



Modernizing Local Tax Policy: The Role of Digitalization in Land and Building Tax Administration

Prabu Mandiri, Alfitri Alfitri, M. Husni Thamrin, Abdul Najib

Universitas Sriwijaya, Kota Palembang, Sumatera Selatan 30128, Indonesia

ARTICLE INFORMATION	A B S T R A C T
<p>Received: January 14, 2024 Revised: June 27, 2024 Available online: July 30, 2024</p>	<p>The objective of this research is to identify and analyze the impact of digitalizing the Land and Building Tax Stimulus Policy on the primary issue, namely public compliance and the overall potential. This study adopts a qualitative research approach, with case study method. The research reveals that, The digital transformation of Land and Building Tax (Pajak Bumi dan Bangunan, PBB) administration in Palembang signifies a monumental step towards modernizing local tax policies. This study highlights key findings that underscore the effectiveness of digitalization in enhancing the efficiency, accuracy, transparency, and overall revenue collection of local governments. The evidence illustrates that the integration of digital systems not only streamlines administrative processes but also minimizes errors and accelerates payment cycles, that can ultimately leading to higher compliance rates among taxpayers. Although in there is still an obstacles in the process, but the overall potential can bring a positive impact on PAD.</p>
<p>KEYWORDS</p> <p>Digital Transformation, Policy, Tax</p>	
<p>CORRESPONDENCE</p> <p>Name: Prabu Mandiri E-mail: prabumandiri559@gmail.com</p>	

INTRODUCTION

The role of taxation in a nation's development cannot be overstated, as it serves as one of the most critical tools for mobilizing resources to fund public goods and services, fostering economic growth, and ensuring social welfare. Historically, taxes have formed the foundation of fiscal policies, with governments depending on tax revenues to finance infrastructure, health care, education, and other public services. In both developing and developed countries, the evolution of tax systems has been driven by a combination of domestic imperatives and global economic trends. Over time, governments have increasingly turned toward refining tax systems, intensifying tax collection efforts, and enhancing tax administration to align with the broader goals of national development and social prosperity (Arewa & Davenport, 2022; Kang & Wei, 2022). In Indonesia, this imperative has been evident in the constant reforms aimed at improving the efficiency and integrity of the national tax system, as emphasized in various national policies.

At the national level, taxation has historically been a primary tool for achieving both economic stability and growth, as well as redistributive goals, through progressive taxes that attempt to mitigate inequality. However, the real challenge lies in implementing tax policies that not only generate revenues but also do so in a way that encourages compliance, reduces evasion, and ensures fairness. The Land and Building Tax (Pajak Bumi dan Bangunan - PBB) plays a vital role in Indonesia's regional taxation system, contributing to Regional Own-Source Revenue (Pendapatan Asli Daerah - PAD). As part of Indonesia's fiscal decentralization efforts, which were reinforced by Law No. 32 of 2004 and its subsequent amendments (Law No. 23 of 2014 and Law No. 9 of 2015), regional governments were granted the authority to manage their own taxes, including PBB, to finance local development initiatives (Hasrini, 2021; Noviani & Gowon, 2024).

Yet, despite the importance of taxes like PBB in supporting regional development, their administration at the local level has often been fraught with challenges. In Palembang, for instance, the collection of PBB has been marked by inefficiencies, low compliance rates, and outdated administrative processes that have hindered the potential of this tax to significantly boost regional revenues (Inayah & Wicaksono, 2022). A significant issue is the reliance on manual, paper-based systems for tax collection, which has proven both cumbersome and error-prone, exacerbating the difficulties faced by taxpayers and tax administrators alike. Consequently, the local government's ability to fund critical development projects has been constrained.

As local governments struggle with these administrative challenges, digitalization has emerged as a transformative tool with the potential to modernize local tax policy, particularly in the realm of PBB administration. Digitalization, broadly defined as the adoption of digital technologies to improve the efficiency and transparency of public services, offers numerous advantages in addressing the weaknesses of the traditional system. The integration of digital platforms into tax administration can significantly reduce administrative burdens by automating many of the tasks that were previously performed manually, such as data entry, tax assessment, and payment processing (Alm & Duncan, 2014). Moreover, digital systems can provide real-time access to tax records, allowing both government officials and taxpayers to monitor the status of assessments, payments, and any outstanding liabilities, thus increasing transparency and accountability in the system (Rodriguez Bolivar et al., 2018).

The ongoing digital transformation in public administration, particularly in tax policy, has garnered significant attention globally as governments seek to enhance efficiency and transparency. Many jurisdictions have adopted digital solutions to streamline tax collection processes, improve taxpayer engagement, and bolster compliance rates. For Palembang,

learning from these international experiences can provide valuable guidance as it seeks to implement its Land and Building Tax (PBB) stimulus policy.

A prominent example of successful digital tax transformation is found in countries like Estonia, which has pioneered the use of e-government services. According to a study by [Lember et al. \(2020\)](#), Estonia's digital tax system enables seamless communication between taxpayers and authorities, leading to a significant reduction in administrative burdens and increased compliance. The authors note, "The efficiency gains from digital transformation in tax administration can serve as a model for other countries aiming to enhance public services" ([Lember et al., 2020](#)).

Moreover, the integration of data analytics into tax administration has been shown to improve decision-making and policy effectiveness. Research by [Pärna and Lember \(2019\)](#) emphasizes that data-driven insights can help authorities better understand taxpayer behaviour, allowing for the development of tailored tax policies that meet the specific needs of the population. They argue that "Utilizing data analytics not only enhances compliance but also fosters trust between taxpayers and government entities" ([Pärna & Lember, 2019](#)).

