

RESEARCH PAPER

Holistic Digital Service Transformation of Motor Vehicle Tax as a Strategy to Enhance Compliance and Realization of Regional Original Revenue : A Case Study of the South Sulawesi Provincial Government

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ABSTRACT

Background Public service digitalization often focuses solely on technical performance indicators, overlooking the heterogeneous socio-geographic realities of users, particularly in South Sulawesi. Rigid, urban-centric system designs lead to adoption failures, procedural complexity, and the erosion of public trust and government legitimacy. *Objective* This study aims to formulate a conceptual foundation and design architecture for a holistic Motor Vehicle Tax (PKB) digital service based on the taxpayer journey to create equitable public value. *Methods* The study employs a qualitative approach using a case study method in South Sulawesi. The research stages include document analysis, initial operational interviews, Focus Group Discussions (FGD) with taxpayers from diverse demographics, and in-depth interviews with key stakeholders from Bapenda, Ditlantas Polri, and Jasa Raharja. *Results* The study formulates a conceptual framework for a holistic PKB application that integrates the DeLone & McLean Information Systems Success Model with User-Centered Design (UCD) principles. The resulting functional architecture covers three phases: pre-transaction (proactive notifications), transaction (integrated multi-channel payment), and post-transaction (digital validation and e-TBPKP archiving) supported by inter-agency data interoperability via API. *Conclusion* Inclusive and user-centric PKB digital service design is a vital instrument in minimizing administrative burden and strengthening the social contract between the state and its citizens in the digital transformation era.

Keywords: Motor Vehicle Tax (PKB), User-Centered Design, Public Value, Digital Transformation, Taxpayer Journey, South Sulawesi

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Introduction

The use of the terminology Critical Analysis in this chapter does not merely refer to a procedural review, but rather represents an attempt to deconstruct the failure of the digitalization model that has so far relied solely on technical performance indicators. This critical analysis is necessary to uncover the sharp inconsistency between the urban-centric design of information systems and the highly heterogeneous socio-geographical reality of taxpayers in South Sulawesi. From a Public Administration perspective, the quality of system design is not solely the responsibility of the information technology department, but rather a vital instrument in building Public Trust. As explained by (Mountasser & Abdellatif, 2023),

digital transformation in the public sector is a multidimensional phenomenon that inherently must integrate transparency aspects into every line of service. Reliable and responsive design acts as a manifestation of the state's credible presence in the digital space. Conversely, design failures that trigger procedural complexity will erode the government's legitimacy in the eyes of citizens (Jane, 2024).

To address these challenges, this chapter specifically formulates a conceptual foundation for the development of holistic digital tax services. The holistic concept here is defined as an integrated approach that goes beyond simply digitizing transaction functions to creating a service ecosystem that encompasses the entire taxpayer journey. This

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change demands flexibility within the typically hierarchical bureaucratic structure to adapt to the rapid pace of technological change (Gong et al., 2020). It is important to emphasize that citizen-centricity must address aspects of digital inclusivity to bridge the access gap between residents of urban centers and remote areas. Without an *Enterprise Architecture* (blueprint) capable of bridging IT infrastructure with bureaucratic business processes, this inclusivity will be difficult to achieve systematically (Gong et al., 2020). Inclusive design is an absolute prerequisite for digital transformation to deliver equitable and socially sustainable public value (Mergel et al., 2019).

In contemporary Public Administration discourse, optimizing user experience (*UX*) in PKB services must be understood as a conscious effort by the bureaucracy to strengthen the social contract. Citizens' experiences when interacting with government digital platforms significantly mediate their perceptions of the competence of public authorities. (Dunleavy et al., 2006)emphasizes that the era of digital government demands *needs-based holism* , where the reintegration of government functions is carried out to improve previously fragmented complexity. Furthermore, the presence of technology must be able to trigger entrepreneurial behavior *within* public organizations to create new, innovative values for society (Dimeski, 2019). This is in line with efforts to minimize the administrative burden *that* often arises from rigid technology design (Veiga et al., 2016). By reducing complexity through intuitive design, the government indirectly carries out public value engineering that transforms taxpayer perceptions (Twizeyimana & Andersson, 2019).

The success of implementing this humanistic design also depends heavily on leadership factors within the organization. Dwita Amaliah & Sawitri, (2023)In his research, he found that digital transformational leadership has a very significant positive influence in driving changes in the mentality of the apparatus. Leaders in the digital era are expected to be able to create a work culture that is open to innovation and dares to abandon conventional patterns that hinder the effectiveness of the system (Dwita Amaliah & Sawitri, 2023). In addition, digital transformation must be managed as a process of creating continuous innovation at various levels of the organization to ensure the relevance of services (Saedikiya et al., 2025). Synchronization between technological advances and the readiness of the bureaucratic mentality is the main foundation in strengthening the sustainability of the Electronic-Based Government System (SPBE) (Nadjib et al., 2025).

Taxpayer digital literacy is also a variable that cannot be ignored in this service quality analysis. Wulandari & Dasman, (2023)emphasized that

internet understanding *is* a crucial variable in determining whether a digital tax system can truly improve voluntary compliance. Low literacy often acts as a hidden barrier, resulting in public service applications not being optimally utilized despite their adequate technical design (Ameliah et al., 2022). Furthermore, public trust in personal data security remains a highly sensitive factor in driving the adoption of digital services in Indonesia (Amri et al., 2024). Without guaranteed data security, even aesthetically pleasing interface designs will not be able to motivate the public to fully switch to digital channels.

To build a robust evaluation framework, this chapter draws on the DeLone & McLean Information Systems Success Model. This model was chosen based on the argument that its dimensions are highly relevant for measuring system success within a public organization framework that prioritizes accountability. Through the pillars of System Quality , Information Quality , and Service Quality , this model is able to capture how system stability contributes to the achievement of regional fiscal goals (Saba et al., 2025). The integration of reliable technical design with active user involvement in the design process will ensure continued service satisfaction (Trischler et al., 2018). Ultimately, the quality of PKB digital service design is a tangible form of administrative transparency that ensures that every citizen's rights and obligations are managed fairly in the era of digital transformation.

Methods

This research employs a qualitative methodological approach with a case study method. This approach was chosen because the research aims to design and conceptualize an ideal digital service solution model for transforming Motor Vehicle Tax (PKB) services, rather than simply measuring the effectiveness of the existing system. Therefore, the research focuses not on statistical measurements but rather on a deeper understanding of the phenomena, processes, and interactions between actors in the implementation of e-Government services in South Sulawesi.

The case study method is considered relevant because it allows researchers to examine a phenomenon in depth within a real-world, specific context. According to Robert K. Yin, case studies are an appropriate approach for answering "how" and "why"-oriented research questions, especially when researchers want to understand the dynamics of a system, process, or policy under actual conditions.

