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Evaluation Of The Integrated Tax Information System Policy At The Regional Financial And Revenue Management Agency Of South Bolaang Mongondow Regency

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Abstract

The transformation of digital governance through the Integrated Tax Information System (SI PATEN) in South Bolaang Mongondow Regency was anticipated to optimize Local Own-Source Revenue (PAD). However, tax revenues paradoxically experienced an anomalous contraction in 2024. This study aims to holistically evaluate the implementation of SI PATEN utilizing William N. Dunn's six dimensions of public policy. The research adopts a qualitative approach through a phenomenological case study paradigm. Data were collected via participant observation, in-depth interviews, and document analysis, and were subsequently analyzed using the interactive model developed by Miles, Huberman, and Saldaña. The evaluation results reveal a paradox: while SI PATEN efficiently accelerates administrative processes, the effectiveness of PAD realization declined due to taxpayers' cultural resistance to self-reporting. The dimensions of adequacy and equity remained unfulfilled owing to low digital literacy and disparities in telecommunications infrastructure (blank spots). Institutionally, budget efficiency and bureaucratic responsiveness were paralyzed by an absolute dependence on external vendors and a severe crisis in the personnel ratio. In conclusion, the adoption of tax superapps in developing regions necessitates substantially more than mere software deployment. This study recommends a transition toward a modular application architecture, decentralization through village tax agents, and targeted investments in the digital capacity of the local civil apparatus.

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INTRODUCTION

Over the past decade, global public administration discourse has undergone a profound paradigm shift, transitioning from traditional bureaucratic models to Digital Era Governance (DEG). This shift positions information technology not merely as a technical administrative tool, but rather as the epicenter of institutional transformation (Fitriani, 2024). The DEG paradigm underscores the importance of reintegrating government functions, big data-driven governance architectures, and the co-creation of public value. This digital transformation has been widely adopted by various nations to enhance transparency, mitigate information asymmetry, and strengthen fiscal sustainability through the modernization of tax administration (Hesami et al., 2024).

At the operational level in Indonesia, this digital governance transformation is formally institutionalized through the Electronic-Based Government System (SPBE) architecture. This macro-level policy is strictly regulated by Presidential Regulation (Perpres) Number 95 of 2018 concerning the Electronic-Based Government System and is further reinforced by Presidential Regulation (Perpres) Number 132 of 2022 concerning the National Electronic-Based Government System Architecture. This regulatory framework compels all local government entities to accelerate the digitalization of government transactions, particularly in essential sectors such as the management of Local Own-Source Revenue (PAD). The digital integration of public services is mandated to curtail bureaucratic pathologies, mitigate potential fiscal leakages, and increase taxpayer compliance ratios (Zamhur & Marantika, 2026).

In response to these modernization demands, the South Bolaang Mongondow Regency Government launched a policy innovation titled the Integrated Tax Information System (SI PATEN) in 2021. This policy obtained legal legitimacy through Regent Regulation Number 76 of 2022, which designated it as a local tax service superapp. This superapp framework consolidates various tax administration components—ranging from SIMPATDA for specific goods and services taxes and Petik Bunga for land and building taxes, to e-BPHTB for the integration of notary services—into a single, unified platform. The system was projected to optimize local revenues within this rapidly developing region (Pahlevi, 2022;Mujiyati et al., 2024).

Nevertheless, the implementation of SI PATEN in South Bolaang Mongondow Regency presents a paradoxical phenomenon that urgently necessitates academic evaluation. Although

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this superapp system is operational and the realization of online transactions has reached absolute figures for certain tax categories, the trajectory of local tax revenues exhibits a concerning anomaly. Based on empirical data from the Regional Financial and Revenue Management Agency (BPKPD), tax realization experienced significant fluctuations: increasing from IDR 6,172,706,470 in 2022 to IDR 7,359,403,697 in 2023, before plummeting drastically to IDR 6,073,470,873 in 2024.

This severe decline in Local Own-Source Revenue (PAD) in 2024 occurred amid extreme institutional capacity constraints at the regional level. The South Bolaang Mongondow Regency BPKPD, specifically within the Tax and Retribution Division, is currently staffed by a mere eight personnel, comprising six Civil Servants (PNS) and two Government Employees with Employment Agreements (PPPK). This acute deficit in human resource capacity directly collides with the reality of uneven telecommunications infrastructure. Consequently, this creates a substantial gap between the idealistic architecture of the SPBE policy and the reality of execution capacity at the grassroots level.

