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Digital Government Transformation thru the Electronification of Regional Government Transactions in Optimizing Land and Building Tax Revenue in Jambi City 2023

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Abstract.

This research aims to analyze in depth the process of digital government transformation through the implementation of Regional Government Transaction Electrification (ETPD) based on the Quick Response Code Indonesian Standard (QRIS) to optimize Land and Building Tax revenue in Jambi City. This research uses a qualitative case study approach. The data collection techniques for this research are interviews and documentation. The findings of this study explain that the digital transformation of Land and Building Tax (PBB) payments through the implementation of QRIS at the BPPRD of Jambi City is part of the implementation of the Regional Government Transaction Electrification Policy (ETPD), driven by national regulations and the local government's commitment to supporting cashless transactions. The digital transformation of land and building tax (PBB) payments in Jambi City is still at the stage of digitalization, which means the utilization of technology to support existing processes, and has not yet reached the stage of digital transformation characterized by comprehensive structural, cultural, and behavioral changes. Therefore, the digital transformation underway can be characterized as a partial, gradual transformation, which requires strengthening socialization strategies, improving the community's digital literacy, and optimizing incentive policies to achieve digitization goals more effectively.

Keywords: Digital Government Transformation; Electrification of Regional Government Transactions; Land and Building Tax Revenue; Jambi City;

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INTRODUCTION

The development of digital technology has driven significant changes in governance, particularly in the management of regional finances and the provision of public services (David et al., 2023). The government is required to adopt an electronic-based governance system to enhance the efficiency, transparency, and accountability of public financial management (West, 2005). This transformation aligns with the national policy on the Electronic-Based Government System (SPBE) and the acceleration of regional digitalization, both aimed at supporting the realization of good governance (Gil-Garcia et al., 2018). One of the strategic policies in the digital government transformation agenda is the implementation of the Electronic Transaction of Local Government (ETPD) (Sinulingga, 2025). ETPD aims to shift local government financial transactions from a cash to a non-cash system through digital payment instruments (Burhan & Gunadi, 2023). Empirically, this policy is expected to enhance the effectiveness of regional revenue management, minimize the risk of budget leakage, and expand the base of regional tax and retribution receipts (Artha, 2021).

In Jambi City, the implementation of ETPD focuses on the regional tax sector, specifically the Land and Building Tax (PBB), using the Quick Response Code Indonesian Standard (QRIS) payment channel. This policy is implemented by the Regional Tax and Retribution Management Agency (BPPRD) of Jambi City as part of the support for the Regional Digitalization Acceleration and Expansion Team (TP2DD) program. Normatively, the use of QRIS is expected to make it easier for the public to pay property taxes (PBB) because it can be accessed anytime, anywhere via mobile devices (Akhmad, 2023).

However, empirical data show that the implementation of QRIS in PBB payments in Jambi City has not been optimal. Based on the target and realization data for

PBB revenue through QRIS, in 2022 the BPPRD of Jambi City set a revenue target of Rp1,562,500,000, or 5 percent of the total PBB target, but the realization was recorded at Rp0, or 0 percent. In 2023, the target for PBB payments through QRIS increased to Rp3,125,000,000, or 10 percent of the total target, but the actual realization was only Rp143,624,206, or about 0.05 percent of the target (Tuyani, 2023).

The low level of realization indicates a gap between the policy to digitalize tax payments and the community's adoption and utilization. In fact, PBB is a local tax with significant potential to increase local revenue (PAD), given the relatively high number of tax objects and taxpayers in the city of Jambi. This condition indicates that the transformation of digital governance through ETPD does not only depend on the availability of technology but also on institutional readiness, human resource capacity, and public acceptance of digital innovation (Tuyani, 2024).

Various previous studies have examined digital transformation in the public sector. Mergel et al., (2019) assert that digital transformation in public administration is necessary to provide more responsive and real-time services, while Duch-Brown & Rossetti, (2020) Highlight the role of government digitalization in supporting the dynamics of the modern economy. Maulana also states that digital governance enables the government to be more innovative and better adapted to the community's needs. Research on ETPD shows that cashless transactions increase regional revenue and enhance financial transparency. Zahra, (2024) found that ETPD can promote regional fiscal independence by fostering a digital transaction ecosystem, while Sitinjak et al., (2023) demonstrated that the ease of digital tax payments positively affects increases in regional tax revenue. Fahrinda et al., (2024) Also emphasized that the implementation of cashless transactions enhances accountability and reduces the potential for fraud in regional financial management.