Through this approach, the research is directed at three main focuses. First, exploring the needs and problems of service users, especially taxpayers, to understand the actual obstacles they face in the PKB payment process. The qualitative approach allows

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researchers to identify experiences, perceptions, and pain points that cannot be explained solely through numerical data. Second, mapping the current PKB service business processes to identify inefficiencies, process duplication, coordination barriers, and opportunities for digital service integration. Third, formulating an integrated digital service design architecture based on the results of user needs analysis and business process mapping, thereby resulting in a more effective, responsive, and user-oriented system design.

Research Stages

This research was conducted through several interrelated stages to produce a comprehensive qualitative data-based digital service design model.

1. Document Analysis and Initial Interviews

The initial research phase involved document analysis and preliminary interviews to gain a contextual understanding of current PKB services. The documents analyzed included regulations, performance reports, standard operating procedures, and documents related to digital service implementation. Additionally, initial interviews were conducted with operational staff to identify workflows, administrative barriers, and technical issues encountered in service implementation.

2. Focus Group Discussion (FGD) with Taxpayers

The next stage involved Focus Group Discussions (FGDs) with taxpayers as service users. The FGDs aimed to explore the experiences, needs, expectations, and obstacles faced by the public in the PKB payment process. FGD participants were selected purposively, considering variations in age, education level, geographic location, and digital literacy levels. Through these focused discussions, researchers gained insight into user perceptions of service quality, the effectiveness of the digital system, and the required service features.

3. In-depth Interviews with Stakeholders

This phase aims to gain perspectives from stakeholders involved in the implementation of digital PKB services. In-depth interviews were conducted with officials from the Regional Revenue Agency (Bapenda), representatives from the National Police Traffic Directorate, Jasa Raharja, and the information technology team or system developers. Interviews focused on policy aspects, inter-agency coordination, data interoperability,

Functionally, digital service channels such as the Basul *Mobile app* and SIGNAL, as well as retail payment channel integration, have successfully streamlined core transaction flows. Field findings through interviews and direct observation confirm that taxpayers need less than five minutes to

technological infrastructure readiness, and challenges in developing integrated digital services.

4. Data Synthesis and Design Formulation

The final stage of the research was conducted through a data synthesis process from all observations, document analysis, FGDs, and in-depth interviews. Data were analyzed thematically to identify patterns, relationships between problems, and key needs in the development of PKB digital services. Based on the analysis, the researchers formulated an application design model that encompasses service design principles, system architecture, inter-agency integration, and key features that support the effectiveness and efficiency of e-government-based public services. This conceptual model is expected to serve as the basis for the development of more integrated PKB digital services that are oriented towards community needs.

Results and Discussion

This section presents an in-depth analysis of the effectiveness of the digital transformation of Motor Vehicle Tax (PKB) services in South Sulawesi, integrating empirical findings and the formulated theoretical framework. A comprehensive evaluation was conducted using information system success dimensions adapted from the model DeLone & McLean, (2003) to examine the extent to which this digital service architecture is able to operate holistically. not only as a technical transaction tool, but as an inclusive public service ecosystem. Through a synthesis of primary data from in-depth interviews with administrators and taxpayers, as well as secondary data support in the form of performance statistics and user reviews, the following discussion will map this transformation into six key variables: system quality, information quality, service quality, usage rate, user satisfaction, and the net beneficial impact on the organization and society as follows:

System Quality

Ease of Use (usability)

usability dimension in this study was measured to evaluate the extent to which the information system provided by the South Sulawesi Regional Revenue Agency (Bapenda) is able to reduce cognitive and technical barriers for taxpayers. Based on the integration of primary data (interviews) and secondary data (digital reviews), the discussion regarding ease of use is outlined as follows:

complete the payment process and receive electronic proof of payment. This speed is made possible by the integration of QRIS technology, which eliminates the bureaucratic red tape of manual payments at conventional banking counters.

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Interviews with taxpayers revealed a strong appreciation for the significant time efficiency offered by the *Basul Mobile application*. Respondents emphasized that the system integration between the application and electronic payment channels has drastically reduced payment bureaucracy. Transactions that take less than five minutes and the availability of instant proof of payment are considered significant improvements

compared to conventional systems that require physical queues at bank counters. Although the payment process is technically fast, an in-depth analysis of 620 user reviews on the *Google Play Store platform* revealed a disparity between technical performance and user experience. The distribution of public assessments of *the usability aspect* is depicted in the following table:

Table 2.1 Summary of Data Review of the Bapenda Sulsel Mobile Application

METRIK	NILAI STATISTIK	PERSENTASE
Total Ulasan yang Dianalisis	620 Ulasan	100%
Rata-rata Rating (Score)	3.88 / 5.0	-
Rating Positif (5 Bintang)	381 Ulasan	61.45%
Rating Rendah (1-3 Bintang)	195 Ulasan	31.45%
Keluhan: Prosedur Fisik/Samsat (Tetap harus ke kantor)	79 Ulasan	12.74%
Keluhan: Akurasi Data (Selisih nominal bayar)	56 Ulasan	9.03%
Keluhan: Masalah Teknis (Bug/Gagal bayar)	49 Ulasan	7.90%

The above data confirms a digital paradox. The majority of users (61.45%) welcomed the app's presence as a means of checking tax amounts. However, the 31.45% dissatisfaction rate indicates significant systemic barriers.

Mobile app review data in this study was carried out through an automated web scraping technique using the *Python programming language*. This technique was chosen because it allows researchers to accurately and efficiently extract large amounts of data directly from the app server (*Google Play Store*). By using a special library called *Google Play Scrapper*, the system can access the app store's public interface to identify, filter, and download thousands of user opinions spread over a certain period of time into a structured data format.

Technically, the use of *Python* offers advantages in maintaining data integrity through precise search parameters. Researchers created a code script to define data retrieval criteria, such as application identity, review language (Bahasa Indonesia), and the number of recent review data to be retrieved. Through systematic execution commands, each review line is not only retrieved for its comment text but also includes other important attributes such as the rating score (stars), the user's anonymous identity, and the timestamp *when* the review was uploaded by the public.

After the data collection process is complete, all raw information is then converted into a data table format (such as *.csv or .xlsx*) using the *pandas* library. This step is crucial in this dissertation to

facilitate further analysis, both quantitatively to observe satisfaction trends and qualitatively to analyze specific user complaints. With this method, the review data used in the discussion is truly objective and representative, reflecting the reality of the digital experience experienced directly by the public as taxpayers in South Sulawesi.

One of the most critical findings in this *usability dimension* was the emergence of complaints about the need for physical interaction after digital transactions. A total of 12.74% of users specifically questioned the requirement to be present at the Samsat office to validate/manually stamp the vehicle registration certificate (STNK) even though financial obligations had been completed online.