To strengthen the scientific credibility in analyzing this paradox, an analytical mapping of the state-of-the-art literature is imperative. A review of the study by Febrianti & Fanida (2022) regarding the SIPANDAUNIK application demonstrates that tax integration based on the National Identity Number (NIK) effectively enhances transparency. However, the study identified that the system is frequently constrained by the low digital literacy of the civil apparatus and inadequate cross-agency coordination. This research provides an initial indication that advanced technology cannot operate optimally without the adequate readiness of the underpinning bureaucratic ecosystem.

Similar findings were also reported by Aryansah et al. (2023) in their evaluation of the E-Tax policy in Palembang City. Their research, employing the CIPP (Context, Input, Process, Product) evaluation model, demonstrated that the electronic tax system successfully increased Local Own-Source Revenue (PAD) in densely populated urban areas. However, the Palembang E-Tax system provoked resistance from certain taxpayers due to network infrastructure constraints and adaptation issues concerning taxpayer honesty in utilizing the online system. This study underscores that tax digitalization is not exempt from challenges pertaining to compliance behavior.

Within the international spectrum, research by Sausi et al. (2021) regarding the local tax system in Tanzania demonstrates that revenue digitalization is highly contingent upon system quality. The success of the Tanzanian tax authority, which exceeded its revenue target by up to

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IDR 22 trillion, was propelled by reforms that linked property tax payments to the purchase of national electricity tokens. This indicates that digital compliance frequently necessitates coercive mechanisms embedded within the basic needs of the public, rather than the mere deployment of self-reporting applications.

Meanwhile, the evaluation of SISMIOP by Afia & Hoerudin (2020) underscores the effectiveness of information systems applied to a single tax category, specifically the Land and Building Tax (PBB). This study revealed that singular systems are frequently impeded by inadequate data synchronization across operational units and system maintenance challenges. Furthermore, research by Lestari et al. (2022) corroborates a positive and significant correlation between the modernization of digital administrative systems and enhanced taxpayer compliance, although this study was strictly confined to the central government level within urban contexts.

A thematic synthesis of the five aforementioned principal literatures reveals a substantial blind spot within the discourse on digital tax policy evaluation. The majority of preceding research exhibits a pronounced propensity to focus exclusively on the instrumental and technical performance of information technology. Prior studies are frequently constrained by the utilization of system evaluation models such as DeLone and McLean or CIPP. Consequently, these evaluations typically merely measure the input and output functions of the software, neglecting the fundamental essence of public policy.

Furthermore, prior studies have generally delimited their scope to the implementation of policies governing a single tax instrument within urban areas. Structurally, these urban jurisdictions already possess an established digital infrastructure ecosystem and robust public digital literacy. There is a conspicuous paucity of literature specifically addressing the policy evaluation of comprehensive integrated applications (superapps) deployed within the jurisdictions of developing regions. Such regions are characterized by acute complexities, notably severe digital divides in internet access and extreme deficits in government personnel.

In contrast to preceding research, which predominantly employed the CIPP model to evaluate the technical effectiveness of singular tax instruments in urban settings, this study proffers a novel approach by holistically dissecting the policy efficacy of a local tax superapp (SI PATEN) within a developing region. This research transcends mere system operational variables by adopting the multidimensional analytical framework derived from Dunn (2017) theory of public policy evaluation. This analytical approach provides the requisite precision to unravel the complexities of public policy that conventional information systems studies invariably fail to capture.

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The theoretical novelty of this study lies in the operationalization of Dunn (2017) six dimensions of public policy evaluation: effectiveness, efficiency, adequacy, equity, responsiveness, and appropriateness. Utilizing this comprehensive analytical framework, the evaluation extends beyond the mere measurement of administrative outputs, such as application login fluidity or billing generation speed. Furthermore, this research elucidates other essential dimensions, including an examination of the equitable distribution of services for rural taxpayers and an assessment of the managerial adequacy of the local apparatus in sustaining the system.

Predicated upon these literature gaps and theoretical novelties, the core problem investigated in this article is the extent to which the effectiveness, managerial efficiency, and responsiveness of the SI PATEN policy implementation can address the complexities of local tax governance. This investigation specifically highlights and dissects how this policy operates amidst tangible impediments, namely the disparity in public infrastructure and the incapacitated bureaucratic personnel in the remote areas of South Bolaang Mongondow Regency.

This article posits the central thesis that the adoption of digital governance within the public sector does not inherently guarantee the optimization of Local Own-Source Revenue (PAD) if the policy fails to fulfill the principles of human resource capacity adequacy and equitable digital infrastructure access for rural populations. The phenomenon of superapps in developing regions necessitates substantially more than mere software coding. Therefore, the managerial interventions proposed for the BPKPD encompass workload restructuring, the deployment of village tax agents, and the simplification of the application architecture, thereby ensuring that this innovation yields strategic significance for regional fiscal independence.

