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Optimization Of Communication Technology In Vehicle Registration And Identification Systems At South Sulawesi Traffic Directorate

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Abstract
This study aims to analyze the impact of communication technology implementation on the service of the Motor Vehicle Registration and Identification System (Regident) at the Traffic Directorate of South Sulawesi Regional Police (Polda Sulsel). The primary focus of the research is the optimization of public services through communication technology, from both internal and external perspectives. This research employs a qualitative approach with participants directly involved in the operationalization of the Regident System. The findings indicate that communication technology plays a significant role in enhancing the efficiency, effectiveness, and transparency of services. However, there are still challenges in cross-sectoral data synchronization that require further attention. Based on these results, the study proposes a communication technology-based optimization model to improve the performance of the Regident System.

Keywords: Optimization of Communication Technology; Public Service; Motor Vehicle Registration and Identification System

INTRODUCTION

Public service is a main pillar of governmental administration, where the quality and effectiveness of services have a direct impact on public satisfaction (Bullock et al., 2020). In today's digital era, technology-based public services are increasingly essential to enhance efficiency and transparency (Lee et al., 2019). One such example can be seen in the Traffic Directorate of South Sulawesi Regional Police (Polda Sulsel), specifically in the services provided by the Motor Vehicle Registration and Identification System (Regident). This system is an integral part of the government's efforts to provide fast, accurate, and effective public services for motor vehicle data management.

However, the optimization of communication technology within the Regident system at the Traffic Directorate of Polda Sulsel faces several challenges (Mekhum, 2020). One of the main obstacles is cross-sectoral data synchronization, where the integration of information between various agencies involved in the registration system has not been fully optimized. Slow and inaccurate synchronization processes can lead to delays in service delivery and contribute to public dissatisfaction (Shkarlet et al., 2020). The efficiency and effectiveness of the system are also influenced by the technological infrastructure, which has not yet fully supported the increased system capacity, particularly in handling the growing volume of data due to the rising number of motor vehicles in South Sulawesi.

In addition, transparency issues are a significant concern. The public demands openness in every stage of the public service process, including within the Regident system (Thunman et al., 2020). The lack of public access to information related to the status of their vehicle registration and identification may lead to distrust in the existing system (Moore, 2019). Therefore, it is necessary to optimize communication technology that can enhance inter-agency connectivity and facilitate more open public access to information.

With the growing number of motor vehicles in South Sulawesi, the need for a more efficient and integrated system becomes increasingly urgent (Abdulkareem & Mohd Ramli, 2022). A system that can not only manage large volumes of data but also process it quickly and accurately is required to support the smooth registration and identification of vehicles. Optimizing communication technology within the Regident system will not only accelerate service processes but also improve data accuracy and strengthen the system's integrity in supporting the dynamic and ever-evolving needs of public administration (Linos et al., 2022).

A literature review on communication technology reveals a close relationship between the implementation of technology and the enhancement of public service quality (Kang, 2019). Various studies support the argument that communication technology can improve efficiency, effectiveness, and transparency in public services (Elnaghi et al., 2019). One frequently utilized approach is the Information Systems Theory, which emphasizes the importance of technology in integrating data and facilitating faster and more accurate information exchange between institutions. This theory posits that integrated information systems can reduce data redundancy, improve timeliness, and simplify access to information for service users.

In the context of the Motor Vehicle Registration and Identification System (Regident) at the Traffic Directorate of South Sulawesi Regional Police (Polda Sulsel), although communication technology has been adopted, its application has not yet yielded optimal results (Viano et al., 2022). The expected efficiency of services resulting from technology adoption has not been fully achieved, particularly in terms of data synchronization across institutions. The Public Service Management Theory also provides an important perspective on how technology can transform the dynamics of administrative services (Tassabehji et al., 2019). This theory underscores that the implementation of technology must be accompanied by proper management, which includes human resource training, infrastructure improvements, and regulatory adjustments to support an efficient technology ecosystem.

However, based on the literature review and previous research, the challenges facing the Regident system in Indonesia, including in South Sulawesi, remain in cross-sectoral data synchronization (Wirtz et al., 2020). Slow or inconsistent synchronization often leads to delays in vehicle registration and identification. Previous studies have discussed the potential of communication technology in addressing this issue, but few have been able to offer practical solutions specifically tailored to the Regident context (Anastasiadou et al., 2021). For example, the application of cloud computing systems or distributed databases might enhance connectivity between agencies, but their implementation in the field requires better coordination among the various stakeholders involved, including local governments, legal institutions, and technology service providers.

