Development of Online Transportation Services: Effectiveness and Efficiency of The Grabbike Applications for Society in Medan City

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Abstract

Current technological development has brought changes and development in the of transportation. Online transportation service has become a means of transportation development which able to attract people's interest. This paper was written in order to further study the forms of services provided by one of the transportation application namely, Grab and the benefits the drivers and customers obtain. Through a qualitative method, the data was obtained from the Grab driver and customer of the application through sample selection technique of accidental sampling. The results obtained indicated that some of the services offered by Grab for the drivers are bonuses and points. As for the customers, Grab offers discount promos and vouchers while still actively using the application. The benefits received by the drivers when joining Grab are a flexible and unbinding working hour as well as new experiences. While for the GrabBike customers, the benefits they receive usually in line with their needs, the price Grab provided are affordable, worth the services received.

Key words: Development, Online Transportation Service, GrabBike

JEL classification: O30

Introduction

Transportation is a major necessity in many people's live, especially to facilitating people in conducted their daily activities such as going to school, office, vacation, and others (Utari & Sharif, 2016) (Bayunitri & Putri, 2017). With the speed of technology development in this era and the so-called, the internet has allowed us to receive information easily and quickly. In the world of today, online transportation has become a phenomenon with the purpose of creating a convenient way for people to get access to transportation.
Efficiency is an important element in the widespread use of the internet. Activities within the network enable individuals to learn more about the world. On one hand, the impact of increasingly open internet access has been primarily used for economic exchanges. In addition to sales of goods, in recent years, internet access has also reshaped the transportation field (Natadjaja & Setyawan, 2016).

Online transportation service is one of the newest service innovation in the m-commerce world. Online transportation service or ride-sharing is an individual transportation service where a customer can order a ride (car, motorcycle, etc.) through the mobile application and the driver can respond the order through the apps (Silalahi, Handayani, & Munajat, 2017). There are several online transportation applications found in Indonesia such as Uber Motor, Grab-bike, Go-Jek, Blue Jeck and others. However, the three main providers (such as Go-Jek, Grab, and Uber) are the top players in Indonesia and other big cities (Utari & Sharif, 2016) (Silalahi, Handayani, & Munajat, 2017) (Santoso & Nelloh, 2017) (Septiani, Handayani, & Azzahro, 2017).

Ojek first appeared in Indonesia in late 1969 in Central Java and Jakarta. Ojek is a means of transportation in the form of bicycles and then develops into a motorbike by renting passengers who rent (Lantri, Gunawan, & Yunita, 2017). Ojek is an alternative choice of transportation that has high flexibility. This is because motorcycle taxis are able to pass places that cannot be traversed by other transportation, such as small roads. Motorcycle taxis also have time efficiency because they are able to avoid traffic jams through alternative roads. Motorcycle taxi passengers are greatly helped by this, especially for people who have high mobility. The need for ojek is the basis for changes in the concept of the ojek itself. Ojek as a means of transportation which is combined with the development of technology today gave birth to a technology-based motorcycle taxi. Technology-based motorcycle taxi commonly called an online motorcycle taxi (Ojek online), is a transformation of conventional motorcycle taxis that are combined with technology.

Online motorcycle taxis function the same as conventional motorcycle taxis in general, only the ordering and payment system through the sophistication of the gadget / mobile device. This makes motorcycle taxi transportation no longer considered as lower-class transportation, because online motorcycle taxi riders now come from various economic levels, as long as they have mobile phones. The convenience offered by online motorcycle taxis is considered troubling conventional transportation that has long been operating. Online motorcycle taxis are ordered only through mobile phones, without having to leave the house, then just wait and then the online motorcycle taxi will arrive and be ready to deliver. Unlike conventional motorbikes or conventional taxis, prospective passengers must be on the side of the road waiting for a taxi or motorcycle taxi to be called and ready to deliver or by approaching the conventional motorcycle taxi/taxi place where it can be delivered. This practicality is the reason why they prefer online motorcycle taxis compared to conventional transportation.

One of the online transportation applications that will be discussed in this paper is the Grab application. Grab first operated in Indonesia in 2013. GRAB first appeared in 2011 carrying the name MyTeksi based in Singapore, then in 2013, it began expanding outside Malaysia by changing its name to Grab Taxi and finally in 2016 to GRAB (Setyanti, 2016). GRAB is an alternative travel service in several countries in Southeast Asia, including Indonesia. GRAB is not the first online motorcycle taxi facility in Indonesia, but GRAB has had rapid progress in the not too long period of time. Based on this, the writer wants to find out more about the form of service provided by online transportation, especially Grab-bike and what benefits are obtained by motorists and users regarding the development of online transportation.