METHODOLOGY

This study designs an evaluation of digital tax governance through a qualitative approach, utilizing a case study design grounded in a phenomenological paradigm. This design was theoretically selected not to test statistical correlations, but rather as an analytical instrument to unpack the social dynamics and the rationality of policy actors underlying the paradox of tax fluctuations within a digitized system (Kilonzo & Ojebode, 2023). Through this phenomenological approach, the researcher can comprehensively explore how the Integrated Tax Information System (SI PATEN) policy is interpreted, responded to, and tactically operationalized by both the civil apparatus and the grassroots community in South Bolaang Mongondow Regency.

Primary data were collected utilizing a combination of purposive and snowball sampling techniques to ensure the depth and representation of cross-actor perspectives. Key informants

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comprised three principal elements: structural officials responsible for regulatory formulation at the Regional Financial and Revenue Management Agency (BPKPD), technical operators managing service modules (e.g., e-BPHTB, e-SPTPD, and Petik Bunga), and local taxpayers representing diverse demographic backgrounds and business sectors. To validate these empirical findings, secondary data were extracted from authoritative documents, encompassing South Bolaang Mongondow Regent Regulation Number 76 of 2022, BPKPD performance reports, statistical data concerning the fluctuation of Local Own-Source Revenue (PAD) realization for the 2022–2024 period, and Standard Operating Procedure (SOP) documents.

Field data collection was comprehensively operationalized through three pillars of methodological triangulation. The first pillar involved limited participant observation, which captured the discrepancy between ideal procedures and actual administrative practices by observing the interactions between the civil apparatus and taxpayers at the SI PATEN service counter interface. The second pillar comprised semi-structured in-depth interviews guided by the six dimensions of policy evaluation. This facilitated a flexible yet directed exploration of issues ranging from PAD effectiveness and budget efficiency to infrastructure equity. The third pillar consisted of a documentation study encompassing both the review of physical regulations and the audit of digital footprints (such as BPKPD dashboard transaction logs) to cross-validate the consistency of the informants' claims against field realities(Miles et al., 2014).

The entirety of the empirical data was subsequently analyzed utilizing the interactive model developed by Miles, Huberman, and Saldaña, operating through three interrelated cycles: data reduction, data display via thematic matrices, and conclusion drawing. The reduced field data were then critically examined utilizing the primary analytical framework: William N. Dunn's six dimensions of public policy evaluation. Through this analytical framework, every empirical fact pertaining to system latency and human resource limitations was dissected based on the parameters of effectiveness, efficiency, adequacy, equity, responsiveness, and appropriateness. Consequently, field findings were converted into analytical conclusions of strategic value for enhancing digital governance in developing regions.

RESULT AND DISCUSSION

Effectiveness Confounded by the Digital Compliance Paradox

The effectiveness dimension in Dunn (2017) policy evaluation theory is fundamentally operationalized to measure the precision of the extent to which an implemented intervention successfully realizes its primary targets. In the case of SI PATEN in South Bolaang Mongondow

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Regency, the primary justification for this electronification was to minimize tax leakage in order to boost the realization of Local Own-Source Revenue (PAD). Normatively and administratively, the integration of the e-SPTPD feature and the Tax Clearance module was designed to compel taxpayers to report their turnover precisely and systematically. This system attempts to replace manual calculation processes, which have historically been vulnerable to data distortion and covert negotiation practices.

However, a critical interpretation of the empirical field data demonstrates that the technological reliability of the system does not inherently guarantee the effectiveness of fiscal policy outcomes. A paradoxical phenomenon is evident, wherein PAD actually fluctuated and ultimately declined. During the transition period in 2022, revenues were recorded at IDR 6.17 billion. This figure briefly surged to IDR 7.35 billion in 2023, aligning with the aggressive expansion phase of the SI PATEN application socialization. Nevertheless, this achievement could not be sustained, contracting significantly to IDR 6.07 billion in 2024.

The drastic decline in 2024 reflects a failure of the digital governance architecture to sustain taxpayer compliance. Unraveling the root of this problem necessitates an analysis beyond the operational description of the application. The primary constraint lies in the asymmetry between the readiness of the government's back-end infrastructure and the reality of the taxpayers' socio-economic bookkeeping culture. The SI PATEN application compels essential sector taxpayers to rigidly input daily turnover data into the e-SPTPD. This imposition of digital precision triggers anxiety and covert resistance among taxpayers accustomed to operating informally without orderly bookkeeping.

Consequently, instead of utilizing the convenience of QRIS or e-commerce payment channels, many local taxpayers opt to postpone online reporting. Tax potential that should have been rapidly capitalized is instead impeded because taxpayers avoid interacting with a system they perceive as excessively restrictive administratively. This finding conceptually refutes the linear assumption posited in the study by Sausi et al. (2021) in Tanzania, which claimed that the adoption of a revenue collection information system would automatically set compliance records and increase fiscal revenues.

