

The impacts of ride-sharing on traditional transportation sectors: “A case study of Dhaka, Bangladesh”.

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Abstract: Improving transportation systems have long been a matter of concern in a country like Bangladesh. This paper would attempt to take a critical look at the impacts of ride-sharing of “Pathao and Uber” on traditional transports and to develop public transportation systems in Bangladesh by using their on-demand ride-sharing systems. By strengthening entrepreneurial culture, creating job opportunities, providing rides for the passengers, reducing ride time and traffic congestion, empowering young people, using technological solutions, reducing pollution in the city etc. Pathao and Uber are bringing positive changes in transportation systems both in times of emergencies and regular use, which are noteworthy. At last, the analysis highlights the effects of ride-sharing with its competitiveness to expand the market and solve the transportation problem.

Keywords: Ride-sharing, Pathao, On-demand, Transportation, Technology, Bangladesh.

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I. Introduction

The sharing economy, on-demand economy, access economy, circular economy, gig economy, volatile economy, peer-to-peer (P2P) economy, collaborative economy, or collaborative consumption etc. are an approach whereby goods and services are not possessed by a single user, but rather only momentarily accessed by members of a network. Sharing economy includes "sharing, bartering, lending, trading, renting, gifting, and swapping are redefined through technology and peer communities." The main idea is based on the idea that, access to goods or services can be preferable to having ownership of such goods or services and that there are benefits to collaborate in ownership. It insinuates to a hybrid market model of P2P exchange. The term "sharing economy" appeared in the early 2000s, as a new business structure that emerged due to enabling social technologies, the great recession and a growing sense of urgency around global population growth and resource depletion. Professor Lawrence Lessig was possibly first to use the term in 2008, though others claim the origin of the term is unknown. According to a pew research centre survey in 2015, only 27% of Americans had heard of the term "sharing economy". Traffic jam and accident are the most abysmal things in the world. Ride-sharing is trying to reduce those kinds of incidents happen by vehicles. Commuters will have a difficult time or situation during traffic, and the state will get more economic development from sharing economy like ride-sharing. A growing concern about changing climate and a yearning for social embeddedness by localness and communal consumption have made the "collaborative consumption/ sharing economy" (The peer- to-peer-based activity of coordinating through community-based online services and obtaining, giving, or sharing the access to goods and services) an appealing alternative for consumers (Hamari & Ukkonen, 2015). Together, these developments have started to come over traditional thinking about how resources can offer and consume, supporting arguments that continuously make sure improvements in our current production and the consumption systems are insufficient to transform our global economy toward sustainability (Cohen & Kietzmann, 2014). For those who are looking for fast traffic but are afraid of cycling the next option can be Uber cab. One thing that consumers like is the continual arrival of promotional offers and cheaper rides. Cars used on the Uber mainly provided by the owners and therefore are comfortable and luxurious most of the time. However, determinants of the satisfaction with a sharing option or the likelihood of using a sharing option again might differ between business-to-consumer (B2C) and consumer-to-consumer (C2C) both in settings and industries. Third, trust is conceptualized to be a principal determinant of the active participation in collaborative consumption by many authors (Möhlmann, 2015). However, sharing economy companies like Uber and Pathao will go a long way in easing traffic jam mobbing in Bangladesh. Pathao is a ride-sharing that helps to send a product or service and passenger to the destination. Pathao has some problems such as problems with the availability of cyclists and with applications, and some people still in doubt while riding motorcycles with strangers. There is a demand for more options for reliable, efficient and affordable ways to get work, particularly around commuting routes underserved by public transports. When ride-sharing come into the city with full of its operation, there is no chance for road accident

and time killing. Smartphone apps for these services can help a lot in today's existing infrastructure, primarily private cars and Motorbikes are more efficient with no extracost – enabling more people to share their journeys and by providing affordable, convenient alternatives to car and motorbike ownership. The customer chooses this new technology to go anywhere from meetings, exams to parties. Because of sharing economy, traditional transportations will have to obliterate quickly. While many people use conventional transports like CNG and Rickshaw to attract new business market and clients, others have added or wholly replaced traditional ride sectors with new or innovative riding tactics like Uber and Pathao. These new methods often revolve around the Internet; companies use social media tools and online ad campaigns to expand their followers. Companies also develop web pages or blogs that provide up-date information on their products or services to the consumers. However, sharing economy has emerged as a viable alternative to fulfil a variety of consumer needs, ranging from arranged to prepare meals to cars to overnight accommodations. By using this concept of sharing economy, Bangladesh has experienced a new mode of transportation to help her residents that incur the benefits in both economically and socially.

