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Implementation of E-Government Through APDS Application to Improve Regional Tax Services: A Case Study of BPPD Sidoarjo

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ABSTRACT

Objective: *This study aims to analyze the implementation of the Sidoarjo Regional Tax Application (APDS) as a digital innovation designed to improve the efficiency and effectiveness of local tax services.* ***Method:*** *A qualitative research approach was adopted through interviews, observations, and document analysis involving staff from the Sidoarjo Regional Tax Service Agency (BPPD) and users of the application. The data were analyzed descriptively to identify key success factors and challenges during implementation.* ***Results:*** *The findings indicate that APDS enhances administrative efficiency, promotes transparency, and reduces bureaucratic barriers to tax collection. The success of this innovation is attributed to organizational support for digitalization, employee adaptability, and active community participation in utilizing the application.* ***Novelty:*** *This study provides new insights by demonstrating that the success of digital tax service innovation depends not only on technological readiness but also on organizational adaptability and staff commitment. The results contribute to the broader discourse on digital governance and offer a replicable model for local governments seeking to reform bureaucratic systems through digital transformation.*

INTRODUCTION

The government generates revenue through taxes, which are utilized for national interests such as infrastructure, education, and health, aimed at improving the welfare of its citizens. Taxes play a crucial role since they not only enhance well-being but also contribute to the country's economy. Tax collection is mandatory for citizens who must contribute to the state, and this process is often compulsory, especially for individuals. Consequently, challenges frequently arise during the tax collection process. However, taxes serve purposes beyond just government needs; they also support the prosperity of the populace.

Taxes are contributions made by citizens to the government, mandated by law, and can be enforced without any direct reciprocal services that can be specifically identified, thus funding public expenditures and significantly influencing the National Revenue and Expenditure Budget (APBN). Therefore, the government is entitled to delegate authority to each region to manage its own local tax budget (Mardiasmo, 2016). According to Presidential Regulation Number 3 of 2021 regarding the Task Force for the Acceleration and Expansion of Regional Digitalization, manual services can be replaced, resulting in time savings. Hence, Information and Communication Technology is integrated into tax administration. Local Regulation Number 6 of 2021 regarding the Electronic Local Tax System indicates that this electronic system is able to ensure orderly and compliant tax payments by citizens, while also enhancing the management of regional original income and the quality of tax services at the local level.

Community awareness in tax payment is crucial for fulfilling national obligations. Conducting socialization about understanding taxes and modern tax systems will encourage citizens to comply and fulfill their tax duties. Additionally, with the aid of digital technology and smooth internet access, there are no obstacles to advancing the economy into a digital one [1]. With the advancements in technology today, the government needs to wisely seize this opportunity to advance the nation and enhance public services through the growth of Information and Communication Technology. By developing digital applications for tax payments, citizens can be facilitated so they do not have to visit offices or meet in person. The government has established E-Government as a way to improve public service delivery electronically, making it more efficient and adaptable, while also ensuring that any issues with policy changes and tax administration systems will be continuously monitored and assessed.

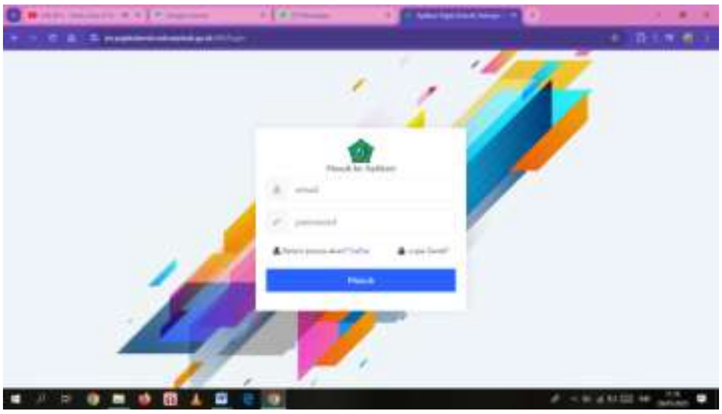

Figure 1. Login Page of Sidoarjo Regional Tax Application (APDS)
Source : https://sie.pajakdaerah.sidoarjokab.go.id:440/login

As of 2021, the Regional Tax Service Agency of Sidoarjo Regency introduced the Sidoarjo Regional Tax Application (APDS). This application features options that provide information about local taxes, including the tax imposed on Land and Buildings (PBB) and the fees related to acquiring rights to Land and/or Buildings (BPHTB). It encompasses all taxes aside from PBB and BPHTB, such as advertisement taxes, the Regional Tax Notification Letter (SPTPD), and payments for advertisements and groundwater, as well as schedules, news, profiles, and digital media. The existence of this application simplifies and benefits the community in accessing a variety of tax-related information. In this regard, Information and Communication Technology serves as a reference for reducing administrative burdens by facilitating online tax filings and enhancing efficiency and accountability in the taxation process.

