

FACTORS AFFECTING THE HOLISTIC PERCEPTION OF UBER IN DHAKA CITY TRANSPORTATION

Farhana Noor

Daffodil International University
Email: f.noor@daffodilvarsity.edu.bd

Abstract: *In recent years, Bangladesh has undergone through tremendous changes in transport sector. Because of the increased demand of mobile application-based transportation, Uber has introduced ridesharing service in Bangladesh. The main purpose of this study is to understand the overall perception regarding this new services provided by Uber in Dhaka city. In view of its importance, the present study tries to identify the factors affecting the perception of consumers, drivers and car owners of Uber. This study is conducted by surveying 100 Uber riders, 60 drivers (30 motorcycle drivers and 30 car drivers) and 20 Uber car owners from different areas of Dhaka city. Data have been analyzed using multiple regression analysis. The result of this study is expected to benefit the ride sharing service providers and to help them understand the variables influencing consumers and drivers' perceived value. Besides, future researchers can deal with different variables to study the factors affecting the holistic perception of Uber in Dhaka.*

Keywords: *Transportation, Benefits of Ridesharing, Overall Perception, Influential Factors*

1. Introduction

The transport services play an important role in satisfying people's need of movement. Over the years, the transport industries have experienced major changes. Consumers these days have become wiser in getting better facilities. They not only look for better qualities but also utmost professional approaches. They love to find themselves amidst famous brands as well as good services. Generally, the success of any service providers depends on demand from the consumers, on how much the owners earn from the business and on the expected facilities of the service providers. Customer satisfaction plays a key role for success in taxicab industry. Only satisfied customers can bring more profit for the company. In urban areas, the transport services have undergone remarkable changes. The cabs have become the vital mode of transportation for middle and upper middle class people in cities. With the support of technology, the development of organized car rental industry is continuously growing. Mobile apps are used to rent a cab at any time and from any place. By using mobile applications, customers make their reservation of online transportation. Because of its user friendly nature, it is preferred by the customers. Importantly, the customers do not have to call to make their reservation for travel. Comparing to conventional public transportations, the quality of services provided by these online apps is considered better. Because of its good service, satisfied customers are more likely to retake the service again in future. With this in mind the online

transportations service providers need to upgrade their service quality from time to time to compete with the up-to-date market analysis. As there are almost no switching cost in the internet, customers can easily switch to competitors. Chen, Chevalier, Rossi and Oehlsen (2017) in their study, found that through Uber, drivers can use their own or rented cars. They can offer rides whenever they want. There is no fixed rule to stick to minimum or maximum work hours. Besides, fares are adjusted according to the weather demand, supply of drivers in a specific region and other related factors. Therefore, during the pick hour periods, the drivers' earnings rise proportionately. Drivers' earnings are a result of their labor supply and location decisions as well as the demand and supply of other riders and drivers.

Carranza et al., (2016) in their study on "Life Cycle Analysis: Uber vs. Car Ownership" found that the achievement of ridesharing services has been primarily linked to convenience. From a survey of over 380 respondents, 86% people choose ride sharing services for convenience (i.e. Ease of payment, easy to call car and short waiting time) whereas 21% claimed they did not want to drive after drinking and other 18% claimed the hassle of parking turned them to ridesharing. The survey also maintained that by allowing users to compare prices with other services, ridesharing is becoming an increasingly attractive option. It is to be noted that Uber is the largest and fastest growing company among the emerging ride sharing industry. The most popular approach that successfully regulates Uber has been to create a governing category that is distinct from traditional taxicab services. Different factors are affecting the perception of consumers, drivers and Uber car owners. Thus analyzing holistic perception regarding the services of Uber can be a good work in the context of Bangladesh. Under this backdrop, the present study attempts to analyze the factors affecting the perception of consumers, Uber car owners and drivers regarding the services of Uber in Dhaka city.

2. Literature Review

In this modern society the demand for private car has increased as mobility is an essential need for an individual. The transport industry has undergone great changes in recent time. App-based transportation has increased the demand of ride service. For that the competition among local taxi industry and public transportation has also increased. The consumers have become wiser enough to give emphasis on high quality as well as on high professionalism (Balachandran & Hamzah, 2017). In their research on public transport services, Lai & Chen (2011) identified that when affective measures meet their expectation on the public transport, passengers become satisfied. In customer satisfaction service, frequency, reliability, convenience and responsiveness are considered important service quality variables (Khuong & Dai, 2016). Husseni (2016) found that service quality influences customer satisfaction. Customers make their reservation through mobile application to use online transportation. As it is simple and easy, it is preferable by the customers. At the same time they can avoid the difficulties to make reservation for their travel. Online transportation uses two media for their service. They use their cars for transportation and their mobile application to reserve the trip. Online transportation provider need to maintain both their trip quality and e-service quality to survive with the competitiveness of this industry. As there is no switching cost in the internet; it is easy

for the customers to switch to competitors (Ilma & Sri Rahayu, 2017). Mburu, Van and Cullen (2013) found that customer satisfaction is influenced by price in banking industry in Kenya as price, relationship and value are closely related with each other. Khuong and Dai (2016) stated that reliability, responsiveness, price and satisfaction directly affect customer loyalty. According to the perception of consumers, comparable with conventional public transportation; the charges of online transportation are fair. Customers feel more secured and practical as some of the online transportations have cashless payment. Online transportation provides better service comparable to conventional public transportation. This type of service quality is essential because satisfied customers are likely to make repeat purchase (Murray & Howat, 2002).

