

Digital Innovation or Traditional Methods: Stakeholder Preferences for Digitalizing Public Complaints in Pekanbaru City, Indonesia

Eko Handrian¹, Roni Ekha Putera², Asrinaldi³, Aidinil Zetra⁴

¹Policy Study, Universitas Andalas, Indonesia; Public Administration, Universitas Islam Riau, Indonesia.
(email: 2330872001_eko@student.unand.ac.id; ekohandrian@soc.uir.ac.id)

^{2,3,4}Policy Study, Universitas Andalas, Indonesia.

Abstract

This research explores internal stakeholders' preferences for the use of digital public complaint applications compared to traditional communication methods such as telephone in public services in Pekanbaru City. Using a qualitative approach, the case study method on the Pekan Kita Application (PEKA) was chosen to analyze in depth stakeholder preferences for the adoption of digital innovation. Data was collected through semi-structured interviews, participant observation and documentation. The findings show that the adoption of the PEKA application is more symbolic, where stakeholders prefer conventional methods because they are considered more practical and in accordance with daily work habits. This indicates that there is a gap between the digital innovation policies implemented and the real needs and preferences of internal stakeholders. The need for fast response and responsiveness to emergency conditions is a preference for internal stakeholders in digital public complaints policies. The implications of this research are very important in designing more effective and humane digital policies, which do not only focus on technical aspects, but also consider non-technical factors such as habits, needs, preferences of internal users and humanity so that technology implementation can be more successful and relevant in practice.

Keywords:

innovation; policy; digitalizing; preferences; stakeholder

Introduction

Digital technology has changed the dynamics of public services by providing easy access and improving the quality of interaction between government and society (Linders 2012) (Nam 2012). Government initiatives in various parts of the world, including developing countries, show that the use of digital technology has increased service efficiency and accessibility (Dunleavy et al. 2006) (Janssen and Estevez 2013).

One of the digital innovations that has emerged in the context of public services is a digital-based public complaints application, which aims to increase efficiency, transparency and accountability in handling public complaints. The development of digital-based public complaint applications aims to increase government transparency and accountability by providing more efficient communication channels (Meijer 2009). The Pekanbaru City Government launched the Pekan Kita (PEKA) application as part of efforts to digitize public services, which is expected to be a solution to various problems of public complaints.

The PEKA application is designed as an integrated platform to facilitate two-way communication between the community and the government, with the hope of speeding up the complaint handling process and improving the government's response to public problems. The integration of digital technology through applications such as PEKA creates faster and more transparent communication channels between the government and citizens, aiming to improve the process of handling public complaints (Chatfield and Reddick 2018) (V. Bekkers and Homburg 2007).

Despite innovation's promise in improving the efficiency of public services, acceptance of new technology is often influenced by non-technical factors, such as internal resistance from employees (Venkatesh, Thong, and Xu 2016) (Welch, Hinnant, and Moon 2005). Stakeholders in the public sector are often more comfortable with traditional methods, such as the telephone, compared with new technologies, which they perceive as more complicated or not suited to their needs (Davis 1989) (Alford and O'flynn 2012).

This phenomenon raises fundamental questions about why digital innovations designed to improve efficiency and accessibility are not widely adopted by internal users. Factors such as cultural resistance, personal preferences, and limited technological knowledge are often the main barriers to the adoption of digital innovations in the public sector (Gil-García and Pardo 2005) (Cordella and Tempini 2015).

Research by (Nkhoma et al. 2021) demonstrated stakeholder preferences for data security and better communication in cancer palliative care technologies. In the agricultural sector, emphasize the proactive participation of stakeholders and the importance of data sharing policies for creating sustainable value (Hrustek et al. 2022). (Thamtarana and Sornsaruht 2024) found that service quality and organizational image influence digital adoption in the Thai insurance sector. (Putrevu and Mertzanis 2023) highlight the need for policies that support the adoption of digital payments in developing countries by considering stakeholder preferences.

