The Influence of Information Technology on Public Transportation

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Abstract. The purpose of this study aims to find out how the satisfaction of users of public transportation to the current transportation system. The rapid development of communication technology provide social change in society, including in public transportation modes. This research used descriptive quality method in the form of literary study, where the population taken in this study are users of public transportation and users of online transportation services. The results showed that the use of information and communication technology on public transportation affects the convenience of transportation users in terms of timeliness, comfort in driving, and solutions when stuck with the ease of technology in ordering, knowing the cost route, destination location and driver identification can ensure user safety.

1. Introduction
The purpose of this study aims to find out how the satisfaction of users of public transportation to the current transportation system. The development of technology is currently in significant progress, information technology can help companies to develop and will experience rapid growth from year to year. Information technology for business is one of the information technologies that makes businessmen closer to consumers because information technology helps reduce costs [1]. The technological development is currently developing rapidly. One of the things that is often discussed is how to develop technology into the business that is most commonly used by the public, namely modern public transportation with internet sophistication and virtual applications that make it easy for people to travel in their daily activities [2]. Even in everyday life, people tend to use the internet for various business activities and communication. In the last few decades the internet has developed into something that is needed by the community, including in the field of transportation [3]. With the existence of transportation services with technology that is now developing, technological developments have slightly disrupted the old transportation business model that had already run. The concept of transportation using technology is part of a concept that uses assets and services more together with its convenience features [4].
Public transportation is one of the things needed by the community both in urban and rural communities. Various public transportation were used for work, travel, or going to educational institution. Most of the people widely accepts public transportation as an alternative choice to reduce congestion [5]. Institutions related to the development of public transportation systems must be able to change people's behavior so they can switch to using public transportation. With the increase in the number of trips and followed by motorization on the number of vehicles that are increasing simultaneously it can cause a negative phenomenon in the form of congestion because a number of trips are used using private vehicles [6]. Mobility mainly measured by time, distance, and generalization of travel costs. Technology gives people access to online mobility using virtual technology that is now growing rapidly. Handheld internet devices are now commonly used by people for shopping activities and allow people to find information about transportation before they start their trip. This can change the pattern of travel behavior in society, this becomes important when millions of people using technology as a transportation system can develop a new transportation model with technology and telecommunications can now be the future of travel [7]. Implementation of technological advances in the public transportation industry is to provide relatively lower prices, increase information and communication, controlling transit modes and services will be an opportunity for people to switch to using public transportation. Many public transport agents who have implemented information technology as advancements in improving services can help agent performance to evaluate, and make them grow [8]. The increase in public transportation users will have an impact on reducing the number of private vehicles on the road. Therefore, increasing the quality of comfort and service will be a good thing for accessibility in big cities so as to facilitate travel for people traveling using public transportation as the primary means compared to using private vehicles [9]. The most significant feature of cellular technology is the mobility of the ability to access services anywhere, on the move, and through wireless networks and various devices such as mobile phones. On a large scale, it refers to the movement of technology, people, regulation, and access to information and the range of cellular technology to facilitate movement [10].

The purpose of this study aims to find out how the satisfaction of users of public transportation to the current transportation system. The rapid development of communication technology provide social change in society, including in public transportation modes. This research used descriptive quality method in the form of literary study, where the population taken in this study are users of public transportation and users of online transportation services.

2. Method
This research used qualitative descriptive methods and literature studies to illustrate the effect of the use of Information Technology (IT) in public transport services.

3. Results and Discussion
The application of information technology on public transportation became a necessary for users with the application. It makes reservations easier with a more efficient level of travel time, comfort while driving, and the safety of verified drivers makes online modes of transportation more preferred and chosen by the community. With the existence of online-based public transportation makes it easy to make a reservation both two-wheeled vehicles and four-wheeled vehicles. Figure 1 illustrates the interface design of one of the technology-based public transportation applications, Grab.
In the main menu, the user can choose the type or feature that will be used to perform the activity by selecting what type of service is needed. After selecting the type of service, the page will appear from where the user is located to facilitate pickup and where the user wants to go, the application will display the driver closest to the user as shown in Figure 2.

![Figure 1. Main Menu of Grab Application](image1)

![Figure 2. Driver search menu](image2)
After entering the position of the user's location and the user's destination, a list of prices will appear along with the type of vehicle that you want to use using a two-wheeled vehicle or using a four-wheeled vehicle. The prices listed are according to the distance traveled and the type of vehicle selected, as illustrated in Figure 3.

![Figure 3. Vehicle type selection menu](image1)

Other than being able to order the types of vehicles available, the application also provides a rent feature that is used to place an order within a certain period so that it can make the driver focus on one user, as shown in Figure 4.

![Figure 4. Rental menu](image2)
After traveling the destination, application system of the user will calculate the amount of payment to be paid according to the destination mileage, as shown in figure 5.

![Payment details menu](image)

**Figure 5.** Payment details menu

From this we can conclude that, the use of online-based transportation is influential for the community, and of course also supports the general economy.

4. **Conclusion**
The development of information technology is influential in various fields of life including in the field of public transportation. With the existence of today's technology, people are greatly facilitated by the presence of online transportation facilities especially for ordering and service wherever and whenever because people can quickly carry out activities with the application connected to the internet. With the technology in the field of public transportation also provides a solution to the congestion that often occurs so that many people switch to using online-based public transportation instead of using private vehicles.

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