Ilma and Sri (2017) said that instead of traditional mode of transportation, the pricing strategy of cab operations had been positively influencing customers to book a cab. Car rental industry introduced lots of transformation with the internet technology. Because of tough competition, the consumers are able to access to book cabs at competitive prices. Therefore, ridesharing services like Uber and Grab are leveraging service quality to achieve competitive advantage. They need to meet rider's expectation which will create customer satisfaction and help to build brand image, in return it will increase the company's profitability (Arsyawati & Pradana, 2017). From the review of both the Uber app in Google play and in Apple store, it is found that Uber has attracted the attention of many people. There are lots of opinions of being interested in using Uber. The success of a company depends on the value provided by them and with the satisfaction level of the consumers. Consumers' perception is positive regarding Uber after getting expected values from their service (Pradana, 2017). In many cases, the control over drivers of Uber functions as an employment relation (Cunningham, 2016). The drivers receive ride request from the customer and it is their own decision to choose from where and when to open the mobile application. In order to gain a competitive advantage in different market, Uber will often reduce the fare rates. The ultimate result is that it reduces amount of payment of the drivers (Oei & Ring, 2017).

Chen et al., (2017) in their study found that the compensation that a driver earns in a given hour depends on the willingness of the drivers as they can work whenever they choose. The wages of Uber drivers are uncertain and payment is quite low because there is no regulator placed on the number of drivers working in a manner that would support the wage. Neither the quantity nor pattern of hours worked is fixed for Uber drivers. Hall, Horton and Knoepfle (2017) found in their survey that Uber is flexible for the drivers. Many drivers report that Uber, for them, is a part time activity rather than traditional employment methods. Uber has released a new guideline to operate service in Dhaka. Regarding the safety measures of Uber, it ensures a relatively safe, reliable and convenient travel. Uber is able to get fast response with comfortable vehicles and well-mannered drivers. Uber has set a resolution in the way people travel in this city. Before Uber, similar initiatives were launched in 2014 with some yellow cabs. The number of the cabs was very few. They were unavailable and costly. The people in Dhaka have got a way out of the usual experience. In spite of traditional CNG and Taxi Cab, Uber, the new service of Dhaka City, starts a new dimension. Uber sets a challenge to the monopolistic transportation system of Dhaka. Though Uber is facing a lot of problems because of the

strong competition with their rivals, they are providing efficient and cost effective service. Therefore they will be able to capture the position in the mind of the people in Dhaka city (The Daily Star, 2016). Therefore it is reviewed that some researches are done to understand the consumers' perception toward Uber and some related issues with Uber drivers. But the researcher in this study have considered another factor- the perception of Uber car owners and have added some new variables to measure the perception of consumers and Uber drivers. Thus present study focuses on the factors affecting the holistic perception of these groups towards the services of Uber in Dhaka city. The following hypotheses have been developed to identify the factors.

Hypothesis 1: There is significant association between the factors (behaviors of drivers, reliability, image, cost-effectiveness, safety, availability, comfortability and timing) and consumers' perception regarding the services of Uber in Dhaka City.

Hypothesis 2: There is significant association between the factors (flexibility, recognition, rating system, external control and earnings of drivers) and Uber driver's perception.

Hypothesis 3: There is significant association between the factors (profit, tracking system, unusual accident, app-system and interaction with Uber office) and Uber Car Owner's perception.

3. Methodology

For achieving the objectives of this study, both primary and secondary data were used. Data were collected from different areas of Dhaka city by using a structured questionnaire as a primary source. Secondary data were collected from different reports, electronic databases and journals to provide a thorough discussion on the services of Uber. The variables were selected according to the objectives of the study. The study wants to know the factors that have an impact on the perception of consumers, drivers and Uber car owners in Dhaka city transportation. Different sets of variables as factors are used to know the perception of three different groups. Sample of 120 respondents were selected purposively to know the perception of the consumers and a total number of 120 structured questionnaires were delivered of which 100 were collected back in usable form. To know the perception of the drivers, total 100 sets of questionnaire were distributed and 60 were collected back in unusable form (30 car drivers & 30 motorcycle drivers). Only 20 respondents were selected from car owner. The survey was conducted in April 2018 in Dhaka city. Three different sets of structured questionnaire were developed by using seven-step Likert scales ranging from strongly disagree to strongly agree. The questionnaire for consumers was consisting of 8 statements. Both for the drivers and Car owners, 5 different statements were used. These 18 statements were used to know the perception of Uber services from three different groups. Data entry was done in SPSS 20.0 data editor and was analyzed under some specific hypotheses. Regression analysis was done to test the hypotheses.

