

The Role of Transportation Sector Start-ups in Improving Community Welfare in Purwokerto City

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Abstract. The emergence of start-up platforms in the transportation sector in the city of Purwokerto is a breath of fresh air for the welfare of its people. The purpose of this study is to analyze the impact of the start-up role in the transportation sector in improving the quality of life of the community, as well as the challenges and efforts made by start-ups, the community, and the government for the development of start-ups in the transportation sector. The research method used is a descriptive qualitative approach, through an interview approach to drivers and users of the platform services. The results of the study show that the demand for online transportation start-up services is increasing because they are easily accessible and relatively affordable. The emergence of start-ups also facilitates population mobility and reduces unemployment and poverty rates. In addition, online transportation as an alternative can reduce the number of private vehicles on the highway so that congestion and air pollution can be reduced. This study is expected to maximize the quality of life of the community and increase knowledge about the role of start-ups in the transportation sector.

Keywords: Start-up, Transportation Sector, Welfare

1 Introduction

Transportation plays an important role in human life because it can facilitate the movement of goods from one place to another and to interact with each other. The role of transportation is becoming increasingly important for the progress of a country because the growth of this industry can directly improve the economy and regional development. However, an efficient transportation system must also be supported by adequate transportation infrastructure. Economic growth in several countries, including Indonesia, is highly dependent on good transportation infrastructure. This condition not only accelerates the process of distributing goods and services but also increases community mobility. Thus, the development of maximum transportation infrastructure can contribute greatly to improving community welfare, accelerating the rate of economic growth, and creating better economic stability. An effective transportation system will reduce logistics costs, increase the competitiveness of local products in the international market, and open up new economic opportunities [1].

On the other hand, Purwokerto, which is the capital of Banyumas Regency and is located in the middle of Banyumas Regency, has superior geographical conditions, making this city very easy to reach from surrounding areas through various means of transportation. Through various good transportation infrastructures, the movement of people and goods will be much more efficient. As a result, economic growth in the city of Purwokerto has experienced faster development. Proactive local government policies are also good factors to support infrastructure and public services in local economic dynamics. Thus, Purwokerto not only functions as the center of government of Banyumas Regency, but also becomes a center of increasingly rapid economic growth in the region. Based on data from the Banyumas Regency Central Statistics Agency, the population of Purwokerto city is 233,865 people in 2023 [2]. Along with the increasing population in the city of Purwokerto, the need for better and more efficient transportation services is also increasing.

The surge in demand for transportation services has led to several start-ups or digital-based companies starting to emerge over the past few years in the era of increasingly rapid and dynamic digitalization. A start-up is a new business established in the field of technology and information but is still in the development and observation stage of market potential. The presence of start-ups has become a significant phenomenon because this business operates using new technology to solve people's problems. This is supported by the potential of start-ups that have a large market and efficient capital, as well as revenue growth of 10% per week, so that start-ups can be considered a solution to problems [3]. Start-ups have improved people's quality of life by creating more efficient and useful applications and services in recent years. They have also improved business skills by creating more creative and efficient solutions to increase productivity and efficiency.

In relation to this, developments in the transportation sector have undergone major changes as a result of the success of digital technology today. With the internet and information technology, transportation systems can be better integrated. This allows for more accurate data usage and efficiency in the use of resources, for example global positioning system (GPS). GPS is one of the things utilized by online application-based transportation companies. In its concept, this company connects prospective passengers with drivers through an application platform on a smartphone and provides transportation services and efficient booking process facilities. After prospective passengers see a virtual map of the location and waiting time, GPS will be sent to the driver, who will take orders from prospective passengers. By using real-time data, digital-based information systems can monitor traffic, predict congestion, and improve road safety [4]. When compared to public transportation, transportation sector start-ups provide more efficient access and services. Basically, public transportation is a means provided to support various activities of the local community as a solution from the government but cannot be used without ordering independently. Meanwhile, online transportation is one of the innovations that has received a positive response from the beginning of its emergence and is considered the best today as an example of application-based technology development. However, both have made significant contributions to the transportation sector in all cities in Indonesia, including Purwokerto. This is because both transportation models have provided innovations to help improve mobility and quality of life for the community [5].