II. Methodology

The most interactive and pervasive tool for developing and visualizing a business model is the Business Model Canvas by Alexander Osterwalder and Yves Pigneur. According to Business Model Canvas, this research has been conducted by collecting information from the different time about sharing economy and define the sharing economy in the perspective of Bangladesh,. The research has been conducted mainly based on primary data and secondary data from various sources mainly contacted the ride-sharing companies like Pathao, Uber, transport management companies, and Bangladesh Road Transportation Authority (BRTA) etc. whereas securing support for study at the highest levels. It involves not only the sharing of factual information but also discussions about work processes, validation of ideas, honing of best practices and engaged inquiry on topics of mutual relevance. The research data have been collected from a variety of Uber and Pathao drivers as well as passengers at different levels by surveying and critical level interview in Dhaka city areas. Researchers have interviewed Uber and Pathao driver even passengers singly and in small groups. That interview protocol have developed from the relevant literature, in addition to focusing on the issues of highest relevance to research question: ride-sharing, problem face and problem-solving etc. Coded it thematically following the principles associated with qualitative data coding and analysis. For validation of the collected data, the database has gone through several processes. Our coding for this paper was refined to focus on themes related to the following areas:

- Explicitly to sharing economy in Bangladesh
- Ride-sharing growing faster in Bangladesh and solve terrific traffic jam in Dhaka city
- What about the traditional transportation of ride sectors

This research paper would try to identify three distinct areas where there was sufficient evidence to support the research which explains the impact of sharing economy on conventional market and transportation, the popularity of sharing economy, and future impact on the economy on GDP in Bangladesh.

III. Dhaka Needs Ride-Sharing for Escaping Traffic Jam:

Migration from the rural area to the Dhaka city is the ultimate significant contributor to the urban population growth. Sometimes the growth rates are slow down over the years compared to the 90s, but the population will soon reach indefensible levels (Table 1). Recently, Dhaka stands at 50,002 people per square mile, which is considerably higher than other major cities in Asia. According to the UN population division, Dhaka is the 8th most populated city in the world, with a population of 18.2 million.

Table 1. Population in Dhaka (Urban Area)

Population	Growth	Growth Rates	Years
6621000	1961000	42.10	1990
8332000	1711000	25.80	1995
10285000	1953000	23.40	2000
12331000	2046000	19.90	2005
14731000	2400000	19.50	2010
17598000	2400000	19.50	2015
18898000	1300000	7.40	2017
20989000	2091000	11.10	2020
24331000	3342000	15.90	2025
27374000	3043000	12.50	2030

Source: Bangladesh Bureau of Statistics: -Dhaka Information Statistics.

There are almost 13,24,704 licensed vehicles currently operating in Dhaka, and according to BRTA 2018, (See Table 2) about 40-50% operate in Dhaka city alone (excluding rickshaws, bicycles, and other unregistered cars). The average commuters in Dhaka city mostly rely on public transports, such as bus, mini-bus, CNG auto-rickshaw and rickshaw etc. Dhaka also has the worst congested traffic conditions with an average traffic speed is only 7kmph—slightly above the average walking speed. The best alternatives to these mediums are motorbike and bicycle. Motorcycles are easily accessible, and both its acquisition and maintenance cost is somewhat affordable. Bikes have also been on the rise in growth primarily due to its increasing consumption by the youth population.

On the other hand, the users of smartphone rate in Bangladesh was at 20% in 2015 and estimated to grow even higher in the coming years. It has created an enormous potential for companies to access more significant market segments seemingly inaccessible in the past. According to Daily Star (2016), It has spurred the growth of e-commerce, which last year alone has seen a growth rate of 72%. Ride-hailing tech companies have opened up a new era in the Bangladeshi market by launching Uber, Pathao and Amar Ride etc. services in Dhaka in 2016. Such commencement has set a trend of using mobile apps to order a taxi or bike for either individual or for a group. Firstly, Pathao began as an e-delivery way back in 2015. After Uber launching in Dhaka in November 2016, Pathao decided to introduce motorcycle ride-sharing services. However, Pathao's superior business model has made it more successful and popular. It appears that Uber has noticed Pathao's success because, in the final quarter of 2017, Uber was introduced UberMoto - following the model of bike taxi service Pathao provides. In essence, Uber has permanently set the tone for companies such as Amar Ride, Goti, Dhaka Moto, Dako, Chalo, Amar Ride, Taxiwala, Bahon, Ezzyr, Muv and Hellow Ride, all of whom have created a booming e-hailing market.

Table.2. The increasing public transportations in Dhaka city.

Types of Vehicles	2010 total	(in 2013	2016	2017	2018- sep	Total
Ambulance	1374	441	899	400	354	3468
Auto-rickshaw	7664	283	1066	42	5128	14183
Bus	16783	3691	7064	3294	2948	32779
Auto tempo	1662	2	0	0	0	1664
Cargo Van	3231	1231	2002	1285	1181	9130
Covered van	4277	4930	6817	4030	3321	23378
Delivery van	11990	2125	4263	2199	1458	22035
Human hawler	2718	829	1398	217	211	5373
Jeep(hard/soft)	19520	4046	8908	4712	3736	40922
Microbus	46202	8410	13580	4927	2896	76015
Mini-bus	9490	322	402	159	147	10520
Motorcycle	210081	93845	123396	75251	72913	575486
Pick Up	20481	17315	23693	10300	7438	79227
Private car	163004	28841	49404	19573	12796	273618
Specialpurpose vehicle	759	166	340	233	322	1820
Tanker	817	378	518	188	226	2127
Taxicab	36011	99	386	4	91	36591
Tractor	9923	8644	5590	2954	2388	29299
Truck	26922	10551	14744	7035	6579	65831
Others	168	660	4841	3145	6579	11238
Total	593077	187012	279314	139748	125557	13,24,704

Sources: Bangladesh Roads Transport Authority(BRTA).