Table 1. Number of Visitors of Sidoarjo Regional Tax Application (APDS)

Year	Number of Visitors
2022	1.800
2023	2.160
2024	2.484

Source : Researcher, 2025

Based on the table 1, there is a noticeable rise in the number of visitors from 2022 to 2024. In 2022, the recorded visitor count was 1,800 individuals. This figure represents the initial phase of utilizing the APDS app, which was introduced to the public as an innovative digital tax service. Subsequently, in 2023, the number of visitors increased to 2,160 people. This growth of 360 visitors reflects the local government's success in implementing e-government policies via APDS. This increase can also be linked to the improved outreach to the community and a growing trust in digital services that are perceived as more convenient and efficient.

In 2024, the visitor count rose again to 2,484 individuals. This growth indicates a consistent application implementation, where local authorities not only launched the app but also continued to enhance its features and strengthen the information technology infrastructure to aid tax services. This aligns with policy implementation theory, where successful implementation is signified by increased community participation as beneficiaries. Overall, the yearly rise in APDS visitors serves as a positive sign that the e-government initiative in Sidoarjo through this application is quite effective. This is evidenced by the increasing usage of the app by the public, indicating that the primary goal of establishing a more efficient, effective, transparent, and accountable local tax service is being achieved.

However, challenges still exist, as the prior tax service system in Sidoarjo relied heavily on manual processes, which were time-consuming and inefficient. This system often resulted in delays in information delivery and limited access for taxpayers to monitor and manage their tax obligations. The community's lack of understanding regarding the use of this local tax application has also led many to continue visiting the office, as they were accustomed to manual service. Hence, there is a need for an evaluation to help the public utilize the app effectively, ultimately making local tax services easier, more transparent, and efficient.

This research utilizes George C. Edward III's theory to assess the effectiveness of E-Government Implementation in the Sidoarjo Local Tax Application (APDS) in enhancing local tax services in Sidoarjo. The choice of this implementation theory is based on its alignment and coherence with the assumptions of this research concept. George C. Edward III also notes that when evaluating an implementation, there are two key questions: first, what prerequisites are needed for the policy's implementation, and second, what are the main factors contributing to the successful implementation of a policy. Accordingly, George C. Edward III formulated four indicators: Communication, Resources, Disposition, and Bureaucratic Structure.

Based on earlier research by Kurniawan (2019) evaluating the implementation of E-Government in the Local Tax Application, it was found that the use of information technology in regional tax services positively affects the quality of public service. The findings of this study emphasize that the E-Government implementation enhances transparency, service speed, and public accessibility in managing local tax obligations. Transparency is evidenced by the open information regarding tax types, rates, and payment statuses that can be directly accessed by taxpayers. The speed is realized through streamlined administrative processes, meaning that taxpayers no longer have to navigate lengthy manual procedures. Accessibility is indicated by the availability of an application-based service that can be used anytime and anywhere, without being restricted to the operating hours of tax offices.

Additionally, research by Sheila Ananda Aprilia (2022) examined the Implementation of E-Government Policy in the Sidoarjo Local Tax Application to assess how well the application aids the local government in enhancing service quality. The results indicated that the implementation is functioning effectively, making it easier for taxpayers to engage in tax activities. Sheila points out that the existence of the APDS offers convenience, efficiency, and transparency. Taxpayers can save time and money since they no longer need to complete administrative processes manually. On the other hand, from the local government's perspective, this application assists in improving tax data accuracy, hastens tax management processes, and strengthens transparency in local tax revenues [2].

The aim of this study is to understand that the Sidoarjo Regional Tax Application (APDS) can simplify access for the people of Sidoarjo to information related to taxes. This ease of access can also assist the government at the Regional Tax Service Agency (BPPD) of Sidoarjo County in providing services that are more transparent, accountable, effective, and improve the quality of public service in regional taxation and boost public trust in the Government.

RESEARCH METHOD

This research employs a qualitative approach using a descriptive method, aiming to wholly illustrate the process of implementing the Sidoarjo Regional Tax Application (APDS) in tax services within Sidoarjo Regency. The study concentrates on gaining a deep understanding of the E-Government implementation phenomenon through the Digital Regional Tax application. According to Creswell (2016:4), qualitative methods aim to understand individuals and groups concerning a social issue, with descriptive analysis being conducted directly and providing an in-depth examination of the cases studied. The information sources consist of two types of data: Primary Data, gathered directly from stakeholders involved in the implementation of the Sidoarjo Regional Tax Application (APDS), including the community and employees of the Sidoarjo Regional Tax Service Agency (BPPD), and Secondary Data, obtained from officially published written documents such as agency reports, policy letters, and other administrative records. This research utilizes three data collection techniques: interviews, observations, and documentation. Interviews are conducted face-to-face at the Sidoarjo Regional Tax Service Agency (BPPD) located at 56 Pahlawan Street, Sidoarjo, with sources knowledgeable about the Sidoarjo Regional Tax Application (APDS), through both structured formats using a questionnaire and unstructured approaches that allow for more flexibility. Additionally, observations are made at the research site to capture a realistic view of the implementation of the Regional Tax Application (APDS) in public service, including the interactions between employees and the community. Lastly, the documentation technique involves reviewing various documents, such as policy reports, program archives, and tax revenue records, which provide supportive information in analyzing the process and outcome of local tax policy implementation through the Sidoarjo Regional Tax Application (APDS). Data analysis employs three stages: First, data reduction by filtering and selecting relevant critical information aligned with the study focus; second, data presentation by organizing the data into descriptive narratives for easier comprehension; and third, conclusion drawing by summarizing findings based on a deeper understanding of the presented data.