Currently, start-up businesses have become a new favorite in the Indonesian business industry. Even until now, there are thousands of local start-ups that have been established, including in the transportation sector. This event shows that Indonesia has many start-ups that are able to compete in the global market, so they must be utilized properly. Start-up companies exist in big cities and also small cities, such as Purwokerto. In Indonesia, business competition between online transportation service providers is increasingly fierce as a result of the emergence of

many new businesses. So, they are trying to develop various innovations to attract new customers to use their transportation services. In fact, their services are now not limited to transportation alone, but have developed into various other services, such as buying food and sending goods. In addition, these companies are competing to offer services at certain rates. Reducing service rates to ongoing promotional rates is expected to increase the number of customers using their services [6].

Before the emergence of start-up technology, Indonesian people only knew public transportation such as buses, motorcycle taxis, or trains. Since start-up technology began to develop, the way people travel has also begun to change [7]. Start-ups in the transportation sector are identical to internet-based businesses or companies that get customers and markets. They use internet technology to find markets and customers, also revolutionize various things including transportation. Recently, several online motorcycle taxi brands have taken over the market, and newer companies are operating in Indonesia with various marketing tactics, such as Gojek, Grab, Maxim, and others. As seen on Table 1, these companies continue to develop new ways to attract and serve customers and strengthen their position in a competitive market. These three start-ups also operate in Purwokerto and provide transportation services that facilitate people's mobility in Purwokerto City [8].

Table 1. Transportation Sector Start-ups in Indonesia

Start-up	Description	Source
Gojek	The first Indonesian start-up to win the Unicorn title. Gojek is a start-up in the transportation sector but has developed into a super app that also provides various services from food delivery, goods, e-wallet, to bill payment. Currently, Gojek services can also be used in several countries in Southeast Asia, such as Singapore and Thailand.	https://www.gojek.com/en-id
Grab	This Singaporean start-up has held the Unicorn title since 2014. Grab has services not only in the transportation sector, but also in food delivery, goods, bill payments, game top ups, and insurance.	https://www.grab.com/id/
Maxim	Maxim is a Russian company that serves transportation services such as ride hailing, delivery, and cargo.	https://id.taximaxim.com/
inDrive	This start-up company based in California, United States, is a ridesharing company that offers a bargaining feature between drivers and consumers.	https://indrive.com/en-us
Uber	This California, United States-based start-up company is a multinational transportation company that offers ride-hailing services, courier services, food delivery, and freight transport. It was once available in Indonesia, but in 2018 withdrew from the Southeast Asian market.	https://uber.com/

Online transportation has become the main choice among people in the era of increasingly advanced technology like today. There are two factors that can influence consumer purchasing decisions, namely internal factors that come from within the consumer and external factors that come from outside the individual consumer. First, convenience, customers' decisions to use online transportation services are influenced by ease of access, such as ease of ordering online and using applications. Second, security, customers feel safer and free from unwanted

interference. Third, time efficiency, customers can order and use transportation services online through applications and websites that are easy to access. This time efficiency can influence customers' decisions to use online transportation services because it can save time and increase efficiency. Fourth, price, cheaper and more efficient costs can be a more popular choice among consumers [9] [10].

In line with the rapid development of online transportation start-ups such as Gojek, Grab, Maxim, others in recent years, and through various forms of services provided have helped improve the welfare of the community in Purwokerto City. Some contributions of online transportation start-ups to the welfare of the community such as providing the community with easier and cheaper access to more efficient transportation. Especially in the modern world like today, the benefits of digital technology are very broad and diverse for the community. By using digital technology, people can save time and money, such as finding work, buying goods, and getting medical care. In other words, the presence of online transportation has provided wider business opportunities and increased the communities ability to face the various challenges faced [11].

Transportation start-ups have contributed greatly to improving the quality of life of the Purwokerto community. Given that the city is experiencing an increase in the number of newcomers who work or study, and fortunately, the transportation infrastructure is developing rapidly. Therefore, transportation start-ups can help advance community welfare by increasing the efficiency of transportation services. According to the social welfare statistics report, the level of community welfare in cities and villages is comparable if the standard criteria for community welfare are income, consumption, housing conditions, housing facilities, family health, ease of obtaining health services, ease of sending children to school, and ease of transportation. In line with the potential of transportation start-ups that are able to advance the local economy, employment opportunities will also increase significantly, so that community income will also increase. Thus, transportation sector start-ups deserve support from the community and government [2].