Samsat (Vehicle Tax Office) service officers identified psychological resistance in the community due to the inconsistency between digital convenience and manual administrative obligations. Although payments are made online, regulations that still require physical validation (a stamp) on the vehicle registration certificate (STNK) create a public perception that the digitalization of services is inconclusive or partial. This obstacle significantly reduces public motivation to switch to digital services, as taxpayers are ultimately still required to physically interact at the Samsat office.

This condition indicates that *Basul Mobile's digital usability has not yet reached end-to-end service completion*. Referring to the principles of *User-Centered Design (UCD)*, a system is said to have high usability if it can eliminate complexity for

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its users. The requirement for physical presence is a form of Administrative Burden that undermines system efficacy and reduces taxpayers' *Perceived Behavioral Control* (PBC). Residents feel the digitalization offered is only partial because the legality of vehicle documents still relies on manual procedures at physical counters.

In addition to procedural burdens, adoption failure is also driven by technical factors (7.90%) and the complexity of the menu hierarchy (3.5%). *System log analysis* reveals that the average time users spend finding the payment menu remains relatively high due to the less intuitive interface structure. This presents a barrier for taxpayers with

low digital literacy levels, resulting in this innovation tending to be enjoyed only by tech-savvy urban communities (urban-centric).

The gap between system expectations and the reality of user experience is further empirically confirmed through feature access log data on the Bapenda Sulsel *Mobile application*. This data reflects actual taxpayer behavior in navigating the provided digital channels. Based on usage statistics, there is a very extreme disparity between the use of informative and transactional features (Badan Pendapatan Daerah Provinsi Sulawesi Selatan., 2025), as detailed in the following table:

NO	FITUR	BERAPA KALI AKSES
1	Lokasi Layanan	34.850
2	Info Pajak	1.204.676
3	Pengaduan	433
4	Data Pembayaran	2.291
5	E-Samsat	13.034
6	Survey Kepuasan Masyarakat	917

Table 1 Recap of the Bapenda Sulsel *Mobile application system log data*

The data above reveals a significant functional bottleneck. The Tax Info feature absolutely dominates user activity, with 1,204,676 accesses. This demonstrates *the app's high usability* at the information-providing level, successfully becoming a primary reference for the public. However, this figure drops dramatically when switching to the E-Samsat (payment transaction) feature, which was accessed only 13,034 times, or approximately 1.08% of total tax information access.

This phenomenon validates the argument regarding the Digital Paradox discussed previously. The high rate of access to Tax Info but low execution on E-Samsat indicates that the majority of taxpayers only use the application as a calculation tool, while the payment process continues through conventional channels or physical counters. This low level of access to transactional features (1.08%) aligns with user complaints about the complexity of the menu hierarchy and the need for physical post-payment interaction (manual stamping), which were analyzed in the digital review section.

Furthermore, the very low access to the Complaints (433 accesses) and Satisfaction Survey (917 accesses) features compared to the total millions of information accesses indicates *usability barriers* in terms of user engagement. Users tend to ignore the feedback feature due to the less intuitive interface structure or skepticism about the system's responsiveness.

Theoretically, this access log data proves that the application's *perceived usefulness* is still limited to its informative function, while *perceived ease of use* for transactional functions remains a major barrier. The system's failure to convert over one million information users into digital transaction actors is clear evidence that administrative burdens and technical barriers still dominate the user experience. Therefore, strengthening the *usability dimension* in the future must focus on simplifying the transactional flow so that the application is not merely a digital bulletin board, but a truly comprehensive service transformation tool (*end-to-end*).

A. Reliability and *Interoperability*

The success of a holistic information system is determined not only by its internal performance, but also by the extent to which it can seamlessly interact with the external ecosystem. Based on an analysis of policy and technical documents, the discussion of system reliability is outlined as follows:

The South Sulawesi Provincial Revenue Agency (Bapenda) has taken progressive steps to expand its service touchpoints *through* strategic partnerships with various banking and financial technology sectors. This expansion aims to provide comprehensive services accessible to the public anytime and anywhere.

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This ecosystem expansion effort is administratively supported by a budget allocation for application rejuvenation outlined in regional budget documents. However, findings from user reviews on digital platforms have identified performance vulnerabilities during peak load periods, such as the end of the tax amnesty period or the end of the fiscal year.

An evaluation of the RKA/DPA documents shows that the budget allocation for *server maintenance and cloud* infrastructure does not fully support the system's massive scalability needs as the number of transaction partners increases. The success of a holistic system depends heavily on *an Enterprise Architecture that ensures real-time API connections between institutions without high latency or synchronization failures.*

A crucial point in the reliability of this system is solid interoperability with the police. Digital services offered through the various platforms mentioned above will fail to provide complete legal certainty if payment data isn't automatically synchronized with the vehicle registration and identification (Regident) system. Without assurance that payments made through GoPay, Tokopedia, or Mandiri are immediately recognized legally by the police during roadside inspections, public trust in the reliability of the digital system will suffer.

As a concrete step in strengthening this interoperability pillar, the South Sulawesi Provincial Revenue Agency (Bapenda) conducted strategic correspondence with the SIGNAL (National Digital Samsat) administrators. First, Bapenda sent a letter Number: 555-4/3513/Bapenda dated October 7, 2024, regarding a Request for Cooperation on Digital Validation of Regional Applications. In the letter, Bapenda emphasized the urgency of implementing a digital STNK validation feature in South Sulawesi Province as a follow-up to coordination with the SIGNAL team, the National Police Traffic Corps, Jasa Raharja, and Bank Sulselbar. The main objective of this request is to improve the quality of public services so that the public can obtain immediate legal certainty after making online PKB and SWDKLLJ payments.

Second, PT. Beta Pasifik Indonesia officially responded to the request through letter Number: 296/BPI/DIR/XII/2024 dated December 9, 2024. In its response, SIGNAL management expressed full support for the digital validation collaboration on the South Sulawesi regional application. However, SIGNAL management explained that the December 2024 agenda was focused on the technical development of the tax option policy that would soon take effect. Therefore, the technical implementation related to the digital STNK validation feature on the regional application was scheduled for early 2025.

A thorough analysis of the response documents reveals that the biggest obstacle to holistic system reliability is aligning priority agendas across actors within the national digital ecosystem. SIGNAL's focus on the tax opt-out policy at the end of 2024 provides important lessons on risk management and scalability to prevent the system from being forced to adopt new features amidst other major policy transitions. This aligns with findings regarding system vulnerabilities during *peak season periods*, which require prioritizing the development of resilient infrastructure before implementing new functionality.

Research findings indicate that the full implementation of digital authentication remains hampered by issues of data integrity and interoperability between institutions. The Information Systems Technology (TSI) Division and Jasa Raharja (Services Raharja) identified challenges in cross-sectoral data synchronization. Data disparities between regional, central, and insurance databases require reconciliation and *host-to-host system optimization* to ensure the validity and legal certainty of automatically generated electronic documents.