Furthermore, fostering collaboration between the public and private sectors has proven essential in successful digital initiatives. For instance, the partnership between the government and technology firms in the United Kingdom has led to the development of innovative tax compliance solutions that enhance user experience. As highlighted by [Tufekci \(2021\)](#), "Collaborative approaches in tax administration can lead to the creation of more effective digital tools that simplify processes for taxpayers" ([Tufekci, 2021](#)).

Like shown above, the potential benefits of digitalizing PBB administration are vast. Firstly, digital platforms facilitate faster and more accurate tax assessments by integrating geographical information systems (GIS) and real estate databases, which provide up-to-date information on property values and ownership changes. This reduces the likelihood of errors in tax calculations and ensures that property owners are taxed based on current market conditions ([Misra et al., 2020](#)). Secondly, digital payment systems, which allow taxpayers to settle their obligations online, eliminate the need for in-person visits to government offices, reducing both the administrative load on local authorities and the time burden on citizens ([Budiharseno, 2019](#)). These systems can also send automatic reminders to taxpayers, helping to reduce late payments and improve overall compliance rates ([Venkatesh et al., 2016](#)). Lastly, digital records provide a clear and auditable trail of transactions, which strengthens the accountability of local tax administrations and reduces opportunities for corruption ([Lallana, 2019](#)).

The integration of digital technologies into public administration, particularly in the realm of tax collection, has been shown to improve transparency, reduce administrative costs, and increase compliance rates by making it easier for taxpayers to meet their obligations ([Vial, 2019](#); [Mergel et al., 2019](#)). For local taxes like PBB, digital transformation offers an opportunity to streamline processes, enhance taxpayer engagement, and ultimately, boost local revenue generation. However, despite its potential, the pace of digital transformation in tax administration across many regions in Indonesia, including Palembang, has been slow ([Erlindawati & Novianti, 2020](#); [Saputri & Khoiriawati, 2021](#)). This lag in adopting technological innovations poses a significant barrier to improving the efficiency

of tax collection and maximizing the contribution of PBB to regional financial capacity.

This research positions itself at the intersection of public policy, digital governance, and fiscal administration, seeking to contribute to the growing body of literature on e-government and local tax reform. While previous studies have highlighted the general benefits of digitalization in tax administration, this study takes a more focused approach by examining the specific case of PBB in Indonesia, a country that has made significant strides in its e-government initiatives but still faces considerable challenges in fully realizing the potential of digital tax systems, especially at the local government level like Palembang. By exploring the experiences of local governments that have implemented digital PBB systems, this research aims to identify and analyze the impact of digitalizing the Land and Building Tax Stimulus Policy on the primary issue, namely public compliance and the overall potential, and offer recommendations for policymakers seeking to modernize their tax administrations in other developing contexts.

In conclusion, the modernization of local tax policy through digitalization is not merely a technical upgrade but a transformative process that has the potential to reshape the relationship between citizens and local governments. By improving the efficiency, transparency, and accessibility of tax administration, digital systems can help build public trust, increase compliance, and enhance the capacity of local governments to finance their development agendas. However, these benefits will only be realized if the challenges of digital transformation are addressed through careful planning, investment in infrastructure, and a commitment to ensuring that digital systems are inclusive and secure. As local governments around the world continue to explore the potential of digitalization, this study aims to provide valuable insights into the successes and setbacks of these efforts, with the ultimate goal of informing future policy decisions in the field of local tax administration.

METHOD

This study employs a qualitative approach, specifically using case study methodology as outlined by [Yin \(2009\)](#). The objective is to thoroughly explore and comprehend real-world cases and their contexts, focusing on the in-depth examination of the phenomenon. By engaging multiple data sources, the research aims to present a comprehensive understanding of the digitalization of policy and its impact on public compliance in Palembang City ([Creswell, 2017](#)). The qualitative process involves key steps such as formulating questions and procedures, gathering targeted data from participants, inductively analyzing themes, and interpreting the data to derive insights, whether in the form of theoretical concepts, policy regulations, or the role of key policy actors. This process will inform the necessary data, types, forms, and techniques for data collection. Data was gathered through in-depth interviews with a variety of informants, including public officials, experts, and members of the general public, with a particular focus on public policy, e-government, and local tax reform in Palembang. The following key informants were interviewed:

1. M. Raimon Lauri AR, S.STP., M.Si. (Head of Palembang City's Regional Revenue Agency)
2. H. Edison, S.Sos., M.Si. (Head of the Palembang City Communications and Informatics Service)
3. Dr. H. Andi Wijaya, S.T., M.M., M.A.P (Policy Expert)

4. Sumarjono (Chairman of APINDO, South Sumatra)
5. Siti Aisyah (Local Entrepreneur)
6. Budi Hartono (General Public, Palembang)
7. Randy Septriasah (General Public, Palembang)
8. Rika Agustina (General Public, Palembang)
9. Aminah Mustika Sari (General Public, Palembang)
10. Mulyono (General Public, Palembang)

According to Maxwell (2013), qualitative research primarily generates data in the form of words and narratives rather than numbers, centering on individual perspectives and capturing the complexities involved in the digitalization of public policy on land and building tax (PBB) and its effect on public compliance. Through this approach, the study seeks to uncover and analyze the challenges related to policy digitalization, guided by the realities encountered in the field (Bickman & Rog, 2008).

RESULTS AND DISCUSSION

Taxes are a source of state revenue which is very important for the implementation and improvement of national development, which is the implementation of the principles of Pancasila which aims to increase the prosperity and welfare of society. In this way, the taxation system continues to be perfected, tax collection is intensified, and the Taxation/Managing Apparatus must also become more capable and clean so that they can play a big role in national development.