RESULTS AND DISCUSSION

Result

Sidoarjo Regional Tax Application (APDS) is a tech-driven innovation designed to enhance the tax service and management system at the local level. This system serves as a comprehensive digital platform that combines various administrative functions and public services, simplifying the tax activities for both taxpayers and officials, promoting efficiency and transparency. Essentially, APDS is structured as a technological solution that links various processes ranging from registration, reporting, and payment, to the real-time, automated monitoring of tax revenue.

In its operation, APDS features an interface that is user-friendly and easily accessible from computers and smartphones, whether through a mobile app or web browser. Thanks to this functionality, taxpayers can independently make tax payments without needing to visit the office in person, and they can check their payment status at any time. The system also includes several supporting features like automated reminders for deadlines, updates on taxpayer data, and comprehensive guidance on local tax procedures. As a communication tool, APDS offers chat and complaint services that allow the public to directly consult or report issues they encounter while using the service [3].

Sidoarjo Regional Tax Application (APDS) is managed by the Sidoarjo Regional Tax Service Agency (BPPD). This application offers various tax services, including Land and Building Acquisition Duty (BPHTB), Land and Building Tax (PBB), and Other Regional Taxes (PDL). It also presents annual tax targets and realizations in the form of bar charts, along with news related to BPPD Sidoarjo activities, the profile of BPPD Sidoarjo, and upcoming agendas.

This application not only facilitates easy access for taxpayers but is also designed as an advanced monitoring tool for tax officials at the district level. The system features an analytical dashboard that visually displays tax revenue data, allowing officials to analyze trends, detect potential discrepancies, and make informed decisions based on accurate data. Another advantage of APDS is the educational and outreach features available to the public. Additionally, the integrated complaint feature helps community members report any issues they face, whether technical or administrative, and receive prompt responses from officials. This not only enhances service quality but also strengthens public trust in the implemented digital system [4].

Therefore, the indicators presented in George C Edward III's theory will clarify how the implementation of the Sidoarjo Local Tax Application (APDS) can be effectively realized as explained below:

1. Communication

Communication is a key factor in George C. Edward III's policy implementation theory. As noted by Winarno (2012), communication plays a crucial role in conveying policy information from those who create policies to both the implementers and the public. For successful implementation, communication needs to be clear, consistent, and targeted. Ineffective communication can lead to misunderstandings and deviations from the intended policy goals. In the implementation of the Regional Tax Application of Sidoarjo (APDS), the Regional Tax Service Agency (BPPD) of Sidoarjo has executed communication strategically through two primary channels: external communication and internal communication.

Figure 2. Public Socialization by Sidoarjo Regional Tax Service Agency (BPPD)
Source: https://sie.pajakdaerah.sidoarjokab.go.id

As seen in the image 2, the government's external communication with the public involves sharing information and messages from the authorities to the community and other external parties. The aim is to cultivate a favorable image, enhance trust, convey policies, and promote engagement and collaboration. The BPPD Sidoarjo understands that the success of the implementation of the Sidoarjo Regional Tax Application (APDS) heavily depends on how well the information about this application can be received, comprehended, and accessed by the community. Consequently, the local government conducts a thorough external communication strategy based on multiple channels to ensure policy messages reach various segments of society.

Firstly, social media platforms like Instagram, Facebook, and the official APDS website are utilized as primary tools for disseminating digital information. Through these platforms, the public can access the latest updates about how to use the application, schedules for socialization events, and important announcements related to regional tax obligations. Social media was chosen for its broad reach and effectiveness in delivering information quickly and interactively. Secondly, banners and posters are installed in strategically significant locations within villages and sub-districts. This strategy is crucial for engaging those who are not active online or who lack adequate technological skills. With a straightforward and informative design, banners and posters serve as direct communication tools that are easy for the public to understand. Thirdly, the BPPD Sidoarjo also organizes direct socialization sessions in villages. This approach reflects a personal touch to ensure that community members who are accustomed to manual services are not left behind in the digital transition. During face-to-face events, participants can receive detailed explanations, ask questions, and practice using the application with assistance from staff.

Lastly, a WhatsApp hotline is made available as an interactive communication channel. This platform allows the public to directly engage with staff when they encounter technical difficulties or need information about taxation. The two-way communication system ensures that taxpayers feel more supported and are not hindered during their adaptation to digital-based services [5] This statement is further supported by interviews with the staff at BPPD Sidoarjo;

"The use of our APDS is communicated widely through several channels, including social media, banners, and community outreach in villages. In addition, we offer a hotline through WhatsApp for residents who need assistance in using the APDS or require other information related to local taxes in Sidoarjo. " (interview with Ms. Iin, an IT staff member from BPPD Sidoarjo, August 5, 2025)

This external communication strategy has proven to be an effective solution for addressing the challenges of a community that still relies on manual services. By providing clear information (through direct socialization and banners), consistent updates (via social media and the official website), and targeted outreach (using the WhatsApp hotline and village approaches), the community is gradually becoming accustomed to utilizing APDS. As a result, the workload from manual services at the BPPD office has decreased, while the accessibility and efficiency of local tax services have improved.