From a public satisfaction perspective, the certainty of the implementation schedule in early 2025 still provides great hope for eliminating the administrative burden complained about by 12.74% of app users. The success of this integration will be clear evidence that interoperability is not just a technical API issue, but rather a harmonization of regulations and trust between institutions (Bapenda, Polri, Jasa Raharja, and Vendors) which ultimately strengthens the legitimacy of Bapenda's digital system to become a credible, independent public service recognized by national law.

B. Security

Guaranteeing data and transaction security is an absolute prerequisite for the government's legitimacy in implementing digital transformation. In the South Sulawesi PKB service ecosystem, security is not merely an additional technical feature, but rather a fundamental foundation to ensure that digitalization does not create the risk of data leaks or transaction failures that could permanently erode public trust. Without credible security guarantees, digital innovation will be viewed as a new vulnerability by the public.

In line with the historical development of e-Samsat in South Sulawesi since 2017, the appointment of Bank Sulselbar as a *Payment Aggregator* (payment service provider) is a strategic step to ensure secure transactions for the public. As an official intermediary, the banking institution

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provides a certified layer of financial security, ensuring that all funds paid by taxpayers through various channels are secure. both ATM and *Mobile Banking* , to *Payment Channels* such as Alfamart, Indomaret, and Gojek protected by strict banking protocols before being transferred to regional treasuries.

However, this security aspect extends beyond protecting fund transmissions; it also encompasses protecting the integrity of administrative data and mitigating moral hazard. Based on the Internal Oversight Report, Bapenda's digital service architecture incorporates robust encryption protocols to prevent unauthorized access to taxpayers' personal data.

The Information Systems Technology (TSI) Division, along with Jasa Raharja, emphasized that data security within the regional tax digital ecosystem is built on a layered and integrated infrastructure architecture. The implementation of two-way encryption protocols and the use of encrypted VPN networks at every cross-agency data exchange point are collective preventive measures to maintain information integrity. These efforts aim to minimize the risk of data interception while ensuring taxpayer privacy in every electronic transaction.

The security of this system is strengthened internally through strict oversight of State Civil Apparatus (ASN). Bapenda has implemented a robust accountability mechanism, including disciplinary sanctions for officials found to have misused their authority or tax data, as a means of mitigating moral hazard .

Empirical findings based on the Case Handling Report of the Development and Supervision Sector of the South Sulawesi Provincial Revenue Agency (Bapenda) for the 2021-2023 period reveal significant internal security challenges at various Samsat (Service Units) (UPT Samsat). Data shows several serious violations, ranging from misuse of motor vehicle tax payments to embezzlement of taxpayers' funds.

The Development and Supervision Division (Binwas) affirmed the organization's commitment to the principle of zero tolerance *for* any form of integrity violation. Strict oversight is carried out across both conventional and drive *-thru channels* to eliminate the potential for abuse of authority. In addition to strengthening digital systems, the agency emphasized that employee morale stability and strict sanctions, up to and including dishonorable discharge (PTDH), are key instruments in maintaining public trust and securing regional revenues.

In response to these findings, Bapenda has taken very firm follow-up measures to enforce moral security and protect regional assets. Disciplinary

actions include dishonorable discharge (PTDH) for civil servants found guilty of significant tax evasion, postponement of promotions, and the obligation to return all state losses to the regional treasury. These measures are accompanied by strengthening the investigative audit system and close supervision at every transaction point to ensure that the flow of funds is truly integrated in *real time* .

The integration of strict administrative sanctions with technical oversight is a crucial tool in restoring and maintaining public trust. The organization's courage in publicizing and following up on these violations creates a deterrent effect that strengthens the system's overall security pillars. Thus, the holistic digital transformation undertaken by the South Sulawesi Regional Revenue Agency (Bapenda) has proven to rely not only on sophisticated algorithmic technology (the role of the TSI Division) but also on robust internal oversight mechanisms (the role of the Binwas Division) to ensure that every rupiah paid by the public is protected securely, transparently, and accountably.

1. Information *Quality*

Information quality determines taxpayers' level of trust in the tax authorities. In the context of digital PKB services, data accuracy is not merely a technical issue but the heart of administrative transparency that mediates voluntary compliance. Information presented by the system must possess the attributes of timeliness, relevance, and validity to serve as a basis for public decision-making in fulfilling their tax obligations. Therefore, the evaluation of information quality in the digital transformation of the South Sulawesi Regional Revenue Agency (Bapenda) will focus on three main pillars: first, data accuracy and database synchronization between agencies; second, information relevance, driven by the development of a proactive notification system; and third, standardization of data presentation formats to ensure ease of understanding and complete fiscal transparency for taxpayers.

A. Data Accuracy and Synchronization

The quality of information determines taxpayers' level of trust in the tax authorities. In the context of digital PKB services, data accuracy is not merely a technical issue, but rather the heart of administrative transparency that mediates voluntary compliance.

The 2024-2026 South Sulawesi Provincial Revenue Agency Strategic Plan (Renstra) document, established on September 9, 2023, (Badan Pendapatan Daerah Provinsi Sulawesi Selatan, 2023) explicitly acknowledges the existence of

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obstacles in the validity of taxpayer data that still require systematic improvement. This is reinforced by empirical findings through interviews in the TSI Division, which stated that the motor vehicle database is not yet fully synchronized. The impact of this invalidity is confirmed through analysis of Basul *Mobile app user reviews*, where 9.03% of users complained about nominal discrepancies between the bills displayed in the app and the bills at the physical counter. This discrepancy in the databases between Bapenda and the National Police (Polri) has sparked public skepticism, potentially reducing people's willingness to pay.

The Program Subdivision emphasized that the recognition of data validity challenges in the Strategic Plan (Renstra) document represents strategic managerial transparency. This formal inclusion serves as policy justification for initiating data infrastructure improvements. By explicitly acknowledging system limitations, the agency has strong legitimacy to allocate funds for the formation of a validator task force, ensuring that future digital transformation is based on accurate and verified data.

In response to this urgency, the South Sulawesi Provincial Government has taken strategic steps to strengthen human resources focused on data integrity. Based on South Sulawesi Governor Decree No. 0039/I/2026 (Keputusan Gubernur Sulawesi Selatan Nomor 0039/I/Tahun 2026 Tentang Penunjukan Petugas Pelayanan Pajak Daerah Lingkup Badan Pendapatan Daerah Provinsi Sulawesi Selatan Tahun Anggaran 2026, 2026) concerning the Appointment of Regional Tax Service Officers, a special task force known as the Validator was established.

B. Relevance and Proactive Notifications

Within the framework of a successful information system, the availability of relevant and complete information is a key determinant of user satisfaction. In the Bapenda Sulse *Mobile application*, the quality of this information has shown significant progress, particularly in the vehicle details and tax calculation features. Based on application usage statistics, the Tax Info feature is the most frequently accessed feature by the public, with a total of 1,204,676 accesses, as recorded in the 2024 Bapenda LAKIP. (Badan Pendapatan Daerah Provinsi Sulawesi Selatan., 2025) This demonstrates the public's high demand for transparency regarding tax values before payment, a need that has been successfully met digitally by the current system.

