



E-BUPOT UNIFICATION AS A ONE-STOP TAX APPLICATION: JUST-IN-TIME IMPLEMENTATION IN THE PUBLIC SECTOR

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Abstract

Digital transformation in tax administration is a strategic component of Indonesia's ongoing bureaucratic reform, particularly in pursuit of improvements in the Ease of Doing Business (EoDB) index published by the World Bank. One of the key innovations introduced by the Directorate General of Taxes (DGT) is the e-Bupot Unification application—a one-stop platform that streamlines the preparation of tax withholding documents, tax calculation, and monthly income tax return (SPT Masa PPh) reporting. This study aims to analyze the implementation of Just-in-Time (JIT) principles within the e-Bupot Unification system and examine its impact on operational efficiency and the quality of public tax services at KPP Pratama Sanggau. Employing a qualitative case study approach, data were collected through interviews and direct field observations. The findings indicate that the e-Bupot Unification application aligns with five out of the six core principles of JIT: pull system, waste elimination, smooth workflow, total quality management, and top management commitment. The implementation significantly reduces the consultation time for taxpayers, eliminates redundant processes, and replaces the previously fragmented e-SPT systems. Moreover, the application functions as a form of cellular manufacturing within the public service context, thereby enhancing business process efficiency and improving taxpayer satisfaction. This study confirms that JIT is not solely applicable to manufacturing sectors but is also improvable in optimizing digital public service delivery in tax administration.

Keywords: e-Bupot Unification, Just-in-Time, Tax reform.

INTRODUCTION

Ease of Doing Business (EoDB) is a global indicator developed by the World Bank to measure the ease of doing business in a country. Several indicators assessing EoDB implementation include starting a business, dealing with construction permits, obtaining electricity, registering property, obtaining credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency (Ikhwansyah et al., 2019; Kumar, 2020; Setianto and Raharja, 2019). Among these ten indicators, based on data obtained from the Doing Business 2020: Economy Profile Indonesia Report, there has been a significant increase in the paying taxes indicator.

Tax reform rests on five pillars: organization; human resources; information technology and databases; business processes; and laws and regulations (Hapsari and Hardiningsih, 2020; Lai and Cheng, 2009; Saputra, 2023). One of the aims of this tax reform is to improve the quality of service to taxpayers and reduce inefficiencies in business processes (Darma and Dompok, 2024; Kristiyaningsih, 2018; Mozin, 2025). One form of tax reform being implemented is the provision of e-Bupot Unification. This is a one-stop application that makes it easier for taxpayers to calculate income tax (PPh), create withholding or collection receipts, create billing statements, and prepare and submit Periodic PPh Tax Returns (SPT) through a single channel. This media can be used to fulfill the obligation to pay and report five types of income tax, namely Final Income Tax Article 4 paragraph (2), Income Tax Article 15, Income Tax Article 22, as well as Income Tax Article 23 and/or Income Tax Article 26. Before the use of e-Bupot Unification, taxpayers still fulfilled the obligation to report and submit SPT Masa PPh manually and/or using different application media.

Taxpayers use the e-SPT application according to the type of income tax they wish to report. In other words, taxpayers need to operate four different e-SPT applications to fulfill their tax obligations (PPh Article 23 and/or PPh Article 26 in one application), if the taxpayer is



required to withhold and/or collect five types of income tax. This indicates inefficiency in tax services and the potential waste of resources in managing these applications.

As previously described, one important sub-indicator in the EoDB is paying taxes, which refers to the ease of fulfilling tax obligations administratively and systematically. Over the past five years, Indonesia has shown significant improvement in this indicator. According to the Doing Business 2020 report, Indonesia's ranking in paying taxes increased from 112th in 2018 to 81st in 2019 and then again to 77th in 2020 (World Bank, 2020).

Figure 1. Indonesia's ranking on the Paying Taxes indicator (2017–2020)



Source: World Bank Doing Business Reports (2020)

This ranking improvement is influenced by the digitalization of tax services undertaken by the Directorate General of Taxes (DGT), such as the implementation of e-Filing, e-Billing, and most recently, e-Bupot Unification. This application was developed as a one-stop application that integrates the creation of withholding certificates, tax calculations, billing code generation, and reporting of Periodic Income Tax Returns (SPT Masa PPh) in a single platform directly connected to the DGT system.

However, macro progress in the EoDB indicator does not fully reflect micro efficiency at the implementer and taxpayer levels. Based on a preliminary study, as of the end of 2021, approximately 30% of corporate taxpayers were still using separate e-SPT applications for each tax type. This process results in data duplication, wasted time, and high administrative complexity, especially for taxpayers with multiple concurrent income tax obligations.

To address these challenges, the implementation of e-Bupot Unification is crucial. Interestingly, the approach used by this application aligns with the Just-in-Time (JIT) principles known in manufacturing operations management. Principles such as pull systems, waste elimination, streamlined workflows, and total quality management can be adapted to the context of digital public services (Aradhya & Kallurkar, 2014; Rahayu & Kusdianto, 2023).