4. Analysis and Findings

This study uses broadly three groups of variables that have an impact on the perception of consumers, drivers and car owners towards the transportation services of Uber in Dhaka city. Within the perception of consumers-Uber's availability, comfortability, safety, cost effectiveness, timing, reliability, image and behaviors of drivers are taken. Flexible working hour, earning recognition, rating system, external control are considered for measuring the perception of drivers and profit, tracking system, unusual accident, app-system and interaction with Uber office are taken to understand the perception of car owners. The result shows that availability, comfortability and safety affect towards the positive perception of consumers. These three factors explain major variation of the model. The other three factors timing, image and behavior of drivers moderately affect consumer's perception. These six factors together explain 67% of total variation of the model. The result shows that behaviors of drivers, reliability, image, cost-effectiveness, safety, availability, comfortability and timing are highly significant factors affecting the perception of the consumers. These factors together explain 67% of the total variation of the model.

Table 1: Regression Analysis output on the factors affecting consumer's perception

Coefficients						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig	
	B	Std Error	Beta			
1. (Constant)	-1.540	.670		-2.297	.023	R ² =0.67
Availability	.197	.052	.277	3.800	.000	
Comfortability	.246	.066	.269	3.708	.000	
Safety	.321	.074	.310	4.346	.000	
Cost - Effective	.024	.033	.052	.724	.071	
Timing	.184	.056	.238	3.256	.001	
Reliability	.081	.056	.103	1.462	.066	
Image	.196	.060	.234	3.255	.002	
Behaviors of drivers	.122	.048	.182	2.530	.013	

DV: Perception of Consumers

The significance of behaviors of drivers, image, safety, availability, comfortability, and timing are satisfactory enough to accept hypothesis 1 as their level of significance are less than 0.05. On the other hand cost-effectiveness and reliability have significance level value more than 0.05, which indicates that these variables have comparatively less impact on the perception of consumers. As majority of variables for affecting the perception of consumers have less than 0.05 level of significance, it is adequate enough to accept hypothesis 1. With respect to the perception of drivers, it can be said that flexibility, recognition, rating system, external control and earnings of drivers have significant impact toward the perceived value of the drivers. All these variables can explain the drivers' perception by more than 73% (R², 0.738; table 2). The coefficients of the

independent variables are significant ($p < 0.05$) to accept hypothesis 1. Thus it can be said that flexibility, recognition, rating system, external control and earnings of drivers have significant impact toward the perceived value of the drivers.

Table 2: Regression Analysis output on the factors affecting Driver’s perception

Coefficients						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig	
	B	Std Error	Beta			
1. (Constant)	.180	.579		.311	.757	R ² =0.738
Flexibility	.210	.059	.413	3.592	.001	
Recognition	.193	.055	.359	3.500	.001	
Rating System	.227	.066	.356	3.439	.001	
External Control	.150	.050	.356	3.031	.004	
Earning	.255	.067	.447	3.821	.000	

DV: Perception of Uber Drivers

From the table 3, it can be seen that the value of R² is 0.722 which indicates more than 72% variation in the dependent variable caused by the independent variables.

Table 3: Regression Analysis output on the factors affecting Car owner’s perception

Coefficients						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig	
	B	Std Error	Beta			
1. (Constant)	-4.261	.936		-4.539	.000	R ² =0.722
Profit	.313	.078	.341	3.994	.000	
Tracking System	.471	.086	.484	.484	.000	
Unusual Accident	.248	.075	.290	3.315	.002	
App-system	.605	.085	.648	7.072	.000	
Interaction With Uber	.326	.064	.422	5.075	.000	
Office.						

DV: Perception of Uber Car owners

The significance of profit, tracking system, unusual accident, app-system and interaction with Uber office are satisfactory enough to accept hypothesis 3. These variables have significant impact toward the perceived value of the drivers.

5. Conclusion

There is a severe competition in transport services of Dhaka city and Uber is a new addition among this competition. This study tries to find out the factors affecting the perception of consumers, drivers and car owners regarding the services of Uber in the transportation system of Dhaka city. To know the impact, we have considered three factors. The results of this study reveal that consumers are innovative, price sensitive and conscious about the service quality of Uber. Behaviors of drivers, reliability, image, cost-effectiveness, safety, availability, comfortability and timing are highly significant factors affecting the perception of the consumers. The findings also indicate that flexibility, recognition, rating system, external control and earnings of drivers have significant impact toward the perceived value of the drivers. Finally, profit, tracking system, unusual accident, app-system and interaction with Uber office are the main concerns for the car owners of Uber in Dhaka city. The findings of this study have implications for the Uber authority as it reveals how Uber can create positive perception among its stakeholders. The car rental industry is drastically influenced by the global positioning system (GPS), mobile apps and internet technology. The customers are smart enough to compare the prices of different service providers. In this regard the marketing managers need to monitor the pricing strategies and promotional strategies of their nearest competitors.

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