The following table shows that about 1,48,164 motorcycles get registered from January 2017 to September 2018 in Dhaka. According to the Bangladesh Road Transport Authority (BRTA), the number of registered motorcycles has increased 5,75,486 up to April 2018. Around 75,251 motorcycles registered with the BRTA in the year 2017, when different ride-sharing companies, including Uber and Pathao, have introduced their bike services in the megacity. Even Auto-rickshaw has increased significantly in 2018 because Auto-rickshaw also included to ride-sharing with 'Hallow' ride through OBHAI apps (See Table 2). The increasing volume of vehicles in the city is a significant obstacle to businesses that deliver goods to its consumers on time. Private cars are not the usual mode of transportation of the average commuters in the Dhaka city, and most cars are parking on the road, making their usefulness somewhat redundant. The average commuter relies on public transport such as bus, mini-bus or “tempo” and rickshaw. It surprises that Dhaka also has one of the most congested traffic conditions as well, with an average traffic speed of the only 7kmph, slightly above the average walking speed. Dhaka is known as the "Rickshaw capital" of the world due to the most significant number of rickshaws in the city. Although this medium of transportation lauded for its convenience over short distances and the fares have become too high for people to afford in some cases, have become a luxury. They are mainly becoming an inconvenient method of transportation. The alternatives to these mediums is to use motorbikes and

bicycles. Bicycles have been on the rise primarily due to its increasing consumption by the youth population. Now more people see the benefits of these vehicles. It has opened the door for businesses and improved their logistics. Many companies have started using bicycles instead of motor-vans to deliver smaller parcels within short distances, as it saves both time and money. It has created an enormous potential for companies to access more significant market segments seemingly inaccessible in the past. It has spurred the growth of e-commerce, which last year alone has seen a growth rate of 72 percent (Dailystar, 2016). This growing inconvenience in transport and delivery coupled with the expansion of app usage in the country, has allowed Pathao to incorporate the appropriate technology with the right medium of traffic to get the best out of the platform to the benefit of customers.

IV. The Impacts of ride-sharing vehicles at Dhaka City in Bangladesh:

In March 2013, the Economist (2013) published an editorial while addressing the sharing economy and paid tribute to an outgoing trend that is transforming consumer behaviour and perception today. Nowadays, more people embrace car-sharing services such as Zipcar, ride bicycle sharing systems such as CitiBike in New York, swap books or DVDs on Craigslist, or book accommodation via online community marketplaces such as Airbnb (Möhlmann, 2015). Car-sharing services became more popular across the globe in the past few years, but the idea of motorbike sharing has favoured in only a few cities in the Asian country and Dhaka city is one of them. Motorbikes can offer fast movement to avoid a traffic jam, which is not possible for CNG-run, auto-rickshaws as well as cabs. After launching Uber in Dhaka, the Bangladesh Road Transport Authority (BRTA) has stepped up guidelines for ride-sharing to ensure a friendly traffic system. As per the field survey estimation, around 50 percent of private car owners have already involved in the app-based network. Due to ride-sharing, the worst traffic system and led-time to reach the destination have remarkably improved in Dhaka city. A recent World Bank study showed that the average vehicle speed in Dhaka is between 7.0 and 8.0 km/h whereas an ordinary car speed is 12 Km/h. It means that people in Pathao can be much faster than those who use most other mode of transportations. The ride-sharing service Pathao has overtaken taxi and CNG auto rickshaw rental services by offering its customers a better way to avoid a traffic jam in the megacity. The consumer-friendly ride-sharing service has exceeded taxi and CNG auto rickshaw rental services by providing its customers with a better way to avoid a traffic jam in the megacity.

Table. 3. Price details for Ride-sharing in Dhaka city: - amount in BDT

Types of Vehicles	Initial Fee	Cost per minute	Cost per Km	Service fee
UberX	40	3	18	0
Premier	80	3	22	0
Intercity	None	3	22	0
UberMoto	30	1	12	0
Pathao Bike	20	0.50	10	0
Pathao Car	50	2.5	20	0
Shohoz Bike	25	0.5	12	0

Sources: Dhaka Uber Prices/uberestimate.com and Pathao.com

There is a comparative rent between the ride-sharing and the significant transportation way in Dhaka city. Although the rent of ride-sharing is sensitive than vital transportation, the commuters prefer to take ride-sharing service for travelling and to go anywhere in Dhaka city even out of Dhaka. In a short time, Ride-sharing have been able to capture the market of the transportation industry. There are some reasons such as excellent service, not crowded, avoid traffic jam, safety, convenience, door service, and good behavior from drivers etc. Rent or price does not matter if services are not that better. Pathao has developed concrete solutions to overcome traffic congestion in Dhaka city. The self-defined 'sharing' platforms increasingly cover essential sectors of the economy such as transportation, accommodation and rental, retail, office space and logistics, finance and consumer credit, and the labour market etc. They operate on factor markets (capital, labour) and product markets (goods and services), and therefore affect the entire economy (Cristiano Codagnone, 2016).

Table. 4. The price details for other major transportation ways for passengers: - amount in BDT.