However, several studies also reveal various obstacles

in the implementation of government digitalization. Nugraha (2018) assesses that e-government implementation in the regions often remains formalistic and regulatory-compliant, without improving the quality of public services. Similar findings were also presented by Samosir, (2021), which indicates that limited infrastructure, low public digital literacy, and suboptimal implementation strategies are factors hindering the success of ETPD in the region.

Based on empiriBased on empirical evidence and prior studies on digital government and electronic tax systems, this study argues that the low realization of QRIS-based land and building tax payments in Jambi City cannot be explained solely by the level of policy implementation. Although the ETPD policy through QRIS has been formally adopted, the persistently low revenue indicates a deeper problem within the digital government transformation process itself. Existing literature remains divided on whether such outcomes are primarily caused by deficiencies in policy design, technological adoption barriers among users, limited institutional readiness, or a broader mismatch between digitalization initiatives and substantive digital transformation. However, empirical studies that critically examine these dimensions in the context of local tax administration—particularly in medium-sized cities in Indonesia—remain limited.

Therefore, this research aims not merely to describe the implementation of QRIS-based ETPD, but to critically analyze the digital government transformation process underlying its application in land and building tax collection in Jambi City 2023. By examining policy design, institutional capacity, technological adoption, and governance practices, this study seeks to identify the key structural and organizational factors that constrain the optimization of land and building tax revenue, thereby contributing to the broader debate on the effectiveness of digital government reforms in local public finance management.

THEORETICAL FRAMEWORK: Digital Government Transformation

Digital governance is a concept that refers to the integrated use of information and communication technology in the administration of government to improve the quality of public services, administrative effectiveness, and transparency and accountability in governance (Erkut, 2020). Digital governance not only emphasizes the use of technology as a tool but also demands fundamental changes in the way the government operates, interacts with the public, and makes decisions (Liva et al., 2020). .

In the context of modern public administration, digital government is viewed as an evolution of e-government, which previously focused on the digitization of services, and is now moving toward a more holistic and collaborative approach (Harrison & Luna-Reyes, 2020; Li et al., 2025). Digital government enables the government to be more responsive to society's needs, encourages policy innovation, and creates public value through the sustainable use of data and digital technology (Wirtz, 2022).

Digital government transformation is a comprehensive change process within government organizations that encompasses technology, organizational structure, work processes, human resources, and bureaucratic culture (Lindgren & van Veenstra, 2018). Mergel et al., (2019) explain that digital transformation in public administration is not merely about replacing manual systems with digital ones, but involves a paradigm shift in the delivery of public services and governance. According to Mergel et al., (2019), Digital government transformation can be analyzed through four main dimensions: the reasons for digital transformation, the objects of digital transformation, the process of digital transformation, and the results of digital transformation. This framework is used to understand why the government undertakes digital transformation, what is being transformed,

how the change process unfolds, and the impact on organizations and society.

The reasons for digital transformation reflect internal and external pressures that influence the government's adoption of technological innovations. External drivers can stem from societal demands for fast and easy services, technological advancements, regulatory pressures, and changes in the social and economic environment. Meanwhile, internal drivers are related to the organization's need to improve efficiency, enhance performance, and achieve the government's strategic goals. In the context of local government, the reasons for digital transformation are often influenced by national policies, such as SPBE and the acceleration of regional digitalization, as well as the need to increase regional revenue through a more transparent and accountable financial management system (Mergel et al., 2019).

The objects of digital transformation are the aspects that change as a result of the implementation of digital technology. The objects of digital transformation as public services, administrative processes, organizational work systems, and the relationships between the government and society, as well as other stakeholders. The digital transformation process describes the stages and mechanisms the government undertakes to implement digitization. This process includes policy formulation, provision of technological infrastructure, strengthening human resource capacity, inter-agency coordination, and public socialization. Digital transformation in the public sector often faces challenges, including limited infrastructure, organizational resistance, low digital literacy, and weak stakeholder synergy. Therefore, the success of the transformation process highly depends on leadership commitment, organizational readiness, and cross-sector support (Mergel et al., 2019).

