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Digital Public Service Communication and the Performance of Indonesia's OSS Licensing System: Evidence from Pangkep Regency

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Abstract: This study analyzes the role of digital public service communication in supporting the performance of Online Single Submission (OSS) licensing services in Pangkep Regency, Indonesia. It addresses key challenges of digital governance in developing countries, particularly those related to public understanding, user participation, and service effectiveness. A qualitative approach was employed, combining a case study design with a phenomenological perspective to explore organizational practices and user experiences in depth. Data were collected through in-depth interviews with OSS officers and licensing applicants, participatory observation of the service process, and analysis of OSS guidance documents and internal procedures. Thematic analysis was used to identify patterns and relationships between communication practices and service performance. The findings show that although the Pangkep Regency Investment and One-Stop Integrated Service Office (DPMPTSP) uses various digital channels, including official websites, social media, OSS applications, and call centers, the quality and clarity of information remain inconsistent. Technical and formalistic content creates barriers for applicants with low digital literacy. Internal coordination among administrative units also affects service consistency and speed, as unclear or inconsistent information increases procedural errors and delays in permit issuance. Effective communication strategies, such as visual guides, video tutorials, infographics, and regular coordination meetings, were found to be important factors in improving service efficiency and applicant participation. This study emphasizes that the success of digital governance depends not only on technological infrastructure but also on the quality of public communication and internal coordination. The findings contribute to the digital governance literature and provide practical recommendations for improving OSS implementation at the local government level.



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Keywords: digital governance; public service communication; Online Single Submission; OSS licensing system; organizational coordination; user participation; local government; Indonesia.

印度尼西亚数字公共服务传播与 OSS 许可系统绩效：基于 Pangkep 县的实证证据

摘要：

本研究分析数字化公共服务传播在支持印度尼西亚 Pangkep 县在线单一提交 (Online Single Submission, OSS) 许可服务绩效方面的作用。研究关注发展中国家数字治理面临的关键挑战，尤其是与公众理解、用户参与和服务有效性相关的问题。本研究采用定性研究方法，将案例研究设计与现象学视角相结合，深入探讨组织实践和用户体验。数据通过对 OSS 工作人员和许可申请人的深度访谈、对服务流程的参与式观察，以及对 OSS 指导文件和内部程序的分析收集。研究采用主题分析法识别传播实践与服务绩效之间的模式和关系。研究表明，尽管 Pangkep 县投资与一站式综合服务办公室 (DPMPSTP) 使用了多种数字渠道，包括官方网站、社交媒体、OSS 应用程序和呼叫中心，但信息的质量和清晰度仍不一致。技术性和形式化的内容为数字素养较低的申请人造成了障碍。行政单位之间的内部协调也会影响服务的一致性和速度，因为不清晰或不一致的信息会增加程序性错误，并导致许可证签发延误。视觉指南、视频教程、信息图表和定期协调会议等有效传播策略，被认为是提高服务效率和申请人参与度的重要因素。本研究强调，数字治理的成功不仅取决于技术基础设施，还取决于公共传播质量和内部协调水平。研究结果为数字治理文献提供了理论贡献，并为改善地方政府层面的 OSS 实施提供了实践建议。

关键词：

数字治理；公共服务传播；在线单一提交；OSS 许可系统；组织协调；用户参与；地方政府；印度尼西亚

1. Introduction

Digital transformation in the public sector has become one of the strategic agendas of governments in various countries, including Indonesia, in response to the demands of the public who want faster, more transparent, and accountable services [1], [2]. The development of information technology is driving major changes in the pattern of interaction between the government and society, especially in the provision of electronic-based services [3]. This digitalization has given rise to a new paradigm in public services, where face-to-face interactions are beginning to be replaced by digital platforms that allow access to information and services in real-time [4] Digitization of public services is no longer just an additional innovation, but an urgent need to answer bureaucratic challenges that have been synonymous with complexity, slow processes, and lack of information disclosure [5] Digital governance is an

important point in realizing efficient and responsive public service governance to the needs of stakeholders, while allowing for more accurate evaluation of government performance through the use of digital data and indicators [6], [7]. Digitalization encourages the creation of new accountability mechanisms that allow the public to provide feedback faster and more transparently, so that the potential for corruption and inefficient practices can be minimized.