Types of Vehicle	Initial price	Cost per minute	Cost Per Km	Service Fee
Public Bus	7	-----	1.7	0
Rickshaw	15-50	-----	-----	0
CNG Auto-Rickshaw	40	2	12	0
Taxicab	85	4.25	34(After 2km)	20

Sources: Bangladesh Road Transport Authority (BRTA).

App-based ride-sharing services including Uber, and Pathao are transforming Dhaka a new way of transportation systems. For instance, identified distinct factors driving consumers' sharing economy adoption. Trait-related variables, including generosity, perfectionism, generalized reciprocity, and conditional reciprocity, represented the overall drivers of disposition to share. Integrated, extrinsic, and introjected motivation depicted the motivational variables. According to the Bangladesh Telecommunication Regulatory Commission, the numbers of Internet Subscribers are 90.501 Million at the end of August 2018. So, ride-sharing become very easy to use by commuters. Passengers get a prior notification about the transportation system by using app-based ride-sharing. However, non-ridesharing commuters must wait for a long time and don't get to office, meeting, party etc. on time. According to field survey, those who have already been used ride-sharing are preferred to use ride-sharing services again. However, fare is a little bit high but still affordable. The social or societal value communication creates arises from those incidental and purposive conversations that are around matters of interest with no direct monetary value. It has the opportunity to regard itself as a facilitating function, equipping other organizational members with the capabilities to communicate well, mainly at the tactical level. After launching ride-sharing in Dhaka city, CNG auto-rickshaw explores app-based riding in Dhaka city. CNG auto-rickshaw is playing a vital role in public transportation in Dhaka city. Usually, find the impact of ride-sharing in Dhaka city. Attitude towards collaborative consumption is positively correlated with perceived sustainability and enjoyment, while the behavioural intention to participate in collaborative consumption positively correlate with pleasure, economic benefits, and attitude towards collaborative consumption.

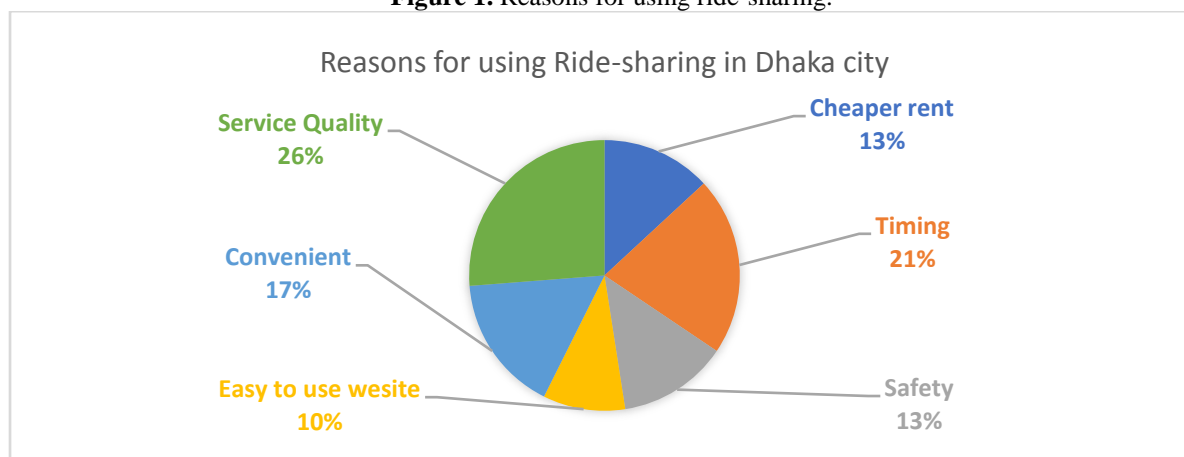
Table. 5. Most uses vehicles by passengers in Dhaka city:

Types of Vehicles	Started in Dhaka city	Service Area	Time
Public Bus	1999	Whole Dhaka city	6:30AM-12PM
Rickshaw	1930	Short Distance	6:30AM-12PM
CNG Auto-rickshaw	1999	Long Distance	6:30AM-12PM
Taxicab	1998	Whole Dhaka city	6:30AM-12PM
Uber	2016	Whole Dhaka city	24 hours
UberMoto	2016	Whole Dhaka city	6:30AM-12PM
Pathao (Motorbike)	2015	Whole Dhaka city	6:30AM-12PM
Pathao Car	2016	Whole Dhaka city	24 hours

Sources: Bangladesh Road Transport Authority (BRTA).

During the rush time, Ride-sharing in Bangladesh get higher demand and can able to attract customers. Bangladesh has witnessed a leap in ride-sharing space with the emergence of Pathao, the most popular local ride-sharing company which got off the ground in 2016. However, Uber came in Bangladesh market in late 2016. An estimated 500,000 commuters have opted this ride-hailing on cars and bikes via apps - also known as e-hailing as of November 2017. This number was 10,000 in January 2018. In 2015, Pathao began as an e-delivery. Using its fleet of motorbikes and was successful when Uber launched in Dhaka in November 2016 but it was not till October 2016. Pathao decided to introduce motorcycle ride-sharing services. Focusing on Zipcar, they find cost advantages, substitutability, knowledge about the service, and utility to be relevant drivers of usage. As this study demonstrates, there is evidence that additional value propositions, beyond monetary motives, may play a role in the decision-making of consumers opting for a sharing alternative.