**Literature Review**

**The Age of Industrial Disruption**

The era of disruption has led to technological innovations that have disrupted or fundamental changes to people’s lives. Unexpected changes become a phenomenon that will often appear in this era. A fight between a conventional taxi versus an online taxi. The public had never expected before that popular motorcycle taxis/taxis were used by the public for the benefit of human mobility and their usefulness was enhanced by an internet-based application system. As a result, it is easier for the public to get transportation services and even at very affordable prices. Even more unexpected, online motorcycle taxi services are not limited to alternative transportation but also extend to online delivery orders. In other words, online technology has
brought great changes to human civilization and economics. Digital technology that has computer hardware, software, and networks at their core is not new, but in breaks with third industry changes, they are becoming more sophisticated and integrated and, as a result, transforming society and the global economy.

The era of industrial disruption in the development of online transportation has a major impact on human life. Many conveniences and innovations are obtained with the support of digital technology. Services are faster and more efficient and have a wider range of connections with online systems. Life becomes easier and cheaper. Some of these impacts can be explained in several sectors below (Schwab, 2017):

**Economy**

The impact of this global economy is so wide and varied that it is difficult to break down a certain effect. All macro variables such as investment, consumption, employment, trade, inflation, etc. will be affected. Here will be conveyed about developments and employment.

**Business**

Customers’ expectations about the current trend of digitization lead to transparency, which means more data at the fingertips of consumers and hence more comparisons about the performance of products that divert the power of the consumer market. For example, a website on price comparison makes it easy to compare prices, service quality, and product performance elsewhere. In one click or sweep, consumers instantly move from one brand, service or digital retailer to the next. Companies can no longer ignore accountability for poor performance. Brand equity is a gift that is hard to win and easily lost. This will only be strengthened in a more transparent world. Mostly, the millennial generation is setting consumer trends. This is a world that is far more about sharing remade content. This is a world of today, a real-world world where direct traffic direction is provided and food is delivered directly to your door. This "present world" requires companies to respond in real time wherever they are, or their customers or clients.

**National and Global**

A slightly disturbing change brought about by the fourth industrial change redefines how public institutions and organizations operate. In particular, they forced governments at the regional, national and local levels to adapt by reinventing themselves and by finding new ways of collaboration with their citizens and the private sector. They also influence how the state and government are interconnected. In this section, the role that the government must assume to master the fourth industrial change is to change the traditional perceptions of the government and their role in society. With increasing citizen empowerment and greater population fragmentation and polarization, this can result in a political system that makes governance more difficult and the government becomes less effective. This is very important because it occurs when the government must be an important partner in shaping the transition to a new scientific, technological, economic and social framework.

**Government**

Technology will increasingly enable citizens, provide new ways to voice their opinions, coordinate their efforts and possibly avoid government oversight. Because of the opposite with new surveillance technology that raises too strong public authority. Security is a topic that is not sufficiently discussed in the public domain and in sectors outside the government and defense industry. The critical danger is that a world that is deeply connected with increasing inequality can lead to increased social unrest, which creates conditions of extremism. The fourth industrial change will change the character of security threats while also affecting power shifts, which occur both geographically, and from state actors to non-state actors. Faced with the emergence of armed non-state actors in what has become an increasingly complex geopolitical landscape, the prospect of building a shared platform for collaboration around key international security challenges is important.

**Individuals**

The individual impact of several technologies such as the internet or smartphone is relatively well understood and much debated among experts and academics.
One of the biggest individual challenges posed by the internet, and the level of our relationship that is increasing in general, concerns privacy. This is a problem that seems bigger and bigger because like Harvard University political philosopher Michael Sandel has observed: "we seem to be increasingly willing to trade privacy for convenience with the many devices we use regularly". Driven in part by the revelations of Edward Snowden, the global debate about the meaning of privacy in a more recent world of transparency has just begun, as we have seen how the internet can be an unprecedented means of liberation and democratization and at the same time, an activist who does not look fur, extensive and almost unexpected surveillance of the masses.