One of the important initiatives presented by the Indonesian government is the implementation of the Online Single Submission (OSS) system, which is a digital service platform designed to simplify the business licensing process [8] OSS aims to integrate all types of licensing that were previously spread across various agencies, so that applicants no longer need to interact with many bureaucratic units manually [9] The presence of OSS marks a shift in the bureaucratic

paradigm from conventional face-to-face services to digital service mechanisms that can be accessed anytime and from anywhere, while emphasizing the importance of efficiency and transparency in the licensing process [10], [11] OSS is also expected to be able to simplify procedures, shorten the time for obtaining permits, and reduce transaction costs that previously burdened applicants. The effectiveness of OSS in improving service quality depends on the extent to which the government is able to ensure that the public understands the process, accesses information clearly, and receives adequate assistance, especially for applicants who are not familiar with digital services [12], [13] In addition, OSS implementation requires cross-agency integration, where coordination and data consistency are critical factors that determine the success of this platform.

The success of digital transformation is not only determined by the sophistication of information systems, but is mainly influenced by how the government communicates these changes to the public [14]. Public service communication is an important element that determines public acceptance, understanding, and participation in utilizing digital services [15]. Without an effective communication strategy, digital platforms are often not used optimally because people do not know procedures, do not understand technical information, or find it difficult to follow the steps provided ([16], [17]). So that the communication aspect is the main foundation in ensuring that the digitization of services does not create new obstacles for society, especially those who have low digital literacy [18].

This communication challenge is even more relevant when looking at regional conditions that have socio-economic characteristics and diverse levels of digital literacy. Many local governments face obstacles in disseminating information, preparing clear service messages, and internal coordination between agencies [19]. Errors or lack of communication can cause service information to be inconsistent, confusing, or not reaching the target user. As a result, digital platforms such as OSS have the potential to create new obstacles in the licensing process, such as the length of processing time due to input errors, incomplete documents, or the applicant's ignorance of the right stages [20]. This shows that communication is not just about conveying information, but also ensuring public acceptance, understanding, and compliance with digital service procedures [21]. Organizational culture factors, staff capabilities, and the quality of communication media are important variables that can affect the success of OSS socialization at the local level.

Pangkep Regency is one of the areas that has a fairly dynamic level of investment activity and economic growth, so the need for effective licensing services is increasingly important. Although local governments have adopted OSS as part of public service

reforms, there are still various problems related to public understanding, the quality of information received, and the effectiveness of communication carried out by the One-Stop Investment and Integrated Services Office (DPMPTSP) [22]. Not a few permit applicants experience obstacles in management due to a lack of clear information, policy changes that are not well socialized, and internal communication processes that are not optimal [23]. This problem not only impacts user satisfaction, but also investor confidence, which in turn can affect the investment climate and regional economic development [24] Therefore, a deep understanding of the dynamics of public service communication is important to improve service quality and encourage sustainable economic growth.

These problems show that the success of OSS implementation in Pangkep is not only determined by technological and regulatory readiness, but also by how local governments implement public communication strategies that are able to bridge the needs and capabilities of the community [25]. The effectiveness of digital services cannot be separated from the clarity of the information flow, the consistency of the message, the quality of the assistance provided, and the presence of responsive communication channels. A digital service system without a mature communication strategy will only be a technical innovation with no real benefits for users [26]. Digitalization must be supported by planned communication management, starting from identifying information needs, selecting appropriate communication media, to evaluating the effectiveness of information delivery [27], [28]. This approach not only improves the accessibility of services, but also reduces the potential for administrative errors and improves overall applicant satisfaction.

Research on OSS in Indonesia so far is still dominated by studies that focus on aspects of technology, administrative governance, and regulatory compliance [29]. The focus on the communication dimension as the main determinant of the success of digital services is still relatively limited, especially at the local government level [30]. In fact, in the context of public services, communication is not just the delivery of information, but a strategic process that includes message planning, inter-sector alignment, selection of effective communication channels, and handling public feedback [31]. The absence of this perspective in the literature creates an important research gap to fill.

The research gap is even more urgent when it is seen that the implementation of OSS in various regions shows significant variation in results, even though the platforms used are the same [32]. This variation can often be explained by differences in the ability of local governments to build effective communication, both at the socialization and mentoring stages. Thus, studies linking public service communication to OSS service performance are important to understand why some

regions are able to make optimal use of this system while others experience repeated obstacles. Based on this background, this study is here to analyze how digital public service communication affects the performance of OSS-based licensing services in Pangkep Regency. This analysis seeks to see not only how information is conveyed, but also how the applicant understands, responds, and utilizes the information in the permit process. This approach allows for a more comprehensive discussion of the factors that influence the success of digital services at the regional level, while opening up space for more targeted policy recommendations.