Figure 3. Internal Meeting of Sidoarjo Regional Tax Service Agency (BPPD)
Source: https://sie.pajakdaerah.sidoarjokab.go.id

In addition to providing information to the public, the success of the APDS implementation is also influenced by the efficiency of internal communication among policymakers. As shown in the image above, BPPD Sidoarjo collaborates with field operatives. Tax officers who directly assist taxpayers must have a deep understanding of the mechanisms, procedures, and functionalities of the application to deliver optimal service.

Firstly, intensive awareness sessions for employees take place before the official launch of APDS. This initiative aims to ensure that every staff member, particularly in the service department, shares the same understanding of how to use the application. During these sessions, personnel receive technical training, simulate application usage, and learn about the digital service workflow. This preparation equips them to provide direct education to taxpayers. Secondly, a user manual for APDS is available for both staff and the public. This written guide serves as a systematic form of internal communication, allowing employees to refer to official instructions when they encounter technical difficulties. The presence of the manual book also reduces the likelihood of errors in information delivery and ensures the consistency of service procedures.

Thirdly, BPPD Sidoarjo establishes regular coordination meetings between departments. These meetings address technical challenges, assess service quality, and develop strategies for improving the effectiveness of APDS. With well-structured internal communication, every employee can relay feedback from the public to facilitate ongoing enhancement [7] . This statement is further supported by interviews with BPPD Sidoarjo staff;

"Prior to the launch, we first conducted a briefing for the tax officers at BPPD Sidoarjo on how to utilize the APDS, especially those in the service department. For users, we have made a user manual available on the APDS website. " (interview with Ms. Iin, an IT staff member at BPPD Sidoarjo, August 5, 2025)

Thus, the Regional Tax Service Agency (BPPD) of Sidoarjo has implemented strategic communication, both in external communication (from the government to the community) and internal communication (among employees and service users). This communication strategy plays a vital role in ensuring the overall and sustainable success of the digitalization program for regional tax services [8].

Table 2. Communication Strategy of Sidoarjo Regional Tax Service Agency in Implementing APDS

Type of Communication	Form of Implementation	Obstacles
External (Government → Society)	Social Media (Instagram, Facebook, APDS Website):	Delivering the latest information regarding application usage, socialization schedules, and local tax announcements.
	Direct Socialization to Villages	Providing personal education and hands-on practice for community members who are not yet familiar with the application.
Internal (Government → Apparatus)	Intensive Socialization for Staff	Equipping service officers with technical understanding of APDS.
	Interdepartmental Coordination Meetings	Aligning understanding, evaluating challenges, and planning follow-up actions.

Souce; Researcher, 2025

The table above indicates that external communication focuses on conveying information to the public so that they can understand and effectively use the APDS, whereas internal communication emphasizes enhancing the capabilities of the staff to ensure services remain consistent, professional, and responsive. These two communication types complement each other; external efforts build public understanding, while internal efforts ensure staff readiness. The synergy between them leads to the effective implementation of APDS, which improves the quality of local tax services and yields transparent outcomes, more efficient services, broader accessibility, and targeted results.

When connected to the issues at hand, the main obstacle does not lie within the APDS system itself, but rather in the way information is conveyed and received. Unclear messages or a lack of outreach makes the public hesitant to transition from a manual system to a digital one. By bolstering good communication through digital platforms, direct outreach, and ongoing education, the implementation of APDS can function more effectively. Essentially, effective communication is crucial to shift public attitudes towards greater familiarity with digital services, thus addressing issues of delayed information, long queues at tax offices, and low digital literacy. This finding aligns with previous research. Kurniawan (2019) highlighted that weak communication is a primary factor behind implementation failures. Government outreach is often merely ceremonial, uses bureaucratic language, and does not cater to the public's level of understanding. Kurniawan emphasizes the importance of more participatory communication, which involves the public directly in the process of technology introduction.

Meanwhile, Sheila Ananda Aprilia (2022) notes that two-way communication (between the government and the public) is significantly more effective than one-way communication. Sheila discovered that a combination of digital channels and face-to-face interactions can enhance public acceptance of digital services. Furthermore, internal communication among staff should also be strengthened to prevent discrepancies in the information received by the public. Therefore, it can be concluded that the implementation of APDS will only be effective if the local government can enhance communication through a multi-channel, participatory, and ongoing strategy that connects policies with the real needs of the community.

2. Resource

In the implementation theory by George C. Edwards III (1980:10), resources are a crucial element that determines the success of a policy. No matter how well-designed a policy is, if it lacks sufficient resources, its implementation will face challenges. These resources include not only the number of employees but also the qualifications of human resources, budget support, availability of facilities and infrastructure, time allocation, and the readiness of technological infrastructure that supports the execution of the policy. Subarsono (2011) also emphasizes that a well-crafted public policy cannot be optimally implemented without adequate resources.