Original Regional Income (hereinafter referred to as PAD) originates from regional taxes, regional levies, results from the management of separated regional assets, and other legitimate PAD. Land and Building Tax (hereinafter referred to as PBB) is a part of regional taxes which has quite an important role in supporting PAD. PAD has an important role in financing development in the region. Based on the potential of each region, this increase in PAD revenue will be able to increase regional financial capacity. As the regional economy develops and becomes increasingly integrated with the national and international economy, the regional ability to optimize the use of PAD revenue sources becomes very important.

The authority to manage regional taxes is the authority of City and/or Regency Regional Governments based on Law Number 32 of 2004 concerning Regional Government as revoked by Law Number 23 of 2014 concerning Regional Government which has now been amended by Law Number 9 of 2014. 2015 on the Second Amendment to the Law Number 23 of 2014 concerning Regional Government. Even though regions are given the authority to increase PAD, regions are prohibited from enacting regional regulations on income that cause high cost economies, and income that hinders population mobility, inter-regional traffic of goods and services, and import/export activities. It is known that the main sources of PAD in Palembang City are Restaurant Tax, Entertainment Tax and Hotel Tax. However, PBB is also a potential that must continue to be explored in increasing regional revenues because the object of this tax is land and buildings which clearly the majority of people own. Apart from being able to provide additional PAD for the City of Palembang, PBB enforcement is still not optimal, which results in potential loss of PBB revenue.

PBB is one of the tax sectors that can encourage regional development. From a sociological perspective, there are two views of society towards PBB, namely positive and negative for society. A positive view is felt by people who accept and know that PBB is beneficial for society and is not burdensome at all.

However, for people who feel that PBB is burdensome, it becomes something negative because people feel that the PBB they pay is not used for the benefit of the community. For people who already have this negative opinion, they are vulnerable to refusing to pay. Especially with the current increase in PBB, many people who have a negative view attribute this increase to being one of the Government's instant ways to increase local revenue. As with the results of research conducted by Yoganendi (2020) entitled Reformulation of Rural and Urban Land and Building Tax (PBB-P2) as an Effort to Increase Original Regional Income in Ngawi Regency. The results of his research revealed that:

First, Ngawi Regency Regional Regulation Number 1 of 2012 concerning Rural and Urban Land and Building Tax (PBB-P2) has not been able to optimally stimulate Original Regional Income in Ngawi Regency because the PBB rate in Ngawi Regency is too small, bargaining occurs in determining the value Selling Tax Objects between Taxpayers due to legal ambiguity because there are no strict rules in determining NJOP so that it has the potential to lead to haggling, as well as the Taxpayer's lack of legal awareness. Second, Reformulation of Ngawi Regency Regional Regulations No. 1 of 2012 concerning Rural and Urban Land and Building Tax (PBB-P2) The ideal way to increase local revenue (PAD) in Ngawi Regency is to amend Article 7 of Ngawi Regency Regional Regulation No. 1 of 2012 concerning Rural Land and Building Tax and Urban areas with the imposition of progressive tax rates on the Rural and Urban Land and Building Tax system in Ngawi Regency. To avoid bargaining between Taxpayers and Tax Officers, it is necessary to make a Decree on the Classification of the Fair Market Value of Tax Objects which is always update either per semester or annually, provides a way for the Regional Government or in this case the Regional Financial Agency to be able to correct buying and selling transactions so that the NJOP updated, and providing strict sanctions for violations of PBB-P2 (digilib.uns.ac.id).

Similar research results were also revealed by Dewanti, Andini Tri et al (2021) with the title Analysis of the Implementation of Land and Building Tax Relaxation the following:

"The implementation of PBB-P2 relaxation in Bandung City is an implementation of Bandung Mayor Regulation No. 65 of 2020 concerning the Second Amendment to Bandung Mayor's Regulation Number 22 of 2020 concerning Providing Regional Tax Incentives in the Context of Handling Economic Impacts Coronavirus Disease 2019" which was analyzed based on George Edward III's theory which includes 4 factors, namely (1) communication, (2) resources, (3) disposition and (4) bureaucratic structure. Based on these four factors, the Bandung City Bapenda is still not optimal, more precisely in the aspects of communication and resources, especially human resources." (Source: Indonesian Accounting Journal Vo 1 N0.3 2021)

In 2019, the City of Palembang made adjustments to the Sales Value of Tax Objects (hereinafter referred to as NJOP) to attract PBB. In accordance with the mandate of Law Number 28 of 2009 concerning Regional Taxes and Regional Levies and Palembang City Regional Regulation Number 2 of 2018 concerning Regional Taxes, basically the NJOP is determined once every three years. The City of Palembang itself last set NJOP in 2015. Therefore, in 2019 the Palembang City Government attempted to make adjustments to the NJOP in the hope of increasing local revenue originating from PBB.

In 2019, the Palembang City Government set a revenue target through PAD from 11 types of taxes with a total of IDR. 1,314,232,400,000,-. One type of regional tax in question is PBB which has a target of Rp. 275,600,000,000,- or 20.97% of the total PAD of Palembang City. In order to achieve the 2019 PBB target, the Palembang City Government has adjusted the NJOP/m² with a ratio of ±80% close to the fair market price.

One of the reasons for this adjustment is also part of the Government's plan to improve community welfare. The government tries to encourage development through taxes, one of which comes from the United Nations. Even though in reality the public is still not ready for the NJOP adjustment which causes an increase in PBB. This increase in PBB is also based on the Joint Commitment between the Corruption Eradication Commission and Regional Governments throughout South Sumatra Province to increase PAD from the tax sector, one of which comes from PBB. Therefore, currently the City Government is increasing PAD through the regional tax sector, especially PBB in Palembang City. However, there are pros and cons to the increase in the PBB so that this time the PBB is facing obstacles, this is thought to be due to a lack of outreach to the public and understanding of the public who do not know the basic calculations in determining the PBB.