Furthermore, the adoption of technology in Regident services requires a thorough evaluation of the existing infrastructure (Eser et al., 2020). Inadequate technological infrastructure can be a major obstacle to optimizing the system. Additionally, technical issues such as integrating different systems and the lack of standardized communication between systems are also critical issues that are often overlooked (Shareef et al., 2019). The literature suggests that to achieve optimal results, communication technology must be integrated holistically, taking into account technical, administrative, and regulatory aspects simultaneously.

Therefore, further research is needed to address key questions related to the effectiveness of communication technology within the Regident system, including how this technology can be optimized to ensure better data synchronization across agencies (Shirahada et al., 2019). Such research is crucial not only for improving the quality of public services but also for developing a system that can adapt to changing times and evolve alongside the increasing number of motor vehicles in South Sulawesi and across Indonesia.

The purpose of this research is to analyze the impact of communication technology implementation on the optimization of services in the Motor Vehicle Registration and Identification System at the Traffic Directorate of South Sulawesi Regional Police (Polda Sulsel). By focusing on both internal and external communication, this study aims to develop a more efficient and effective service model for Regident. Through this approach, it is hoped that practical solutions can be found to enhance the quality of public services in this sector.

Based on this background, this research is significant as it offers new insights into the application of communication technology in public services. While communication technology has been proven to enhance efficiency and transparency, challenges in data synchronization and implementation still need further exploration. Therefore, this research is not only theoretically relevant but also carries substantial practical implications for improving services at the Traffic Directorate of Polda Sulsel.

LITERATUR REVIEW

This research focuses on three main keywords: optimization of communication technology, public service, and the Motor Vehicle Registration and Identification System (Regident) (Safarov, 2021). The optimization of communication technology refers to the utilization of information and communication technology to enhance the efficiency and effectiveness of public services (Ashaye & Irani, 2019). According to several experts, communication technology holds significant potential in supporting a more integrated information management system.

The optimization of communication technology can be categorized based on the application of internal and external communication (Ma et al., 2023). Internal communication includes coordination between departments within an organization, while external communication pertains to the interaction between the organization and the public, as well as other related institutions (Nakisbaev & Dugalich, 2022). In the context of Regident, both types of communication are crucial for ensuring accurate data synchronization.

Public service is a concept encompassing various aspects related to the effective and efficient delivery of services to the public (Pělucha, 2019, pp. 2007–2013). In the literature, public service is often associated with transparency, accountability, and quality of service (Jablonski et al., 2022). Information technology-based public services are expected to reduce complex bureaucracy and expedite administrative processes.

The Motor Vehicle Registration and Identification System is one of the critical services at the Traffic Directorate. In this system, the accuracy and speed of processes are vital to ensuring the legality of motor vehicles. With the implementation of communication technology, it is expected that the registration and identification processes can be carried out more efficiently without compromising data security and reliability.

METHODOLOGY

This research adopts a descriptive qualitative approach aimed at depicting the phenomenon of communication technology implementation within the Regident System services at the Traffic Directorate of South Sulawesi Regional Police (Polda Sulsel) (Padgett, 2017). The focus of the study is to provide a detailed account of how communication technology can be optimized in public services, particularly in the motor vehicle registration sector.

The object of this study is the Motor Vehicle Registration and Identification System service at the Traffic Directorate of Polda Sulsel, which is currently facing challenges in optimizing communication technology. The research utilizes primary data gathered from in-depth interviews with key informants directly involved in the application of communication technology within public services (Yin, 2011). Secondary data are collected from literature related to public service and communication technology.

Participants in this research include officials and staff at the Traffic Directorate of Polda Sulsel who are engaged in the operational aspects of the Regident System (Mills, 2019). They serve as primary sources of information, offering insights into the challenges and opportunities in optimizing technology-based public service delivery.