The results of digital transformation include outputs, outcomes, and impacts from the implementation of

digitization in governance. Output can include the availability of digital payment systems and non-cash services, and outcomes include increased efficiency and ease of service, while long-term impacts include enhanced transparency, accountability, public trust, and optimized regional revenue collection. However, digital transformation can also have negative impacts, such as technological access gaps, reliance on digital systems, and data security risks. Therefore, a comprehensive evaluation of the outcomes of digital transformation is necessary to ensure the benefits are felt evenly across all layers of society (Mergel et al., 2019).

This study adopts the digital transformation framework proposed by Mergel et al. (2019), while extending it through a critical reinterpretation to avoid a purely descriptive or technology-centric understanding. In this framework, digital transformation is conceptualized as **a** fundamental reconfiguration of public sector organizations, rather than a linear progression from analog to digital systems. Digital transformation thus differs conceptually from digitalization and digitization, as it requires structural, procedural, and cultural change within government institutions.

RESEARCH METHODS

This research uses a qualitative case study approach (Creswell & Poth, 2016). The qualitative approach was chosen because the research aims to deeply understand the process of digital government transformation through the implementation of Local Government Transaction Electrification (ETPD) based on QRIS to achieve the target revenue of Land and Building Tax (PBB). The case study approach is used to describe the phenomenon in its contextual and comprehensive context at a specific research locus.

The data used in this study consists of primary and secondary data. Primary data were obtained through in-depth

interviews Informants were selected using purposive sampling to ensure direct relevance to the research objectives. In total, twelve key informants were interviewed, consisting of officials from the Regional Revenue Agency (BPPRD), representatives of partner banks and payment service providers, and local taxpayers who had been exposed to QRIS-based payment facilities. This sampling strategy enabled the study to capture perspectives from policy designers, implementers, and end users, thereby enhancing analytical depth.

Data analysis followed a systematic thematic coding procedure. Interview transcripts and documents were first subjected to open coding to identify recurring patterns related to policy implementation, organizational capacity, and technology adoption. These initial codes were then refined through axial coding, where empirical categories were aligned with the theoretical dimensions of digital transformation proposed by **Mergel et al. (2019), including organizational redesign, process reengineering, governance models, and cultural change. Finally, selective coding was applied to integrate these categories into higher-order analytical themes that explain why the transformation remains at the stage of digitalization rather than full digital transformation.

To ensure credibility and trustworthiness, the study applied multiple triangulation mechanisms. Data triangulation was conducted by cross-validating interview findings with official policy documents, ETPD roadmaps, and revenue realization reports. Source triangulation was achieved by comparing narratives across different informant groups, while methodological triangulation involved integrating interview data with document analysis. In addition, member checking was employed by returning preliminary interpretations to selected informants to confirm the accuracy of meaning representation and reduce researcher bias.

RESULTS AND DISCUSSIONS

Reasons for digital transformation

Digital transformation in public administration does not occur spontaneously, but is driven by various strategic factors sourced from both the external and internal environments of the organization (Luna-Reyes et al., 2021; Ruvalcaba-Gomez & Cifuentes-Faura, 2023). According to Mergel et al. (2019), the drivers of digital transformation generally stem from environmental demands, the need to improve service quality, and the drive to enhance transparency and efficiency in governance. In the context of the BPPRD Kota Jambi, the implementation of QRIS for Land and Building Tax (PBB) payments through the Regional Government Transaction Electrification (ETPD) scheme is influenced by two main dimensions: external and internal factors.

Externally, the digital transformation at the BPPRD of Jambi City is driven by national policies that prioritize the digitalization of government governance. Regulations such as Presidential Regulation Number 95 of 2018 on SPBE, Presidential Decree Number 3 of 2021 on the P2DD Task Force, and Minister of Home Affairs Regulation Number 56 of 2021 serve as normative foundations that require local governments to accelerate the digitalization of regional financial transactions. This policy is top-down and exerts structural pressure on local governments to adapt to the national digital transformation agenda.