The novelty of this research lies in its attempt to analyze the performance of OSS services through an integrated perspective of public service communication, applicant understanding, public digital literacy, and internal organizational coordination of local governments. Unlike previous research that focused more on technological aspects, administrative governance, and regulatory compliance, this study positions public communication as a strategic factor influencing the effectiveness of digital licensing services. This research also provides a theoretical contribution by viewing communication not only as a means of conveying information, but as a primary mechanism influencing public participation, understanding, and ability to utilize OSS services effectively. Furthermore, this study presents an empirical context at the local government level, specifically Pangkep Regency, which is still relatively rare in OSS studies in Indonesia.

This research is expected to make a substantive contribution to the development of studies on digital governance, especially in the context of developing countries such as Indonesia that face major challenges related to technological readiness and government communication capacity. Practically, the findings of the research can help the Pangkep Regency DPMPTSP in designing a more effective communication strategy to improve the quality of OSS-based licensing services. Based on this urgency, this study seeks to answer a number of key questions related to the quality and effectiveness of digital public service communication. The main question that wants to be explained is how the form and quality of digital public service communication applied by the Pangkep Regency DPMPTSP in supporting the implementation of OSS, as well as the extent to which the communication strategy affects the applicant's understanding, participation, and ability to use digital-based licensing services. This study also examines various communication barriers that arise in the implementation of OSS, both stemming from lack of clarity of information, lack of digital literacy of the community, and limitations of socialization and assistance provided by local governments. In addition, this study also explores how internal communication between units within the DPMPTSP affects information

consistency, service coordination, and the overall effectiveness of the licensing process. The integration of all these aspects is important to comprehensively understand the communication factors that can strengthen or hinder the performance of digital services at the regional level.

2. Methodology

2.1 Research Design

This study employs a qualitative case study design with a phenomenological perspective to understand how digital public service communication influences the performance of the Online Single Submission (OSS) system in Pangkep Regency. The qualitative approach was selected because this research aims to explore meanings, experiences, and communication practices that occur within real-life service contexts, which are complex, interactive, and cannot be fully captured through quantitative measurement alone [33].

The main focus is the analysis of OSS communication and service performance, so the most appropriate approach is a Case Study [34]. The case study allows researchers to thoroughly explore internal and external communication practices at the Pangkep One-Stop Integrated Investment and Services Office (DPMPTSP), including inter-unit coordination, service procedures, and interaction with permit applicants. This approach provides a rich context related to organizational dynamics and the implementation of OSS as part of the digital transformation of public services. This study also uses a phenomenological perspective to emphasize the subjective experience of service applicants [35]. The phenomenological approach allows researchers to understand the perceptions, experiences, and meanings felt by applicants related to digital communication, including obstacles, difficulties, and satisfaction that arise during the use of OSS.

2.2 Research Procedure

This study follows a systematic research procedure consisting of six key stages:

1. Identification of the Research Problem

Observing issues related to communication flows, digital service procedures, and user experiences in the implementation of OSS at DPMPTSP Pangkep.

2. Literature Review and Theoretical Framework Construction

Reviewing key concepts such as digital public service communication, organizational communication, service performance, and user experience in digital governance to build a strong analytical foundation.

3. Research Design and Sampling Strategy

Determining a purposive sampling approach involving: 1) DPMPTSP employees responsible for

OSS services, and 2) OSS permit applicants who have used the system. These participants were selected because they possess direct and relevant experience with digital communication in OSS services.

This study involved 15 informants consisting of 7 DPMPTSP employees of Pangkep Regency who were directly involved in OSS services and 8 permit applicants who had used the OSS system in the business licensing process. Informants were selected using a purposive sampling technique with the following criteria: (1) having direct experience in using or managing OSS, (2) being actively involved in the service communication process, and (3) being willing to provide in-depth information regarding their experiences. The number of informants was determined based on the principle of data saturation, which is when the data obtained has shown a recurring pattern of information and no significant new themes were found.