The success of this data presentation is reinforced by positive sentiment analysis recorded in the *Google Play Store review database*. Taxpayers expressed their appreciation for the ease of monitoring their obligations without having to

travel, with reviews such as: "It's very convenient, we can know how much tax we have to pay before going to the office," reflecting the tangible benefits digital information provides. The availability of data, including details of the amount and due date, in a transparent manner, has positioned the South Sulawesi Regional Revenue Agency (Bapenda) as an accountable authority open to public access to information.

However, when viewed from the perspective of *needs-based holism*, information quality should not stop at providing passive data or waiting to be accessed by users. Empirical findings indicate a crucial functional gap, where the system does not yet provide a proactive automatic notification feature. Currently, the public complains about the lack of a digital reminder system such as *Push Notification* or *WhatsApp Gateway* that can provide early warnings before the tax period expires. The absence of this feature means that the application's effectiveness as a self-service reminder instrument has not been fully achieved, because control of the information remains entirely in the hands of the user.

The Information Systems Technology (TSI) Division explained that the implementation of proactive notification features, such as *WhatsApp Gateway* or *Push Notifications*, is highly dependent on the accuracy and validity of the user database. The main obstacle encountered was the disconnection between the latest vehicle owner's identity and the contact number stored in the system. Therefore, the agency is currently prioritizing data cleansing to ensure the automated reminder service maintains high accuracy and avoids the risk of misinformation when operated on a large scale.

Due to the lack of automatic notification features, due date notification methods currently rely heavily on conventional methods, namely door-to-door collection by Bapenda employees. While this approach offers a personal touch, it is systematically inefficient within the modern public service architecture and tends to position the government as a repressive collector rather than a supportive partner. Furthermore, physical collection requires significant human resources and operational costs, which could be minimized through more extensive and measurable optimization of digital communication technology.

Therefore, a strategic shift in the allocation of the socialization budget and media spending is needed going forward, moving away from conventional advertising and toward the development of an integrated, automated notification system. Proactively delivering information before it is requested will change the relationship between the bureaucracy and citizens; the government acts as a partner, reminding them of their obligations while providing easy access. By

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integrating due date data into the automated messaging system, Bapenda will not only increase the realization of Regional Original Revenue (PAD) by reducing the number of delays but also demonstrate true bureaucratic empathy, namely a service that not only provides information, but also cares and anticipates the needs of taxpayers in the digital era.

C. Information Format

In the digital public service information architecture, data presentation format is a crucial instrument that determines the extent to which taxpayers can understand their obligations without hesitation. Information should be presented in a systematic, unambiguous structure, and free from technical ambiguity. In the Bapenda Sulsel *Mobile application*, efforts to standardize the format are evident on the tax object details page, where components such as Tax Payment Status, Vehicle Type, STNK validity period, and fine details are visually separated. This structured format aims to reduce the cognitive burden on users when reading complex financial data, thereby achieving the desired information transparency.

The Information Systems Technology (TSI) division emphasized that Basul *Mobile's interface design philosophy* is oriented toward information transparency. Given the complexity of vehicle tax components, such as fines and SWDKLLJ (Vehicle Tax Overhead Tax), the agency implemented a contrasting visual segregation strategy for each cost element. This approach aims to reduce taxpayers' cognitive burden, allowing them to instantly and accurately identify the structure of payment details, ultimately strengthening the accountability of digital services.

User review data on *the Google Play Store* validates the importance of this formatting aspect. Several users expressed appreciation for the interface, which they considered clean and easy to read. One reviewer noted, "The interface is simple, the cost breakdown is clear, so you don't get confused about how much to pay," indicating that an appropriate presentation format can facilitate taxpayer understanding. However, this satisfaction is highly dependent on format consistency across all app features, so users don't encounter differences in data presentation when switching from one menu to another.

While visually appealing, format ambiguity remains a challenge when it comes to data synchronization between channels. Several reviews highlighted differences in presentation formats or values between the app and the physical counter system (review data points 9.03%).

An Operational Service Officer identified that inconsistencies in data presentation formats between digital and manual channels were a barrier to building public trust. Mismatched terminology, such as transaction status and fine details, raised taxpayer doubts about the validity of the data in the application. This finding confirms that information homogeneity across all service points is a crucial prerequisite for minimizing ambiguity and strengthening public perception of the validity of electronic documents.

This indicates that while the format in the app is readable, consistency across the service ecosystem still needs strengthening. The ambiguity created by these format differences can raise taxpayers' doubts about the validity of the digital system, ultimately disrupting the decision-making process for paying taxes *online*.

From a *needs-based holism perspective*, information formats must be designed to serve various levels of public literacy. Considering that the digital literacy score for the South Sulawesi Digital Skills pillar is at a moderate level (3.45) (Badan Pusat Statistik, 2022), a clear information format is essential. The use of overly technical bureaucratic terms in billing formats should be simplified into more accessible language. The total amount due should be emphasized over internal technical details, providing users with immediate certainty about the next steps.

As a strategic step, Bapenda needs to integrate a uniform information format across all touchpoints, including in its automated notification development plan. If *the WhatsApp Gateway feature* is implemented, the message format must adhere to the same user-friendliness standards as the app: concise, clear, and include a direct link for payment. By presenting information in a prime format, Bapenda is not only providing data but also building ease of navigation for the public. This will strengthen *the Net Benefit* in the form of increased public trust, where every piece of information received by citizens is viewed as credible and easily implemented without requiring additional manual explanations from officers.

2. Service Quality

Service quality in digital transformation does not simply rely on the sophistication of application features, but rather on the extent to which authorities are able to provide humanistic and responsive interactions in mitigating taxpayers' technical obstacles in *real time*. In the PKB service ecosystem in South Sulawesi, the dimensions of service quality are evaluated through two crucial instruments: first, responsiveness and user support in handling operational complaints; and second, empathy and

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assurance , which reflect the accountability of organizational performance and legal certainty for the public.

A. Responsiveness and User Support

Service quality in digital transformation is not only measured by the sophistication of application features, but also by how humane and responsive authorities are in addressing technical obstacles experienced by citizens in *real time* . In the PKB service ecosystem in South Sulawesi, the state's presence in the digital space is measured in real terms through the response time to complaints from application users. However, field facts recorded in public reviews on the Play Store indicate that this responsiveness aspect remains a crucial weakness for overall service effectiveness. User complaints such as, "the app keeps having problems when I use it, I've been trying for 3 days and it still doesn't work... I try to file a complaint but it doesn't work, my complaint fails to send, the app is just a display," as well as reports of persistent technical problems such as " continuous *network errors* ," provide a clear picture that the digital helpline is not functioning optimally as a solution for the community. The system's inability to respond to these obstacles creates the perception that the app is merely a digital display without adequate operational support, thus triggering frustration that forces citizens to return to manual services at the Samsat office for legal certainty.