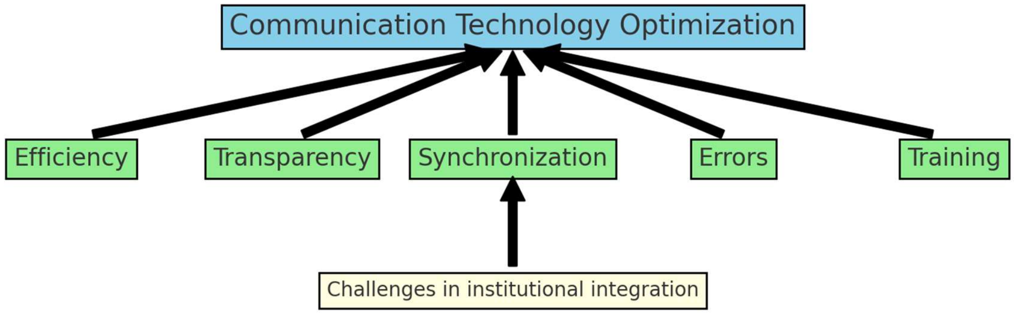
The data collection process involves in-depth interviews, direct observation, and documentation related to the implementation of technology within the Regident System (Johnson, 2014). The data obtained are then analyzed using the Miles and Huberman data analysis technique, which includes data reduction, data display, and conclusion drawing.

RESULTS

1. **Optimization of Communication Technology**

Figure 1

Optimization of Communication Technology at the South Sulawesi Police Traffic Directorate

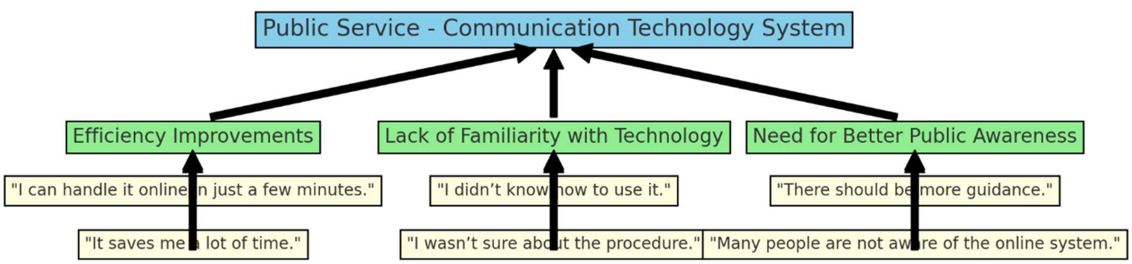


The research findings indicate that the optimization of communication technology within the Motor Vehicle Registration and Identification System (Regident) services at the Traffic Directorate of South Sulawesi Regional Police (Polda Sulsel) has had a positive impact on various aspects. According to interview data, informants noted that electronic-based communication technology has accelerated service processes, reduced waiting times, and enhanced the transparency of service procedures. The implementation of technologies like Electronic Registration and Identification (ERI) has minimized manual errors that previously occurred in the processing of vehicle registration data.

However, observations and interview results also reveal that not all aspects of this technology are functioning optimally. Data synchronization issues between agencies, particularly with the Population and Civil Registration Agency (Dinas Kependudukan dan Catatan Sipil) and Jasa Raharja (the state insurance agency for road accidents), remain a significant challenge. Although technology has been adopted, cross-sectoral system integration has not yet achieved the desired outcomes, which has the potential to cause delays in the verification and validation processes of motor vehicle data.

2. **Public Service**

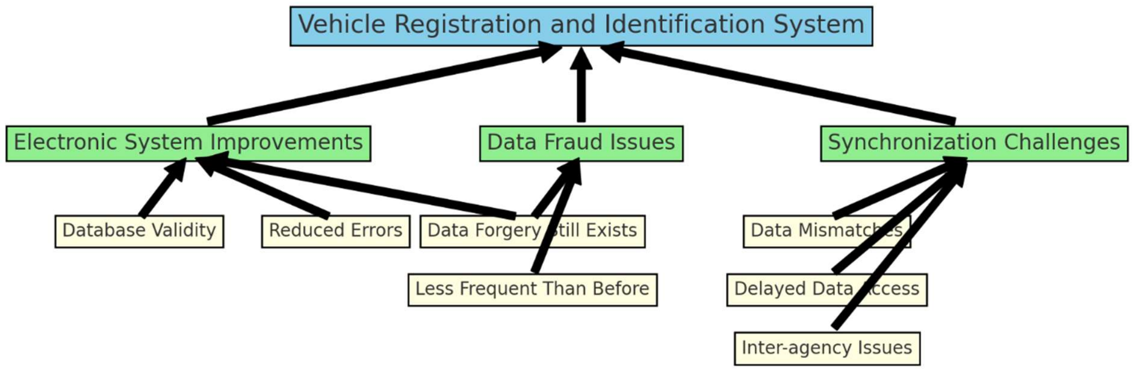
Figure 2
Public Services Provided by the South Sulawesi Police Traffic Directorate