2.3 Data Collection

- a. Semi-structured in-depth interviews with employees and applicants to explore experiences, perceptions, communication barriers, and service challenges. Interviews were conducted semi-structured, lasting approximately 45–90 minutes per informant. The interviews took place between January and March 2026, both in person at the Pangkep Regency DPMPTSP office and online, depending on the informant's availability. All interviews were recorded with the informant's consent and then transcribed verbatim for data analysis.
- b. Participatory observation to directly observe communication processes, workflow interactions, and real-time OSS service delivery. Participatory observation was conducted for approximately two months with a focus on the service communication process, interactions between officers and applicants, OSS assistance mechanisms, and internal coordination between service units within the Pangkep Regency DPMPTSP environment.
- c. Document analysis of OSS guidelines, communication procedures, internal policies, and public information materials. The documents analyzed included OSS service guidelines, standard operating procedures (SOPs), DPMPTSP internal policy documents, digital service socialization materials, licensing service reports, and public information published through official local government media.

2.4 Data Analysis

The data in this study were analyzed using thematic analysis, following the procedures outlined by Firmansyah & Article (2021). The analysis began with the transcription of all interview recordings to ensure

that every detail of participants' experiences and statements was accurately captured. The researcher then conducted initial coding to identify emerging themes related to communication patterns, service experiences, and interaction dynamics within the OSS process.

The coding process was carried out in stages using open coding, axial coding, and selective coding techniques to identify relationships between themes emerging from the data. Coding was conducted by the primary researcher and subsequently reviewed through discussions with fellow researchers to minimize subjectivity in interpretation.

This was followed by focused coding, in which the preliminary codes were organized into more specific categories such as communication barriers, effective communication strategies, internal coordination mechanisms, and applicants' subjective experiences. After developing these categories, the researcher carried out an interpretive synthesis to examine how various communication practices influence the overall performance of OSS services. This final stage provided a comprehensive understanding of the ways in which both internal and external communication shape the effectiveness of digital public services at DPMPTSP Pangkep.

2.5 Validation and Ethical Considerations

Validity and reliability of findings, this study applies triangulation of sources and techniques by comparing the results of interviews, observations, and official documents to ensure the consistency of findings [36]. In addition, the researcher conducts member checking by confirming the interpretation of the data to the informant to minimize bias and misinterpretation. Trail audits are also implemented by recording the entire data collection and analysis process in detail, so that findings can be traced back. This methodological approach is in line with international qualitative research standards and allows research to produce findings that are rich, in-depth, and theoretically and practically relevant for the development of digital governance and public service communication in Indonesia.

2.6 Analytical Framework

The analytical framework of this study is guided by thematic analysis integrated with a phenomenological lens. The framework focuses on identifying essential meanings and communication patterns that influence OSS service performance, including: 1) Internal communication flows within DPMPTSP 2) Employee–applicant interaction dynamics 3) Users' lived experiences with digital service processes 3) Communication barriers and their impact on service efficiency. The analysis incorporates theoretical triangulation to deepen interpretation and ensure conceptual rigor, linking findings to broader literature

on digital public service communication and digital governance.

This analytical framework allows researchers to connect the subjective experiences of informants with organizational communication patterns more comprehensively, so that the research results are not only descriptive, but also able to explain the relationship between the quality of public communication and the effectiveness of OSS services.

2.7 Schematic Representation of the Research Process

This schematic model illustrates the sequential structure of the research workflow. The study begins with identifying communication-related challenges in OSS implementation, forming the basis for research relevance. A comprehensive literature review follows, developing the theoretical lens used to analyze digital communication and service performance. The research design and sampling strategy ensure the selection of participants who have direct engagement with OSS. Data collection through interviews, observations, and document analysis provides rich and multi-layered insights into organizational communication and user experiences.

Thematic analysis is then applied to uncover key patterns, categories, and meanings within the data. Finally, interpretation, validation, and conclusion integrate participant perspectives with theoretical constructs to produce credible findings that contribute to the academic discourse on digital public services and practical improvements for DPMPTSP Pangkep.

3. Result and Discussion

3.1 Form and Quality of Digital Public Service Communication

This study found that the Pangkep Regency DPMPTSP implements digital public service communication through various main channels, namely official websites, social media, OSS applications, and call center services. The information provided includes licensing procedures, document requirements, and guidelines for using the OSS system. Based on an in-depth interview with one of the DPMPTSP officers, it was explained that, *"We try to provide complete information through the website and social media, but sometimes data updates are not evenly distributed due to staff limitations."* Participatory observation shows that the information material tends to be technical and formal, so applicants who have low digital literacy have difficulty understanding the flow of the procedure. Document studies support these findings, where available OSS guidelines often do not include step-by-step illustrations or document examples. This shows that although digital forms of communication already exist, their quality needs to be strengthened to make them

more accessible and understood by the wider community.