This paper applied a qualitative approach to explore the distinctiveness of the life experiences of each informant in experiencing a phenomenon hence enable the phenomenon itself to be opened and sorted to achieve an understanding of the complexity of the existing phenomenon (Smith & Osborn, 2003). Informants were selected through accidental sampling, which is the technique of selecting informants based on coincidences, for instance, informants who the writer accidentally met and could be used as a sample, and happened to be suitable as a data source (Sugiyono, 2008). The selected informant consisted of 5 drivers consisting of 2 women and 3 men. As for the other informants were consisted of 5 Grabbike customers with 4 females and 1 male customer. The location where this investigation was conducted was in Medan City and the location of the Grab Indonesia Medan office branch is CBD Polonia Jl. Padang Golf, Blok CC 30-31, Medan Polonia, 20157, Indonesia.

**Effectiveness and Efficiency of Grab Bike**

Grab Bike has become a favorite due to its effectiveness and efficiency, customers are no longer tired of waiting for taxis or conventional motorcycle taxi (ojek) at certain places, by simply order through the Grab application on the smartphone, the driver will pick up the customer instantly. There are several reasons why many people switch from conventional transportation service to an online transportation service. It is classified into two parts, the first is the reason for the driver and the second is for the customer. People who registered as an online driver for the Grab company will receive an interesting amount of income if they succeed to reach the operating targets set by the company. For example, if a driver reaches the operating target in a day, he will get a bonus from the company, not to mention the price of service paid by the customer which also will go towards the driver.

That review above was the reason of why many people switch their profession to become an online transportation driver. To become an online driver there is no complicated application procedures and people just have to complete the administrative requirements as well as owning a smartphone and vehicle. While for the customer, of course with the existence of this online-based transportation service, it will make their activities more effective and efficient especially for those who do not own a private vehicle. The effectiveness of Grab can be seen from the convenient way of accessing and finding the driver, both for GrabBike and GrabCar, while for efficiency is shown through the price of the service provider listed in the application.

The efficiency and effectiveness, as well as productivity of GrabBike, has encouraged people in Medan city to compete to become drivers with the motivation to earn big income. With the absence of regulations related to limiting the number of online transportation services that may operate has created certain disorganization. In this paper, the authors will discuss sequentially everything that happens in its reality on the field based on theories. The existence of Grabbike has increasingly helping activities with the various features offered by Grab. Additionally Grab has also triggered the presence of various innovations in the field of I sophisticated technology following the current development in the digital era like today. The popularity of this business also continues to rise along with the many success stories of its drivers. With above average income, as well as a relatively affordable capital cost, has encouraged thousands of people registering as drivers and customers with its many promo offers. While other service providers are competing to create applications in with the hope it will be preferred by the market. This phenomenon has also been transformed the profession of online transportation driver as a promising profession. In fact, it is considered as a quite 'cool' profession.

The level of trust from the public towards using Grabbike is increasing for several reasons, especially for safety and price transparency. Some people might say that Grabbike is a breath of fresh air in the midst of
nowadays transportation. Because Grabbike is properly organized and is supported by technology which creates an easier way for users to monitor and access the services they offered and most importantly the price/tariff charged can be directly seen by users, therefore, transparency price is guaranteed.

While in the past the profession of a motorcycle taxi (ojek) driver was being looked down by the society and considered as a low-level profession, nowadays with the raging era of online transportation service the profession is very tempting due to its income which some might say could higher than their previous job. In addition to financial factor, there are also a number of reasons for someone to prefer to take a job as GRAB driver compared to their previous jobs namely; time freedom, doable work rhythm, and better stress management, as well targets, income and effort which are determined by each driver, and being able to break through traffic jam. Being a Grab driver also help with their income and employment status while at the same time harmonizing with the progress of information technology with the needs of the society, technological advances should be able to be utilized by the government to provide adequate public transportation facilities for the public.

An excellent, convenient and affordable public transportation services as well as reducing the use of private transportation and the use of fossil fuels. With the development of Grabbike as alternative transportation for the people of Medan City, in order to help overcome traffic jams. With the vast development of Grabbike, it also provides job vacancies for the unemployed or for those who need additional income in their spare therefor to better fulfill their life and economical needs. Grabbike has provided benefits in this disruption era one of them is that it is able to defeat a well-established business competitor, with a more flexible time the drivers were able to have a daily wage almost the same amount as ones who works at formal offices.