The extraordinary success of the Tanzanian tax authority, which exceeded its revenue target by over 100% in 2021/2022, was not solely achieved through the availability of an online application. This success was realized through coercive policy engineering, wherein property tax payments were directly integrated with automatic deductions when taxpayers purchased prepaid electricity tokens (TANESCO) (Kang & Kim, 2022). This flat-rate model, embedded within essential

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needs, ensures collection effectiveness without relying on voluntary reporting. In contrast, the design of SI PATEN relies heavily on voluntary compliance, which has proven ineffective when implemented in developing regions.

Table 1. Regional Tax Realization Data for the Last 3 Years

Year	Regional Tax Realization (Rp)	Growth Percentage	Digitalization Policy Phase
2022	6.172.706.470,00	-	Transition to the SI PATEN System
2023	7.359.403.697,00	+ 19,2%	Digital Socialization Expansion
2024	6.073.470.873,00	- 17,4%	Taxpayer Stagnation & Resistance

Efisiensi (*Efficiency*) dan Beban Anggaran Transformasi

The efficiency dimension in Dunn (2017) evaluation framework does not merely measure the speed of operational processes; rather, it rationally dissects the ratio between the input of resource expenditure and the quality of the policy output generated. Administratively and technically, SI PATEN has successfully disrupted the bureaucracy and drastically reduced the processing time required for tax billing issuance. Through the *Petik Bunga* application module, the task of civil apparatus and village collectors in generating thousands of Rural and Urban Land and Building Tax (PBB-P2) assessments—which previously consumed days—can now be completed collectively in a matter of minutes.

However, this daily operational efficiency is offset by a massive inefficiency in the dimensions of budget allocation and technological independence. The BPKPD of South Bolaang Mongondow Regency has been compelled to allocate a substantial percentage of the Regional Revenue and Expenditure Budget (APBD) to finance the procurement, maintenance, and licensing of the superapp system to third-party developers. This is a direct consequence of the complete absence of human resources within the Tax and Retribution Division possessing qualifications as software developers or information systems architects.

This absolute dependence on the private sector engenders an institutional vulnerability

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that contradicts the long-term efficiency principles of the SPBE framework. Whenever technical constraints emerge, tariff regulations are amended, or new tax categories are introduced, the local government must incur additional expenditures to execute system modifications. This critical analysis demonstrates that the efficiency generated by the electronification of local government transactions frequently constitutes merely a displacement of workload. While administrative workloads are indeed significantly reduced, the fiscal burden is transitioned into binding technological operational costs, resulting in vendor lock-in.

The resolution mechanism to mitigate this structural inefficiency necessitates a strategic paradigm shift in regional budget allocation. Rather than persistently injecting funds consumptively into third-party contracts, the BPKPD must enact managerial interventions by converting a portion of these funds into capacity-building investments. Specialized recruitment for Computer Functionary (*Pranata Komputer*) positions or the provision of coding training scholarships for existing personnel is exceptionally crucial. Building in-house developer capacity is the sole pathway to transform the status of SI PATEN from an operational cost burden into a genuinely efficient investment asset.

This analysis fosters an academic dialogue to sharply contrast these findings with the evaluation of Palembang City's E-Tax system by Aryansah et al. (2023). In the Palembang metropolis, the implementation of electronic taxation readily achieved high levels of efficiency, supported by an abundance of IT human resources and a well-established urban infrastructure ecosystem. Conversely, in a developing region such as South Bolaang Mongondow, the ambition to integrate nine categories of taxes into a single application inadvertently generated a surge in hidden costs. This finding refutes the prevailing assumption that digitalization intrinsically equates to government budget efficiency.

Table 2. Percentage of Realized Online Tax Transactions

Types of Regional Taxes	Digital Target	2021	2023	2024/2025	Efficiency of Technical Human Resources Allocation
PBJT Hotel Services	100%	10%	90%	100%	Dependent on Third Party
PBJT Food/Beverage	100%	10%	90%	100%	Dependent on Third Party

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Land and Building Tax (PBB-P2)	100%	10%	90%	100%	Accommodated via Flower Picking
Land Acquisition Tax (BPHTB)	100%	10%	90%	100%	Integrated via e-BPHTB

Adequacy and the Threat of Technological Illusion

Within Dunn (2017) analytical framework, the adequacy dimension fundamentally questions whether existing policy instruments are sufficiently capable of addressing and resolving the root causes of public problems. In terms of software architecture, the SI PATEN superapp is equipped with functionally superior modules. The system provides data collection menus, online e-SPTPD reporting, automatic billing generation, and a Tax Clearance feature accessible by the inspectorate for real-time monitoring. Theoretically, this technological sophistication should be more than adequate to overcome sluggish bureaucratic administration and facilitate the needs of taxpayers.