(Cui and Wang 2023) emphasize incentive policies to encourage the adoption of digital technology in the agricultural sector in China. In digital vaccination services, (Alscher, Schnellbacher, and Wissing 2023) emphasize the importance of personalization to increase service adoption. (Zehra et al. 2024) found that perceived convenience and security influence the adoption of digital payment platforms in India.

Most of the literature on digital innovation in the public sector focuses on the acceptance of technology by citizens as end users. However, the lack of in-depth research on the preferences and behavior of internal stakeholders in digital technology adoption is a significant gap in the literature. Previous research tends to ignore how government officials and other internal

stakeholders make decisions to adopt or reject technological innovations introduced by the government. This gap is important to fill, because the success of digital innovation in the public sector is very dependent on the acceptance and active participation of internal stakeholders.

By integrating various findings from previous research, this research offers novelty in examining stakeholder preferences which are rarely discussed in depth in the literature on digital innovation in the public sector. In addition, this research will also make an important contribution in understanding how digital innovation policies can fail if they are not based on the preferences of internal stakeholders who should be the main operators of the technology.

This research aims to identify the factors that cause stakeholders to prefer traditional methods such as the telephone compared to the PEKA digital application in handling public complaints as well as exploring stakeholder preferences in the context of adopting digital innovation in the public sector. The justification for this research lies in the importance of understanding the interaction between technological innovation and organizational behavior in the public sector. By identifying the barriers that cause stakeholders to prefer traditional methods, this research not only provides a better understanding of the failures of digital innovation adoption, but also offers practical recommendations to increase the success of technology implementation in the public sector. The results of this research will provide significant policy implications, especially in terms of digital policy design that is more in line with the needs and preferences of internal stakeholders.

This research also makes an important theoretical contribution to the literature on digital policy innovation and public administration, by emphasizing that innovation without demand, although technically sophisticated, is not always successfully adopted by organizations if it does not take into account the preferences and behavior of internal users.

Methods

This research uses a qualitative approach with a case study method on the Pekan Kita community complaints application (PEKA) developed by the Pekanbaru City Government (Creswell and Poth 2016). Case studies enable in-depth analysis of complex issues, especially those related to symbolic conformity in stakeholder environments (Yin 2018). This approach was chosen to explore in depth stakeholder preferences regarding the adoption of digital innovation and identify the factors that cause them to prefer traditional methods, such as telephone, in handling public complaints. The PEKA case study is considered relevant because this application represents a phenomenon where digital innovation in the public sector is not widely adopted, even though it has been formally implemented and socialized.

Participants in this research consisted of internal stakeholders, including government employees, public service officers, and PEKA application managers. The selection of participants was carried out using a purposive sampling method, with the criteria that they had direct experience in using or managing the PEKA application and were involved in the process of handling complaints via traditional methods such as telephone. Data collection was carried out through semi-structured interviews, participant observation and documentation. Semi-structured interviews were used to understand stakeholder perceptions and preferences regarding the use of the PEKA application compared to traditional methods. Meanwhile, participatory observation was carried out to see firsthand how the PEKA application was used in daily practice, including how telephone complaints were received and handled. Application usage data documentation was also collected to analyze application adoption trends, with a focus on comparisons between complaints submitted via PEKA and telephone.

The data obtained was analyzed using thematic analysis. The analysis process began with initial coding, where data from interviews and observations was broken down into small units to identify key themes, such as resistance to change, reliance on traditional methods, and challenges of using digital applications. Next, these themes were developed and synthesized to provide a deeper understanding of stakeholder preferences as well as factors influencing symbolic adoption of digital innovations. To ensure validity and reliability, this research uses a data triangulation strategy, where data from various sources (interviews, observations, and documentation) is compared to reduce bias. In addition, member checking is carried out by asking participants to verify the results of their interviews again, to ensure the suitability of interpretations. The research process was documented in detail through an audit trail, allowing for future replication of the research.