In addition to regulatory factors, technological developments and changes in societal behavior are significant external drivers (AbuAli & Abou-Zeid, 2016). People are becoming increasingly accustomed to using digital payment systems in their daily economic activities. The presence of QRIS, a national standard for QR code-based payments facilitated by Bank Indonesia, creates a more inclusive digital transaction ecosystem. This condition encourages local

governments to adjust tax service mechanisms to align with modern patterns of societal transactions (Muninggar & Rahardiansah, 2024; Simanjuntak et al., 2024).

Another impetus comes from the demand for increased transparency and accountability in regional financial management. The non-cash payment system is considered capable of minimizing the potential for leakage, improving real-time transaction recording, and strengthening the oversight system (Tuyani, 2023). In the context of public governance, the pressure to enhance bureaucratic integrity is a strong reason for local governments to abandon cash payment systems prone to maladministration (Tuyani, 2024). Thus, the external reasons for digital transformation at the BPPRD of Jambi City are not only administrative, driven by regulations, but also a response to changes in the social, economic, and technological environment that demand more adaptive public services.

In addition to external pressures, internal organizational factors are also driving digital transformation. First, there is a need to improve the effectiveness and efficiency of PBB collection. Before the implementation of QRIS, PBB payments were still dominated by manual methods or through certain limited banking channels. This has implications for limited public access and relatively slower administrative processes. Second, the low achievement of PBB realization relative to the set target becomes an internal driver. The inability to optimally achieve targets indicates the need for innovation in local tax collection strategies. Digitalization through QRIS is seen as an alternative solution to expand payment channels, ease the burden on taxpayers, and encourage increased payment compliance.

Third, the vision of the Jambi City Government in realizing the smart city concept also serves as the internal foundation for digital transformation. The implementation of QRIS in property tax payments is part of the integration of technology-based public services that support the smart city

ecosystem. This transformation not only targets the technical aspects of payments but also aims to build the local government's image as a modern and innovative institution. Fourth, there is an internal need to improve the monitoring and financial reporting system. The digital payment system allows for automatic recording, integrated with the regional financial information system. This facilitates data reconciliation and the evaluation of tax revenue performance (Sandi, 2023).

Despite internal recognition within the BPPRD of Jambi City regarding the need for organizational transformation, the empirical evidence suggests that the ongoing change remains largely confined to the level of instrumental adaptation. Digitalization has primarily been interpreted as a technical adjustment—namely, the introduction of QRIS as an alternative payment channel—without being accompanied by deeper changes in organizational culture, decision-making routines, or service delivery paradigms. This explains why repeated socialization efforts and informational campaigns have yielded limited results: they are implemented within unchanged institutional settings that neither incentivize behavioral change nor reduce structural frictions faced by taxpayers.

From a policy implementation perspective, the limited effectiveness of QRIS adoption reflects a mismatch between policy design and implementation capacity. Socialization activities are conducted in a fragmented and episodic manner, without integration into enforcement mechanisms, incentive structures, or systematic feedback loops. As a result, taxpayers perceive QRIS not as a necessary or advantageous mode of payment, but merely as an optional add-on to existing practices. This condition is reinforced by institutional capacity constraints within the implementing organization, including limited human resource specialization in digital service management, weak data integration across units, and the

persistence of manual verification procedures that dilute the efficiency gains promised by digital payments.

Moreover, viewed through a technology acceptance lens, low adoption cannot be attributed solely to insufficient digital literacy. Instead, it reflects taxpayers' perceptions that QRIS does not significantly improve convenience, certainty, or trust compared to conventional payment channels. These perceptions are shaped by policy implementation dynamics, such as the absence of differentiated incentives, lack of sanctions for non-digital payment, and unclear signals from the bureaucracy regarding the strategic importance of QRIS. Consequently, individual-level acceptance is constrained by organizational and institutional factors rather than by user capability alone.

In line with the digital transformation framework of Mergel et al. (2019), the drivers of transformation in Jambi City can therefore be characterized as predominantly administrative and compliance-oriented. External regulatory pressure and internal performance targets have generated motivation for change, but this motivation has not translated into comprehensive process reengineering or governance reform. The persistence of hierarchical control, siloed workflows, and short-term revenue-oriented logic limits the emergence of a public service paradigm oriented toward long-term public value creation. Thus, while the motivation for digital transformation exists, it remains insufficiently institutionalized to produce transformative outcomes, explaining why QRIS-based PBB payments continue to exhibit low adoption and minimal fiscal impact.