The Palembang City Government has issued Palembang Mayor Regulation Number 17 of 2019 concerning Determination of the Sales Value of Urban Tax Objects, which in this regulation regulates the amount of NJOP. Furthermore, Palembang Mayor Regulation Number 18 of 2019 concerning PBB Tariff Classification, stipulates that for NJOP under 1 billion, a tariff of 0.125% is imposed, while for NJOP above 1 billion, a tariff of 0.3% is imposed. The public said they were surprised by this increase. Before enacting the Mayor's Regulation, through the Palembang City Regional Tax Management Agency, the NJOP for each zone has first been calculated, where this calculation is based on the average price obtained from normal buying and selling transactions carried out by taking into account price comparisons and other objects. similar and acquisition value or replacement object.

The Palembang City Government has also provided PBB exemption to 263,079 taxpayers with a value of IDR 31,779,214,973,-. Meanwhile, the remaining 166,536 taxpayers with a value of around Rp. 464,648,584,911,- have the obligation to make PBB payments. However, the public currently still objects to the increase in PBB, which on average is above 100%. In fact, some people who previously paid PBB only Rp. 750,000,- became around Rp. 4,500,000,- this was due to the impact of the increase in NJOP and the tariff classification applied.

Based on an excerpt from an article entitled "NJOP Adjustment Triggers Increase in PBB for Palembang City" noted that:

"NJOP adjustments trigger an increase in PBB for Palembang City. The Palembang City Government increases the market price of land as stated in the selling value of the tax object or NJOP, resulting in an increase in the amount of land and building tax or PBB that must be paid by the community.. This policy has drawn protests from some of the city's residents because they believe the increase in PBB has been very drastic, some tens of times higher. Head of the PBB Sub-Directorate for the Regional Tax Management Agency (BPPD) of Palembang City, Apriadi, said that his party had to adjust the NJOP which was last carried out in 2008 to get closer to the fair market price... The highest NJOP adjustments for land were in economic and trade areas and

special tax objects. Socialization regarding the increase in PBB was only limited to the village head, sub-district head and local PBB coordinator. Residents admitted they were annoyed with the increase in PBB, last year before experiencing the increase they only paid PB worth IDR 128,000 but now it is IDR 369,000... As for Requirements for submitting deficiencies and objections include: the community can submit a reduction letter or objection letter."

To resolve citizen complaints and anticipate tax avoidance As a result of this increase in PBB provisions, the Mayor of Palembang has made a policy by providing a stimulus for taxes owed by PBB in 2019 through the Mayor of Palembang Regulation Number 18 of 2019 concerning Classification, Tariff Amounts and Minimum Stipulations for Urban Land and Building Taxes as well as Exemption from Payment of Land and Building Taxes. Urban Buildings for Tax Objects with Land and Building Tax Assessments up to IDR 300,000 (Three Hundred Thousand Rupiah), which regulates tax assessments in DHKP Books I and II. Meanwhile, tax assessments in DHKP Books III, IV and V have not yet received the tax stimulus owed.

The community also held demonstrations to encourage the Regional Government to evaluate the policy of increasing PBB rates. As a result, people tend not to want to pay PBB, if people do not pay it will result in quite large PBB arrears and of course it will be detrimental to the region because of reduced PAD from the tax sector, especially PBB. This condition caused turmoil in society, and received special attention from the Ombudsman and the Palembang City DPRD. The Ombudsman of the Republic of Indonesia Representative of South Sumatra on July 4 2019 submitted a report on the results of the inspection and gave the Mayor of Palembang 30 working days to resolve this PBB problem. The Palembang City DPRD also issued a letter regarding the Review of the 2019 PBB Increase addressed to the Mayor of Palembang to immediately resolve problems related to PBB with the hope that the Mayor of Palembang can issue a policy regarding the increase and pay attention to the condition of the community, both in terms of ability to pay and psychological condition. public.

So the Palembang City Government has issued additional policies, providing stimulus for tax assessments in DHKP Books III, IV and V through Palembang Mayor Regulation Number 51 of 2019 concerning Providing 2019 Urban Land and Building Tax Stimulus in the City of Palembang. This stimulus is an automatic reduction in the size of the increase in tax owed which was determined in 2019 compared to the tax owed in 2018 as an incentive for taxpayers to pay PBB. Judging from the achievement of the realization of PBB payments in 2019 amounting to IDR 232,739,747,929 from the provision of IDR 258,099,520,107, of course this is quite a large achievement, even though the calculation is not 100%, but when compared with the 2018 achievement of IDR 162,239,621,426 from provision of Rp. 186,545,292,020, of course this is quite a successful achievement considering the significant increase in NJOP and quite high payments from taxpayers.

The determination of tax payable by PBB must be in accordance with the taxpayer's ability and income. Apart from that, the Palembang City Government must pay attention to aspects of justice towards taxpayers. Determining the stimulus of course needs to really pay attention to economic conditions and the taxpayer's carrying capacity and most importantly pay attention to which taxpayers experience a very significant increase in NJOP. The Palembang City Government has taken the

initiative to provide a 100% stimulus for taxpayers in the DHKP Book I and II groups. Furthermore, the Palembang City Government has also provided stimulus with the right percentage to taxpayers in DHKP Book groups III, IV, V and VI.

The digital transformation undertaken by the Palembang City Regional Revenue Agency aims to integrate digital technology into the regional tax service system. This transformation significantly alters how the agency delivers value to taxpayers. Concurrently, the policy regarding Land and Building Tax (PBB) stimulus in Palembang, issued by the city's mayor, serves as a strategic response to anticipated increases in the NJOP (Assessed Property Value). It provides taxpayers with an automatic reduction in tax increases for the current year compared to the previous year, serving as an incentive for timely payment of PBB-Urban.