The Sanggau Pratama Tax Service Office (KPP Pratama) served as the case study. The Sanggau Pratama Tax Service Office's administrative area covers three regencies: Sanggau, Landak, and Sekadau, with 43,054 registered taxpayers with active status as of December 31, 2022. With this number of taxpayers, the Sanggau Pratama Tax Office is faced with the reality of limited human resources to provide consultation services for fulfilling tax obligations in the form of payment and reporting of Income Tax withholding and/or collection Article 4 paragraph (2), Article 15, Article 22, Article 23, and Article 26. In addition, there are several separate applications in fulfilling these tax obligations. This creates inefficiency in the service function



for taxpayers and disrupts the fulfillment of the Ease of Doing Business indicator, namely paying taxes related to the time in which taxpayers fulfill their tax obligations.

This study aims to analyze the extent to which the implementation of e-Bupot Unification reflects JIT principles and how its implementation is linked to process efficiency, resource savings, and perceptions of public service quality at the Sanggau Pratama Tax Office (KPP Pratama). Using a qualitative case study approach, this study also aims to fill the gap in the literature regarding JIT adaptation in public services in the tax sector in Indonesia, while providing practical recommendations for optimizing the national digital tax system.

LITERATURE REVIEW

Just-in-Time (JIT) is a management concept that initially developed in the manufacturing industry but has now expanded to various fields, including the public service sector (Aradhya and Kallurkar, 2014) and information systems. JIT focuses on reducing non-value-added activities, implementing pull-based processing, and achieving maximum efficiency without sacrificing service quality.

According to Tjiptono and Diana (2001), JIT is a production philosophy that produces goods only when needed in the required quantities. JIT encourages purchasing and production based on demand to avoid waste. JIT is also a strategy that supports lean production, which is streamlined production that avoids wasting resources and time (Heizer and Render, 2004).

The following are six fundamental principles of JIT (Hussein and Zayed, 2020; Rosenhoover and Kuhn, 1996; Tachiki, 2010).

1. Pull system – Processes run only when there is demand. This avoids overproduction and ensures efficient workflow. With this system, production is driven by actual customer needs, not estimates.
2. Waste elimination – Non-value-adding activities must be identified and eliminated. The goal is to create a lean process oriented toward valuable end results.
3. Smooth workflow – A smooth workflow ensures uninterrupted systems, even with minimal inventory. This significantly minimizes bottlenecks or delays in the process.
4. Total Quality Management (TQM) – Emphasizes quality from start to finish. Every individual in the organization is responsible for the quality of their work.
5. Supplier relations – Good relationships with suppliers are essential to ensure timely availability of materials and information and meet standards. Long-term, mutually beneficial partnerships can enhance supply chain stability.
6. Top Management Commitment – Top management involvement is crucial for successful implementation. This support includes the provision of resources, strategic policies, and strong leadership.

Thus, the primary goal of JIT is to achieve high efficiency while maintaining quality. The first goal is waste reduction, specifically reducing process redundancy, duplicate data input, and administrative procedures. Second, improved efficiency, specifically faster process turnaround and minimal physical documents, reducing storage and distribution costs. Third, smoother workflow, specifically the use of centralized applications, such as e-Bupot, creates a consistent and bottleneck-free workflow. Fourth, lower operational costs, specifically system maintenance costs (reducing development and maintenance burdens) and saving time and reporting costs. Fifth, improved quality and accuracy, specifically automated validation-based systems that reduce input errors and contribute to increased compliance and user satisfaction.

METHOD

This research uses a qualitative case study approach, specifically a case study of services for fulfilling the obligation to pay and report withholding and/or collection income tax (PPh)



for collectors of Final Income Tax Article 4 paragraph (2), PPh Article 15, PPh Article 22, PPh Article 23, and PPh Article 26. The case study approach was adopted to obtain answers to questions related to how and why a phenomenon can occur in an organization. In this research, a problem was identified whose characteristics were examined and analyzed to find solutions to improve organizational performance. The problem-solving approach used in this phenomenon analysis uses the JIT system. This system is used to increase service productivity and reduce resource waste in public organizations.

This study touches on the tax service organization, namely the Directorate General of Taxes (DGT). Based on the description of the duties and functions of the DGT, in carrying out these duties, this organization consists of a head office unit and operational office units. The head office consists of the Directorate General Secretariat, Directorates, and review staff positions with managerial and strategic decision-making duties. The operational office units consist of the DGT Regional Offices (Kanwil DJP); Tax Service Offices (KPP); Tax Service, Counseling, and Consultation Offices (KP2KP); and the Tax Data and Document Processing Center (PPDDP). To limit the research, the researcher determined the locus of the case study at one of the operational office units of the Directorate General of Taxes which is directly related to taxpayers in the context of providing tax services related to fulfilling the obligation to pay and report Income Tax withholding and/or collection to the Final Income Tax Collector Article 4 paragraph (2), Income Tax Article 15, Income Tax Article 22, Income Tax Article 23 and/or Income Tax Article 26. This unit is the Sanggau Pratama Tax Office which is a vertical unit under the West Kalimantan Regional Office of the Directorate General of Taxes.