Object of digital transformation

Based on the theory Mergel et al., (2019), the objects of digital transformation encompass aspects that change through the application of technology in public administration, such as internal processes, public services, technology, and

government-society relations. In the context of the BPPRD of Jambi City, the implementation of QRIS for Land and Building Tax (PBB) payments shows that several objects have undergone changes, although they are not yet fully structural. The first object of transformation is the internal administration process for PBB collection. Based on the interview with the Head of BPPRD Kota Jambi, the implementation of QRIS aims to facilitate transaction recording and expedite data reconciliation with banking partners. He stated that:

"*With the implementation of QRIS, every payment is directly recorded digitally and integrated with the banking system, thus minimizing manual recording errors.*" *(Interview, on October 12, 2024)*

Internal BPPRD documentation also shows that payments through QRIS are included in the daily transaction report and can be monitored in real time through the partner banking system. This differs from the previous cash mechanism, which required manual deposits and data reconciliation. However, based on observations and documentation of the 2023 realization report, this digital system still runs alongside conventional methods. This means that the transformation of internal processes has not fully replaced the old system, but rather only added alternative payment channels. The next object of transformation is the service model for taxpayers. Normatively, QRIS is designed to provide payment convenience without requiring a visit to the BPPRD office. This is reinforced by the statement from the Head of Development and Evaluation at BPPRD, who said:

"*QRIS was created so that the public can pay taxes more easily, just through their mobile phones without having to queue at the office.*" *(Interview, 13 October 2024).*

The ETPD roadmap for Jambi City, as stipulated in Mayor's Decree Number 457 of 2022, positions QRIS as one of the main instruments for the digitalization of regional tax

payments, with an explicit target of contributing 10% of total Land and Building Tax (PBB) revenue. However, empirical evidence from the 2023 realization data reveals a substantial gap between policy expectations and actual outcomes. QRIS-based payments accounted for only Rp143,624,206, equivalent to approximately 0.05% of the targeted contribution. This finding indicates that, despite the formal digitization of payment channels, QRIS has so far generated a negligible fiscal impact on PBB revenue.

Rather than demonstrating revenue optimization, the data highlight a structural limitation in the current implementation of QRIS-based ETPD. The initiative has primarily expanded digital availability without inducing meaningful changes in taxpayer behavior or payment patterns. Low adoption suggests that the presence of digital payment infrastructure alone is insufficient to optimize tax revenue in the absence of supporting institutional, organizational, and behavioral interventions. In this sense, QRIS should not be understood as an automatically revenue-enhancing instrument, but as a potential enabler whose impact depends on broader conditions such as process redesign, incentive alignment, enforcement mechanisms, and sustained taxpayer engagement strategies.

Accordingly, this study does not treat revenue optimization as an achieved outcome, but as a conditional and unrealized objective of QRIS-based ETPD. The empirical findings instead underscore a critical gap between the normative policy goal of optimization and the empirical reality of limited utilization. This gap becomes the central analytical problem of the study: identifying why QRIS has failed to move beyond symbolic digitalization and under what institutional and governance conditions it could realistically contribute to the optimization of Land and Building Tax revenue in Jambi City.

The most tangible object of transformation is in the aspect of payment technology. QRIS, as a national standard

issued by Bank Indonesia, allows a single payment code to be used by various banking applications and digital wallets (Kristia & Ahmadi, 2025). Based on an interview with the Bank Indonesia Representative Office in Jambi Province, it was explained that:

"QRIS provides ease of interoperability, meaning one code can be used by various payment platforms, so local governments do not need to provide many different systems." (Interview, 10 October 2024)

Documentation of the collaboration between BPPRD and the banking sector shows that the QRIS system has been integrated with regional bank partners to support non-cash tax collection. However, during implementation, technical obstacles were encountered, including limited internet connectivity and the maximum nominal limit for QRIS transactions. This was also conveyed by BPPRD staff, who mentioned that some taxpayers with large PBB amounts still have to use other payment methods due to system limitations. This means that technological transformation has indeed occurred, but it is not yet fully supported by optimal infrastructure readiness and system capacity.