To ensure the effective execution of these initiatives, it is crucial to have sufficient infrastructure and resources, including office buildings, work tools, transportation means, online access, and other necessary equipment. Adequate facilities are essential not only for streamlining the tax management processes but also for ensuring the delivery of high-quality services to the public. In this context, the provision of computer systems for the digital transformation supporting the PBB stimulus policy has been considered sufficient.

Key stakeholders involved in the implementation of the digital transformation for the PBB stimulus policy include the Palembang City Regional Revenue Agency as the primary executing body, supported by the application development vendor, PT. Eternal Star Pearl. The intended beneficiaries of the policy are the local taxpayers. The organizations responsible for this transformation are required to have a comprehensive understanding of the relevant regulations, digital technology, communication skills, and a commitment to excellent public service. Additionally, the technical capability to operate the digital systems introduced for the PBB stimulus policy is deemed adequate among the implementing teams.

The following is the Tax Payment Flow with a Virtual Account via the V-Tax Tax Application

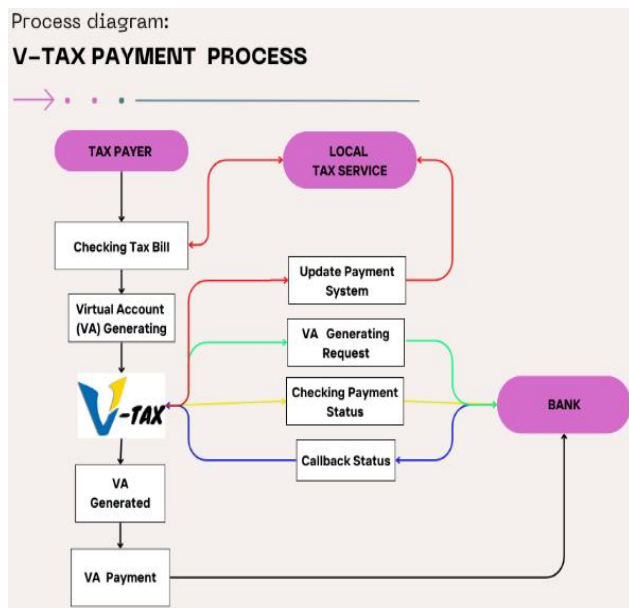


Figure 1. Tax Payment Process with V-TAX

Preparation Software (Office) and related applications for tax land and buildings in the city of Palembang are sufficient, namely,

virtual accounts via the V-Tax Tax Application, but they need further development. The V-Tax Tax Application is an independent Taxpayer service that includes verification, mutation services, new tax object services and bill checking. This application also allows taxpayers to view the history and information related to the services being submitted to Local Area Networks Providing Internet Networks in Digital Transformation. The Policy for Providing Land and Building Tax Stimulus in the City of Palembang is sufficient through collaboration with Internet Network Provider Vendors at the Regional Revenue Agency of Palembang City as well as UPTs within the District and Service Application Developer Vendors for network maintenance and tax payments so that they can be accessed properly



Figure 2. Website related to Land and Building Tax in Palembang City



Figure 3. Utilization of social media to convey information related to the UN in Palembang City

The preparation website in the Digital Transformation Policy for Providing Land and Building Tax Stimulus in the City of Palembang is accommodated in the website Palembang City Regional Revenue Agency which is managed independently by staff and can be accessed well via the link <https://pbb.palembang.go.id> and can be accessed well, apart from that, information related to PBB payments can also be found

from social media in the form of Instagram Bapenda City of Palembang*

The digital technologies involved in the transformation of the Land and Building Tax (PBB) stimulus policy in Palembang are largely sufficient, particularly with regard to the provision of computer equipment and the technical competence of staff in operating these systems. This is also supported by M. Raimon Lauri AR, S.STP., M.Si. (The Head of the Palembang City Regional Revenue Agency), that state:

"In an effort to improve the digitalization of the policy for the people, we have prepared adequate computerization facilities and infrastructure. Although there is still some obstacles, especially in terms of the adaptation of our staff, in the future we believe that this change will have a positive impact on our PAD"

The software and applications related to PBB management in Palembang are also adequate but could benefit from further development. Internet connectivity, crucial for this digital transformation, is well-supported through partnerships with internet service providers, ensuring smooth operation at the Regional Revenue Agency and its sub-offices, as well as with application developers responsible for maintaining networks and facilitating tax payments. The Palembang City Regional Revenue Agency's website, independently managed by the agency's staff, serves as the main platform for accessing these services and is functioning effectively.

However, a significant challenge in the digital technology dimension of this transformation is the lack of a fully integrated mobile or web-based service that connects directly to the regional tax system. As a result, taxpayers are still required to visit the Regional Revenue Agency in person to complete paperwork, which must then be manually entered and verified within the system. To address this, efforts are being made to improve service quality, including the development of a mobile and web-based self-service application, in collaboration with PT. Mutiara Bintang Abadi, which will allow taxpayers to interact with the system digitally. These improvements also include ensuring adequate human resources and infrastructure to support the system.

As noted earlier, the government, as the responsible authority, is obligated to resolve these issues. The Palembang City Government has already implemented several measures for improvement, which include:

1. **Modernize:** The policy has been modernized to make tax payments more convenient by expanding payment channels beyond Bank Sumsel Babel to include Bank Jabar Banten, post offices, and retail outlets like Alfamart, Indomaret, as well as online platforms like Tokopedia, OnPays, and Masago. Taxpayers can now also access billing information and check PBB payment status via the website, and independently print their PBB SPPT.
2. **Improve Internal Efficiency:** Internal efficiency has been improved by optimizing partnerships for network maintenance and payment processing with the application developer, PT. Mutiara Bintang Abadi. This effort is aimed at continuously enhancing the regional tax service application to keep pace with technological advancements and meet taxpayer needs.
3. **Increase access to information:** Efforts to expand access to information have been strengthened through outreach initiatives targeting taxpayers via online and print media, as well as through local district offices. Additionally, taxpayers

now have easier access to check billing information and PBB payment status through the website, backed by a more robust information system network.