However, the interpretation of field data unveils the illusion of technological determinism. The system's sophistication at the SI PATEN front-end interface is rendered meaningless when confronted with a taxpayer demographic predominantly characterized by low levels of digital literacy. The registration process—which necessitates activation steps, password retention, inputting the National Identity Number (NIK) or Regional Taxpayer Identification Number (NPWPD), and downloading PDF-formatted payment codes—is perceived as excessively complex by grassroots communities. Small business operators, managers of traditional eateries, and rural populations experience profound confusion when compelled to abruptly migrate to an independent digital system.

Consequently, due to this literacy deficit, system adequacy remains unachieved. Instead of independently utilizing the application from home to circumvent geographical distances, the majority of taxpayers persistently visit the BPKPD office. They arrive seeking the assistance of the tax apparatus to input their data into the SI PATEN system. This paradox engenders an irony within digital governance: a system engineered to eliminate physical interaction (contactless) inadvertently triggers the accumulation of new administrative queues at service counters, as the public delegates their digital input tasks back to an acutely understaffed state apparatus.

Managerial intervention strategies to address this adequacy gap cannot focus exclusively on redesigning the User Interface (UI). The local government must engineer a cultural approach

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through the New Public Governance (NPG) framework, which prioritizes the principle of co-production. The establishment of an agency program or "Village Tax Ambassadors" emerges as an urgent operational solution. These tax ambassadors should be recruited from local village youth to act as tech-brokers. Their mandate is to bridge the literacy gap, assist in the collective input of citizens' data, and mitigate public apprehension toward the state's digital instruments.

The literacy issues undermining system adequacy complement the critical discourse surrounding the evaluation of SISMIOP by Afia & Hoerudin (2020). In their evaluation of SISMIOP, which manages a single tax category, the paramount challenges identified were server maintenance and the reluctance of internal operational units. However, within an integrated superapp platform such as SI PATEN, the locus of failure shifts from internal hardware issues to the lack of adaptability among end-users (taxpayers). This substantiates the premise that digital policies in remote areas will remain inadequate unless accompanied by measurable literacy intervention schemes.

Equity and the Injustice of the Digital Divide

The analytical framework of the equity dimension is utilized to dissect the extent to which a policy guarantees distributive justice, ensuring that government services are equitably accessible without spatial discrimination (French & Gärtner, 2023). The conceptual design of the SPBE in general, and SI PATEN in particular, is predicated upon the utopian assumption that digitalization will eradicate geographical boundaries. Ideally, taxpayers residing dozens of kilometers away from the regency's capital center should be able to access tax assessment and payment services equitably, matching the ease of access enjoyed by citizens domiciled in the vicinity of the BPKPD office.

The empirical facts revealed in South Bolaang Mongondow Regency completely shatter this assumption. The SI PATEN policy instead exposes a sharp disparity in equity resulting from uneven information technology infrastructure (the digital divide). There remains a vast expanse of rural territories and coastal zones characterized by a "blank spot" status or a complete lack of telecommunications signal. Taxpayers within these marginalized zones are automatically isolated from the e-billing ecosystem, fail to receive digital notifications, and are impeded from utilizing various non-cash transaction channels such as QRIS or digital wallets.

The consequences of this uneven infrastructure are profound from the perspective of state administrative law. Taxpayers in blank spot areas risk incurring administrative fines for late reporting, not because they intend to engage in tax evasion, but rather due to the state's failure

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to provide a connectivity backbone (Togatorop et al., 2024). In this context, rather than democratizing public services, the SPBE policy inadvertently legitimizes structural discrimination. First-class public service facilities become an exclusive privilege for tax subjects at the urban epicenter who are served by broadband networks.

Elevating the context of these findings positions this study within the global debate on Digital Era Governance, as cautioned by Margetts & Dunleavy (2024). The DEG paradigm demands vigilance against digital exclusion. Radical governance transformations frequently fail to account for the disconnected minorities. The case of SI PATEN empirically validates that technological innovation unaccompanied by the equitable distribution of physical infrastructure (telecommunications hardware) merely reproduces a new form of administrative alienation within developing nations.

Affirmative interventions must be urgently executed by the local government to guarantee the principle of justice. The BPKPD cannot passively await fiber-optic network improvements from the central ministry. The most viable operational strategy is the provision of "Mobile Digital Tax Kiosk" units. This mobile fleet must be equipped with independent satellite antennas (V-SAT) and operate as proactive intranet terminals that reach isolated rural pockets. Through this asymmetric solution, the government ensures that the rights of peripheral citizens to receive proper tax administration services remain fulfilled without discrimination.