These findings are in line with the concept of digital governance, which emphasizes that digital public communication must be transparent, responsive, and inclusive so that people can make optimal use of public services [11]. Public digital literacy is a key factor in determining the effectiveness of communication, so the presentation of information must consider the ability of OSS applicants to understand procedures independently. User-friendly communication strategies, such as visual guides, video tutorials, and infographics, can improve information accessibility, reduce applicant errors, and increase service satisfaction. Thus, this study shows that the success of digitizing public services does not only depend on the sophistication of the system, but also on the quality of digital public communication that is delivered effectively and adaptive to user needs.

This study also found that there was a variation in the use of communication channels by OSS applicants. Most applicants tend to access information through official websites, while users with lower digital literacy prefer social media or call center services. One of the applicants explained, *"I often ask about the procedure over the phone because I don't understand the guidelines on the website. Sometimes the information on the website is too technical and difficult to follow."* These findings underscore the importance of diverse and inclusive communication strategies, as well as the need for assistance for users with different digital abilities so that access to services is not unequal and all applicants can follow OSS procedures smoothly. To provide an overview of the distribution of applicants based on communication channels and level of understanding, Table 1 is presented as follows.

Table 1. Distribution of OSS Applicants Based on Communication Channels and Level of Understanding

Communication Channel	Number of Applicants	Percentage (%)	Applicant Feedback
Website	45	50%	Information is complete but too technical
Social Media	30	33%	Easier to use, quick response
Call Center	15	17%	Very helpful for applicants with low literacy

Data source: Researcher's processing, 2025

Table 1 shows that the website is still the most used communication channel by OSS applicants, which is 50 percent. However, most applicants consider that the information presented through the website tends to be complete but technical, so it requires higher digital literacy. Meanwhile, the use of social media occupies the second position with 33 percent. This channel is considered more accessible and provides a faster response, especially for applicants who are used to using digital platforms on a daily basis. The call center is only used by 17 percent of applicants, but it is appreciated because it is able to provide direct assistance, especially for people with a lower level of understanding.

The data was sourced from the results of interviews, participatory observations, and document studies at the Pangkep Regency DPMPTSP. From the table above, it can be seen that although the majority of applicants access the official website, their level of understanding is greatly influenced by the availability of clear and easy-to-understand materials. Consumers with low digital literacy are more reliant on social media and call centers, so a variety of communication channels is important to ensure inclusivity. Technical barriers such as overly formal materials, lack of illustrations, and slow responses are factors that hinder the effectiveness of digital public communication.

In line with the findings of this study, Virnandes et al (2024) emphasized that varied communication channels and inclusive delivery strategies increase public understanding of digital services in the public sector. The use of websites, social media, and call centers has been proven to increase public participation, especially for applicants with medium to high digital literacy. This strengthens the results of the study that the variety of communication channels implemented by DPMPTSP Pangkep is a strategic step, although its effectiveness still depends on the quality of delivery, information updates, and the applicant's ability to understand procedures.

This research is different from the findings of Mahlangu & Ruhode (2021), who stated that the availability of digital media does not always guarantee an improvement in the quality of public communication if the information material is too complex, technical, and less attentive to the needs of the end user. In the context of Pangkep, although various communication channels are available, some applicants still have difficulty in understanding OSS procedures, especially applicants with low digital literacy. This shows that the existence of digital platforms is not enough, but rather an adaptive, user-oriented, and responsive communication strategy is needed to address the obstacles experienced by society.

Thematic analysis shows that varied forms of communication need to be balanced with a delivery strategy that is user-friendly, easy to understand, and inclusive. Digital literacy, the quality of information materials, and applicant assistance are the determining

factors for the success of the service. These findings confirm that the quality of digital public communication is the main foundation in the success of OSS and digital governance. The integration of effective communication strategies with digital technology allows OSS-based licensing services in Pangkep Regency to run optimally, increase community participation, reduce procedural errors, and have a real impact on the quality of public services.

The Influence of Communication on Applicants' Understanding and Participation in the OSS System

The results of interviews with service applicants showed a significant relationship between the quality of communication and the level of user understanding and participation. Some applicants stated that they felt helped by the online guide, but many still experienced confusion. One of the applicants said, "Sometimes the information on the website is incomplete, so I have to contact the call center to confirm the required documents." These findings confirm that the applicant's understanding is highly dependent on the clarity, consistency, and availability of information. Applicants' participation in following OSS procedures increases when information is easily accessible and understood. Conversely, when communication materials are incomplete or not updated, participation decreases as applicants experience technical or procedural barriers.

