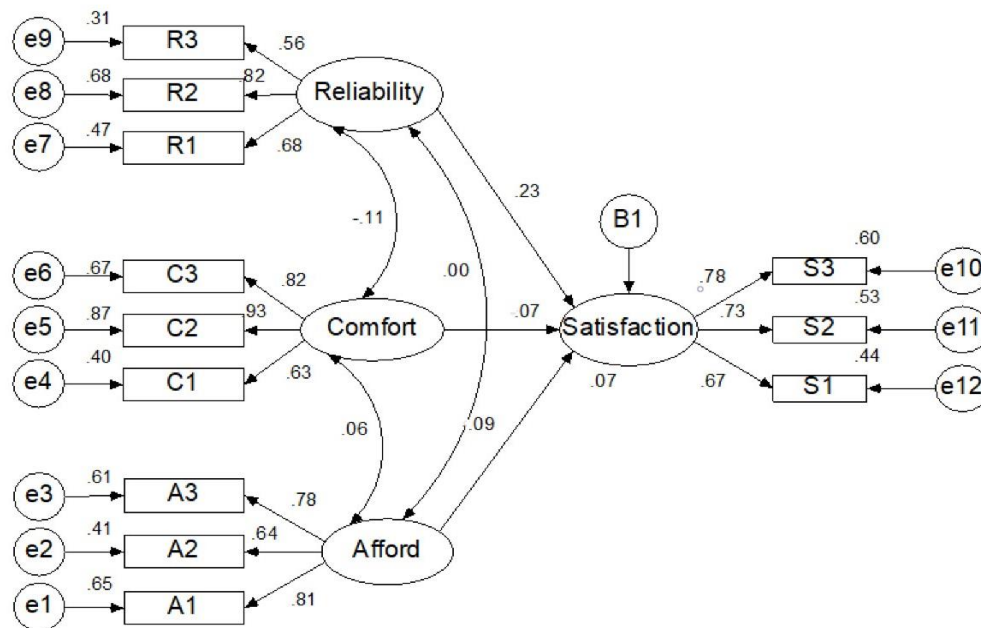


Table 5: Goodness of Fit index of Perception and Satisfaction of Cab Users

	CMIN	CMIN/DF	RMR	GFI	AGFI	TLI	CFI	RMSEA	PCLOSE
Model	62.839	1.309	0.045	0.946	0.913	0.969	0.977	0.042	0.672

Goodness of fit index shows excellent fitness of the CFA and final models which shows CMIN=62.839, CMIN/DF=1.309, RMR=0.045, GFI, AGFI, TLI and CFI are all found to be above 0.9 as the recommended threshold to record 0.946, 0.913, 0.969 and 0.977 respectively. RMSEA also achieved 0.042 is well below 0.05 to validate the fitness index of the model.

Table 6: Regression Weights showing Perception and Satisfaction of Cab Users

			Estimate	S.E.	C.R.	P
Satisfaction	<---	Comfort	.046	.059	.791	.429
Satisfaction	<---	Reliability	.183	.078	2.327	.020
Satisfaction	<---	Afford	.065	.064	1.017	.309

Direct effect between Comfort and satisfaction was found to be insignificant where the beta estimates shows 0.046 with th critical ratio of 0.791 and significance 0.429 supporting null hypothesis at 5% level. While, there is no relationship between affordability and satisfaction ( $\beta=0.065$ , CR=1.017, Sig.0.309) Whereas, there is significant direct relationship between reliability and satisfaction ( $\beta=0.183$ , CR=2.327, Sig.0.020) to reject null hypothesis at 5% level.

8. SUMMARY OF RESULTS

- Age of the respondents shows 36.7% are in the age of 41 to 50 years
- Most (57.2%) are male
- Majority (84.4%) are married
- Maximum (34.4%) of the cab users indicated that they are graduates / post graduates,
- Maximum (33.3%) are dependent respondents in the family
- Maximum (37.2%) of the respondents are earning between 20001 and 25000,

- Perception and satisfaction items statistics with four constructs namely, reliability, comfort, affordability and satisfaction. Mean scores of Reliability are R1:4.07, R2:3.86 and R3:4.07. Comfort shows C1: 3.98, C2: 3.86, C3: 3.73, Affordability shows A1: 4.07, A2: 4.28, A3: 3.66 and finally, Satisfaction shows S1: 3.63, S2: 3.52 and S3: 3.20. Reliability of all constructs are above the recommended criteria (0.7) in which alpha value of comfort is highest (0.827) and Reliability construct recorded lowest (7.26).
- Confirmatory factor analysis (CFA) validates the constructs taken for the study and the final model shows the result on perception leading to satisfaction among cab users in Coimbatore.
- It is found that the contribution of reliability leading to satisfaction is 23.1% while, the contribution and affordability was very low at 0.7% and 0.95% respectively. Goodness of fit index recorded excellent fitness level to validate the model.

#### -Verification of Hypothesis: Model summary

- There is no significant relationship to support null hypothesis between
  - Comfort and Satisfaction  $H_01(a)$
  - Affordability and Satisfaction  $H_01(b)$
  - Reliability and Satisfaction  $H_01(c)$

#### 9. SUGGESTIONS

Study clarifies that though there is association between comfort and satisfaction as well as affordability and satisfaction, perception of the respondents was found only marginal whereas, reliability and satisfaction was found to be high contributing construct in the study, which means, cab users in Coimbatore highly rely on the services provided by various service providers viz. OLA, Uber, Fast Track, City, etc. to name a few. There is a need to ensure affordability and also comfort which are found to have marginally below as perceived by the cab users in Coimbatore.

#### 10. CONCLUSION

The dimension of reliability deals with the consistency and the dependability of the service being provided by the company, over and over again or for extended periods of time. It is important that the firm ensures that the services are delivered on time and in a very consistent manner, devoid of any omissions or errors, in order to satisfy the customers. This way of delivering the required, desired and promised services accurately has been termed as reliability (**Parasuraman 1988**). It is concluded that the present service providers are satisfying the customers by performing their ability and promised services in a dependable and accurate manner which need to be continued to make their customers approach at times they are in need.

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