Responsiveness Amidst a Personnel Crisis

The responsiveness dimension evaluates the elasticity and sensitivity of government bureaucracy in addressing user complaints and aspirations, as well as swiftly mitigating implementation barriers (Munawir et al., 2025). At the functional level of the application, SI PATEN has endeavored to demonstrate adequate system responsiveness. For instance, within the e-BPHTB application module, the validation history tracking feature—directly linked to Land Deed Officials (PPAT) and notaries—provides real-time procedural transparency. This effectively resolves public grievances regarding the chronological uncertainty of land document processing, which has historically persisted as a latent complaint.

However, macro-level responsiveness within the organizational architecture of the BPKPD is at a concerning nadir. The Local Tax and Retribution Division, tasked with managing nine vital tax categories for the entire regency, is exclusively operated by a mere eight personnel. This staff composition comprises six Civil Servants (PNS) and two Government Employees with Employment Agreements (PPPK). The ratio between the number of personnel, the total population of tax

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subjects, and the expansive geographic span of control generates an extreme accumulation of workload that is managerially untenable.

This human resource scarcity directly paralyzes the responsiveness of daily public services. When hundreds of taxpayers encounter obstacles such as login failures, forgotten passwords, or system errors while generating billing codes via the e-SPTPD application, they demand immediate remediation through helpdesk services. With only eight employees who are concurrently burdened with verification, manual validation, and field inspections, digital troubleshooting inevitably encounters a severe bottleneck. This prolonged response time gradually erodes public trust in the reliability of the state's electronification policy.

This responsiveness crisis necessitates tactical bureaucratic reengineering. As a low-cost operational solution, the South Bolaang Mongondow Regency BPKPD must immediately decentralize complaint service authority. First-tier (tier-1) helpdesk authority to reset passwords or regenerate payment codes should be delegated to sub-district or village government officials. Through this workload distribution, the eight core personnel at the headquarters can focus exclusively on executing strategic imperatives, such as tax clearance analysis and field audits, to mitigate PAD leakages.

These critical findings regarding the human resource crisis directly confront the research of Wahyu et al. (2025) concerning the evaluation of SIPANDAUNIK. Their study similarly concluded that the primary constraint of the NIK-based system is the limited literacy of the civil apparatus. In contrast, the crisis in South Bolaang Mongondow is not merely a matter of digital literacy, but fundamentally a quantitative scarcity of personnel. Managing a superapp that consolidates multivariable tax categories demands highly competent staff working continuously. This phenomenon demonstrates that the consolidation of services into a singular application is directly proportional to the multiplication of personnel stress if it is not counterbalanced by strategic talent management.

Appropriateness and the Relevance of Superapp Architecture

The appropriateness dimension centers its analytical focus on auditing the philosophical foundation of a policy; specifically, evaluating whether the selected intervention architecture aligns precisely with the contextual realities and the fundamental issues it aims to resolve (Henningsen & Røyseng, 2025). Jurisdictionally and regulatorily, the implementation of SI PATEN constitutes a vertically congruent policy. This policy aligns local political commitment with the national mandate regarding the implementation of the Electronic-Based Government System

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(SPBE). The establishment of the regional Team for the Acceleration and Extensification of Local Digitalization (TP2DD) provides institutional legitimacy that the BPKPD is operating within the central government's mandated digital governance framework.

Although legally well-targeted, the appropriateness of the adopted software architecture (a monolithic superapp) warrants rigorous scrutiny within a developing jurisdiction. The forced consolidation of nine tax categories with diametrically opposed operational characteristics—ranging from luxury hotel taxes to rural land and building taxes (PBB)—into a single, centralized web platform engenders unnecessary complexity. Compelling this "all-in-one" architecture demands high-specification servers and heavy internet network bandwidth, resources that remain a luxury in remote regions.

The inappropriateness of this monolithic approach creates a risk of systemic paralysis. The operational characteristics of the edible bird's nest tax exhibit reporting dynamics completely distinct from the non-metal mineral and rock tax (MBLB) or the land and building transfer duty (BPHTB). In the event of a primary database error or a server outage triggered by traffic surges at the end of the PBB deadline, all other tax service categories become concurrently paralyzed. The selection of this superapp architecture is suboptimal as it neglects essential risk management principles vital for safeguarding a local government's strategic revenue collection.

As a medium-term managerial intervention and solution, the BPKPD is advised to restructure its information system toward a more fit-for-purpose architecture, specifically a microservices architecture. Within this architecture, the SIMPATDA, *Petik Bunga*, and e-BPHTB application modules remain under the single umbrella of the SI PATEN portal, yet are managed with independently distributed databases and processors. The efficacy of this modular architecture guarantees system stability, allows feature updates for a specific service without disrupting others, and provides low-capacity (lightweight) interface options compatible with marginal internet signals.