4. **Preserve Public Records:** To improve the quality of service, the Palembang City Government is focusing on strengthening its human resources by enhancing their digital competencies and professionalism in serving taxpayers. The government is also committed to developing service applications that facilitate easy access for taxpayers, reinforcing regulations through the Palembang Mayor's Regulation No. 5 of 2020 (which amends Regulation No. 49 of 2019 concerning technical guidelines for urban PBB collection), establishing clear service protocols, and enforcing strict penalties for violations by both service officers and taxpayers.
5. **Build Digital Foundations:** The effort to establish a digital foundation for the Land and Building Tax (PBB) stimulus policy in Palembang is being carried out through the development of the PBB Vtax Online Service Application. This application, created by PT. Mutiara Bintang Abadi, a vendor specializing in application development, serves as a platform to facilitate the transition of PBB management from the central government to regional authorities.

The government faces pressure in the digital transformation of the Land and Building Tax (PBB) Stimulus Policy in Palembang. This is addressed by modernizing the policy, introducing innovations that simplify tax payments through additional payment channels such as Bank Jabar Banten, the Post Office, Alfamart, Indomaret, Tokopedia, Onpays, and Masago, in addition to the existing Bank Sumsel Babel. The policy also improves access to information, allowing taxpayers to check billing details and PBB payment statuses via the website, as well as enabling them to independently print their PBB SPPT.

To enhance internal efficiency, the policy promotes optimizing cooperation for network maintenance and payment processes with the application developer vendor, PT. Mutiara Bintang Abadi. This collaboration focuses on further developing the regional tax service applications in line with technological advancements and taxpayer needs.

Efforts to improve information access continue through outreach to taxpayers via online and print media, as well as through districts and villages. The policy enhances system infrastructure, providing easy access to billing information and PBB payment statuses via the website while strengthening the information system network. This is supported by Siti Aisyah (Local Entrepreneur), that stated:

"With the existence of online services, it's really helped us in a way that all the process to be easier and faster than before, Although sometimes there is still some problem on the website, we consider this very reasonable and continue to appreciate the government effort to continue to develop a more advance and modern services for the people"

Improving service quality is also a priority. This is achieved by developing a more professional workforce skilled in using digital technology to deliver services, enhancing the service applications to better meet taxpayer needs, and reinforcing regulations and standard operating procedures (SOPs) for regional tax services. Additionally, strict sanctions are enforced for violations by service officers and taxpayers.

The effort to establish a digital foundation for the policy involves the PBB Tax Online Service Application developed by PT. Mutiara Bintang Abadi. This application supports the

management of land and building taxes as responsibilities are transferred from the central government to the regional level. It also facilitates the preparation of both spatial and tabular data for tax objects.

One of the challenges in this transformation is the gap in determining the appropriate NJOP (Assessed Property Value) for the PBB, and the existence of outdated data on tax objects. To address these issues, efforts are focused on updating PBB tax object data, either through submissions from taxpayers or active field verification, and improving spatial data through tax object mapping, as well as enhancing tabular data based on field updates.

In terms of Digital Institutionalization as a whole, the government taken a few resolute steps which consist:

1. Paperwork Reduction: The application of the service simplicity of the Policy for Providing Land and Building Tax Stimulus in the City of Palembang is carried out automatically in the service system without the need to submit it first, making it easier for Taxpayers to directly pay PBB on the designated payment channel with the calculation of the stimulus provided in the PBB SPPT which is submitted to the Taxpayer.
2. Freedom of Information: Freedom of information in the Policy for Providing Land and Building Tax Stimulus in the City of Palembang is carried out through the Tax Application Online, which makes it easier for Taxpayers to access Payment Data Information.
3. Universal access/broadband: Universal access in the Policy for Providing Land and Building Tax Stimulus in the City of Palembang has been carried out by providing digital services that are easily accessible to Taxpayers to obtain local tax services.
4. National Cyber Infrastructure: Efforts to build national cyberinfrastructure in the Policy for Providing Land and Building Tax Stimulus in Palembang City are carried out in collaboration with the Palembang City Communication and Information Service, leading sector digitalization of government to improve regional tax services to taxpayers by adapting to technological advances.

Table 1. PBB Revenue Realization in 2022

No	Description	Target (Rp)	Realization	%
1	Land and Building Tax (PBB)	264.000.000.000	67.583.392.932	25,60
2	Land and Building Rights Acquisition Fee (BPHTB)	245.000.000.000	78.503.573.952	32,04

Source: 2022 Bapenda Coordination Meeting Report

Efforts to establish a corruption-free zone within the Land and Building Tax (PBB) Stimulus Policy in Palembang must begin with a strong commitment from both leadership and staff to perform their duties in accordance with existing laws and regulations.

The digital institutionalization of this policy, as part of its digital transformation, has been implemented through the automatic processing of services. Taxpayers no longer need to submit requests for the stimulus, as the system automatically calculates and applies it, simplifying PBB payments through designated payment channels. The stimulus amount is reflected in the PBB SPPT provided to taxpayers.

To promote transparency, the PBB Tax Online application has been developed, allowing taxpayers easy access to payment data. Efforts to ensure universal access to the tax stimulus policy include offering digital services that are readily accessible, enabling taxpayers to conveniently obtain local tax services. Additionally, national cyberinfrastructure for the policy is being strengthened through collaboration with the Palembang City Communication and Informatics Service, which leads the government's digitalization efforts to enhance regional tax services.