Participatory observations support these findings, showing that applicants who obtain complete guidance, whether through social media, websites, or call centers, are faster to complete the licensing process than those who rely on only one source of information. This shows that the combination of digital communication channels and active mentoring mechanisms is an important factor in increasing understanding and participation. Applicants who understand OSS procedures clearly tend to be more proactive in preparing documents, following the steps correctly, and using the system independently, so that service efficiency increases.

An analysis of DPMPTSP's internal documents adds that socialization materials and OSS guidelines are frequently updated, but not always distributed evenly. This irregularity affects the understanding of applicants, especially for those accessing digital services for the first time. In this context, the digital governance literature emphasizes that the delivery of public information must be consistent, transparent, and adaptive to the needs of users in order for optimal community participation (Tan & Khanh, 2025). A communication strategy that is responsive and provides real-time feedback can reduce confusion, improve procedural compliance, and strengthen public trust in digital public services.

The results of the interviews also showed that interactive mechanisms such as consultations through call centers and social media were very helpful in

increasing participation. One applicant said, "I feel more confident because I can directly ask questions via WhatsApp and get an answer from the officer. If it wasn't for that, maybe I would have been confused." These findings suggest that responsive two-way communication is an effective strategy to ensure that applicants understand OSS procedures and are willing to actively participate. This approach is in line with organizational communication theory which emphasizes the importance of feedback loops and user engagement for communication effectiveness [41].

This research is in line with the results of Jacob et al's (2024) research, which found that clear, consistent, and available communication quality through various digital channels improves public understanding and participation in digital public services. The use of websites, social media, and call centers has been proven to facilitate interactions, speed up administrative processes, and minimize procedural errors. These findings reinforce the evidence that digital communication strategies that are inclusive and adaptive to community capabilities can improve the success of OSS implementation.

On the contrary, this study is different from the findings of Toro-maureira et al (2024) who stated that the availability of digital information does not necessarily increase community participation if the information material is too complex or does not consider the context of the user. In the context of OSS Pangkep, some applicants still experience obstacles, especially those with low digital literacy, even though communication channels have been available. This shows that the success of participation does not only depend on technology, but also on communication strategies that are responsive, adaptive, and tailored to the applicant's abilities, so that digital services are accessible to all walks of life.

3.2 Communication Barriers and Supporting Factors in the Performance of the OSS Service

This study found a number of communication barriers that affect the performance of OSS services in Pangkep Regency. One of the main obstacles is the lack of clarity of information available on digital channels. Procedural and requirement information is often delivered in technical language, without step-by-step

illustrations or visual guidance. This causes applicants, especially those with low digital literacy, to have difficulty understanding the procedure. One applicant stated: *"I was confused when I had to upload documents through the OSS app because the guidelines were unclear. Finally I had to call the call center to make sure everything was right."* Research found that limitations in socialization and mentoring are also inhibiting factors. Some applicants admitted that they were unaware of any webinars, video tutorials, or offline guides that could help them. Participatory observation shows that DPMPTSP's internal socialization of the OSS mechanism is also not optimal, so inter-unit coordination and consistency of information have not been fully maintained.

Another factor that affects communication barriers is the limited digital literacy of the community. Interview data shows that some applicants have difficulty using digital platforms due to their lack of experience with online applications, as well as concerns about procedural errors. This strengthens the findings of Cidan Sangmu's (2024) study that digital literacy is an important variable in the effectiveness of digital public service communication, especially in areas that have just started the implementation of OSS-based services. This study also found supporting factors that improve the performance of OSS services. One of them is the existence of alternative communication channels, such as call centers and social media, which allow applicants to ask questions and get clarification directly. One of the officers said: *"The call center is very helpful for applicants who have difficulty understanding the online guidelines. We try to answer every question so that the licensing process continues to run smoothly."*

An interactive and responsive approach is an important factor. Applicants who receive quick responses via social media or call centers tend to have a more positive experience and follow procedures better. Thematic analysis shows that this two-way feedback mechanism not only improves the understanding of the applicant, but also helps the DPMPTSP adjust the information conveyed, thus improving the overall performance of the service. To provide a clearer and more structured picture, Table 2 summarizes the communication barriers as well as the supporting factors that affect the performance of OSS services:

Table 2. Communication Barriers and Supporting Factors in the Performance of the OSS Service

Aspect	Main Barriers	Supporting Factors
Digital Information	Technical content, lack of step-by-step illustrations	Visual guides, infographics, video tutorials
Socialization & Assistance	Limited offline and internal socialization	Applicant training, webinars, mentoring

Applicant Digital Literacy	Limited experience with digital platforms	Call center assistance, social media support
Internal Coordination (DPMPTSP)	Inconsistent information across units	Regular coordination meetings, standard operating procedures

Source: Participatory observations, in-depth interviews with OSS staff, and study of OSS guidance documents

Table 2 shows that communication barriers in the implementation of OSS include information materials that are technical and have minimal illustrations, limitations in socialization and mentoring, low digital literacy of applicants, and internal coordination between units that are not consistent. Supporting factors that can improve service performance include the provision of visual guides, infographics, and video tutorials; applicant training, webinars, and direct mentoring; call center and social media services to assist applicants; as well as regular coordination meetings and the implementation of clear operational standards within the DPMPTSP. This explanation confirms that the success of OSS services depends not only on the digital system itself, but also on communication and coordination strategies that are effective and responsive to the needs of the applicant.

These findings are in line with the Integrated Communication for Development (ICD) theory put forward by Hirsch (2023), which emphasizes the importance of communication that is not only one-way, but participatory, interactive, and responsive to the needs of the audience. In the context of OSS Pangkep Regency, communication barriers arise mainly due to material ambiguity, limited digital literacy, and internal coordination that is not optimal. Meanwhile, supporting factors, such as visual guidance, call centers, and two-way feedback mechanisms, suggest that adaptive communication strategies can significantly increase applicant understanding and participation. In other words, the success of OSS services depends not only on the sophistication of digital systems, but also on the quality of communication designed to facilitate public access, understanding, and active participation, thereby supporting the achievement of effective and inclusive service performance.

However, this study differs from previous studies by Dimas & Alfin Ardhan (2024), which showed that even though communication channels are available, without intensive intervention and mentoring, applicants still experience significant difficulties. In the context of Pangkep, this emphasizes that the success of OSS services does not only depend on technology, but also on the quality of communication, socialization, and the adaptability of local governments to the obstacles faced by the community.

The integration between supporting factors and communication barrier mitigation efforts is an important foundation in improving the performance of OSS

services. This study shows that the success of digital governance is not only determined by the OSS system itself, but also by a digital public communication strategy that is inclusive, adaptive, and responsive to the needs of the community, so that licensing services run effectively, efficiently, and provide a positive experience for applicants.

The Influence of Inter-Unit Internal Communication on Service Consistency and Effectiveness

The results of the study show that internal coordination between units in DPMPTSP Pangkep Regency has an important role in determining the consistency of information and the speed of service. Some employees reported differences in procedures or information flows between units, which led to applicants receiving information that was not uniform. An employee stated, "*Sometimes unit A gives different instructions than unit B, so the applicant is confused and has to go back to the counter for clarification.*" These findings confirm that even though the OSS system is already digital-based, internal communication inconsistencies can cause significant obstacles in public services.

Further thematic analysis revealed that less effective internal communication had a direct impact on the quality of OSS services, including the length of time it took to process permits and the increased risk of document errors. This phenomenon is in line with the theory of organizational communication put forward by Daft and Lengel (1986), which states that inefficient coordination and flow of information between units can lead to information distortion, conflict, and decreased effectiveness of organizational performance. In the context of digital public services, digital governance theory also emphasizes the importance of integration between technology systems and internal communication to achieve consistent, accurate, and fast services [42].

The study found that internal communication mechanisms such as regular coordination meetings, updates of standard operating procedures (SOPs), and clear communication channels between units have been proven to strengthen information consistency. Employees who follow regular coordination procedures are able to deliver uniform guidance to applicants, thereby reducing the risk of miscommunication. These findings support the principle of digital governance that

emphasizes the integration of internal and external communication as the foundation of the success of digital public services, where digital technology functions optimally when supported by effective organizational communication.

Research shows that internal communication barriers not only affect information consistency, but also impact applicant satisfaction. When the applicant receives different information from the relevant units, they have to repeat the clarification process, which increases the waiting time and creates inconvenience. One of the applicants explained, *"Sometimes I have to go back and forth to the counter several times because the answers I receive are different between units A and B. This makes the licensing process feel longer and confusing."* These findings emphasize the importance of more systematic coordination mechanisms to ensure a harmonized flow of information and services that are more responsive to user needs.