In the transportation sector, the government plays an important role in the growth and contribution of start-ups. One example is by creating a conducive environment for the growth of small businesses, such as start-ups in the transportation sector. This includes financial support, providing access to resources and training, and establishing regulations that support start-up growth. In this case, to accelerate start-up growth, the Indonesian government is preparing a funding program. On the other hand, the government is also accelerating infrastructure development by building fiber optic cables, which aims to spread internet access evenly throughout Indonesia. This will facilitate the emergence of new start-ups that have the potential to develop into larger companies, which in time will become drivers of Indonesia's economic growth. In line with this, the role of start-ups in creating jobs is also important. In this case, the Indonesian government is making extraordinary efforts to increase the number of new businesses in the country, by providing various forms of support so that start-ups can grow and develop [12].

This study aims to determine the impact and contribution of start-ups in the transportation sector that affect the quality of life of the Purwokerto community. Within the scope of this study, researchers will analyze several aspects related to the role of transportation start-ups in improving the welfare of the local community. In relation to this, in recent years, the rapid development of the online transportation sector business has triggered a price war in each start-up such as Gojek, Grab, Maxim, and others. Thus, price dynamics have been influenced by competition, as some start-ups offer more competitive prices to increase their market share. On the other hand, competition between start-ups in the transportation sector has several significant

impacts on the quality of welfare of the local community. One example is that this competition can affect the quality of life of workers, especially in terms of increasing employment opportunities and the quality of life of workers, as well as its influence on the quality of life of the community [13].

2 Methods

This research was conducted using a descriptive qualitative research method. Qualitative research using descriptive methods is a study approach with the aim of understanding and describing social phenomena or human behavior in more detail. In this study, researchers not only focus on data collection, but also on the analysis and interpretation of the data [14]. The sources obtained were by collecting primary data. Initial data were collected through interviews with drivers from Grab drivers, which aimed to find out the drivers' experiences and perspectives on how the establishment of a new transportation company affects the welfare of the community in Purwokerto City. Researchers also conducted interviews with customers of the start-up's transportation services to find out how the service benefits the local community.

3 Results and Discussion

The results of the study show that the emergence of transportation sector start-ups in Purwokerto City has brought a breath of fresh air to improve public accessibility. This is reinforced by the expansion of the reach of public and private transportation services, which previously did not reach all areas of the city. However, now people from various regions, from the suburbs or the city center can access anywhere, anytime, and have more diverse transportation options. This is a result of technological advances, so that the transportation sector has progressed, such as online transportation services that can be accessed with smartphones. In line with this, the emergence of a new transportation sector also has an impact on society, especially minority groups such as women, the elderly and people with disabilities [15].

The user-friendly application platform makes users travel safer and more comfortable. Transportation sector start-ups also reduce travel time and transportation costs for the community. The application platform uses intelligent algorithms to optimize travel routes to maximize efficiency and reduce travel time. On the other hand, attractive promotions and competitive pricing schemes offered by start-ups help reduce public transportation costs [16]. In line with this, a respondent named Rianti Fransiska, who uses online transportation services every day, stated that:

“Through this online transportation application, it makes it easier for me as a user, especially because the cost is relatively cheaper compared to other public transportation.”

Thus, transportation sector start-ups have played a significant role in increasing accessibility for residents in Purwokerto City. In this case, it not only has an impact on ease of mobility, but also opens up new opportunities for the community to access various services and economic activities.

Before the presence of transportation sector start-ups, people's mobility in Purwokerto City was hampered by long travel times and high costs. As a result, people have limited access to various economic and social activities. The narrowness of people's access space has caused stagnation in economic growth and social welfare. People's movement patterns have changed along with the development of online transportation start-ups. With fast booking applications and services,

people can travel easier and efficiently. Because of the various features, such as cost estimation features, various payment options and real-time maps. Thus, the existence of online transportation not only affects the ease of mobility, but also increases the frequency and reach of travel for local people. Thus, it allows them to access more places and activities than before. In line with the goal of creating technology that prioritizes convenience in daily activities, the presence of online transportation can answer the needs of today's society [15].

