Impact of various Dimensions of Consumers Attitude in Online Cab Services: An Exploratory Study

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Abstract

Online Cabs are becoming popular worldwide. The study focuses upon exploring the impact of perceived risk, perceived enjoyment, subjective norms and facilitating conditions on the customer's attitude, behavioral pattern and actual usage.In order to achieve the objective the sample of 220 respondents were collected. Measurement model through confirmatory factor analysis and statistical tests were used to establish the validity and reliability of the survey results. Then the structural model (TAM) is analyzed to test the hypothesized relationship among different factors presented in the model. A goodness of fit was also used to analyze the appropriateness of the model. An exploratory study using Purposive sampling survey was carried out for the purpose. The results have shown appropriateness of the model for its applicability in adoption of online cab booking services in Kolkata. The perceived usefulness, perceived ease of use, perceived enjoyment, subjective norm and facilitating condition are having significant positive impact on customer's attitude but Perceived risk has negative impact on customer's attitude. Behavioral intention is determined by perceived usefulness and then at last usage behavior was predicted strongly by behavioral intention.

Keywords: Customer Attitude, Behavioral Pattern, Online Cab Booking, Kolkata.

INTRODUCTION

Internet and E-commerce have brought a transformational change in the public transport sector. The International brands as well as National brands are entering into the field of online cab booking services due to exponentially growth and high demand in the sector. The increasing demand of smart phones has given a way forward to the online cab business in India. Online cab booking services are very popular these days not only due to the popularity of Smartphone but also for their convenience, comfort and availability at affordable prices. The consumers were facing lots of trouble with the old ways of transport and that is why a new and better service with technological advancement has been accepted easily by them. The hygiene, fair rates and convenience impress the consumers. Above all, the consumers were facing the trouble of refusals and non availability of cabs but the online cab services from Ola, Uber, Radio Taxi, Taxi for Sure, Meru Cabs and others have solved the problem of refusals as these cabs are available at any point of time. Globally the trend of booking the cabs online is very common and is accepted by the consumers. Few researches have been done earlier for abroad countries but there is a need of knowing what kind of attitude consumer's are having towards these online cab services in India so the study has been conducted in Kolkata to know about the consumer's attitude.

AIMS AND OBJECTIVES OF THE STUDY

The purpose of the study is to analyze the impact of various dimensions towards consumers attitude towards online cab booking services. The study focuses upon exploring the effect of perceived risk, perceived enjoyment, subjective norms and facilitating conditions on the customer's attitude, behavioral pattern and actual usage. The main aims are following-

1. To explore the impact of various dimensions on the consumers attitude towards online cab services.
2. To find out the relationship between consumers attitude, behavior and actual usage of cab services.

LITERATURE REVIEW

Hanif and Sagar (2017) had stated that there was demand for Call-a-Cab service offered by Meru Cab. The cab services are proving security through global positioning system (GPS) and women taxi drivers for women passengers especially during night times. According to Harding et al (2016) the auto-rickshaws (three

wheelers) are more popular in urban transport before the advent of cars and cabs. Horsu and Yeboah (2015) had argued that driver behavior have negative impact on customer satisfaction in Ghana. The variables like continuous service, comfort, reliability and affordability have an impact on customer satisfaction with regard to minicab taxi. According to Lu et al (2016) the self- service mobile technologies helps the commuters to access lot of data about cab services and such technologies had changed the role of both customers and companies. The adoption of call taxi app (CTA) is impacted perceived usefulness, perceived ease of use, subjective norms and perceived playfulness (Peng, Wang, He, Guo, & Lin, 2014). Chen (2019) had explained that mobile apps help both drivers and passengers to find each other. At present the mobile apps are helps the customers to find cabs. In the recent years the car rental industry is growing constantly especially in metropolitan cities in India (Rahman, 2014). The Meru cabs had become more popular and the demand for its cabs had exceeded that its supply which means technology had created huge demand for organized cab industry. The factors like accessibility, reliability and transparency are primary factors which have attracted customers towards branded cab services like Meru cabs (Vaithianathan & Bolar, 2013). The customer feedback in cab services industry is very important for attaining success in the competitive car rental industry. Upadhyaya (2013) had explained how Meru Cab Company had collected feedback from its customers and enhanced its service quality for sustaining in the business.

