

THE IMPACT OF INFORMATION & COMMUNICATION TECHNOLOGY ON LAND TRANSPORTATION SERVICE BUSINESS ON INDONESIA (CASE STUDY IN CENTRAL SULAWESI PROVINCE)

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ABSTRACT

The development of information and communication technology (ICT) has an impact on the land transportation service business in Indonesia. ICT enables efficiency and effectiveness in business processes, but also has an impact on changing consumer behavior and competition between companies. Therefore, this study was conducted to determine the impact of ICT on land transportation service business in Indonesia. The purpose of this study is to determine the impact of ICT on the land transportation service business in Indonesia, both in terms of efficiency and effectiveness of business processes as well as in terms of changes in consumer behavior and competition between companies. The research method used is a qualitative approach by conducting in-depth interviews with key speakers, observing the symptoms and phenomena of transportation flows, and conducting a rigorous literature review. The results obtained from this study are that the use of ICT in the land transportation service business in Indonesia has a positive impact on the efficiency and effectiveness of business processes, as well as has an impact on changing consumer behavior and competition between companies. In terms of efficiency and effectiveness, the use of ICT helps companies in increasing productivity and reducing operational costs. Meanwhile, in terms of changes in consumer behavior, the use of ICT allows online ordering and payment, making it easier for consumers to use land transportation services. The impact of ICT on competition between companies can be seen from the existence of new companies that emerge with different business models and are more innovative in using ICT.

Keywords: *Technology, information, communication, machine intelligence, service and transportation*

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INTRODUCTION

The development of information and communication technology (ICT) has brought many changes in various sectors, including in the land transportation service business in Indonesia (Hudayana & Widyanta, 2020). ICT enables efficiency and effectiveness in business processes, such as the use of information management systems to manage business operations and the use of mobile applications to facilitate ticket booking and payment (Kuway, 2017). This makes the land transportation industry more open and highly competitive in obtaining consumers.

In the digital era like today, easy access to information and online ordering is indeed very important in running a land transportation service business (Cahyani & Isbanah, 2019). This also applies in South Sulawesi Province, where the increasing use of information and communication technology (ICT) has also influenced the development of land transportation business in the area. In this case, consumers in South Sulawesi are also increasingly helped by the existence of various applications and online platforms such as Gojek and Grab that make it easier for them to find information and order the land transportation services they need. However, on the other hand, this also makes competition between companies tighter because more and more players are entering the land transportation industry in South Sulawesi (HARDI

& HANDAYANI, 2022). Therefore, these companies must be able to innovate and improve the quality of their services in order to compete with other companies in this digital era.

In South Sulawesi Province, land transportation service businesses such as online taxis, buses, and car rentals have implemented information and communication technology as a tool to improve services to customers. South Sulawesi Province (South Sulawesi) is a province in Indonesia located in the southern part of Sulawesi Island. The capital of this province is Makassar City. South Sulawesi has an area of about 46,717 km² and has a population of around 8.5 million people (Anwar, 2022). South Sulawesi is one of the provinces with a rapidly growing tourism sector. Some famous tourist attractions in South Sulawesi include Bantimurung-Bulusaraung National Park, Taman Mini Indonesia Indah South Sulawesi, Losari Beach, and Fort Rotterdam. In addition, South Sulawesi also has a variety of rich cultures and traditions, such as traditional dance and Bugis Gamelan music (Hasanah, 2017).

However, there have not been many studies that explore the impact of the use of information and communication technology on the land transportation service business in South Sulawesi Province. Based on this background description, researchers are interested in conducting research entitled "The Impact of Information & Communication Technology on Land Transportation Service Business in Indonesia".

METHOD

The research method used is a qualitative approach. (Sugiyono, 2013) defines qualitative research methods as a research approach based on a certain philosophy, which is used to investigate scientific phenomena (experiments), where researchers are instruments, and data collection and analysis techniques used emphasize more on meaning interpretation.

Data collection techniques are carried out by literature studies and in-depth interviews with key speakers, observing the symptoms and phenomena of transportation flows, and conducting rigorous literature reviews. Analysis and discussion of land transportation service business, especially transportation cars, shows that information and communication technology through machine intelligence has improved the best service quality in the field of land transportation for the public in South Sulawesi.

RESULTS AND DISCUSSION

The development of information and communication technology in the field of land transportation in Indonesia continues to experience significant progress in recent years (Rochwulaningsih et al., 2019). Currently, technology-based applications such as Gojek, Grab, and Uber have been widely used by the public to order land transportation services easily and quickly. The use of this technology provides convenience and comfort for transportation service users, while opening opportunities for transportation entrepreneurs to increase efficiency and effectiveness in their business (Fonna, 2019).

In South Sulawesi Province, the use of ICT in the land transportation service business has also experienced significant development. Several large transportation companies such as Blue Bird Group, Express Group, and Damri have also developed online-based transportation booking applications. In addition, several local startups such as Makassar Go and My Bus have also begun to penetrate the market by presenting online transportation booking applications that are more affordable for the community.