Implementing QRIS also entails changes in the interaction patterns between the government and taxpayers. With the cashless system, the direct interactions that previously dominated tax payments are decreasing. This model leads to a self-service system in which the public can conduct transactions independently(Putri et al., 2024). Based on interviews with several taxpayers, some stated that payment through QRIS is more practical. However, others admitted that they still feel more comfortable using conventional methods because they are already accustomed to them. Low realization rates indicate that the culture of digital payments in the context of regional taxes has not yet been firmly established. In other words, the relational transformation is still transitional.

Based on interview data and documentation, it can be concluded that the objects of digital transformation in the implementation of QRIS for PBB payments in Jambi City include: Internal administrative processes (digital recording and reconciliation), Public service models (provision of non-cash payment channels), Payment technology infrastructure (QRIS integration), and Patterns of interaction between the government and taxpayers. However, the transformation is still predominantly focused on technological and procedural aspects. The 0.05% realization rate indicates that the changes have not yet affected the community's payment practices on a broad scale. Thus, based on the indicators of Mergel et al. (2019), the object of digital transformation at the BPPRD Kota Jambi has undergone technical transformation, but has not yet achieved structural and cultural transformation.

Digital transformation process

According to Mergel et al., (2019), the process of digital transformation in the public sector does not happen instantly, but rather through stages that include policy initiation, strategic planning, technical implementation, and evaluation and adjustment. Digital transformation is not just about technology adoption, but also about how organizations manage that change gradually. In the context of the BPPRD Kota Jambi, the digital transformation process through the implementation of QRIS for Land and Building Tax (PBB) payments can be analyzed in the following stages.

The digital transformation process at BPPRD Kota Jambi began with the national policy on the Electrification of Regional Government Transactions (ETPD). Documentarily, this is marked by the issuance of Jambi Mayor's Decree Number 457 of 2022, which concerns the Roadmap for the Implementation of ETPD in Jambi City. The document shows that the digitization of regional tax payments, including PBB, is part of the strategy to enhance transparency and optimize

regional revenue. Based on the interview results with the Head of the Jambi City BPPRD, it was explained that:

"The implementation of QRIS is part of the Jambi City Government's commitment to supporting the national ETPD program and the direction of Bank Indonesia to expand non-cash transactions in the region." (Interview October 12, 2024)

The statement indicates that the initial stage of the transformation is largely driven by regulatory commitments and policy encouragement from the central government, as well as coordination with Bank Indonesia. After the policy commitment, BPPRD coordinated with Bank Indonesia and regional banking partners. Cooperation documentation shows the integration of the QRIS payment system with the designated partner banks. In an interview with a representative from Bank Indonesia, Jambi Province, it was mentioned:

"We provide assistance to local governments, including BPPRD, in the QRIS integration process and ensure that the payment system can be used by various banking applications." (Interview, 10 October 2024)

Additionally, based on internal BPPRD documentation, several socialization activities were conducted for taxpayers and internal employees regarding the use of QRIS as a new payment method. However, based on field observations, these socialization efforts have not been carried out on a large, sustained scale, resulting in limited public understanding of the QRIS payment mechanism. The implementation stage is marked by the official launch of the QRIS payment channel for PBB. Technically, the QR code is provided and connected to the banking system that has collaborated. According to the 2023 realization report, the QRIS system has been actively used as one of the PBB payment channels. However, data shows that QRIS implementation is only Rp143,624,206, or about 0.05% of the

10% target set in the ETPD roadmap. This was also acknowledged by one of the BPPRD officials in an interview:

"Indeed, from the system implementation side, it has been running, but the usage by the public is still very low compared to the set target." (Interview, 30 October 2024)

The data shows that although the implementation has been technically carried out, the public adoption stage is not yet optimal. In the theory of digital transformation, evaluation is an important stage for assessing the effectiveness of implementation and making improvements. Based on interviews with the BPPRD, evaluations are conducted periodically through monitoring tax revenue realization and non-cash transaction reports. However, based on the documentation of achievements, which are still very low (0.05%), it can be concluded that the evaluation process has not been fully followed by significant improvement strategies, such as intensifying socialization or providing incentives for using digital channels.