RESEARCH METHODOLOGY

The exploratory study with purposive sampling was used for survey method. The sample size for this study is 220. The primary data is collected through structured questionnaire and secondary data is gathered through journals, magazines and reliable websites etc. The geographical location of the respondents is Kolkata (West Bengal) because the region is having availability of national and international reputed organizations like Ola and Uber etc. The simple random sampling methodology is used for collected primary data. The respondents for this study should have consumed cab services in the last six months and they should have booked the cab through mobile app in their smart phones. The demographic variables considered in this study are age group, gender, occupation, education and income.

The constructs in this study are Perceived usefulness, ease of use, enjoyment, subjective norm, facilitating conditions and perceived risk etc which are adopted from published scales (Shodhagna, 2017). The items under each construct were measured by using Likert type scale anchored with '1' for strongly disagree to '5' for strongly agree. Measurement model through confirmatory factor analysis and statistical tests were used to establish the validity and reliability of the survey results. Then the structural model (TAM) is analyzed to test the hypothesized relationship among different factors presented in the model. A goodness of fit was also used to analyze the appropriateness of the model.

The statistical software SPSS version 20 was used for data analysis. The hypotheses were formulated by using the research objectives of this study. Here are the following hypotheses of the study:-
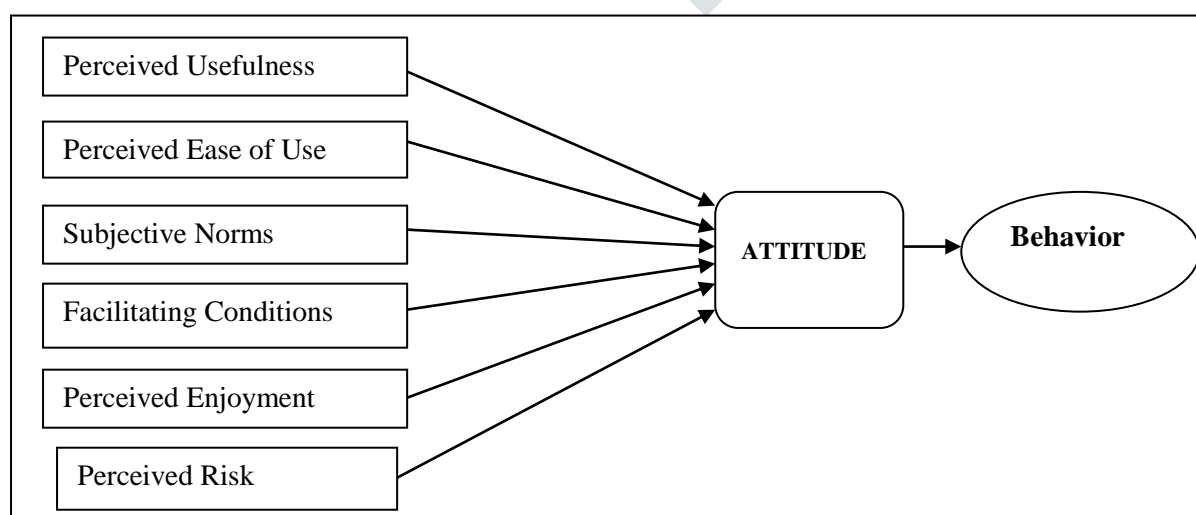

Figure 1: Hypotheses Formations

H1: Perceived usefulness has positive influence on consumer's attitude towards online cab booking.
H2: Perceived ease of use has positive influence on consumer's attitude towards online cab booking.
H3: Perceived enjoyment has positive influence on consumer's attitude towards online cab booking.
H4: Subjective norm has positive influence on consumer's attitude towards online cab booking.
H5: Facilitating condition has positive influence on consumer's attitude towards online cab booking.
H6: Perceived risk has positive influence on consumer's attitude towards online cab booking.
H7: Attitude is having significant impact on behavioral pattern and actual usage behavior.

DATA ANALYSIS AND INTERPRETATION

Descriptive Statistics

As shown in table1, 47% of the respondents belong to the age group of 18-30 years old; it implies that young group is showing more interest in using online cab services. 62.3%oftherespondentsaremaleshows very high penetration of online cab booking among males as compare to females. Almost half of the respondents are graduate degree holders (47.2%). 44.1% of the respondents belongs to the service occupation and high-income groupofmorethan1,00,000(42.8%).Further, as to the length of online cab service usage pattern; 47.7% of the respondents have been using online cab services for more than thrice in a week. It shows good usage pattern of online cab services in Kolkata. (Refer Table 1)