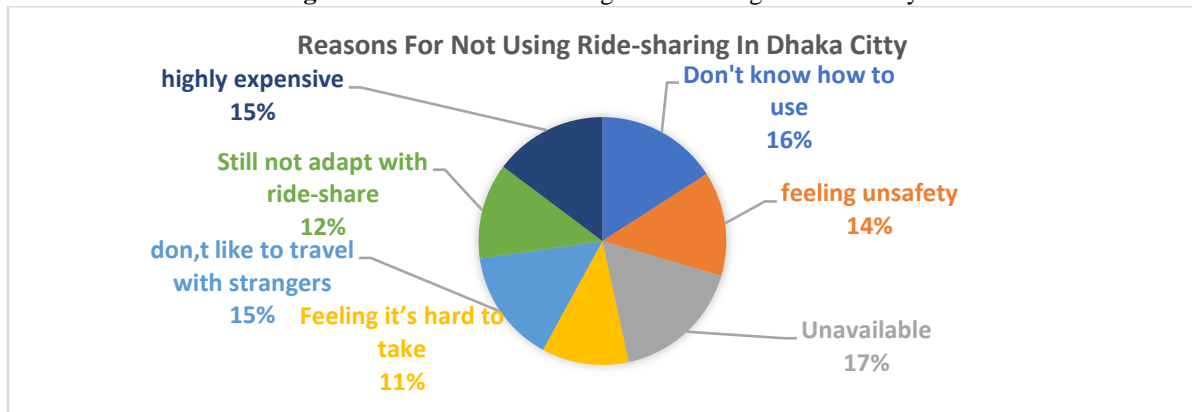
Figure 1. Reasons for using ride-sharing.



Source: - According to the field survey.

According to field survey, passengers give their opinion about ride-sharing and most of the passengers are in favour of ride-sharing. Figure-1 Indicates that the passengers preferences where 26 percent commuters said service quality is very good what commuters expect. Passengers who have already used ride-sharing were our interviewers about opinion of cheaper rent, timing, safety, easy to use websites, and convenient etc. where 13 percent, 21 percent, 13 per cent, 10 percent, 17 percent commuters said the regarding issues respectively. Recently, it argues that CSR may not be a sufficient term and business approach and that responsible corporate strategies should consider further dimensions of sustainability such as the businesses' ethical, environmental, cultural, and economic spheres (e.g., through transparency and employee development). Digitalization also facilitates the business model of sharing physical goods. It is becoming accepted by consumers as well (Kempf&Pörschmann, 2012). Physical rights are tradable on markets; their production requires specialized knowledge and investments (Parry, Newnes, & Huang, 2011) and their quality decrease over time due to physical wear and tear (Seidenfaden, 2006). Because the production of material goods is costly relative to the output of information (Seidenfaden, 2006), entrepreneurs should pursue business models that provide an infrastructure for sharing and trading and make the ownership of physical goods obsolete. However, a lack of legal bases for user protection (Gerom, 2013) and clear operating guidelines (Hoge, 2013) constitute some obstacles. While the earliest marketplaces supported a free sharing of goods, before business models oriented towards commerce according to sacks in an article in 2011.

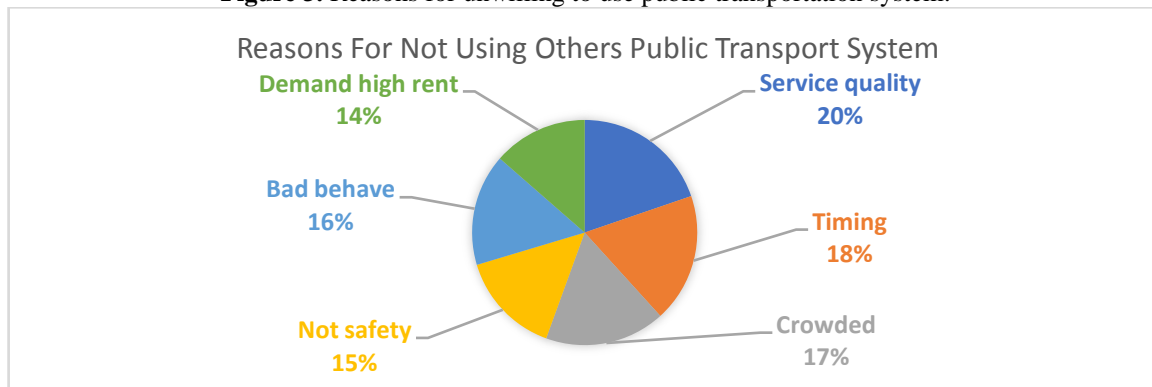
Figure 2. Reasons for not using Ride-Sharing In Dhaka City:



Source: - According to the field survey.