Several obstacles identified through interviews include: Low digital literacy among some taxpayers, the public's habit of using conventional payment methods, limited internet network coverage, and the maximum nominal limit for QRIS transactions. These conditions indicate that the transformation process is still in the early adaptation stage and has not yet reached the phase of institutionalization or comprehensive digital culturalization.

Based on interview and documentation data, the digital transformation process at BPPRD Kota Jambi through the implementation of QRIS is best characterized as a top-down, regulation-driven initiative. While the initiation and implementation phases formally comply with the national ETPD policy, the adoption and internalization stages reveal structural and institutional constraints that limit behavioral change among both bureaucrats and taxpayers. The predominance of a compliance-oriented implementation logic

means that QRIS is introduced as an administrative requirement rather than as an integral component of a redesigned service process.

From a policy implementation perspective, the limited effectiveness of QRIS adoption can be traced to the disjunction between policy formulation and operational capacity. Socialization efforts have largely taken the form of information dissemination, without being embedded in enforcement mechanisms, incentive alignment, or continuous feedback systems. Consequently, QRIS is perceived by taxpayers as an optional payment channel rather than a normatively or economically superior alternative. This perception is reinforced by institutional capacity limitations within BPPRD, including constrained digital competencies among staff, fragmented data management, and the persistence of parallel manual procedures that reduce the relative advantage of digital payments.

Moreover, when viewed through a technology acceptance lens, low utilization reflects not only user readiness issues but also organizational signaling failures. The absence of clear institutional commitment—such as differentiated treatment for digital payments, integration of QRIS data into core revenue management decisions, or visible managerial reliance on digital transaction data—undermines users' perceptions of usefulness and trust. As a result, individual acceptance is shaped less by digital literacy and more by the credibility and coherence of the implementing institution.

In line with the framework of Mergel et al. (2019), these findings indicate that the QRIS initiative in Jambi City remains at the stage of digitalization, where technology is layered onto existing processes without triggering organizational redesign, process reengineering, or cultural change. Structurally, policies and systems are in place; however, sociologically and institutionally, the transformation has not been internalized. This condition explains why the digital transformation of PBB

payments has yet to translate into sustained behavioral change or meaningful fiscal impact, despite formal policy compliance.

Results of digital transformation

In the perspective of Mergel et al., (2019), the results of digital transformation in the public sector can be seen from the extent to which the application of technology produces real changes in organizational performance, the quality of public services, process efficiency, and the enhancement of public value. Therefore, the evaluation of digital transformation results not only assesses the system's existence but also its impact on regional revenue, community behavior, and administrative governance.

In the context of the BPPRD of Jambi City, the results of digital transformation through the implementation of QRIS in the payment of Land and Building Tax (PBB) can be analyzed through four main dimensions, namely: increased administrative efficiency, changes in community payment patterns, contribution to regional tax revenue, and strengthening transparency and accountability. One of the most tangible results of implementing QRIS is the increased efficiency in the transaction recording process. Based on an interview with the Head of BPPRD Kota Jambi, it was mentioned that:

"*Payments through QRIS are directly recorded in the banking system, making the reconciliation process easier and minimizing manual recording errors.*" *(Interview, 12 October 2024)*

The BPPRD internal report documents that QRIS transactions can be monitored in real time through the partner bank's system. This differs from the previous cash method, which required additional time for deposit processing and data matching. Thus, from an administrative perspective,

digital transformation has improved procedural efficiency, particularly in the speed and accuracy of transaction recording. Normatively, the goal of implementing QRIS is to encourage the public to switch to cashless payments.