In the context of the implementation of the Sidoarjo Regional Tax Application (APDS), resource indicators serve as a vital foundation that enables the digitalization of regional tax services to function effectively. The BPPD Sidoarjo acknowledges that implementing e-government through APDS requires readiness in various aspects, including the quality of personnel, adequate funding, the completeness of facilities, and information technology support.

Table 3. Availability of Resources for APDS Implementation

Resource Aspect	Form of Support	Condition in BPPD Sidoarjo
Human Resources	Training for service officers and IT staff; coordination with the back-office team.	Adequate, officers have been trained in using APDS.

Resource Aspect	Form of Support	Condition in BPPD Sidoarjo
Budget	Special fund allocation for application development, maintenance, and training.	A specific budget allocation is available for APDS development and maintenance.
Facilities/Infrastructure	Provision of servers, internet networks, and service rooms.	Office facilities and supporting equipment are well provided.
Technology Infrastructure	Web-based APDS accessible via laptop/PC/personal devices with staff device support.	APDS can be accessed through personal devices (PC, laptop, smartphone) via browser.

Source: Researcher, 2025

Explanation of the data in the table above starts with human resources, which play a crucial role in the implementation of policies. At BPPD Sidoarjo, the number of staff available for carrying out APDS can be considered adequate. Service personnel have undergone training on how to use the application, enabling them to provide clear information to taxpayers. This illustrates a continuous effort in capacity building to maintain service quality. Furthermore, if any issues arise in the field, the service staff have an internal coordination mechanism with the back office team that focuses on resolving technical problems. This system indicates a strong internal collaboration, essential for enhancing the effectiveness of policy implementation. This statement is supported by an interview with a staff member from BPPD Sidoarjo:

"*Currently, the available human resources are sufficient. The service staff have been trained on usage and can convey information well to taxpayers. If there are challenges regarding information, service staff can escalate the issues to the back office for solutions.* " *(Interview with Ms. Iin, IT staff member at BPPD Sidoarjo, August 5, 2025)*

Human resources for the execution of APDS are adequate. The service staff has received appropriate training, allowing them to guide taxpayers effectively. This capacity enhancement demonstrates that the quality of human resources is continually being strengthened. Additionally, the established coordination mechanism between service staff and the back office team when facing challenges shows effective internal collaboration, facilitating the successful implementation of the APDS policy. Moreover, regarding budget and infrastructure, BPPD Sidoarjo has also prepared sufficient support for the development and operation of APDS. The allocated budget specifically designated for this purpose, along with suitable technological facilities, serves as essential support to ensure the application operates effectively. This backing indicates that funding and technical infrastructure are taken seriously, allowing the execution of digital policies to proceed effectively without being hindered by facility limitations [9] This observation is corroborated by an interview with staff from BPPD Sidoarjo;

"ketersediaan anggaran untuk melakukan pengembangan plikasi sudah dilakukan, sarana prasarana teredia dengan baik dan teknologi untuk mendukung penggunaan juga sudah sudah layak."(wawancara kepada Bu Iin selaku staf BPPD Sidoarjo bagian IT, 5 Agustus 2025)

"Funding for the development of the application has been secured, necessary facilities are adequately available, and technology to support its use is also in suitable condition. " (interview with Ms. Iin, IT staff at BPPD Sidoarjo, August 5, 2025)

The financial support and facilities for the development and implementation of the APDS have been well established. Clear funding allocations and the availability of appropriate technology are crucial supporting factors, allowing the application to operate optimally without any facility-related obstacles. Human resources, budget, and facilities would not be fulfilled without digital infrastructure, both within BPPD Sidoarjo and for the public. The APDS has been designed for easy access via multiple devices, including personal mobile phones using web browsers. This provides convenience and flexibility for taxpayers in utilizing the services. Additionally, BPPD Sidoarjo employees have been provided with supporting facilities to ensure optimal use of the APDS. This condition indicates that the technological infrastructure is adequately prepared to facilitate the smooth implementation of the application. This statement is supported by the results of the interview with BPPD Sidoarjo staff:

"The APDS is designed to be accessible through any device via web browsers, allowing taxpayers to use their personal gadgets. For the officers, BPPD has provided facilities fully supporting the use of the APDS. " (interview with Ms. Iin, IT staff at BPPD Sidoarjo, August 5, 2025)

The digital infrastructure supporting the APDS is sufficiently ready for both the public and BPPD Sidoarjo employees. The application has been developed for easy access through various devices, including personal gadgets, thus offering flexibility to taxpayers. On the other hand, adequate supporting facilities for employees are also in place, indicating that technological readiness is sufficient to ensure smooth implementation of the APDS.

Thus, having the right budget allocations for application development, human resource training, and infrastructure maintenance can enhance service quality. This financial support is part of the resource indicators in George C. Edwards III's theory, which emphasizes the importance of financial backing in policy implementation. Overall, the availability of competent human resources, budgetary support, suitable technological infrastructure, and an internal system responsive to field challenges forms a crucial foundation for the successful implementation of digital-based tax service policies [10]. The implementation of the Sidoarjo Local Tax Application (APDS) demonstrates that BPPD Sidoarjo has fulfilled resource aspects, from trained human resources to clear budget support, adequate facilities, and technology infrastructure accessible to the public [11]. This aligns with Kurniawan's (2019) findings, which assert that the success of implementing digital public services is heavily influenced by the quality of human resources and the utilization of information technology. In his research, it is noted that when personnel are skilled and the public receives massive education, the adoption of digital services increases rapidly. This differs from the current situation in Sidoarjo, where many taxpayers still rely on manual services due to a lack of digital literacy and suboptimal use of information resources.