Successful businesses based on the idea of sharing-economy are expected to cause a shift in consumer behaviour from private to shared ownership. This transfer threatens traditional business models (Belk, 2014). Several authors (e.g., Dierig, 2013; Grassmuck, 2012; Kempf, 2013) anticipated significant market growth, contributing to the economic viability and attractiveness of the sharing economy. The sharing services sectors have been forecasted to become a \$110 billion-plus market in the future by Sacks in 2011; hence, it offers immense revenue potential for entrepreneurs. (Figure 2) Indicates that why commuters are not using ride-sharing in Dhaka city. Passengers still not adapt with ride-sharing, don't know about ride-sharing, feeling unsafe, seems hard to take, don't like to travel with strangers and highly expensive are the main reasons beyond it; where 15 percent, 19 percent, 16 percent, 20 percent, 13 percent, 17 percent and 15 percent respectively have given opinion why commuters not using ride-sharing.

Figure 3. Reasons for unwilling to use public transportation system:



Source: - According to the field survey.

Based on the simplified access to capacities, economic rules for price setting do not hold, and digital content is expected to be available at no cost. Data protection and copyright issues pose additional challenges to business owners (Fodor & Brem, 2015; Seidenfaden, 2006). Moreover, recently, independent currencies have emerged based on the P2P approach (Carroll & Bellotti, 2015), illustrating the apparent power of the sharing economy. (Figure 3) People of Dhaka city become unwilling to use for public transportation. According to field survey, 20 percent commuters said about service quality is too much wrong, 18 percent commuters said that unable to reach in time at office, meeting, home. Public transport is unplanned for taking passengers on a public bus where 17 percent commuters said, it is so crowded whereas 15 percent passengers said public transportation is unsafe for passengers. Passengers always want good behave from drivers, but in Dhaka city according to field survey, 16 percent passengers give feedback about drivers bad attitude whereas Uber and pathao service are in opposite sceneries having good behavioral attitude from drivers and passengers are pleased for that. Sometimes public transportations drivers demand high rent from passengers where 14 percent commuters have said their opinion on high rent asking from drivers. Financial benefits, for instance, have repeatedly been confirmed as a reliable driver of consumer behaviour – that one is not all that staggering given that the sharing economy, after all, offers a mode of consumption (Barnes and Mattsson, 2017; Bucher et al., 2016; Hamari et al., 2016; Tussyadiah, 2016).

V. The Popularity of Ride-sharing of Dhaka City In Bangladesh:

A city cannot be called "smart" using specific sectoral improvement. A "smart" city belongs to horizontally cumulative elements such as smart governance, smart living, smart mobility, the intelligent use of natural resources, smart economy and smart citizens, all taken together. Sharing-economy startups also reflect the broader “servitization” trend. Here, instead of selling products outright, companies can expand their potential markets by renting access to products that people used to buy (Cusumano, 2014). Austrian-born political economist Joseph Schumpeter predicted that competition for new commodities, new technologies, new sources of supply, and new types of organizations would be more important than the full game. Dhaka city dwellers are already familiar with the term "sharing economy," mainly by sharing applications through new rides. It has become a familiar idea to see people of all ages who like the Uber or Pathao app to get them across Dhaka. The following (Table 6) rapid upgrading of ride-sharing services is incompatible with the poor service quality of existing facilities and the richness of smartphones of Dhaka's various areas and income classes.

Table.6. Registered ride-sharing and estimated number of passengers:

Types of vehicles	Years	Registered for ride-sharing	Estimated numbers	passengers*
Private Car(Uber)	2016-2018/ sep	20,000	2,00,000	
Motorcycle(Pathao)	2015-2018/ sep	50,000	3,50,000	
Pathao Car	2016-2018/ sep	1000	1,50,000	
CNG Auto-rickshaw	2016-2018/sep	650	1,00,000	
UberMoto	2016-2018/sep	52,781	2,00,000	
“Pick Sam” women	2016-2018/sep	300	150,000	

Sources: Bangladesh Road Transport Authority(BRTA).

Researchers around the world say that, economics not attitudes are driving the sharing economy. The universality of the sharing economy usually attributes to culture or ideology. It means that Millennials do not want to be fascinated by housing, cars and other expensive items, or sharing is good for the environment. In the Bangladeshi market, it is clear that both consumers and providers will work together to understand in depth the driving force for shared economic growth. Consumers/users know what to get and can trust these services because of ratings and reviews.

On the other hand, who does not use shared services; people mentioned two main reasons: They enjoy the convenience of ownership and have doubts about the reliability of the shared platform. The usage of assets implies many positive consequences, such as energy saving and congestion reducing. Internet intermediaries can now support these transactions and match supply and demand in real time on a large scale. However, sharing the economy has become an essential part and will inevitably become a necessary part of the global economy in the coming days. In this model, companies accumulate resources and produce goods and services. People are moving towards an economy that shares physical assets as a service. People have shown great interest in various services provided by catering, catering, automotive and transportation, labour services, delivery, short-term loans, and economic sharing of retail and consumer goods. In the future, this type of crowd-based capitalism model is expected to penetrate many areas. More companies will introduce globally.