However, based on the documentation of PBB revenue realization in 2023, the use of QRIS is still very low. Data shows that the total payment of PBB through QRIS is only Rp143,624,206, or about 0.05% of the 10% target set in the Jambi City ETPD roadmap. In an interview with one of the BPPRD officials, it was stated that:

"*Many people still prefer conventional methods because they are used to them, especially for tax payments.*" *(Interview, 30 October 2024)*

Meanwhile, several taxpayers interviewed stated that QRIS is indeed more practical, but not everyone understands the mechanism or feels confident with the digital system. This data shows that the transformation's effects on community behavior are not yet significant. Transformation is still limited to digital options, not yet reaching widespread cultural acceptance of cashless transactions. One indicator of successful digital transformation is an increase in local tax revenue. However, according to the 2023 achievement documentation, QRIS's contribution to total PBB revenue remains very small. However, in an interview, the BPPRD stated that:

"*Although the nominal amount is still small, QRIS remains a first step toward building a more modern and transparent tax payment system.*" *(Interview, 13 October 2024)*

This statement indicates that quantitatively, the impact on revenue increase has not been significant, but strategically, it is considered a long-term investment toward a more efficient payment system. In other words, the results of the transformation have not yet been reflected in a substantial increase in revenue, but rather in the creation of supporting

digital infrastructure. From a governance perspective, implementing QRIS increases transparency by reducing the potential for leakage or deviation in tax management. Based on an interview with BPPRD officials:

"With a cashless system, the risk of fund misuse can be minimized because all transactions are recorded digitally." (Interview, 30 October 2024)

Documentation of the ETPD policy in Jambi City also emphasizes that digitizing transactions aims to strengthen regional financial accountability. Thus, although revenue has not yet been significant, the results of the transformation in governance indicate a positive impact on the integrity of the payment system. Based on interview and documentation data, the results of the digital transformation in PBB payments through QRIS in Jambi City can be summarized as follows: Administrative efficiency has increased, especially in recording and monitoring transactions. The change in public behavior is still low, reflected in an achievement of 0.05%. The contribution to increased tax revenue has not yet been significant in quantitative terms. Transparency and accountability of the payment system have increased through non-cash mechanisms.

If analyzed using the framework Mergel et al., (2019), the results of this transformation indicate that the BPPRD of Jambi City has reached the digitalization outcome stage (administrative and technical results), but has not yet achieved the digital transformation outcome characterized by changes in organizational culture and widespread societal behavior. Thus, the digital transformation of PBB payments in Jambi City can be categorized as a partial success: successful in technical and governance aspects, but not yet optimal in terms of community adoption and regional revenue increase.

CONCLUSIONS

This study finds that the digital transformation of Land and Building Tax (PBB) payments through the implementation of QRIS at the BPPRD of Jambi City is part of the Regional Government Transaction Electrification (ETPD) policy, driven by national regulations and the regional government's commitment to promoting cashless transactions. The transformation was influenced by external factors, such as central government policies and directives from Bank Indonesia, as well as internal factors, including the need to improve administrative efficiency and optimize local tax revenue.

In terms of digital transformation indicators, changes have occurred in internal administrative processes, public service delivery, payment technology infrastructure, and the interaction between the government and taxpayers. However, these changes remain instrumental, as they mainly involve the addition of digital payment channels without fully replacing the conventional system. The transformation process has progressed through several stages, including policy initiation, planning, coordination with Bank Indonesia and banking institutions, QRIS technology implementation, and periodic evaluation. Although the system is technically operational, public adoption still faces challenges such as low digital literacy, persistent cash-based payment habits, and technical constraints including network issues and transaction limits.

From the results perspective, the implementation of QRIS has improved recording efficiency and transaction transparency through real-time monitoring and reduced risks of manual errors. Nevertheless, quantitatively, the contribution of QRIS to PBB revenue remains very low, amounting to Rp143,624,206 or about 0.05% of the 10% target set in the 2023 ETPD roadmap. This indicates that the digital transformation has not yet significantly increased local tax

revenue or substantially changed taxpayers' payment behavior.

Overall, the digital transformation of PBB payments in Jambi City is still at the stage of digitalization, where technology supports existing processes, rather than reaching a comprehensive digital transformation characterized by structural, cultural, and behavioral changes. Therefore, the current transformation can be characterized as partial and gradual, requiring stronger socialization strategies, improved community digital literacy, and optimized incentive policies to achieve digitalization goals more effectively. This study also suggests that in the context of local governments in developing countries, digital transformation tends to be partial, compliance-driven, and sectorally limited, thus requiring broader institutional, cultural, and governance reforms to achieve truly transformative digital government.

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