Elevating this discourse to a global level, the challenge of formulating an appropriate digital tax system aligns with the ongoing debates surrounding the Tax Administration 3.0 framework. As synthesized in the global digital taxation literature, the primary hurdle of electronification does not lie in the acquisition of artificial intelligence or blockchain technologies, but rather in the synchronization between digital instruments and the local institutional landscape (Belahouaoui & Attak, 2024). The appropriateness of a public innovation is measured not by the abundance of its grandiose features, but by its capacity to endure, adapt, and maintain administrative justice relations between the state and taxpayers without precipitating destructive disruption.

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CONCLUSION

The implementation of the Integrated Tax Information System (SI PATEN) policy in South Bolaang Mongondow Regency exhibits a paradoxical phenomenon between the sophistication of the SPBE architecture and the structural paralysis of the bureaucracy in a developing region. An evaluation based on William N. Dunn's six dimensions demonstrates that although this system efficiently reduces billing processing time and is appropriate regarding national regulatory mandates, the effectiveness of PAD realization contracted sharply due to pervasive cultural resistance from taxpayers against the complexity of self-reporting. Simultaneously, the forced enforcement of the superapp triggers inequities in service distribution (equity) by engendering administrative isolation for rural populations trapped within telecommunications blank spot zones without adequate literacy support (adequacy). Amidst an absolute dependence on external vendors, institutional responsiveness experiences a severe crisis due to the disproportionate workload ratio when confronted with the absolute constraint of a mere eight tax personnel. As an urgent managerial intervention, the BPKPD must restructure the application architecture toward a modular format, decentralize helpdesk management to village tax agents, and convert maintenance costs into investments for reinforcing local human resource capacity.

FUTURE DIRECTIONS

Considering the limitations of this study, which focuses on a single qualitative case study within the jurisdiction of South Bolaang Mongondow Regency, future research agendas must expand the analytical spectrum to enrich the discourse on digital governance in developing nations. Subsequent studies are strongly recommended to adopt a mixed-methods approach or cross-jurisdictional comparative analyses to generate more precise empirical generalizations regarding the disparities in the implementation success of integrated tax systems. Furthermore, future theoretical explorations should transcend public policy evaluation frameworks by integrating innovation adoption models—such as the Technology Acceptance Model (TAM) or the Unified Theory of Acceptance and Use of Technology (UTAUT)—to quantitatively dissect behavioral determinants, digital literacy, and the psychological resistance of taxpayers. Additionally, strategic investigations into the efficacy of government intervention models designed to mitigate the digital divide and engineer administrative capacity building are crucial. This ensures that the future transformation of e-government governance evades the pitfalls of mere administrative automation, truly evolving instead into a public service ecosystem that is equitable, adaptive, and sustainable.

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REFERENCES

Afia, S. U. M., & Hoerudin, C. W. (2020). Evaluasi Sistem Manajemen Informasi Objek Pajak dalam Pemungutan PBB-P2 di Badan Pendapatan Daerah Kota Bekasi. Ministrate: Jurnal Birokrasi Dan Pemerintahan Daerah, 2(2), 99–109. https://doi.org/10.15575/jbpd.v2i2.9387

Aryansah, J. E., Abror, M. Y., & Mirani, D. (2023). Evaluasi Pelaksanaan Kebijakan Pajak Elektronik (E-Tax) terhadap Peningkatan Pendapatan Pajak Daerah Kota Palembang. Jurnal Ilmiah Ilmu Sosial, 9(1), 1–11. https://doi.org/10.23887/jiis.v9i1.54974

Belahouaoui, R., & Attak, E. H. (2024). Digital taxation, artificial intelligence and Tax Administration 3.0: improving tax compliance behavior – a systematic literature review using textometry (2016–2023). Accounting Research Journal, 37(2), 172–191. https://doi.org/10.1108/ARJ-12-2023-0372

Dunn, W. N. (2017). Public Policy Analysis (6th ed.). Routledge. https://doi.org/10.4324/9781315181226

Febrianti, S. D., & Fanida, E. H. (2022). Inovasi Pelayanan Pajak Daerah Melalui Aplikasi Sistem Informasi dan Pelayanan Pajak Daerah Terpadu Berbasis NIK (SIPANDAUNIK) di Kabupaten Ponorogo. Publika, 10(3), 739–752. https://doi.org/10.26740/publika.v10n3.p739-752

Fitriani, L. (2024). Cybersecurity abd Digital Sovereignty: an Analysis OF National Data Governance Capacity in the Global Platform Era: A Literature Review. Asian Digital Governance Problems, 1(2), 65–77. https://doi.org/10.71435/685954