This phenomenon confirms that holistic transformation demands an improvement in the quality of Bapenda employee responses to complaints regarding application usage, so that digitalization does not actually increase the burden of uncertainty (*administrative burden*) for taxpayers. Low responsiveness results in failure at the *service recovery stage* , where minor problems experienced by users turn into obstacles to voluntary compliance. Therefore, the presence of the Validator

INDIKATOR KINERJA	2019	2020	2021	2022	2023	2024
Persentase ASN dengan Nilai SKP Kategori Baik	100%	99,39%	100%	99,80%	99,81%	99,62%

Table 3 data

on the realization of Bapenda ASN performance

This governance maturity is reinforced by the long-term consistency of the apparatus' professionalism. Referring to performance realization data from 2019 to 2024 (Badan Pendapatan Daerah Provinsi Sulawesi Selatan., 2025), the organization has consistently maintained a very stable percentage of civil servants (ASN) with good SKP scores. Although there were slight fluctuations from a perfect 100% in 2019 and 2021

unit based on the Decree of the Governor of South Sulawesi Number 0039/I/Year 2026 must be positioned not only as an internal verification function, but also as the front guard of responsiveness that ensures that every technical problem of citizens is resolved quickly in the digital space. Strengthening responsive user support is an absolute requirement so that the integration between technology and apparatus readiness can provide assurance of truly complete services (*end to end*), while also proving that the bureaucracy is able to present with a solution-oriented face amidst the rapid development of information technology.

B. Empathy and Assurance

The assurance dimension in the digital transformation of public services is measured by the extent to which authorities are able to provide legal certainty and a sense of security to service users. Based on the Evaluation Report of SAKIP (Government Agency Performance Accountability System) at the South Sulawesi Provincial Revenue Agency Number 700.04/2440/ AI /ITPROV dated July 15, 2024 (Badan Pendapatan Daerah Provinsi Sulawesi Selatan., 2025), this organization demonstrated very impressive performance with a score of 80.50 (Category A/Satisfactory).

NO	KOMPONEN YANG DINILAI	BOBOT	HASIL EVALUASI TAHUN 2023	HASIL EVALUASI TAHUN 2024
A.	Perencanaan Kinerja	30	23,1	23,1
B.	Pengukuran Kinerja	30	24	24,6
C.	Pelaporan Kinerja	15	12,3	12,3
D.	Evaluasi Akuntabilitas Kinerja Internal	25	20	20,5
	Jumlah	100	79,4	80,5
	Tingkat Akuntabilitas Kinerja		BB (Sangat Baik)	A (Memuaskan)

Table 2 Results of Sakib Evaluation

The details of the assessment components reflect the maturity of organizational governance, which include Performance Planning (25.60), Performance Measurement (24.01), Performance Reporting (12.38), Internal Evaluation (8.24), and Performance Achievements (10.27).

to 99.39% (2020) and 99.62% (2024), the trend over the past six years, consistently above the 99% threshold, demonstrates the stability of internal competency. This consistent performance track record is a crucial pillar for the *assurance dimension* , as legal certainty and service security are impossible to achieve without the support of human resources who have proven performance standards and are resilient in facing the dynamics of organizational change.

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NILAI PERSEPSI	NILAI INTERVAL	NILAI INTERVAL KONVERSI	MUTU PELAYANAN	KINERJA UNIT PELAYANA
1	1,00 – 2,5996	25,00 – 64,99	D	Tidak baik
2	2,60 – 3,064	65,00 – 76,60	C	Kurang baik
3	3,0644 – 3,532	76,61 – 88,30	B	Baik
4	3,5324 – 4,00	88,31 – 100,00	A	Sangat baik

Table 4table of public satisfaction index.

The analysis of public service quality and performance accountability at the Regional Revenue Agency (Bapenda) began with a mapping of formal standards established by the central government through the Ministry of Administrative and Bureaucratic Reform (PANRB). Based on PAN-RB Regulation Number 14 of 2017 (Peraturan Menteri Pendayagunaan Aparatur Negara Dan Reformasi Birokrasi Nomor 14 Tahun 2017 Tentang Pedoman Penyusunan Survei Kepuasan Masyarakat Unit Penyelenggara Pelayanan Publik, 2017), the public satisfaction measurement instrument is designed using a strict conversion interval scale to classify service quality. This standard stipulates that a score of 88.31 to 100.00 is the threshold for category A (Very Good), while a score of 76.61 to 88.30 is in category B (Good). The elaboration of this interval serves as a compass for the organization in determining measurable performance targets oriented towards user satisfaction.

INDIKATOR KINERJA	TARGET	REALISASI	CAPAIAN (%)
Tingkat Kepuasan Masyarakat terhadap Pelayanan Pajak	83	84,257	101,51

Table 2.6

5of the level of public satisfaction

The effectiveness of the strategic objectives outlined above can be tested through the organization's actual achievements in the current year and its consistency over the past six years. Based on the 2024 Bapenda Government Agency Performance Accountability Report (LAKIP) (Badan Pendapatan Daerah Provinsi Sulawesi Selatan., 2025), the organization demonstrated performance that exceeded expectations across nearly all key indicators. In the internal accountability dimension, the Percentage of Civil Servants with Good SKP Scores achieved 99.62% of the target of 98%, which mathematically represents an achievement level of 101.65%. This figure confirms that the quality of human resources, as the driving force behind service transformation, is at an excellent level.

This success is further strengthened by reviewing the stability of apparatus performance over a long-term perspective (2019-2024). Data shows that the professionalism of Bapenda employees is a sustainably maintained asset; starting with a perfect achievement of 100% in 2019, slight fluctuations in 2020 (99.39%), and returning to a

In line with this regulatory framework, Bapenda has established a strategic policy encompassing three main pillars: strengthening internal accountability, optimizing regional revenues, and improving service quality. In its performance planning document, the organization sets specific, challenging targets as a commitment to bureaucratic reform. One key indicator within the accountability pillar is a 98% target for the percentage of civil servants (ASN) with a good SKP score, and a 100% target for the organization's average performance. This demonstrates that the organization views human resource professionalism as a key determinant in achieving credible regional financial governance.

In the public service dimension, Bapenda ambitiously set a Public Satisfaction Index (IKM) target of 83. This target is normatively at the top of the Good category according to PANRB standards. This high target reflects the bureaucracy's awareness that public trust in the tax authorities is highly dependent on the responsiveness and reliability of the service system provided. Thus, this entire series of performance indicators forms an interlocking accountability ecosystem, where effective regional revenue management can only be achieved through an integration of apparatus professionalism and objectively measured public satisfaction.

stable figure of 99.62% in 2024. Consistency, always above the 99% threshold for six years, is empirical evidence that the organization has strong resilience and commitment to performance standards, even when facing the complex dynamics of the digital transition.