Table. 7. The using rates of ride-sharing among passengers in Dhaka city:

Types of vehicles	Old people	Women	Young People	Students	Others
Uber	80%	100%	40%	30%	25%
Pathao	20%	0%	60%	70%	75%

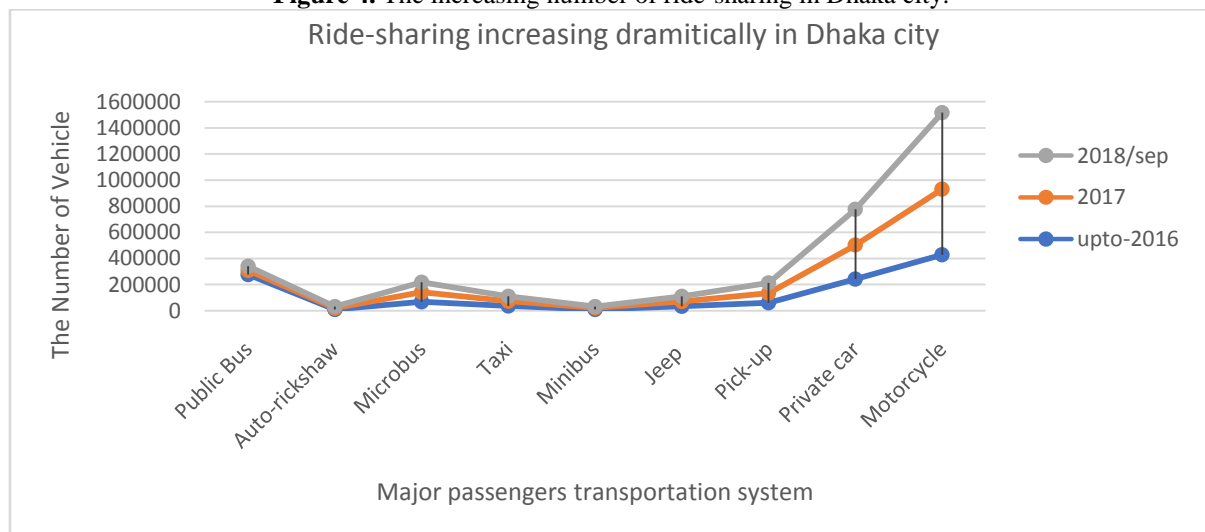
Sources: According to field survey, comparatively uses between Uber and Pathao.

From 2016 ride-sharing in Dhaka, the capital of Bangladesh had played a significant role in the transportation sector. Ride-sharing brings new era with update technology and creates more value for transportations. (Table 7.) Show comparable using rate between Uber and Pathao that how many passengers like to take Uber and Pathao. Older people want to take Uber because of afraid but mostly young people like to take Pathao. Young people think that Pathao is an adventure for them. However, in Bangladesh, most of the people are Muslim; that is why women do not want to take Pathao. Not only Muslim but also women like Uber for going anywhere. (Table 7.) Students like Pathao because Uber rent is high than Pathao(Table 3). On the other hand, 75 percent of passengers like to take Pathao because of Uber mostly expensive and unsafe for them where only 25 percent take Uber for going to anywhere in Dhaka. Because space does not change and the population consistency of urban living, cities are naturally designed to be sharing economies with consumption involving access to shared resources over asset ownership according to Sundararajan in 2014.

VI. The Future of Ride-sharing Sector in Bangladesh:

The Ridesharing Service Guideline is allowing commercial use of private vehicles across the country has been implemented from 2017 in Bangladesh. Under this service, private companies and vehicle owners are being allowed to run private cars on the roads in Dhaka city, like cars, motorbikes, jeeps, minibuses, and ambulances commercially. The government of Bangladesh published a gazette notification in this regard on February 28 in 2018 which notified that the guideline comes into effect from March 8, 2018, in the country. All ride-sharing companies and motor vehicle owners have to receive enlistment certificates provided by BRTA. The vehicles also need registration certificate, owners' TIN certificate, Owners and drivers' national identification cards and updated fitness certificates, tax tokens, driving licenses for enlistment. According to the guideline, the service can ease traffic congestion by controlling the number of small vehicles and reduce passengers' sufferings by carrying them in a private car. In 2016, November 22, Uber Technologies Inc launched their ride-sharing service in Dhaka for the first time, only to be declared illegal by BRTA on November 26 of the same year as the company did not have prior permission from the regulatory body. However, the ride-sharing services - providing car and bike services - have attracted a growing number of commuters who said that the facilities were comfortable, cheaper and faster while anyone could avail these services anytime, even at midnight at his or her doorstep with better service and comparatively lower fares.

Figure 4. The increasing number of ride-sharing in Dhaka city:



Sources: Bangladesh Road Transport Authority(BRTA).

In (Table 2) indicates that Motorbike sales soared nearly 50% year-on-year to 0.360 million units in 2017 thanks to a massive cut in additional duty on import of the two- wheeler's components. In 2015, only 0.143 million units of motorcycles sold. The soaring sale of the motorcycle provides an impetus for young man and women to own a bike and have an additional income and opportunity by getting incorporate in a ride-

sharing network. However, Figure 4 indicates how the transport sector receives a new life after ride-sharing? Only three years which vehicles are signed for ride-sharing such as Uber and Pathao according to Bangladesh Road Transport Authority how increasing the number of those vehicles in Dhaka city (see Figure 4). After all, the future of ride-sharing in Bangladesh is bright. From the scant evidence of the environmental impact of the sharing economy, one can—tentatively—conclude that the ecological effects of sharing are likely to be positive, but possibly much smaller than some claim and hope. There is a clear need for a better understanding of the environmental impact of the sharing economy, its rebound effects, and how its results compare to the impact of related business models (second-hand, product-service, and on-demand economy).