Table 1: Demographic Profile of the Consumers

Variable		Frequency	Percent
Age	18-30 years	104	47.3
	31-40 years	85	39.5
	41-50 years	24	10.9
	Above 50 years	7	3.2
Gender	Male	137	62.3
	Female	83	37.7
Education	Under Graduate	66	30
	Graduate	105	47.2
	Post-Graduate	36	16.4
	Other	13	5.9
Occupation	Service	97	44.1
	Business/ self employed	66	30
	Student/Research scholar	49	22.3
	Other	8	3.6
Monthly Income	Up to Rs. 50,000/-	120	14
	Rs. 50,001/- to Rs. 1,00,000/-	85	24.8
	Above Rs.1,00,000/-	15	42.8
Weekly Online Cab Use	Once is a week	66	30.2
	Twice in a week	50	22.7
	More than twice in a week	104	47.7

Source: primary data

Hypothesis Test

Model Evaluation

In order to achieve the objective first the measurement model through confirmatory factor analysis and statistical tests to establish the validity and reliability of the survey are performed. Second, the structural model is analyzed to test the goodness of fit. The values are given below in Table 2.

Table 2: Values of Attitudinal dimensions- Factor Loadings, Reliability Test, GFI and CFI

Attitudinal Dimensions	Factor Loadings	GFI	CFI	Cronbach Alpha
Perceived Usefulness				
Useful to book an online cab	.81	.95	.93	.825
Saves time in finding a cab	.89			

Makes easier to book a cab	.78			
Provides prompt and detailed information	.80			
Perceived Ease of Use				
Simple to understand	.85	.83	.79	.901
Provides comfortable journey	.86			
Clear interaction by service provider	.77			
Perceived Enjoyment				
Fun activity to book a cab	.94	.86	.81	.823
Interesting to compare the rates	.75			
Subjective Norms				
Status symbol	.93	.88	.82	.780
Fits to life style	.84			
Worth to spend in online cab	.76			
Facilitating Condition				
Booking through Smartphone	.79	.86	.84	.941
Internet availability	.69			
Getting offers on regular booking	.74			
Perceived Risk				
Sharing personal information is risky	.38	.47	.44	.578
Safety and security while travelling	.44			
Risk of hacking internet	.45			
Money deducted in booking cancellation	.37			
Attitude				
It is a wise idea to use online cabs	.66	.89	.87	.852
The idea to get information by net is good	78			
I believe in booking online cabs	.91			
Behavioral Intention				
I will strongly recommend others to use it	.74	.81	.79	.886
I will use it in future too	..85			
It is better to use the online cab in metros.	.79			
Actual Usage				
I use it frequently	.81	.94	.90	.947
I will book it for my near and dear ones too	.68			

Source: Researcher's data analysis

For identifying the sub factors of various dimensions of the attitude, the researcher has applied factor analysis, then validity test through Cronbach Alpha has been applied. The Goodness of Fit Index and CFI Index were also identified.

Table 2 is showing that the standard factor loadings of all the indicators of Perceived usefulness, Perceived enjoyment, Perceived ease of use, Subjective Norms and Facilitating conditions are higher than the acceptable level 0.50 so the convergent validity is good. Saves time in finding a cab, provides comfortable journey, Fun activity to book a cab, Status symbol and booking though smart phones are having highest impact on consumer attitude. As far as Goodness of Fit indices i.e. GFI and CFI are higher than the acceptable threshold 0.90 in all the said dimensions which shows a good fit model. To assess the construct reliability Cronbach alpha is calculated which is also above than the minimum value of 0.70 in almost all the cases. The results of Perceived risk are different from other dimensions. Here the values of all the factor loadings are not higher than the accepted level i.e. 0.50. It implies that risk factors are changing the attitude and behavior of consumers. Here GFI, CFI are lower than the acceptable threshold which shows that

goodness of fit index is also not perfect. The Cronbach alpha value is also 0.578 which is also low than considerable value. In the same way, values for Attitude, Behavioral Intention and Actual usage were also identified and goodness of fit as well as reliability were found suitable for the same.

In a nut shell, we can say that the model was perfect in all the cases other than Perceived risk. It depicts that risk factors like safety and security, sharing personal details, amount deduction while cancellation and risk in internet hacking are few of the factors which are having negative impact on customer's attitude. Consumers attitude is positively affected by perceived usefulness, perceived ease of use, Subjective norm, Facilities and enjoyment in booking online cabs.

Structural Model - After successful validation and reliability testing of measurement models, the structural model can be analyzed. Structural model will be evaluated by using R square for dependent constructs, path coefficients and significant level of structural path coefficient. First of structural equation model will be analyzed on the basis of squared multiple correlation (R^2).