However, challenges remain in the digital institutionalization of this policy. The assessment of PBB NJOP by the Palembang City Revenue Agency is not always accurate, and the tax object data has not been updated to reflect current conditions. To address these issues, ongoing and periodic updates of PBB tax object data are being coordinated with UPT, districts, and villages to ensure accuracy.

Supporting factors for Digital Transformation of the Policy for Providing Land and Building Tax Stimulus in the City of Palembang, including:

1. The demand for financing regional expenditure continues to increase, so it must be balanced with adequate regional original income receipts
2. There is an adjustment to the 2019 Palembang City Urban PBB NJOP, whose value is quite close to market prices
3. Service Application Developer Vendor Support PT. Eternal Star Pearl.
4. Commitment from the leadership and staff, as well as support from relevant stakeholders, to anticipate problems that occur in the field
5. Availability of Human Resources, Facilities, and Infrastructure for Regional Tax Services.

Inhibiting factors digital Transformation of the Policy for Providing Land and Building Tax Stimulus in the City of Palembang, including:

1. Taxpayers are still resistant to the increase in BB payments as a result of the PBB NJOP adjustment.
2. There is still a lack of efforts to monitor and audit regional taxes, especially in calculating, paying and reporting regional taxes correctly.
3. There is a lack of socialization and information about paying regional taxes, so there are still many people who do not understand the rules, requirements and ease of paying regional taxes.
4. The Corona Virus Disease 19 (Covid-19) pandemic is an extraordinary non-natural disaster in the global order.

In the context of digital technologies, the theoretical foundation and conceptual framework outline that the initial focus of the discussion revolves around the implementation of digital technologies in the Digital Transformation of the Land and Building Tax (PBB) Stimulus Policy in Palembang. This analysis is conducted using five key indicators: 1) Mainframe Computers, 2) Personal Computers, 3) Office Software, 4) Local Area Networks, and 5) the World Wide Web.

From the data analysis, it is evident that the digital technologies utilized in the transformation of the PBB Stimulus Policy, particularly in relation to the provision of computer equipment and the ability of staff to operate these systems, are generally adequate. While office software and applications related to PBB in Palembang are sufficient, further development

is required. The internet network provision, as part of the digital transformation efforts, is adequately supported through collaboration with internet service providers working with the Palembang Regional Revenue Agency and the district-level UPTs, as well as vendors responsible for application development and network maintenance, ensuring proper access to tax payment systems. The Palembang Regional Revenue Agency's website, which supports these services, is managed independently by staff and provides reliable access.

One challenge in the digital technology aspect of the transformation is the absence of a fully integrated mobile or web-based service for taxpayers within the regional tax system. This forces taxpayers to visit the Palembang Regional Revenue Agency in person to manually submit documents, which are then entered and verified in the system. To address this, efforts are being made to enhance the quality of regional tax services through the development of mobile and web-based applications. In collaboration with the application developer vendor PT. Eternal Star Pearls, these services aim to provide a more seamless, digital experience for taxpayers, fully integrated with the regional tax system, supported by adequate human resources and infrastructure.

The digitalization of Land and Building Tax (*Pajak Bumi dan Bangunan*, PBB) administration represents a significant milestone in modernizing local tax policies, particularly in the context of Palembang. As local governments across Indonesia adopt digital systems to enhance administrative efficiency and increase tax revenue, Palembang serves as a case study showcasing both the opportunities and challenges inherent in this transition. The results of the digitalization efforts, particularly the improvements in administrative efficiency, acceleration of payment processes, and minimization of data errors, offer valuable insights into the broader implications of these reforms.

1. *Administrative Efficiency and Governance Capacity*

The marked improvement in administrative efficiency following the digitalization of PBB in Palembang highlights the transformative potential of technology in local governance. By automating previously manual processes, digital systems have streamlined administrative functions, reduced the burden on local tax officials, and created more responsive governance structures. These findings align with broader research that emphasizes the role of digital transformation in enhancing public sector efficiency (Rahmawati, 2022). In the case of Palembang, the integration of electronic systems has reduced paperwork, minimized bottlenecks, and enabled faster data processing—critical improvements in a city where tax administration was historically hampered by manual inefficiencies.

Such improvements in efficiency are not unique to Palembang. Studies conducted in other regions also reflect similar gains, where the digitization of local tax systems led to a 30% reduction in processing times (Wijayanto & Rahayu, 2022). This underscores the capacity-building potential of digital reforms, enabling local governments to focus on more strategic aspects of governance rather than being bogged down by operational inefficiencies. However, it is important to recognize that these gains are contingent upon the readiness of the local infrastructure and workforce. In Palembang, the successful rollout of digital systems benefited from investments in technology and human resource training, a point echoed by research that highlights the critical role of capacity-building in digital governance reforms (Rahmat, 2022).

2. *Accelerating Payment Processes: Impacts on Compliance*

The acceleration of tax payment processes through digital platforms represents one of the most direct benefits of the PBB digitalization in Palembang. By providing taxpayers with a range of online payment options, including mobile banking and online transfer systems, the city has lowered the barriers to compliance. Taxpayers can now make payments without the need for physical visits to government offices, a shift that has contributed to increased on-time payments and improved overall compliance rates (Darmawan & Nugraha, 2021). This finding is consistent with broader studies that emphasize the convenience of digital platforms in enhancing taxpayer engagement (Pratama et al., 2022).

Importantly, the availability of digital payment options also reflects broader trends in e-government, where citizen-centric services are designed to be more accessible and user-friendly. The experience of Palembang aligns with global trends where digital tax systems have improved compliance rates by making payment systems more flexible and responsive to citizens' needs (Landsbergen & Wolken, 2001). Moreover, real-time confirmation of payments, as offered by Palembang's digital system, adds an element of transparency and trust, further incentivizing taxpayers to comply with their obligations. This aspect of trust-building is crucial, as research has shown that transparency in government transactions fosters higher levels of public compliance (Astuti & Wijaya, 2020).