The public service provided by the Traffic Directorate of South Sulawesi Regional Police (Polda Sulsel) through the Regident System, which is based on communication technology, has experienced significant improvements. Data from interviews and observations indicate that the public has perceived increased efficiency in handling motor vehicle documents, both for new registrations and renewals. The interview results also reveal that the public finds it beneficial to have services that can be accessed online, which helps to minimize queues at service counters. However, documentation and observation findings suggest that public understanding of how to use this system remains insufficient. Many service users are not yet familiar with the online procedures, leading some of them to continue visiting service offices directly, despite the availability of online services. This indicates that socialization and education efforts related to the use of technology in public services need to be enhanced to maximize the utilization of the existing system.

3. **Motor Vehicle Registration and Identification System**

Figure 3:
Motor Vehicle Registration and Identification System



Based on the results of interviews and documentation, the Regident System has undergone numerous improvements in recent years. This electronic-based system enables the Traffic Directorate to more effectively record and identify motor vehicles, reducing the potential for data misuse. Documentation results indicate that the Electronic Registration and Identification (ERI) system has contributed to the creation of a more valid and accurate database compared to previous manual methods.

However, field observations reveal that issues such as vehicle data forgery and owner document falsification still occur, albeit in reduced numbers compared to the past. Additionally, data synchronization between the Traffic Directorate and external agencies remains a challenge that must be addressed to enhance data accuracy and ensure smoother administrative processes.

DISCUSSION

The research findings indicate that the implementation of communication technology within the Motor Vehicle Registration and Identification System (Regident) services at the Traffic Directorate of South Sulawesi Regional Police (Polda Sulsel) has had a positive impact, particularly in terms of service efficiency and speed (Noor, 2022). However, there remain some challenges related to cross-sectoral integration, which have caused delays in data synchronization processes (Fernández-Portillo et al., 2019). This study highlights that the optimization of communication technology requires greater attention to inter-agency coordination to achieve maximum results.

This research aligns with previous studies demonstrating the significant impact of communication technology on public service delivery (Rachmawati et al., 2021). The study by Muhammad Ikhwan Alpi Sahari and Ahmad Fauzi (2020), which examined the role of technology in public services at the Traffic Directorate of North Sumatra Regional Police (Polda Sumatera Utara), similarly found that information technology enhances service accountability and efficiency (Schedler et al., 2019). However, the present study reveals that challenges are not limited to technological implementation alone but also involve the integration of different agencies involved in service processes.

The research provides practical contributions to improving service quality at the Traffic Directorate of Polda Sulsel. The findings show that the application of communication technology can enhance service efficiency and effectiveness, but further efforts are required to improve public understanding of the use of technology-based services (Utami & Antoni, 2022). Additionally, the study offers a model for optimizing public services based on communication technology, which can be applied across various governmental institutions (Considine et al., 2022).

The implications of this research suggest that communication technology has significant potential to improve the quality of public services, provided that it is accompanied by good coordination between agencies and an increase in human resource capacity (Tang & Ho, 2019). Moreover, the study emphasizes the importance of educating the public about the use of technology in public services to ensure that existing systems are utilized to their full potential (Maffei et al., 2020).

Based on the results of this research, several actions are recommended. Firstly, there should be an increase in public outreach and education regarding technology-based services to enhance awareness and encourage their use (Haruna & Alhassan, 2022). Additionally, cross-sectoral coordination must be improved to ensure effective data integration between agencies (Todisco et al., 2021). Furthermore, enhancing the capacity of human resources within the Traffic Directorate is crucial to ensure that the communication technology systems can be operated optimally and effectively.

CONCLUSION

The key finding of this research is that the implementation of communication technology has a significant impact on enhancing the efficiency and transparency of services in the Motor Vehicle Registration and Identification System. However, challenges related to cross-sectoral data synchronization remain an obstacle that needs to be addressed.

This study contributes to the development of a public service model based on communication technology. The proposed model can be utilized to optimize motor vehicle registration services across Indonesia, with a focus on system integration and enhancing human resource capacity.

A limitation of this research lies in the scope of participants, which primarily involved internal officials from the Traffic Directorate of South Sulawesi Regional Police (Polda Sulsel). For future research, it is recommended to involve more external stakeholders, including other agencies involved in the data synchronization process, to gain a more comprehensive perspective.

CONFLICT OF INTEREST

The author declare that there is no Conflict of Interest.

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