Serta supported by Sheila Ananda Aprilia (2022) who emphasizes that sufficient digital resources can enhance the quality of public services. Employees find the application helpful, as it allows for quicker, more transparent, and organized work. However, this study also underscores the necessity of infrastructure support and educating the community to ensure the system is effectively utilized. In contrast to Sidoarjo, BPPD employees have already experienced the advantages of APDS, but the community still struggles to use the application due to a lack of education and limited access.

3. **Disposition**

In George C. Edward III's policy implementation theory, disposition (attitude/commitment) plays a crucial role in determining the success of a policy [12] Disposition goes beyond mere formal acceptance; it is also reflected in the genuine commitment, positive attitudes, and initiatives of the implementers in executing the policy on the ground [13] Disposition encompasses the level of acceptance, understanding, and willingness of the implementers to carry out the policy effectively in practice. The Sidoarjo Regional Tax Application (APDS) is an Electronic-Based Government System (SpbE), and the Regional Tax Service Agency (BPPD) of Sidoarjo shows a very positive attitude and complete dedication to the success of this policy. This is evident from the statement that the employees of the BPPD Sidoarjo fully support the implementation of the policy through the Sidoarjo Regional Tax Application (APDS) and demonstrate a commitment to upholding the principles of public service digitization. This commitment is not merely formal; it is also reflected in tangible actions on the ground, such as providing guidance services for individuals facing challenges in using the application. This assertion is reinforced by interviews with staff from BPPD Sidoarjo:

"*BPPD staff are fully committed to implementing the policy through APDS, especially in supporting the Electronic-Based Government System (SpbE).* " *(interview with Ms. Iin, an IT staff member at BPPD Sidoarjo, August 5, 2025)*

Moreover, there has been no evidence of resistance or rejection from policy implementers regarding this digital system. On the contrary, the employees continuously offer technical support and education to the community. A clear example of a positive disposition is the effort of the BPPD Sidoarjo in promoting village government participation to help educate residents and assist them in utilizing tax services through the Sidoarjo Regional Tax Application (APDS). This proactive attitude indicates that the policy implementers not only accept the policy but also take initiative and show a strong concern for the effectiveness of the implementation. This statement is further supported by interviews with BPPD Sidoarjo staff;

"*So far, there has been no pushback from policy implementers regarding the implementation of the E-Government system through the Regional Tax Application (APDS), as we continue to provide assistance to taxpayers facing difficulties with its usage. We also encourage* *villages to support residents who may encounter issues utilizing the APDS services. " (interview with Ms. Iin from the IT section of BPPD Sidoarjo, August 5, 2025)*

Employee satisfaction in using the Sidoarjo Regional Tax Application (APDS) is also an essential indicator and reflects a favorable attitude. Employees have reported that the use of the Sidoarjo Regional Tax Application (APDS) simplifies their ability to provide information and services to taxpayers. This shows that they not only accept the policy but also directly experience its benefits in enhancing work efficiency. When the implementers believe that the policy makes their tasks easier and does not impose burdens, they are more likely to be motivated and dedicated in executing it [14].

Table 4. Implementers' Disposition in the Implementation of APDS

Findings	Evidence / Actual Behavior
Commitment of implementers such as staff fully supporting the APDS policy	Providing taxpayer guidance services, directly assisting in the field.
No resistance from implementers	Staff continue to provide manual services temporarily, but direct citizens to APDS and conduct socialization.
Participatory support with implementers encouraging the government's role	Villages participate in socialization and education on APDS usage.
Satisfaction of implementers as staff feel APDS facilitates their tasks	Faster data access and smoother communication with taxpayers.

Source: Researcher, 2025

The data above indicates that the employees of BPPD Sidoarjo are fully dedicated to supporting the implementation of the APDS policy. This dedication is evident through their tangible actions, such as offering guidance services for taxpayers who experience difficulties and providing on-site support. Their commitment goes beyond mere formal instructions, as it is put into practice through proactive services that assist the community in adapting to the application. No resistance or objections were found among the policy implementers. Instead, the staff continues to offer manual services during the transition, while encouraging the public to adapt to the APDS. This approach demonstrates the employees' flexibility and concern for the community members who are still accustomed to manual systems.

Employees are urging village governments to actively participate in the dissemination of APDS. This shows a proactive attitude, as the implementers do not work in isolation, but involve other stakeholders to ensure that education reaches the public effectively, even at the village level. Through this method, they expand the reach of policy implementation while employees find APDS to be beneficial, making their work easier, faster, and more organized. This satisfaction boosts their enthusiasm and commitment to executing the policy. The positive feelings of the implementers serve as a vital indicator of their supportive disposition, as it impacts their daily performance.