Results and Discussion

Symbolic Adoption

Digital policy adoption is a process in which governments, organizations, or the public sector implement digital technology to increase the efficiency, transparency, and accessibility of public services. Digital policy often involves the use of digital platforms, big data, artificial intelligence, and communications infrastructure to support more responsive and inclusive governance. However, the process of adopting digital policies does not always run smoothly and faces challenges from both technical and social aspects.

Actual policy adoption, or what is often referred to as effectively implemented policy, involves more than just policy making. This involves a comprehensive process from formulation,

approval, implementation, to assessing the results of the policy in a real context. To be called a true policy adoption, the policy must be accepted, understood and integrated into practice by all relevant parties, including policy makers, implementers and the community as beneficiaries.

The results of the research show that the complaint management policy in Pekanbaru City is carried out in an integrated manner with all Regional Apparatus Organizations (OPD) centrally and is managed by the Pekanbaru City Communication, Informatics, Statistics and Encryption Service. However, even though this integrated complaint system has been developed, to date the application has not been adopted comprehensively by all OPDs in the city. Only a few OPDs have participated in the adoption of this digital innovation, however the nature of this adoption tends to be symbolic, where complaint services are still mostly carried out via traditional methods such as telephone. Other facts found based on interviews with internal stakeholders show that this symbolic adoption occurred as a result of unilateral claims from innovators regarding the success of the system, as well as conformity to applicable regulations, even though actual implementation has not run optimally in all OPDs. The internal stakeholders who have registered in the digital innovation public complaint are as follows:

Table 1.
Collaborating Agencies

Regional Apparatus Organizations	Task
Department of Transportation	Road Facilities
Environmental Service	City Cleanliness
Women's Empowerment and Child Protection Service	Women's Empowerment and Child Protection
Pekanbaru City Information, Statistics and Coding Communication Service	Communication

Source: PEKA Application

The findings of this research reveal that symbolic adoption of policy innovations to digitize public complaints often occurs due to stakeholder preferences who tend to stick to traditional methods such as telephone or face-to-face. Even though digitally developed complaint applications offer convenience and efficiency, stakeholders, especially at the local level, tend to adopt them symbolically, without the intention of using them optimally. This is confirmed by the low utilization rate of the application compared to conventional complaint channels. Based on interviews with several stakeholders, they consider the use of applications as a form of formality to follow digitalization trends, but it is not always relevant to their needs in managing public complaints. Preference for conventional channels is preferred because it is considered more practical, personal, and easier to communicate directly with the public. These findings support previous studies which state that technology adoption in public administration is often influenced by political factors and symbolism, not solely by functional needs (Zuboff 2023). This

symbolization of technology adoption shows that there is a gap between the innovation offered and the real preferences and needs of stakeholders (Orr 2003).

Adoption of digital innovation in managing public complaints in Pekanbaru City is more symbolic, namely as an effort to comply with regulations and follow digitalization trends mandated by the central and regional governments. Internal stakeholders, such as regional apparatus organizations, show a tendency to adopt digital complaint applications only as a formality without actually making maximum use of this technology to improve service quality. This is in line with institutional theory proposed by (DiMaggio and Powell 2000), where organizations often adopt new practices not because of their effectiveness, but to gain legitimacy in the eyes of external parties through the symbolism of change.

Furthermore, internal stakeholders' preferences tend to remain on traditional methods such as telephone or face-to-face complaints, which are considered more in line with work culture and easier to implement in daily practice. This is in line with the research results of (Venkatesh et al. 2003), who show that the adoption of new technologies often faces resistance due to a mismatch between the technology and users' work habits and expectations. In addition, although government policy supports the use of digital technology, internal stakeholders feel that this innovation does not significantly increase efficiency or effectiveness in handling public complaints. A study by (Lips 2019) found that in some public administration contexts, digitalization is often adopted symbolically to meet bureaucratic reform requirements, but does not always lead to substantial improvements in public services.