**Services offered by Grab to manage their drivers and customers with an online system**

The form of services which Grab provides in managing drivers and customers with an online system was conducted with the purpose to develop partnerships and to open economic opportunities as well as to respect the value of time because of its effectiveness and efficiency and flexibility of working hour. The business which Grab involved in has provided expectations towards the trend of digitalization which leads to transparency, meaning more data is at the fingertips of the customers hence more comparisons and information are openly available regarding the products which divert the power of the consumer’s market. The price comparison offers a convenient way to compare prices, service quality, and product performance with other services. With one click, customers could instantly move from one brand to the next one. Then, from an economic standpoint, investment, consumption, employment, trade, inflation, etc. will also be affected. Therefore online transportation service will provide opportunities for the society and both drivers and customers of GrabBike simultaneously build the modern transportation service, keep up with technology and communication developments, so to adjust with the needs of the customers, the tariff provided are considerably affordable, worth the services obtained by the customer as well as for the GrabBike drivers will happily welcome their customers. In addition, the drivers will also explain to customers the advantages of online transportation, promos, points collection, and payment methods.

**The number of drivers is increasing corresponding to the number of customers**

According to Nugroho (Nugroho, 2004) development can be interpreted as a coordinated effort to create legitimate alternatives for the society as well as to fulfill and achieve their aspirations in the most humane way. But in general, there is an agreement that development is a process for creating changes. Therefore, modernization can be defined as a process of transformation and change in society which includes all aspects such as economic, industrial, social, cultural, and so on. Because in the process of modernization itself there is a process of change which leads to improvement, management experts regard it as a development process in where the process of transition from traditional life to modern takes place, which at the beginning was characterized by the use of new modern tools, which replace the traditional tools. along with the development of science, including the social sciences, where experts continue to explore the concepts of development in scientific ways.

As stated by Siagian (Siagian, 2008) "Development as a change, realizing certain living condition and people’s life which is better and improved than the present conditions, while development as growth shows
the ability of a group of people to continue to develop, both qualitatively and quantitatively and is something that absolutely must occur in the development itself."

Similarly, according to the drivers, the development of online-based transportation such as GrabBike is a renewal from a traditional transportation service, which continues to evolve into a process of change. As stated by one of the informants that the development of online transportation changed their work system, as well as a more efficient time and convert conventional transportation service with online service. Then for GrabBike customers with online transportation, they have been provided with opportunities for job seekers while at the same time there is no more bargaining for the ride tariff/price as in conventional ones do because they are already listed in the GrabBike application. Not only it changes in the system but it is also efficient, practical, effective and its respect for the value of the people’s life because one of the characteristics of modern humans is their respect for others.

The rating system given for the drivers from the customer is "a form of customer satisfaction assessment for the services provided by partners (drivers)." However, the satisfaction assessment implicitly poses a threat. The rating system is a lifeline for the drivers because it is used as a benchmark for customer satisfaction towards the online transportation service they use. If a driver rate/rank is below standard, then the driver’s job is on thin ice. The Driver will be considered unable to provide services according to company standards. Drivers can be suspended or at worst terminated from the partnership. When thoroughly examine, the rating system is a useful tool that allows drivers to work seriously and excellently on their technology platform. For customers, giving stars or rating for the drivers is a serious matter, because it will determine the fate of the driver in terms of keeping their job.

Public transportation is still commonly used as a means to get to places even though to own a private vehicle in the present is very easy. Nowadays, online motorcycle taxi (ojek) services are the latest trend in public transportation. Online motorcycle taxi (ojek) is a transformation from a conventional motorcycle taxi (ojek) which usually stays at a base/ojek base to wait for customers. The convenience of ordering using smartphone technology makes online motorcycle taxi (ojek) increasingly in demand. This might be a solution for transportation inconvenience in Indonesia, especially in big cities where they often experience traffic jam. Motorcycle taxi (ojek), since they use motorcycle are mobile in combating the traffic jam. The majority of online motorcycle taxi (ojek) companies have partnered up with experienced motorcycle taxi (ojek) drivers and are located in the big cities. The main service they offer is to take passengers to their destination. But in addition to delivering passengers, they also provide goods and food delivery, shopping vouchers, tickets, and so on.