R-square - Squared multiple correlations (R^2) for each construct is used to measure the percentage of construct variation explained by the exogenous construct. The values should be sufficiently high for the model to have a minimum level of explanatory power. Chin (1998b) considers values of approximately .670 substantial, values around .333 average, and values of .190 and lower weak.

Table 3: Values of R Square for Endogenous Constructs

Construct	R-square
Perceived Usefulness	.461
Behavioural Intention	.570
Attitude	.353
Actual Usage	.623

In this study perceived usefulness explains 46.1 percent of average variation. Perceived usefulness and perceived ease of use explains 33.1 percent of attitude. But attitude explains 50 percent of behavioural intention which is above average. On the other hand behavioural intention explains good variation of actual usage i.e. 62.3 percent.

Path Analysis - To evaluate the proposed hypothesis, the estimated path coefficients and their significance levels were used. Path coefficients depict the strength of the relationship between two constructs. The following results confirm the appropriateness of TAM for its applicability in adoption of online cab services. It could be seen that perceived usefulness is predicted by perceived ease of use (β = .609, p=.000). Furthermore, Attitude is based on perceived usefulness (β = .282, p=.000), perceived ease of use (β = .110, p=.018), perceived enjoyment (β = .254, p=.000), subjective norm (β = .950, p=.044) and facilitating condition (β = .352, p=.000). It has also been verified that perceived risk (β = -.056, p=.120) have insignificant path coefficients. Subsequently behavioural intention is determined by perceived usefulness (β = .182, p=.000) and attitude (β = .623, p=.000). Finally, Actual usage behavior is predicted very strongly by behavioural intention (β = .751, p=.000). At last it could be concluded that H1, H2, H3, H4, H5 are supported and remaining H6 has not been supported.

Correlation Test

For identifying the relationship between the Attitude and Behavior, Correlation test was applied among all the attributes. The results have shown a positive relationship between attitude and actual; usage and behavioral intention. The values are given below:

Table 4: Correlation test between Attitude and Actual Usage and Behavioral pattern

			Attitude	Behavioural Intention	Actual Usage
Spe arm	Attitude	Correlation Coefficient	1.000	.142*	.099
		Sig. (2-tailed)	.032	.034	.139

an's rho		N	220	220	220
	Behavioral Intention	Correlation Coefficient	.142*	1.000	.091
		Sig. (2-tailed)	.034	.045	.176
		N	224	220	220
	Actual Usage	Correlation Coefficient	.099	.091	1.000
		Sig. (2-tailed)	.139	.176	.032
		N	220	220	220

CONCLUSION

There is a dearth of research in identifying the factors affecting customer's attitude in online cab service. The study develops better understanding of the factors like perceived usefulness, perceived ease of use; subjective norm, facilitating condition and perceived enjoyment are having significant and positive impact on the customer's attitude while perceived risk is having negative impact on the customer's attitude towards online booking of cabs. The findings ensure that there is a direct relation between the attitude and the behavior of the customers. The results have shown that consumers are getting the app useful and enjoy the booking of cab with the facilities provided by them that is why there is a positive attitude among them but there are some risk factors too which are taking their customers away in booking online cabs. The research will help online cab providers to have a comprehensive, holistic and clearer understanding of factors that influence the attitude of Indian consumers.

To conclude, there are advantages & disadvantages associated with usage of Apps for booking services. It is up to the service providers that they should design their App in such a manner that it is User Friendly, convenient to use, provides all complete details of the concerned taxi driver (his registration no., phone no, license no. Etc, exact fares, total fares i.e. the App should propagate transparency of information. Also, word of mouth publicity is more important to promote the use of such apps. Viral marketing will bring a new advent for housing these techniques.

LIMITATIONS

This study involves a number of limitations that need to be acknowledged. First, the primary limitation of the research relate to the small sample size, as generalizations are difficult to make with small sample sizes. Second, the scope of the study is limited upto Kolkata only. Therefore, results cannot be generalized for full Indian contexts.

RECOMMENDATIONS

Following recommendations will be provided to the online cab service providers for getting more customers:-

- Maintaining the service quality and adding the standardized services.
- Adding more enhancing services feature which will attract customers.
- Reducing the conflict and risk factors by more CRM techniques as well as by technological advancement applications.
- Strict procedure while choosing drivers for Cabs.
- Providing details of other co-passengers services while booking pool services.

FUTURE RESEARCHES

Further researches can be made in the field of consumer's attitude towards surge pricing of online cabs, the online vs. offline cab services and consumer behavior, There is a scope to explore the importance and performance analysis with respect to online cab users in India.

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