This discrepancy is also seen in the low level of use of complaint applications, even though the application has been intensively promoted. Many public service employees state that direct interaction with the public through traditional channels provides greater flexibility and speed of response, something that cannot be completely replaced by digital technology (Osborne and Brown 2011). This phenomenon shows that the adoption of digital innovation is often not driven by functional needs or internal preferences, but rather by external demands, both in the form of regulations and administrative modernization trends that are not yet fully suited to the local context. Thus, even though the adoption of digital innovation is part of the reform agenda, stakeholder preferences remain a key factor in the effectiveness of implementing new technologies.

Internal Stakeholder Preferences

Digital transformation is currently one of the main issues in various sectors, but not all sectors require comprehensive digital transformation. Some sectors, especially those that still

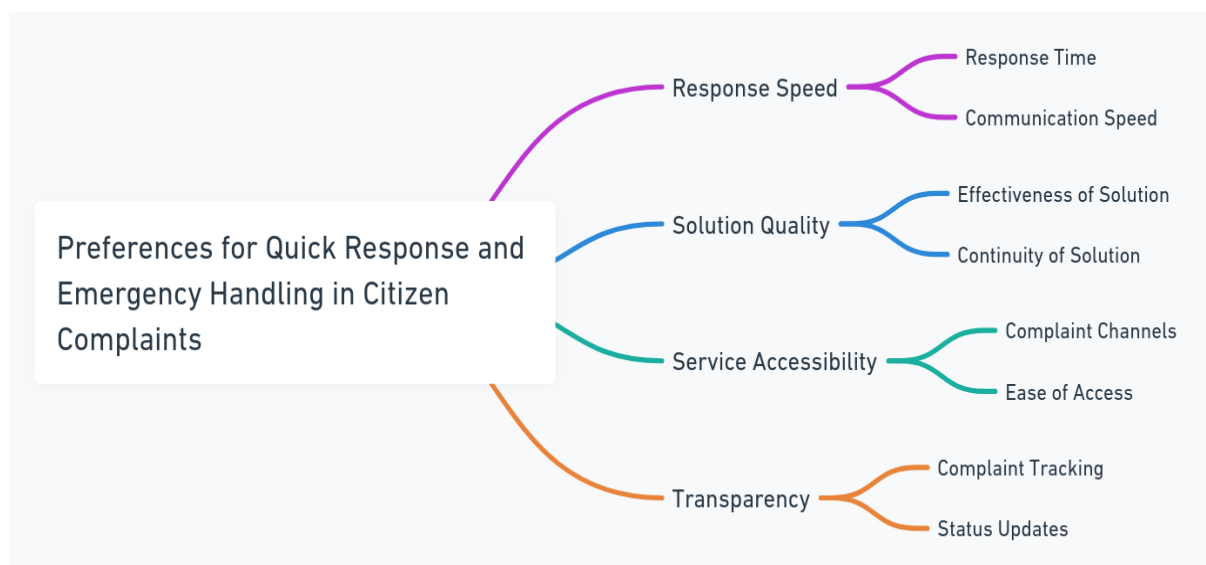
rely heavily on personal interactions or the local and traditional nature of services, do not always benefit from rapid or comprehensive implementation of technology. This is because the characteristics and needs of each sector are different, which demands an approach adapted to each context.

In the public complaints process, the role of internal stakeholders as recipients of complaints is very important to ensure that each complaint is handled properly and in a timely manner. Internal stakeholders must be able to listen and provide responsive services because not all complaints have the same level of urgency. Some complaints are urgent and require immediate action to prevent worse impacts, such as complaints related to public safety or damage to critical infrastructure. On the other hand, there are also complaints that, although not urgent, still require an immediate response to maintain public confidence in public services. Therefore, it is important for stakeholders to have a flexible and fast handling mechanism, so that each complaint can be handled according to priority. Slow or inappropriate responses can worsen the situation and reduce the effectiveness of complaint services, as well as damage public trust in the government.