The use of this technology has a positive impact on the land transportation service business in South Sulawesi, such as increasing the number of customers and operational cost efficiency. However, it also has negative impacts such as intensifying competition between transportation companies and increasing concerns over the security of users' personal data. Therefore, there is a need for strict regulations in the use of technology in the land transportation business, while increasing awareness of the importance of protecting users' personal data in using online transportation booking applications.

The impact of information and communication technology (ICT) on land transportation service business in Indonesia is quite significant. With online transportation booking applications such as Gojek, Grab, and others, consumers have more alternatives in choosing the right land transportation service for their needs. This has an impact on changing consumer behavior in choosing transportation services, where they prefer accessible and efficient services (Ali et al., 2019).

In addition, competition between companies in the land transportation service business is getting tighter due to the ease of access to information and online bookings. Companies that are able to provide accessible and efficient services at competitive prices have a greater chance of winning the competition in the market (Haqqi & Wijayati, 2019).

Another impact of information and communication technology in the land transportation service business is the creation of better transparency and accountability in managing business operations (Fauzi et al., 2023). With an integrated and transparent information system, companies can monitor their business performance more effectively and improve operational problems that occur. However, negative impacts can also occur, including the loss of opportunities for traditional business people in competing in the market. Companies that are unable to adapt to the development of information and communication technology can be marginalized and lose business opportunities (Setiawati, 2020). In addition, the risk of security and privacy of consumer data also needs to be a concern in the use of information and communication technology in the land transportation service business (Abdillah et al., n.d.). Some factors that influence the adoption of information and communication technology in the land transportation service business in Indonesia include:

1. ICT Infrastructure

Adequate ICT infrastructure such as a stable internet network and high access speed are important factors in the adoption of information and communication technology in the land transportation service business in Indonesia.

2. Costs and benefits

The costs involved in adopting information and communication technology can be prohibitive for some companies, but the benefits that can be obtained such as increased efficiency, effectiveness, and long-term cost savings are the motivation for companies to adopt the technology.

3. Level of skill and knowledge

The level of skills and knowledge of information and communication technology among land transportation entrepreneurs in Indonesia also influences the adoption of such technology. Employers who have adequate skills and knowledge will more easily adopt such technologies compared to those who are less skilled and knowledgeable.

4. Social and cultural factors

Social and cultural factors also influence the adoption of information and communication technology in the land transportation service business in Indonesia. For example, some consumers may be reluctant to use information and communication technology because of their preference for face-to-face transactions or through personal contact.

The application of information and communication technology (ICT) in the land transportation service business in South Sulawesi brings advantages and disadvantages that need attention. The main advantages are efficiency and effectiveness in business processes, such as online ticket booking, vehicle position monitoring, GPS usage, and digital data processing (Bali, 2022). In addition, the application of ICT can also improve service quality, such as providing real-time information to customers regarding vehicle arrival times, routes traveled, and cost estimates (Haqqi & Wijayati, 2019). However, the use of ICT also has several disadvantages, such as the need for a large initial investment, the need for special technical skills in operating and managing ICT systems, and security and privacy risks of customer data that must be addressed properly (Meutia et al., 2017).

Overall, the advantages of implementing ICT in the land transportation service business in South Sulawesi outweigh the losses. Companies can improve service quality and business process efficiency, which will ultimately increase customer satisfaction and business competitiveness. However, companies must also pay attention to the security and privacy of customer data and address technical risks that may arise. Therefore, companies need to have a mature strategy in choosing and implementing the right technology and continue to evaluate and develop existing ICT systems.

In the face of the development of information and communication technology and increasingly fierce business competition, land transportation service companies need to take a number of strategies. First, companies can improve the quality of their services by utilizing information and communication technology in the process of ordering, payment, and tracking shipment status. This can increase customer satisfaction and differentiate the company from its competitors. Second, companies need to innovate in the services and products offered, such as developing new features or adopting more flexible business models. Third, companies can improve operational efficiency by adopting new technologies, such as the use of electric vehicles or optimization of delivery routes. Fourth, companies also need to establish partnerships with technology or e-commerce companies to expand market reach and increase marketing effectiveness. In the face of increasingly fierce competition, companies need to pay attention to changes in consumer behavior and market needs, and always be ready to follow the latest trends in the land transportation industry. By taking these strategies, land transportation service companies can remain competitive and thrive in this digital era.

CONCLUSION

Information and communication technology (ICT) has a significant impact on the land transportation service business in Indonesia, especially in South Sulawesi Province. ICT enables efficiency and effectiveness in business processes, from ticket booking to fleet management, so as to improve the quality of services provided by land transportation companies. However, there are several challenges faced, such as increasingly fierce competition between companies and changes in consumer behavior that are increasingly

dynamic. In this case, land transportation companies need to pay attention to the use of information and communication technology as part of their business strategy to be able to compete in an increasingly competitive market. They must be able to utilize ICT effectively and efficiently in improving service quality, providing ease of access and ordering for consumers, and improving operational and administrative management. Overall, the results of this study can provide an overview of the impact of ICT on land transportation service business in Indonesia, and can be an input for land transportation companies in making strategic decisions in utilizing information and communication technology to improve service quality and increase their competitiveness in the market.

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