The presence of start-ups in transportation sector has provided ease of travel for the people of Purwokerto City. This was expressed by Diki Saputra, a driver, who state that:

“start-up services make it easier for those who want to travel but do not have a vehicle to access.”

With the presence of online transportation services, people who previously had difficulty traveling now have more flexible and affordable options. In this case, many people, from office workers to housewives, can feel the ease of access. Online motorcycle taxis are a practical and cheap way to get around, especially for those who live in areas that are not well served by public transportation. The presence of online motorcycle taxi platforms helps both parties, users and drivers. In addition to opening up new jobs and increasing income for many people, online motorcycle taxi platforms also help local economic growth by increasing community mobility and activity.

The positive impact of having a transportation start-up in Purwokerto is more than just facilitating the mobility of local people. On the contrary, it should be noted that greater community participation in various aspects of economic and social life is also very important. By increasing accessibility, people in the city can more easily reach important destinations such as schools, workplaces, and centers of social and economic activities. As a result, not only will there be increased productivity in the fields of work and education, but there will also be new opportunities for entrepreneurship and involvement in community activities. Transportation start-ups also increase social inclusion. This is because the quality of life across all social levels increases when various groups of people can obtain services more easily. Quality of life is one of the foundations for the process of national development in Indonesia and other developing countries. Thus, transportation start-ups in the city of Purwokerto are able to reduce social isolation and encourage broader interactive relationships within the community [17].

Table 2 shows the development of regional income from 2018 to 2023, along with the implicit index of income in the transportation and warehousing sector in Banyumas Regency. From the table, it can be seen that regional income in 2018 was 1,448,388.74 million and increased to 2,159,091.29 million in 2023. Thus, it shows an average annual growth of 7.75%. The implicit index rate of the transportation and warehousing sector shows how the prices of goods and services change, this is known by the implicit index rate of 1.01 in 2018, which shows that the prices of goods and services increased by 1% compared to the previous year. The implicit index rate will continue to increase to reach 8.03% in 2023, which shows that the prices of goods and services in the transportation and warehousing sector have increased significantly during this period.

Table 2. Regional Income and Implicit Index Rate on Transportation and Warehouse Sector in Banyumas Regency 2018–2023

Year	Regional Income on Transportation and Warehouse Sector (in million Rupiah)	Implicit Index Rate (%)
2018	1,448,388.74	1.01
2019	1,563,880.34	2.16
2020	1,065,885.14	2.58
2021	1,089,793.13	3.22
2022	2,001,919.20	6.13
2023	2,159,091.29	8.03

Source: Badan Pusat Statistik Kabupaten Banyumas, 2024

Based on the evaluation of the impact of start-ups on the productivity and efficiency of the business sector in Purwokerto City, it is proven that start-ups have significantly improved business performance. This allows businesses in Purwokerto to operate more efficiently and productively, which ultimately contributes to increasing the income and quality of life of the local community. On the other hand, start-ups also play an important role in increasing the regional income of Purwokerto City [2]. Start-ups in the transportation sector have increased the economic efficiency of Purwokerto City by increasing the regional income, reducing transportation time and costs, and increasing business productivity and efficiency. Thus, start-ups in the transportation sector have made a major contribution to the economic efficiency of Purwokerto City.

Implicitly, the presence of online transportation in Purwokerto City can contribute to helping the government's program in reducing poverty and unemployment rates in Indonesia. In addition, online transportation also expands employment opportunities in the informal sector, especially for people who are less fortunate in academics [18]. On the other hand, many students who need extra money can also join as drivers on the online motorcycle taxi platform. Ikhwan Nur Alim, one of the respondents, is a student who works as a driver on the Grab platform. He feels that this job is suitable for a student, because of the flexible working hours and simple requirements. The online motorcycle taxi platform also not only helps drivers earn money but can also be a place to socialize with other drivers and develop soft skills. The online motorcycle taxi platform can be a side income for students, especially with the increasing cost of living and education, in addition to earning income. This can help students get income and useful work experience

The development of start-ups in the transportation sector in Purwokerto City has faced several challenges. One of the main problems is policies and regulations that hinder the growth of start-ups. Excessive regulation can make it difficult for start-ups to operate and provide better services. Therefore, clear and appropriate regulations are needed to help the growth of start-ups. In addition, the emergence of several start-up platforms in the transportation sector such as Grab, Gojek, and Uber, has created fierce competition with each other. Next, dependence on technology that is vulnerable to cyber attacks is also a significant problem. Thus, transportation start-ups must continue to innovate, maintain service quality, and adapt to market and regulatory changes if they want to survive and thrive [10].