Internal stakeholder preferences play a crucial role in determining the success of innovation adoption in the public sector, including in the context of digitalization of public complaint services. In the case of digitizing public complaints, internal stakeholder preferences can be influenced by various factors such as familiarity with traditional methods, ease of use of new technology, and perceptions of the benefits of digital innovation in improving efficiency and service quality. Apart from these factors, researchers found several internal stakeholder preferences, including:

Figure 1.

Internal Stakeholder Preferences



Source: Processed by researchers

Analysis of the results of this research identifies the preferences for fast response and emergency response from internal stakeholders, such as officers and managers in Regional Apparatus Organizations (OPD), in adopting digital policies for public complaints. These preferences cover four main aspects: response speed, solution quality, service accessibility and transparency. Each aspect influences the success of digital policy adoption by internal stakeholders.

Response Speed OPD's internal stakeholders assess response speed as a crucial aspect in adopting digital policies. They want digital systems to enable rapid response, both in terms of receiving reports and coordinating actions. This is important because a quick response can minimize the impact of the reported problem and ensure appropriate action is taken in emergency situations (Lu, Xu, and Wei 2023). Another study shows that infrastructure that supports the speed of internal communication plays a very important role in ensuring the effectiveness of handling public complaints (Peng et al. 2022). Therefore, investment in technological infrastructure that can support speed of response is essential to maximize the effectiveness of digital policy adoption.

Solution Quality The quality of the solutions provided is a major concern for internal stakeholders, who want every public complaint to be resolved properly and sustainably. The solution provided must be able to address the root of the problem comprehensively so that repeated complaints do not occur. Research shows that good quality solutions can increase public trust in the government, which in turn also increases the motivation of internal stakeholders in utilizing digital systems (Van der Voet and Steijn 2021). Therefore, it is important for OPD to provide training to staff so that they can provide quality and relevant solutions to each complaint case.

Service Accessibility Internal stakeholders also consider accessibility as an important factor in digital policy adoption. Accessibility is not only related to how the public can use complaint services, but also to how internal officers can access complaint information and the tools needed to follow up on them. Research indicates that good accessibility can simplify the operational tasks of internal stakeholders and increase efficiency in handling complaints (Van der Voet and Steijn 2021). A digital system that is user-friendly and easy to access by officers will minimize barriers to use, thereby accelerating the adoption of the technology.

Transparency in handling complaints is also an important element in internal stakeholder preferences. Stakeholders want transparency in the flow of complaint handling, from receipt to resolution. Good transparency can help internal officers to track the status of each complaint clearly, making it easier to coordinate between departments within the OPD (V. J. J. M. Bekkers

and Tummers 2018). In addition, transparency also allows for accountability in handling complaints, which will motivate officers to work better and ensure that every complaint is handled seriously and professionally.

Humane Digital Innovation

Public complaint process, not all residents feel satisfied or comfortable with digital-based services. Although technology offers efficiency and convenience, many communities require a more humane approach in dealing with their complaints. Some complaints involve complex and emotional situations, such as social, health, or safety issues, that cannot be resolved by automated systems alone. In these cases, the public needs an empathetic response, where officers are able to listen actively and provide personal attention to the problems they are facing. Digital-based services often feel rigid and do not provide space for emotional interaction, so people feel that their needs are not fully understood. Therefore, it is important to combine technology with a humanist approach, where officers remain involved in the process and provide an empathetic touch in handling complaints that require more attention.