The synchronization between internal quality and external service output is clearly evident in the Public Satisfaction Level with Tax Services. With an ambitious target of 83, Bapenda successfully recorded an index realization of 84.257, equivalent to an achievement of 101.51%. When converted to the standards of PermenPAN-RB Number 14 of 2017, this figure places Bapenda's service quality confidently in Category B (Good) and very close to the lower threshold of Category A (Very Good).

This phenomenon demonstrates a positive linear correlation: the stability of ASN performance, maintained above 99% since 2019, has laid a solid foundation for the continued rise in public satisfaction. The success in exceeding this satisfaction target indicates that the organization's efforts to modernize services go beyond merely fulfilling administrative obligations and have had a tangible impact felt by taxpayers. Thus, internal accountability (through the SKP) and public

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accountability (through the IKM) have reached a balance that reflects the overall health of the organization's performance.

INDIKATOR KINERJA	2019	2020	2021	2022	2023	2024
Tingkat Kepuasan Masyarakat terhadap Pelayanan Pajak	77.10	76.63	79.26	79.96	83.62	84.26

Table 6 Realization of Public Satisfaction Level from 2019-2024

The previously described improvements in performance realization found their theoretical relevance when tested through long-term public satisfaction trends and systemic organizational evaluations. Comparative performance realization data from 2019 to 2024 (Badan Pendapatan Daerah Provinsi Sulawesi Selatan., 2025) demonstrates an impressive growth trajectory in the public satisfaction index. Starting from 77.10 in 2019, the index consistently climbed to 84.26 in 2024. The most significant spike occurred in the last two years (2023-2024), when the satisfaction score surpassed the threshold of 83, indicating that the public is beginning to feel the tangible impact of Bapenda's bureaucratic modernization.

The linearity between public satisfaction and internal governance quality was confirmed through the 2024 SAKIP Evaluation Results. The organization successfully recorded a quality leap from the BB (Very Good) predicate with a score of 79.40 in 2023, to the A (Satisfactory) predicate with a score of 80.50 in 2024. This Achievement of category A reflects the maturity of all performance management components, especially in the aspects of Performance Measurement (24.60) and Internal Performance Accountability Evaluation (20.50). The success in achieving this Satisfactory predicate serves as formal legitimacy that the organization is not only working effectively in pursuing revenue targets, but also has an accountable and transparent management system.

However, from the perspective of digital transformation of public services, this satisfactory statistical achievement presents new challenges in the *assurance dimension*. Although the satisfaction index is trending positively, a closer analysis of the speed and validity variables shows that public expectations have shifted. The assurance now sought is no longer simply the friendliness of officers, but rather legal certainty regarding digital evidence (e-TBPKP).

Interviews with taxpayers revealed a shift in public satisfaction indicators, from interpersonal service to digital legal certainty. Respondents emphasized that the primary indicator of

digitalization success lies not in convenience at the counter, but rather in the legal validity of electronic proof of payment in the field. As long as physical verification is still required, the public perceives digital service assurance as incomplete, necessitating absolute legal recognition of digital documents by police authorities.

A Samsat operational officer confirmed ambivalence among taxpayers regarding the legal certainty aspect of the digital system. This phenomenon is demonstrated by public concerns about the validity of electronic proof of payment when dealing with law enforcement authorities in the field (raids). This finding indicates that the increase in the Public Satisfaction Index (IKM) has not generally been accompanied by full trust in the legal legitimacy of the system, making strengthening legal guarantees a fundamental challenge to the sustainability of this digital transformation.

This phenomenon demonstrates that high levels of organizational administrative accountability do not necessarily translate into a sense of psychological security for taxpayers in the digital space. Without synchronized, nationally recognized digital validation regulations, taxpayers will continue to experience a double administrative burden, hindering the effectiveness of holistic service transformation.

The 80.50 score for SAKIP data integration should serve as a platform for organizations to more progressively synchronize regulations. The core of the *assurance dimension* in digital services is eliminating the need for taxpayers to physically validate their documents at the Samsat (State-Owned Vehicle Tax) office. Without assurance that digital proof of payment has absolute legal validity in the eyes of law enforcement officials in the field, the high SAKIP score and the increasing trend of small and medium-sized enterprises (SMEs) will continue to leave users with doubts. Therefore, bureaucratic empathy in the digital era must be realized in the form of *end-to-end service guarantees*, where internal organizational accountability aligns with taxpayers' inner and outer peace of mind when conducting digital transactions.

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NO	UPT PENDAPATAN WILAYAH	NILAI	KATEGORI MUTU PELAYANAN
1	UPTP WIL BANTAENG	-	-
2	UPTP WIL BARRU	77,9	B
3	UPTP WIL BONE	81,25	B
4	UPTP WIL BULUKUMBA	-	-
5	UPTP WIL ENREKANG	83,681	B
6	UPTP WIL GOWA	87,51	B
7	UPTP WIL JENEPONTO	80,5	B
8	UPTP WIL LUWU	81,75	B
9	UPTP WIL LUWU TIMUR	88,17	B
10	UPTP WIL LUWU UTARA	80,48	B
11	UPTP WIL MAKASSAR I	78,57	B
12	UPTP WIL MAKASSAR II	81,4	B
13	UPTP WIL MAROS	84,37	B
14	UPTP WIL PALOPO	79,91	B
15	UPTP WIL PANGKEP	82,5	B
16	UPTP WIL PAREPARE	89,91	A
17	UPTP WIL PINRANG	84,07	B
18	UPTP WIL SELAYAR	84,88	B
19	UPTP WIL SIDRAP	89,17	A
20	UPTP WIL SINJAI	88,69	A
21	UPTP WIL SOPPENG	91,44	A
22	UPTP WIL TAKALAR	84,21	B
23	UPTP WIL TANA TORAJA	88,37	A
24	UPTP WIL TORAJA UTARA	84,63	B
25	UPTP WIL WAJO	84,55	B
Rata-Rata IKM Unit Pelayanan		84,257	B

Table 2.8 7of Community Satisfaction Levels Per UPT

To gain a more comprehensive understanding, the provincial-level Public Satisfaction Index (IKM) aggregation of 84.257 requires further analysis through the distribution of scores across each Regional Revenue Technical Implementation Unit (UPT). Based on the IKM assessment data per service element from January to November 2024 (Badan Pendapatan Daerah Provinsi Sulawesi Selatan., 2025), an interesting diversity of achievements is evident, warranting analysis. The majority of UPTs are in Category B (Good), but several units have successfully broken through to Category A (Very Good), such as the Soppeng Regional UPTP with the highest score of 91.44, followed by Parepare (89.91), Sidrap (89.17), Sinjai (88.69), and Tana Toraja (88.37).