The attitude of BPPD Sidoarjo employees towards the execution of APDS is very positive, fully endorsing the digital tax policy. This is reflected in their genuine commitment, flexible mindset, and proactive initiatives, leading to the absence of any resistance. Moreover, employees feel significantly assisted by this policy, and their attitude serves as an essential asset in strengthening the success of its implementation. In comparison with previous research conducted by Kurniawan (2019), it was revealed that employee disposition is a crucial factor in the successful implementation of e-government initiatives. However, he also noted that employees often still adhere to old work patterns (status quo), leading them to prioritize manual services instead of embracing digital innovations. The tendency to cling to outdated habits ultimately hinders the digital transformation that could be more efficient.

Furthermore, research by Sheila Ananda Aprilia (2022) emphasizes that a positive attitude among personnel can act as a catalyst for change, provided there is support in the form of incentives, training, and clear regulations. In her study, highly motivated employees were found to effectively educate the public to switch to digital systems, resulting in faster, more transparent, and efficient public services.

4. Bureaucratic structure

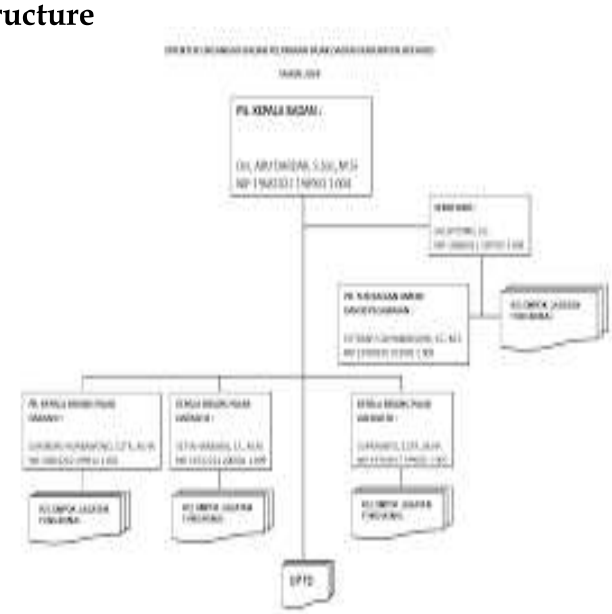

Figure 4. Bureaucratic Structure of Sidoarjo Regional Tax Service Agency (BPPD)
Source: https://sie.pajakdaerah.sidoarjokab.go.id

The structure of the bureaucracy illustrated in the image depicts a functional bureaucratic model in which each department and official has distinct responsibilities and are interconnected to facilitate the implementation of local tax policies. This includes the use of the Sidoarjo Local Tax Application (APDS) as a form of e-government innovation. At the forefront is the head of the BPPD Sidoarjo, who is fully accountable for shaping the policies and strategies related to the management of local tax and ensuring that the digitalization policies through APDS are executed consistently, efficiently, and in compliance with regulations. Next, there is the secretary and the subdivision for general affairs and personnel, who oversee and manage administrative operations, human resources, and interdepartmental coordination, ensuring smooth internal operations, which is crucial for managing the human resources needed to access and operate APDS effectively.

The local tax division (I, II, III) has distinct responsibilities for managing specific types of taxes, such as hotel, restaurant, entertainment, billboard, property tax (PBB), and transfer of rights on land and buildings (BPHTB). Each division is backed by functional job groups that can directly access APDS as per their authority.

Additionally, the Regional Technical Executive Unit (UPTD) serves as the frontline service provider to the public and ensures that formulated policies at the bureaucratic level can be effectively implemented on the ground through the APDS.

The bureaucratic structure within the BPPD Sidoarjo supports the implementation of e-government via the Sidoarjo Local Tax Application, allowing each officer to access the software according to their designated roles. The local tax services in Sidoarjo have undergone significant transformation through the utilization of information technology, with the introduction of the Sidoarjo Local Tax Application (APDS) as a digital innovation aimed at enhancing effectiveness, efficiency, and transparency in local tax services for the community. Thus, there are no bureaucratic or procedural obstacles hindering the smooth operation of the Sidoarjo Local Tax Application (APDS), as this application instead supports an Electronic-Based Government System (SPbE) [15] This assertion is further validated by interviews conducted with BPPD Sidoarjo staff;

"*Currently, the bureaucratic structure is supporting the implementation of E-Government through APDS, mainly because each staff member is able to access APDS in accordance with their specific duties.* " *(interview with Ms. Iin, IT staff from BPPD Sidoarjo, August 5, 2025)*

Every staff member can use the application based on their roles, leading to a more effective, efficient, and transparent local tax service. This indicates that there are no bureaucratic obstacles hindering the implementation; instead, the existence of APDS fully supports the execution of the Electronic-Based Government System (SPBE).