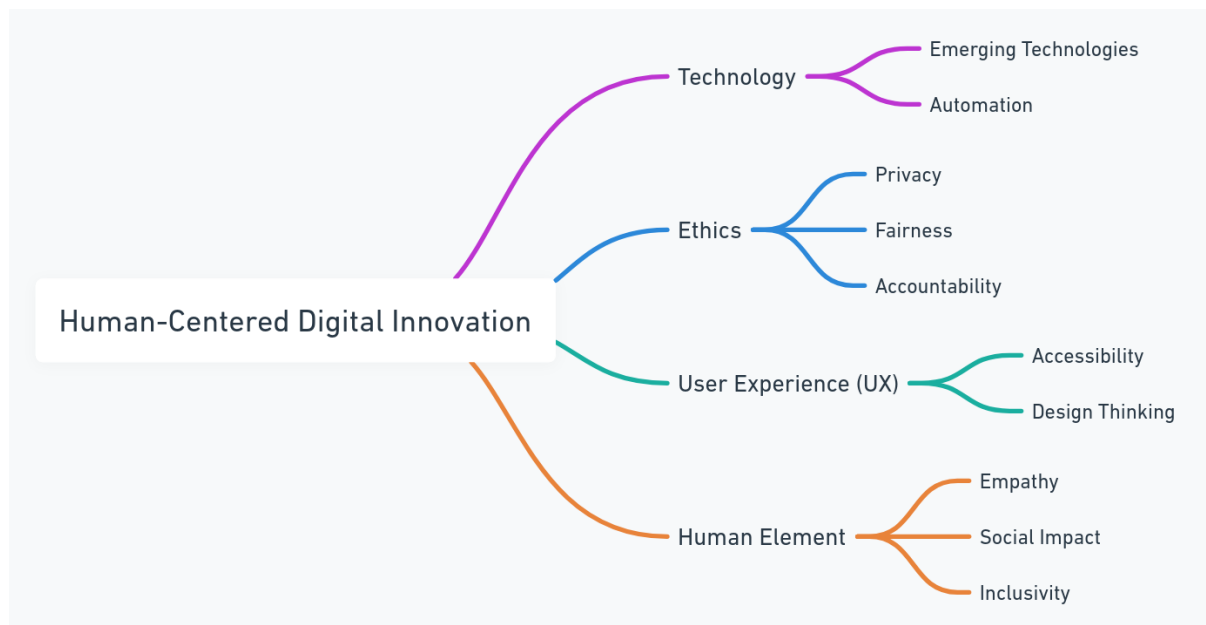
Humanistic digital innovation in public complaints emphasizes the use of technology not only as a tool for efficiency, but also as a means to strengthen relations between government and society. The findings of this research show that complaint applications designed with human aspects in mind—such as ease of access, transparency, and quick, personalized responses—are more accepted by the public and are able to increase public trust in government services. For example, interactive features that allow citizens to monitor their complaints handling process in real-time and provide direct feedback, have been proven to increase levels of citizen participation and create a more transparent relationship between the government and citizens. This is in line with research conducted by (Bannister and Connolly 2014; Linders 2012), which emphasizes the importance of human aspects in digital governance to strengthen government accountability and responsiveness.

Apart from that, humanistic digital innovation also emphasizes the importance of empathy in handling complaints. Internal stakeholders who use this approach show that providing personal responses, even through digital applications, can create a feeling of being heard and cared for in the community. This supports a study conducted by (Mergel, Edelmann, and Haug 2019), which found that public service application design that is user-centric and pays attention to users' emotional needs plays an important role in increasing public satisfaction and engagement. The humanization of technology lies not only in technical functionality, but also in the ability of applications to reflect inclusive and empathetic public service values.

Furthermore, the humanist aspect of digital innovation can also overcome people's concerns about anonymity and ignorance in the use of technology. The development of features that enable people to still feel personally connected with service personnel, even when using digital applications, reduces the perception that technology distances them from more personal interactions. As an illustration, research by (Linders 2012) confirms that co-production in public services through digital innovation can not only increase efficiency, but also enable citizens to feel more involved and part of the solution, which is the essence of a humanist approach in public services based on digital. This study succeeded in mapping Internal Stakeholder Preferences into humanistic Digital Innovation, which can be seen in the following figure:

Figure 2.