French, R., & Gärtner, N. (2023). In Search of a Defensive Equity Factor. The Journal of Portfolio Management, 49(5), 96–130. https://doi.org/10.3905/jpm.2023.1.473

Henningsen, E., & Røyseng, S. (2025). Cultural policy, politicians and the logic of appropriateness. International Journal of Cultural Policy, 1–14. https://doi.org/10.1080/10286632.2025.2490171

Hesami, S., Jenkins, H., & Jenkins, G. P. (2024). Digital Transformation of Tax Administration and Compliance: A Systematic Literature Review on E-Invoicing and Prefilled Returns. Digital Government: Research and Practice, 5(3), 1–20. https://doi.org/10.1145/3643687

Kang, S.-H., & Kim, B.-J. (2022). Designing a Valuation System for Property Tax: The Case of Zanzibar, Tanzania. Land, 11(7), 989. https://doi.org/10.3390/land11070989

Kilonzo, S. M., & Ojebode, A. (2023). Research Methods for Public Policy. In Public Policy and Research in Africa (pp. 63–85). Springer International Publishing. https://doi.org/10.1007/978-3-030-99724-3_4

Lestari, T. Y., Khasanah, U., & Kuntadi, C. (2022). Literature Review Pengaruh Pengetahuan,

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

Modernisasi Sistem Administrasi Dan Sosialisasi Perpajakan Terhadap Kepatuhan Wajib Pajak Orang Pribadi. Jurnal Manajemen Pendidikan Dan Ilmu Sosial, 3(2), 670–681. https://doi.org/10.38035/jmpis.v3i2.1129

Margetts, H., & Dunleavy, P. (2024). The political economy of digital government: How Silicon Valley firms drove conversion to data science and artificial intelligence in public management. Public Money & Management, 1–11. https://doi.org/10.1080/09540962.2024.2389915

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). Qualitative Data Analysis: A Methods Sourcebook (3rd ed.). Sage Publications.

Mujiyati, M., Zulfikar, Z., Witono, B., & Cahyo Utomo, I. (2024). The impact of digital platforms in tax administration services on local government tax revenues: evidence from Indonesia. Public and Municipal Finance, 13(2), 195–203. https://doi.org/10.21511/pmf.13(2).2024.16

Munawir, M., Suherman, A., & Ahmada, N. H. (2025). Budget Efficiency vs Public Service: A Critical Evaluation of Presidential Instruction No. 1 of 2025. Journal of Law and Economics, 4(2), 224–236. https://doi.org/10.56347/jle.v4i2.376

Pahlevi, R. (2022). Pemkab Bolsel Launching Aplikasi Si-Paten, Ini Manfaatnya. Patntau 24. https://pantau24.com/2022/09/05/pemkab-bolsel-launching-aplikasi-si-paten-ini-manfaatnya/#google_vignette

Peraturan Bupati (Perbup) Kabupaten Bolaang Mongondow Selatan Nomor 76 Tahun 2022 Tentang Penerapan Serta Pedoman Penggunaan Sistem Informasi Pajak Terintegrasi (2022).

Peraturan Presiden (Perpres) Nomor 132 Tahun 2022 Tentang Arsitektur Sistem Pemerintahan Berbasis Elektronik Nasional (2022).

Peraturan Presiden (Perpres) Nomor 95 Tahun 2018 Tentang Sistem Pemerintahan Berbasis Elektronik (2018).

Sausi, J. M., Kitali, E. J., & Mtebe, J. S. (2021). Evaluation of local government revenue collection information system success in Tanzania. Digital Policy, Regulation and Governance, 23(5), 437–455. https://doi.org/10.1108/DPRG-04-2021-0055

Togatorop, G., Rosdiana, H., & Setyowati, M. S. (2024). Transfer Pricing Audit Policy Design Toward A Fair Tax System In Indonesia. Asian Journal of Engineering, Social and Health, 3(6), 1207–1222. https://doi.org/10.46799/ajesh.v3i6.338

Wahyu, M., Syarifuddin, H., & Lubis, S. (2025). Strategi Tata Kelola Pemerintah Daerah dalam

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

Meningkatkan Kapasitas Inovasi Daerah di Kabupaten Sidenreng Rappang. SOSMANIORA: Jurnal Ilmu Sosial Dan Humaniora, 4(2), 323–331. https://doi.org/10.55123/sosmaniora.v4i2.5297

Zamhur, Z., & Marantika, A. (2026). Digital Tax Governance in Optimizing Local Own-Source Revenue: Evidence from Kampar Regency, Indonesia. Dinasti International Journal of Economics, Finance & Accounting, 7(1), 585–592. https://doi.org/10.38035/dijefa.v7i1.6581

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