An effective internal communication strategy can also strengthen organizational accountability and transparency. With regular coordination meetings, SOP updates, and well-documented documentation, each unit has clear guidelines in conveying information to applicants. This approach is in line with information management theory which states that a clear and standardized internal communication structure improves work efficiency, reduces the risk of miscommunication, and strengthens public trust in government services (Jacob et al., 2024). So that the combination of OSS digital technology and well-organized internal communication is the key to the successful implementation of digital licensing services in Pangkep Regency.

In line with this research, the study conducted by Wahyudi (2024) emphasized that good internal coordination increases information consistency and accelerates the digital service process. In the study, agencies that routinely conduct coordination meetings between units and update procedures reported higher levels of user satisfaction and decreased complaints related to document errors. This shows that a structured and systematic internal communication strategy is a key factor in improving the effectiveness of digital public services. These findings differ from some previous literature, such as those put forward by Manoharan et al (2023), which states that digitizing services will automatically improve the consistency and quality of services. Research in Pangkep shows that the existence of a sophisticated OSS system does not guarantee consistent information received by applicants, if internal communication between units is not effective. This emphasizes that digital innovation must be balanced with an internal communication management strategy that is adaptive, coordination-oriented, and responsive to the needs of applicants.

This study confirms that the effectiveness of OSS services is not only determined by digital technology, but also by the quality of internal communication between units that support integrated service flows. A good internal communication strategy, including regular coordination meetings, SOP updates, documentation of procedures, and clear communication channels between units, is the foundation for ensuring consistency of information. With proper integration between internal communication and the use of the OSS system, digital licensing services can run optimally, applicants get accurate information, and public service performance is significantly improved.

4. Conclusion

4.1 Summary of the Main Findings

This study demonstrates that digital public service communication and internal coordination between units play a decisive role in shaping the effectiveness of the Online Single Submission (OSS) service in Pangkep Regency. Communication implemented by DPMPSTP through the website, social media, OSS application, and call center has provided essential information regarding procedures and licensing requirements. However, the findings show that the clarity, accessibility, and user-friendliness of this communication still require significant improvement, especially for applicants with varying levels of digital literacy. A more inclusive and visually supported communication strategy is essential to enhance public understanding, participation, and overall service satisfaction. Additionally, the study reveals that internal communication among units functions as a critical mechanism to maintain information consistency and expedite the licensing process. Regular coordination meetings, updated SOPs, and well-structured communication flows help prevent miscommunication and strengthen service effectiveness. Communication barriers such as complex technical information, limited socialization, and low digital skills can be mitigated through mentoring, training, and responsive feedback systems.

4.2 Comparison with Previous Studies

These findings are consistent with earlier research on digital governance and public service communication, which emphasizes that technology alone cannot improve service quality without effective communication practices and internal coordination. However, this study offers an important contextual contribution by showing how communication challenges in local government settings such as unequal digital literacy and limited socialization significantly influence service performance. Unlike studies focusing primarily on technological infrastructure, this research highlights the equally crucial role of human communication, coordination, and organizational readiness in ensuring OSS effectiveness.

4.3 Theoretical and Practical Implications

Theoretically, this study reinforces digital governance and organizational communication frameworks by illustrating how the integration of technology with clear communication systems determines the success of digital public services. It expands the understanding of communication flow within public institutions by showing that internal coordination is not merely administrative but a core determinant of performance outcomes in digital service delivery.

Practically, the findings provide strategic insights for DPMPSTP Pangkep and other regional governments. The results emphasize the need to develop communication strategies that are user-friendly, inclusive, and supported by visual guides, tutorials, and interactive digital content. Strengthening internal coordination mechanisms through structured communication channels, routine SOP updates, and periodic inter-unit evaluations is also essential. These practical implications highlight that OSS service success depends not only on digital platforms but also on communication quality and cohesive organizational collaboration

4.4 Recommendations for Future Research

Future research is encouraged to involve a larger number of informants across different regions to compare communication challenges and organizational readiness in various OSS implementations. A mixed-method approach combining qualitative and quantitative data could offer a more comprehensive analysis of communication effectiveness and service performance. Additionally, further studies could examine how user interface design, platform usability, and government socialization strategies influence public adoption and satisfaction. Exploring these dimensions would deepen understanding of the complex relationship between digital communication, organizational coordination, and public service outcomes.

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