**Benefits for both Driver and Customers of GraBike**

The demand and need for motorcycle taxi (ojek) service was the basis for changes in the concept of the motorcycle taxi (ojek) itself. Motorcycle taxi (ojek) as a means of transportation was then combined with the sophistication of nowadays’s technology has resulted in a technology-based motorcycle taxi (ojek). A technology-based motorcycle taxi (ojek), commonly referred to as online motorcycle taxi (ojek) (Ojek online), is a transformation of conventional motorcycle taxi (ojek) which are combined with technology. Online motorcycle taxi (ojek) function the same as conventional motorcycle taxi (ojek) in general, the difference is on the means of ordering and payment system which are done through the sophistication of the smartphone. This makes motorcycle taxi (ojek) transportation no longer considered as lower-class transportation, because online motorcycle taxi (ojek) customers now come from various economic levels, as long as they have a smartphone. The convenience offered by online motorcycle taxi (ojek) is considered to be bothering the conventional transportation service businesses that have long been operating. Online motorcycle taxi (ojek) are ordered only through mobile phones, without having to leave the house, then just wait and the online motorcycle taxi (ojek) will arrive. Unlike conventional motorcycle taxi (ojek), where passengers must be on the side of the road waiting for a car taxi or motorcycle taxi (ojek) to pass by or by approaching a conventional motorcycle taxi (ojek) / car taxi itself. This practicality is the reason why they prefer online motorcycle taxi (ojek) compared to conventional transportation services.

Then we have the matter of tariffs, with price/tariffs that are not much different from conventional transportation, prospective passengers have got a lot of convenience in terms of effectiveness and efficiency.
The low price of the online motorcycle taxi (ojek) service is also often considered to damage the price market among conventional drivers or other transportation business owners. And often the conventional motorcycle taxi (ojek) are not worth to the services provided. In addition to tariffs, online motorcycle taxi (ojek) companies also often offer discounts or promos with passenger points. This shows that online motorcycle taxi (ojek) companies are striving to 'attract' customers to remain loyal to online motorcycle taxi (ojek). One example of this is the GrabBike drivers and customers chose the GrabBike application because of its attractive discount promotion or offers which are continuously given to the customers. As well as the efficiency, effectiveness, and flexibility of work time for the drivers. Similar to the characteristics of modern humans, high mobility gives an orientation that customers value their time and are open to new experiences of modernization both from innovation and others.

Currently, the number of customer/user of online transportation has increased every year which can be seen from the following table:

Table 1: The increasing number of drivers and customers of GrabBike

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>GrabBike Driver</td>
<td>800</td>
<td>1300</td>
<td>2200</td>
</tr>
<tr>
<td>Customer</td>
<td>600</td>
<td>1800</td>
<td>2500</td>
</tr>
</tbody>
</table>

Source: GrabBike Head Office Medan

This achievement is also supported by the number of users who feel the effectiveness, efficiency, and convenience of GrabBike itself. Moreover, this achievement also supported by a number of investments received by Grab companies from other companies such as Booking Holdings, Toyota, Microsoft, and others. The Grab companies will continue to strive to innovate its services in 2019, in order to achieve total revenue. The Grab company also still only focuses on deliveries and transportation service. However, passenger and driver safety, as well as user satisfaction, become more optimized each year. The service they provide only on for delivery and transportation but soon will spread to culinary service, goods delivery, and shopping.

Conclusion

With the rapid and fast development and the use of online transportation, especially Grab and the level of employment absorption of Grabbike drivers, it has now become more important for Grab bike drivers to fully comply with the established Code of Ethics. In order for the Grab company and the government to be able to establish cooperation and sustainability of a better transportation system. In this study we found that both driver and customers feel positive changes and improvements in their activities, where the process of modernization led towards improvement, transitioning from traditional to modern life. If we analyzed further, actually, the development of online transportation has provided multiple benefits for many people in addition to getting the convenience of gaining access to transportation. People can also join with this online transportation company to become a partner, in other words, the development of online transportation has helped reducing unemployment.

The era of disruption has led to technological innovations that have disrupted impact or fundamental changes towards people’s lives. Unexpected changes have become a phenomenon that will often occur in this particular era. Additionally, not only being a threat but this era of industrial disruption may also provide opportunities, which are basically will trigger more innovation that makes our life more practical, efficient and economical and provide Grabbikethe development which encourages people to join and become partners with Grabbike company for the reason that it provides convenience for access towards transportation, excellent service and safety, and its affordable price range.
References