Every driver will be affected by the fierce competition among online motorcycle taxi platforms in Purwokerto. One of the impacts is in terms of income. Suswanto, a driver, stated:

“the competition between Grab and other online start-ups has a big impact on my income. For example, my income has decreased because other start-up platforms are holding big discounts, so they can attract more consumers.”

This kind of situation makes drivers must always be alert and adapt quickly in order to be competitive and get enough income. However, from the positive side, with this competition, it will be able to influence the way drivers work. Starting from the side of increasing the opportunity to get orders, by having to be more active in looking for strategic and busy locations, such as offices, schools, stations, and shopping centers, or by providing the best service for each customer.

On the other hand, start-ups can develop effective and efficient services if they have adequate infrastructure. Thus, large investments in transportation infrastructure are needed to support their growth. Not only that, but another big challenge is also how the community is ready to accept and utilize new transportation technology. Although they have received large investments to be able to grow bigger, if the community is not ready to accept new technology, of course this can hinder the growth of start-ups, so that the services provided are less than optimal. Therefore, it is better to hold an effective education campaign on a large scale to increase public awareness of new transportation technology [19].

When compared to other sectors, the transportation sector is the factor that causes the most pollution. This is because the transportation sector produces carbon emissions, where the combustion of fuel oil produces carbon emissions, especially carbon dioxide (CO₂). Amid the hustle and bustle of urban activities, like big cities in Indonesia, Purwokerto City although smaller compared to other big cities, is also not free from the problems of traffic jams and air pollution. This is due to the increasing use of private vehicles in this small city, so that the number of traffic jams is getting higher and the level of air pollution. Moreover, the highway infrastructure is not comparable to the capacity of the increasing volume of vehicles. This problem illustrates that the local community needs a more sustainable transportation solution. [20].

Therefore, the presence of online transportation is considered a creative solution to this problem. This cheap and easily accessible service for traveling can be an alternative when compared to private vehicles. This makes people switch from private vehicles to online transportation, so that the number of vehicles on the highway is reduced. Thus, congestion in Purwokerto can be reduced, so that road users can save time and energy, and improve driving safety. In addition, the reduction in the number of private vehicles on the highway also contributes greatly to reducing carbon emissions in cities because private vehicles, especially cars, are the main cause of carbon emissions. In general, online transportation services can reduce carbon emissions from individual travel. Compared to private vehicles, online transportation services use cleaner and more fuel-efficient vehicles resulting in much lower emissions [4].

4 Conclusion

The presence of start-ups in the transportation sector in the city of Purwokerto is one of the factors that can improve the welfare of the local community. Easily accessible transportation services and more affordable prices compared to public transportation make it the right choice in the digital era like today. This has led to a pattern of community movement that is increasingly changing with the presence of various transportation start-up platforms such as Grab, Gojek,

and Uber. Its emergence not only facilitates daily mobility, but also contributes to reducing unemployment and poverty in the Indonesian government program. Thus, accessibility will increase accompanied by wider new job opportunities for drivers, in other words online transportation in Purwokerto can support local economic growth and improve the quality of life of the community.

Based on the research results above, there are several suggestions that can be considered, namely the need for a review of the determination of tariffs by online transportation platforms to be more in line with current economic conditions, considering that fuel prices continue to rise, which makes it difficult for drivers to meet their daily needs if they only rely on one online motorcycle taxi account as their main livelihood. Furthermore, it is necessary to increase public awareness through campaigns or socialization about traffic or driving safety, the benefits of using online transportation, and regulations and restrictions on these services so as not to interfere with public transportation operations also need to be carried out. In addition, the quality of road infrastructure must also be considered, so that the contribution of online transportation and public transportation can run optimally. So, with proper and sustainable implementation, transportation sector start-ups in the city of Purwokerto can be an effective solution that can overcome problems such as congestion and air pollution. Thus, these benefits are not only felt by the environment, but also by society as a whole.

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