Table 8. The availability of ride-sharing in Bangladesh:

District	Available ride-sharing	Year
Dhaka	Uber, Pathao, Shohoz, Auto-rickshaw	2015
Chattogram	Uber, Pathao, Auto-rickshaw	2016
Shylet	Uber, Pathao, Shohoz	2017

Source: Bangladesh Road Transport Authority (BRTA).

Since 2015 ride-sharing got more popularity in Bangladesh and within short-period of time ride-sharing grabbed the market because of high service quality and it is effortless to get service from anywhere in the city in anytime. In 2016 ride-sharing got permission from Bangladesh Road Transport Authority within three years ride-sharing become most popular in Bangladesh as a transportation system.

VII. Discussion and Conclusion

The research aims to uncover the nature of the ride-sharing at Dhaka city in Bangladesh using Canvas Model through sharing economy. For sharing economy Business Model Canvas is more popular than other models, that's why researchers prefer to use Canvas model for ride-sharing to capture the transportation market in Dhaka city. There are many research papers about sharing economy but this research would try to focus on how traditional transportation is abolishing in the way and try to solve terrible traffic jam, the economic problem of Bangladesh and encouraging to invest money on sharing economy in Bangladesh and prospect of sharing economy and also focus what about the traditional business and transportation system. How traditional transportation system involving in sharing economy but previous research about sharing economy does not mention about traditional transportation and traditional transportation system becoming modernization through sharing economy. Sharing economy has recently risen as a viable alternative to meet up a variety of consumer needs and demand, ranging from prepared meals to cars to overnight accommodations, that were previously provided primarily by firms rather than an entrepreneurial individual. Because of sharing economy likes Uber, Motorbike, and Airbnb, traditional business model or marketing system are affecting and also cutting their value from the customers. Eckhardt et al. in 2010 found three main reasons why people may not be willing to consume sustainably: economic rationalizations, institutional dependencies, and developmental realism (Hamari & Ukkonen, 2015). People share their assets during their spare time with each other with peer-2-peer models and make a good relationship between consumers and services providers. Sharing economy has created a leading marketplace in the business world through giving an idea to make more money through social aspects with sustainable and also capture customer value from the market providing an opportunity to use their free time underused Uber and Motorbike. Although these notions have come up in general qualitative inquiries, they deserve further research, not only in the context of CC (Consumer Consumption), to investigate their quantitative impact on sustainable consumption behaviour (Hamari & Ukkonen, 2015). In Bangladesh, motorbike (Pathao) and Uber can share their assets and create a peer-powered industry with virtually. In recent, people are attracted to the peer-2-peer business model and compared to the traditional business model for economic, personal and environmental. Sharing economy is the more convenient, more affordable, more easily accessible for any customers more quality full with less expensive. Uber and Motorbike driver can offer the ride on the road when they are available. Nowadays, people move very quickly to the "share" people do not want to buy ownership of assets from the company and holdings on assets. On the other hand, in a traditional business model, the value of the product usually finishes, and because of its heavily used, but the sharing economy can change the value when it shares. Smart people are willing to adapt to collaborating lifestyles for more enjoyment people also like to share their spare time, experiences, ideas, even personal comments. If any business wants to capture more customer, has to fulfil the social aspect. Sharing economy focus on the social aspect and improve the customer realize the which products or services are the best for a customer. With the Uber and Motorbike give services very simplicity and personalized. Several p2p businesses, Airbnb, motorbike, and Uber, have provoked protests and bans across the world for disrupting the hotel and taxi industries, respectively. Public bus, CNG auto-rickshaw and other transportation industry threatened by the current sharing economy have an interest in keeping hurdles to entry top. Significant political and regulatory often restricted to sharing economy because

traditional industries are getting more detrimental and squander their profits too. Managers of common non-sharing services can use these findings to gain insights into the emerging trend of collaborative consumption, which is radically changing consumer behaviour. Only with this knowledge, they might be able to understand their competitors' strengths and weaknesses. A traditional ride sectors need to meet up the consumer demands through improved services at a lower price, with quality, sustainable, easily accessible to the market, more information about the services, safety issues, health issues, etc. It should move away from the traditional business models to sustain marketplace and capitalize on sharing economy's potential benefits. The government bears significant responsibility for the upgrading of the country's shared economy. The role of regulations in the sharing economy should be to lower the threshold for entrepreneurial entry. Bangladesh has been trying to continue its transportation development by concentrating efforts of ride-sharing services, especially reducing passenger time and traffic congestion and improving air quality. Since the ride-sharing services are have become popular in Bangladesh and more and more people are taking advantages from it, it will play a leading role in setting the future transportation systems with a useful framework. However, traditional business model or marketing system are affecting and also cutting their values from the customers. It is a very challenging time for a traditional transports sector in Bangladesh because of ride-sharing company's services and their commitments of quality services.

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