Human-Centered Digital Innovation



Source: Processed by researchers

This research underlines the importance of human-centered digital innovation. This digital innovation covers several main aspects, namely technology, ethics, user experience (UX), and human elements. Each aspect plays an important role in ensuring that digital innovation is not only technologically advanced, but also relevant and acceptable to society.

In the context of human-centered digital innovation, technology is an important element that influences the development and adoption of digital solutions. The technology used must be able to keep up with the latest technological developments and focus on automation which can increase efficiency and effectiveness. Technology that supports innovation must be accessible and easy to use by various levels of society. According to (Ali 2023), the adoption of new technology involving emerging technologies such as AI and automation can strengthen an organization's

ability to provide more responsive and quality services. However, this technology must also consider the impact on its users so that it does not create digital inequality.

Ethics in digital innovation is very important in ensuring that the technology developed is not only useful but also fair and safe for users. Ethical aspects that must be considered include privacy, fairness, and accountability. Studies show that innovations that pay attention to aspects of privacy and fairness are more likely to be accepted by society, especially in terms of personal data collected and used (Floridi and Cowls 2022). Fairness in digital innovation is also important to ensure that no group benefits or suffers disproportionately from the use of this technology. Therefore, technology developers need to prioritize transparency and accountability at every stage of innovation.

User experience is a key aspect of human-centered digital innovation. Good design will make it easier for users to access and use technology, which will ultimately increase adoption. Studies show that a design thinking approach that involves users at every stage of development can improve the quality of the user experience (Martins et al. 2020). Apart from that, accessibility is also an important element in ensuring that technology can be used by all people, including those who have physical or technological limitations. Therefore, digital innovations must be designed with inclusivity and ease of use in mind.

The human element includes aspects of empathy, social impact and inclusivity in digital innovation. Empathy is very important in understanding user needs and expectations. According to (Caçador, Gancho, and Gouveia n.d.), innovation driven by empathy can produce solutions that are more relevant and useful for users. Apart from that, social impacts also need to be considered, where digital innovation must be able to provide broad benefits to society and not only benefit a certain group of people. Inclusivity is key to ensuring that every digital innovation can be accessed and used by various levels of society regardless of social, economic or physical background.

By paying attention to aspects of technology, ethics, user experience and human elements, digital innovations can be designed and developed more effectively to meet society's needs. Human-centered digital innovations are more likely to be adopted and have a broad positive impact on society. Therefore, a holistic and inclusive approach is very important in the digital innovation process.

Conclusion

This research examines internal stakeholder preferences for traditional methods such as telephone compared to the PEKA digital complaint application in handling public complaints and explores stakeholder preferences in the context of adopting digital innovation in the public sector.

This research found that the adoption of digital innovation in managing public complaints in Pekanbaru City is more symbolic, namely as an effort to comply with regulations and follow digitalization trends ordered by the central and regional governments. Internal stakeholders such as Regional Apparatus Organizations tend to adopt digital complaint applications only as a formality without actually utilizing this technology to improve service quality. This preference is influenced by the need for fast response and responsiveness to emergency conditions and humane service. This research provides significant policy implications, especially in the design of digital policies that are more aligned with the needs and preferences of internal stakeholders. In addition, this research also makes an important theoretical contribution to the literature on digital policy innovation and public administration by emphasizing that unsolicited innovations, even if technically advanced, are not always successfully adopted by organizations if they do not take into account the preferences and behavior of internal users.

This study has limitations, especially in terms of generalization of the results. The PEKA case study is focused on the implementation context in Pekanbaru City, so the results of this research may not be fully applicable in other regions or countries with different conditions. In addition, this research also relies on active stakeholder participation, which can affect the depth of the data if respondents are not completely open in providing information. Nevertheless, the methods used in this research provide a comprehensive approach to exploring the preferences of internal stakeholders in the public sector, as well as offering important insights in designing more effective strategies in digital policy.

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