Table 5. Standard Operating Procedures (SOP) for APDS Implementation in Sidoarjo

SOP Stage	Executor	Process / Workflow	Output
1. Taxpayer Account Registration	Taxpayer, APDS Admin	Taxpayer accesses the APDS website → fills in personal data → verification via email/WhatsApp	Active and registered account
2. System Login	Taxpayer	Using NIK and verified password	Taxpayer can access the APDS dashboard

SOP Stage	Executor	Process / Workflow	Output
3. Tax Object Data Entry	Taxpayer	Filling in tax object form (land, building, business, vehicle)	Tax object data stored in the system
4. Data Verification	APDS Admin, Tax Division Officer	Checking completeness & validity of taxpayer and tax object data	Validated data
5. Tax Determination	Head of Tax Division according to tax type	Determining the tax amount payable according to regulations	Tax Assessment Letter (SKP) issued
6. Billing Code Issuance	APDS System	System automatically generates a billing code	Taxpayer receives billing code for payment
7. Tax Payment	Taxpayer via Bank/Online Payment	Taxpayer makes tax payment via bank, ATM, or e-channel application	Tax paid & recorded in APDS
8. Payment Confirmation	APDS System & Admin	System records status “Paid” → Admin cross-checks if issues occur	Updated payment status
9. Issuance of Payment Receipt	APDS System	System generates an e-Payment Receipt (e-BP) that can be downloaded	Taxpayer receives digital payment receipt

Source: researcher, 2025

Not only that, there is a Standard Operating Procedure (SOP) for the Sidoarjo Regional Tax Application (APDS) laid out as shown in the table above to guarantee that digital tax services are organized and efficient. The process starts with taxpayer account registration, logging in and accessing services, followed by entering tax object data that is then verified by both the system and BPPD officials. Once verification is complete, the system issues a digital SKPD that serves as the basis for tax payments through various channels such as banks, virtual accounts, or QRIS. All transactions occur in real-time with automatic confirmation and digital payment proof stored in the system. Additionally, BPPD provides assistance through a WhatsApp hotline and a helpdesk feature to resolve user issues. With these procedures, APDS can enhance the effectiveness, efficiency, and transparency of regional tax services in line with e-government principles. This statement is supported by an interview with a BPPD Sidoarjo staff member:

"The service flow through APDS is already outlined in the SOP. First, taxpayers must register an account by entering their personal information on the APDS website and verifying it via email or WhatsApp. After the account is activated, taxpayers can log in and select the needed tax service menu. " (interview with Ms. Iin, BPPD Sidoarjo IT staff, August 5, 2025)

Strong organizational backing also ensures that the implementation of the Sidoarjo Regional Tax Application (APDS) can proceed smoothly and adapt to technological developments as well as societal needs. This is connected to issues stemming from the lingering manual processes in tax services that consume time, lead to delays in information, and require individuals to physically visit tax offices due to their unfamiliarity with digital applications. This situation could potentially create bureaucratic obstacles if the organizational structure fails to support the transition to digitalization. However, the structure of the Regional Tax Service Agency (BPPD) of Sidoarjo has been clearly designed and distributed according to the main duties and functions of each unit. Therefore, initial problems related to the predominance of manual services and limited digital access for the public can be addressed through a supportive bureaucratic structure. There are no significant administrative barriers, as the organizational system is oriented toward adapting to technology. Thus, the successful implementation of APDS in Sidoarjo is not solely due to the existence of a digital application, but also because of an effective, clear, and responsive bureaucratic structure that meets public needs.

Discussion

In previous research by Kurniawan (2019), it is emphasized that a bureaucracy capable of adapting to digitalization will enhance public service accessibility. He argues that rigid manual bureaucratic obstacles can be overcome with a structure that supports technology utilization. The situation at BPPD Sidoarjo aligns with this finding, as the bureaucracy strengthens APDS by ensuring that each division has direct access to the application according to its responsibilities. Consequently, the manual system that previously slowed processes can be transformed into rapid real-time services. Meanwhile, research by Sheila Ananda Aprilia (2022) indicates that internal coordination within the bureaucracy is a primary factor for the success of digital public services. If coordination is effective, resistance from policy implementers can be minimized. In Sidoarjo, BPPD employees fully support APDS and actively assist members of the community facing difficulties. This support reflects strong internal coordination, which aligns with Aprilia's research findings. Thus, an adaptive bureaucratic structure that is well-coordinated and based on digital SOPs emerges as a key factor in ensuring that technology-based policies, such as APDS, are successfully implemented.

CONCLUSION

Fundamental Finding : The study concludes that the implementation of the Sidoarjo Regional Tax Application (APDS) has significantly enhanced the efficiency, transparency, and overall effectiveness of regional tax services through a supportive organizational structure, proactive leadership, and staff commitment to digital transformation. **Implication :** These findings underscore that successful digital innovation in public services is not solely dependent on technological advancement but also requires institutional adaptability, human resource readiness, and stakeholder engagement. Strengthening these aspects can serve as a practical model for other local governments pursuing e-governance reforms. **Limitation :** Nevertheless, this study is limited by its qualitative design and localized scope within Sidoarjo, which may restrict the generalizability of its findings to regions with differing digital capacities or governance contexts. **Future Research :** Further studies should employ mixed-method or comparative approaches to assess the influence of digital literacy on e-governance performance and to evaluate the long-term sustainability and scalability of digital public service innovations in various regional settings.

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