This distribution of scores indicates that service quality standardization has reached a competitive level across various regional typologies, both urban and buffer zones. The success of several UPTs in achieving the Very Good rating (score > 88.31) demonstrates that the SAKIP accountability framework, which achieved an A rating at the macro level (as discussed in the previous section), has been successfully translated into operational excellence at the site level. However, the range of scores varies. where there are units with achievements of 77.9 (UPTP Barru Region) to 91.44 indicating that the acceleration of service quality is not yet completely uniform.

This spatial variation provides a crucial perspective on *the assurance dimension* of digital transformation. Differences in scores between regions are often driven by differences in supporting

infrastructure, local digital literacy, and the consistency of administrative service speeds in the field. In the context of this dissertation, data per UPT (Technical Implementation Unit) confirms that Bapenda's primary challenge is no longer simply raising collective satisfaction scores, but rather synchronizing quality so that the legal assurance and speed of digital services experienced by taxpayers in Makassar meet the same standards as those experienced in more remote areas such as Selayar or North Toraja.

Thus, this portrait of SMEs per Technical Implementation Unit (UPT) concludes the series of organizational performance analyses with an important conclusion: that empathetic digital transformation must be able to eliminate geographical barriers. The maturity of SAKIP and the positive trends of SMEs since 2019 must be transformed into a single service standard that guarantees digital legality (e-TBPKP) evenly, so that legal certainty, the core of the *assurance dimension*, can be felt inclusively by all people of South Sulawesi without exception.

3. Organizational Behavior Transformation and Public Value Creation

Digital transformation in the public sector is not simply a matter of technology adoption, but rather a process that requires a fundamental shift in bureaucratic mindset. The innovative capacity of civil servants is the primary driver of ensuring that information systems become not static islands of information but rather ecosystems that adapt to the needs of the public. This is where the entrepreneurial

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aspect of bureaucracy becomes relevant, requiring organizations to maintain internal independence to minimize dependence on third-party vendors.

NO	TINGKAT PENDIDIKAN	JUMLAH	PERSENTASI (%)
1	SMP	2	0,38
2	SMA/SMK	60	11,36
3	Diploma	17	3,22
4	S1	291	55,11
5	S2	158	29,92
	JUMLAH	528	100

Table 8 Summary of Number of Employees Based on Education Level

Cumulatively, 416 people, or 83.2% of Bapenda officials, have completed higher education. This high number of undergraduate and postgraduate graduates is not merely a formal statistic, but rather a representation of intellectual capital sufficient to internalize entrepreneurial values within the bureaucracy. With this educational background, employees possess sharper analytical skills in problem-solving and developing creative digital services.

The Head of the General Subdivision of the South Sulawesi Regional Revenue Agency (Bapenda) strategically encouraged employees to upgrade their academic qualifications to postgraduate level to strengthen the organization's intellectual capacity. As a result, higher education has been shown to improve employees' critical thinking skills in conducting technical challenges with vendors. Furthermore, staff's active involvement in designing feature modules for the Basul *Mobile application* demonstrates that the systems thinking framework acquired through formal education can foster internal innovation while reducing dependency on third parties.

From a Performance-Based Development Management perspective, this superior educational profile is aimed at driving far-reaching changes, in accordance with the mandate of Home Affairs Ministerial Regulation Number 86 of 2017. (Peraturan Menteri Dalam Negeri Nomor 86 Tahun 2017 Tentang Tata Cara Perencanaan, Pengendalian Dan Evaluasi Pembangunan Daerah, Tata Cara Evaluasi Rancangan Peraturan Daerah Tentang Rancangan Peraturan Daerah Tentang Rencana Pembangunan Jangka Panjang Daerah Dan Rencana Pembangunan Jangka Menengah Daerah, Serta Tata Cara Perubahan Rencana Pembangunan Jangka Panjang Daerah, Rencana Pembangunan Jangka Menengah Daerah, Dan Rencana Kerja Pemerintah Daerah, 2017) This academic capacity ensures that every digital innovation Such as the integration of QRIS payments or the development of new features in Basul *Mobile* are not merely viewed as technical tools, but as strategic instruments for achieving greater public accountability. With this

predominance of highly educated human resources, Bapenda has a significant opportunity to break its dependence on external parties and establish independent system sovereignty, which is the essence of entrepreneurial behavior in modern and innovative government organizations.

NO	URAIAN	JUMLAH	%
1	Golongan IV	105	19,89
2	Golongan III	373	70,64
3	Golongan II	50	9,47
	Jumlah	528	100

Table 9 Summary of Number of Employees by Class

If educational profile represents intellectual capital, then employee class distribution is an indicator of bureaucratic maturity and executional authority in overseeing strategic policies. Data on the composition of employee classes at the South Sulawesi Provincial Revenue Agency (Bapenda (Badan Pendapatan Daerah Provinsi Sulawesi Selatan., 2025)) demonstrates a well-established organizational structure with solid managerial readiness to support the Holistic Community Service (PKB) service model.

The combination of this group's maturity and higher educational background (83.2% holding a bachelor's/master's degree) creates an ecosystem of Expert Bureaucracy. A total of 82.8% of employees fall within the Group III and IV range, meaning that the majority of Bapenda officials are no longer at the stage of learning basic technical skills, but are already capable of continuous supervision, control, and innovation. This is highly relevant to Bapenda's efforts to minimize dependence on third-party vendors; this senior and highly educated group structure allows for rapid knowledge transfer and more independent management of internal IT units.

From an Entrepreneurial Behavior perspective, the group structure dominated by the upper-middle level (Group III) provides space for the growth of measurable creativity. Employees at this level have the independence to solve problems in the field without having to always wait for rigid bureaucratic instructions. Thus, the maturity of the group in Bapenda South Sulawesi is not just a rank number, but a strategic asset that ensures that the digital transformation being built will be managed by human resources with high authority, competence, and professional responsibility to achieve net benefits *for* the region.

Conclusion

This study concludes that the digital transformation of Motor Vehicle Tax (PKB) services in South Sulawesi has significantly improved service accessibility, administrative efficiency, transparency, and public satisfaction

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through the integration of digital platforms such as Basul Mobile, SIGNAL, QRIS, banking services, and fintech payment systems. Nevertheless, several critical challenges remain, including incomplete end-to-end digital validation, data synchronization inconsistencies between institutions, technical reliability issues, limited proactive notification systems, and disparities in digital literacy across regions. The persistence of manual verification requirements after online transactions demonstrates that the current system has not fully eliminated administrative burdens for taxpayers. The findings further confirm that successful public sector digital transformation depends not only on technological sophistication, but also on organizational readiness, responsive leadership, inter-agency interoperability, and user-centered service design. Therefore, this study proposes a holistic digital PKB service architecture integrating the DeLone and McLean Information Systems Success Model with User-Centered Design (UCD) principles to strengthen public trust, enhance taxpayer compliance, minimize bureaucratic complexity, and support sustainable Regional Original Revenue (PAD) realization in the era of digital governance.

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