However, while digital payment platforms offer clear advantages in terms of convenience and compliance, challenges remain, particularly in reaching underserved or digitally illiterate populations. The digital divide—where access to technology varies significantly across different socio-economic groups—presents an ongoing challenge for Palembang and other cities seeking to expand digital tax systems (Yusuf, 2021). Addressing this gap will require targeted outreach programs and continued investments in digital infrastructure to ensure equitable access to these services.

3. *Minimization of Data Errors: Enhancing Accuracy and Accountability*

The reduction of data errors through digitalization is another critical outcome of the PBB reforms in Palembang. Prior to the implementation of digital systems, manual tax assessments were prone to inaccuracies, resulting in frequent disputes between taxpayers and authorities. By automating data entry and cross-referencing property data with cadastral records, the digital system has minimized these errors, thereby improving the accuracy of tax assessments (Haryanto, 2020). This is a significant achievement, as accurate tax data is foundational to fair and equitable tax administration.

The experience of Palembang supports findings from other digital tax reform initiatives that have demonstrated the potential of digital tools to enhance data accuracy and reduce errors (Putri & Firdaus, 2021). Moreover, digital systems provide an audit trail of all transactions, which increases accountability and transparency in tax administration. For Palembang, this has resulted in fewer taxpayer complaints and a more efficient dispute resolution process, both of which are critical to maintaining public trust in the tax system (Wibisono, 2021).

However, while digitalization reduces the incidence of human error, it also introduces new challenges related to data security and system reliability. The integrity of the digital tax

system in Palembang depends on robust cybersecurity measures and continuous system maintenance to prevent potential breaches or technical failures. Therefore, while the digitalization of tax administration offers clear benefits in terms of accuracy, these gains must be safeguarded through ongoing investments in system security and resilience.

4. Broader Implications for Local Revenue and Governance

The broader implications of digitalizing PBB administration extend beyond efficiency gains and improved compliance. For Palembang, the increased accuracy and timeliness of tax payments have translated into higher local revenues, which in turn supports better fiscal planning and public service delivery. Studies in other regions have also reported similar outcomes, where digital tax reforms contributed to revenue growth by as much as 15% (Susanto et al., 2020). For local governments like Palembang, the stabilization of revenue streams through improved tax collection is crucial to sustaining long-term development initiatives.

Moreover, the success of digital PBB systems underscores the potential for broader e-government reforms. By modernizing tax administration, Palembang has laid the groundwork for further digital transformations in other areas of local governance. This aligns with research that suggests that successful digitalization in one sector often paves the way for the adoption of digital tools in other aspects of public administration (Rahmawati, 2022). For Palembang, the PBB system serves as a model for future initiatives aimed at leveraging technology to improve governance outcomes.

The digitalization of PBB administration in Palembang has had far-reaching positive effects on tax collection efficiency, taxpayer compliance, and overall governance capacity. The improvements in administrative efficiency, accelerated payment processes, and reduced data errors highlight the transformative potential of digital tools in modernizing local tax policy. While challenges remain, particularly in addressing the digital divide and ensuring system security, the benefits of digitalization are clear. These findings provide valuable insights for other regions in Indonesia and beyond that are seeking to modernize their local tax systems through digital innovation.

CONCLUSION

The digital transformation of Land and Building Tax (Pajak Bumi dan Bangunan, PBB) administration in Palembang signifies a monumental step towards modernizing local tax policies. This study highlights key findings that underscore the effectiveness of digitalization in enhancing the efficiency, accuracy, transparency, and overall revenue collection of local governments. The evidence illustrates that the integration of digital systems not only streamlines administrative processes but also minimizes errors and accelerates payment cycles, that can ultimately leading to higher compliance rates among taxpayers.

The marked increase in administrative efficiency and improved governance capacity through digitalization has revealed the transformative potential of technology in local administration. By automating routine processes, Palembang has effectively reduced the administrative burden on tax officials and streamlined governance functions. These advancements are essential in a context where traditional methods have often led to inefficiencies and inaccuracies. Notably, the successful deployment of digital systems in Palembang has shown that such

reforms can lead to significant improvements, as corroborated by similar studies in other regions.

However, the transition to digital systems is not without its challenges. Issues related to infrastructure readiness, staff capacity, and access disparities among citizens must be addressed to fully realize the long-term benefits of digitalization. Despite these obstacles, the potential for enhanced local revenue and improved public service delivery positions digital PBB administration as a cornerstone for sustainable development in Palembang.

In light of these findings, it is recommended that the Palembang city government take the following actions to expedite the adoption of digitalization in PBB administration:

1. Capacity Building for Staff: Implement comprehensive training programs for local government employees to enhance their digital literacy and operational proficiency in managing new systems. Continuous professional development is vital to equip staff with the necessary skills to adapt to evolving technological landscapes.
2. Public Awareness Campaigns: Launch outreach initiatives to educate the public about the benefits and functionalities of the digital tax system. Ensuring taxpayers are informed about available online payment options can further enhance compliance rates and encourage engagement with the system.
3. Addressing the Digital Divide: Develop targeted strategies to bridge the digital gap, particularly for digitally illiterate populations. This could include workshops, support centers, and partnerships with community organizations to foster inclusive access to digital services.
4. Robust Cybersecurity Measures: Invest in strong cybersecurity protocols to safeguard taxpayer data and maintain public trust in the digital system. Regular audits and system updates should be mandated to ensure data integrity and prevent breaches.

In conclusion, the findings from Palembang provide a valuable insight for other regions in Indonesia and beyond. The successful integration of digital tools in local tax administration not only enhances operational efficiency but also lays the groundwork for broader e-government reforms, thereby advancing the goal of more responsive and accountable governance.

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