The Directorate General of Taxes (DGT) has created an application called e-Bupot Unification, which addresses limited human resources and simplifies services to reduce resource waste. This application applies to all tax services related to fulfilling the obligation to pay and report withholding and/or collection income tax to income tax collectors. The application of this tax application will be analyzed based on the JIT system and characteristics to promote efficiency in tax services.

In an effort to achieve the research objectives, the researcher took several steps, namely a literature review, data collection in 2023, analysis, and drawing conclusions. The literature review aimed to obtain an accurate conceptual overview of thinking and provide sufficient and correlated data to strengthen the discussion of the research results. Data collection used an interview method with the Service Section Official of the Sanggau Pratama Tax Office, whose duties and functions were coherent with the research object. The analysis focused on a mix of data and concepts to create a comprehensive thinking regarding the implementation of JIT in the public sector, especially regarding the provision of the Unification e-Bupot application as a one-stop application. To calculate service efficiency, the researcher used data on the consultation service time for the SPT Masa PPh reporting application so that the impact of time efficiency could be calculated without JIT and with JIT. The final step was drawing conclusions through the application of JIT characteristics in improving services to taxpayers by the Directorate General of Taxes in general and the Sanggau Pratama Tax Office in particular.

RESULTS AND DISCUSSION

General Analysis of the Tax Obligation Fulfillment Flow Through e-Bupot

Fulfillment of tax obligations through the Unified e-Bupot system is designed with simplicity and efficiency in mind. This application is part of tax reforms that support Ease of Doing Business (EoB), by introducing an integrated online system that enables the creation of withholding/collection receipts and the reporting of Periodic Income Tax Returns (SPT Masa PPh) through a single platform.



The system's workflow begins with taxpayer login to DJP Online, where e-Bupot Unification can only be accessed online with an electronic certificate. After feature activation, users are directed to manage their SPT signing and electronic withholding/collection receipts. The next step is to fill in the withholding tax receipt, which includes five submenus:

- Income Tax Paid by Yourself,
- Final Income Tax Articles 4(2), 15, 22, 23,
- Non-Resident Income Tax (Article 26),
- Import Income Tax Data,
- and Posting to the draft Tax Return.

This process systematically directs taxpayers through a standardized and logical flow, from transaction input to final reporting, namely the submission of the Unified Income Tax Return (SPT Masa PPh). All of these stages no longer require separate software installations as with e-SPT, and eliminate the need for manual interaction with tax officials, thus increasing efficiency. This is in line with the source's statement that: "*With e-Bupot Unification, all reporting is online... unlike before, even with e-SPT, taxpayers still had to report CSV files through DJP Online or manually via post... now everything is integrated.*" This statement shows that the e-Bupot Unification system is not just digitalization, but a fundamental change in the tax reporting business process.

Comparative Analysis of Tax Obligations Fulfillment Before and After e-Bupot

Before the implementation of the Unified e-Bupot, tax obligations were met partially based on tax type. Taxpayers with multiple types of Income Tax withholdings (e.g., Articles 23, 26, and 4(2)) were required to install and use separate e-SPT applications, each with different formats and characteristics. Reporting was done offline by uploading a CSV (comma-separated values, a plain text file format used to store data in tabular format) file to DJP Online or submitting it directly by post or using the integrated service center (TPT) service at the Tax Office (KPP).

In contrast, after the Unified e-Bupot, the entire process is carried out through a single web-based application, without the need for additional software installation. This system unifies the reporting of Income Tax Articles 4(2), 15, 22, 23, and 26 into one standard format and one Unified Periodic Income Tax Return (SPT). The fundamental differences lie in the following:

- Number of applications: Previously separate; now unified.
- Reporting method: Previously manual/semi-digital; now fully online.
- Time and cost efficiency: Reduced reporting time and administrative costs.
- Ease of monitoring and supervision by the Directorate General of Taxes.

This progress aligns with the speaker's explanation: "*It's a huge difference... now we only need one application, consultations are faster, and queues are reduced.*" This demonstrates that operational efficiency is felt not only by taxpayers but also by the DGT internally, particularly in human resource management and oversight.

From a user perspective, the Excel import feature with a dedicated template also allows for the processing of large amounts of transaction data, which previously had to be recorded individually. This feature also includes automatic validation to avoid input errors. In other words, this comparison illustrates not only changes in tools or systems, but also a shift in the tax reporting paradigm, making it more adaptable to digitalization and user needs. The following is an overview of the before and after e-Bupot.



Table 1. Overview of Tax Compliance Before and After e-Bupot

No	Aspect	Before e-Bupot Unification	After e-Bupot Unification
1	System and Application	Multiple separate applications for each type of Withholding Tax; manual installation required	One integrated web-based application; no installation needed
2	Reporting Process	Manual/semi-digital (CSV upload or submission to the Tax Office)	Fully online via the e-Bupot Unification system
3	Efficiency and Convenience	Slower process, long queues, data entry one by one	Faster, reduced queues, bulk data import with validation
4	Monitoring and Supervision	Limited and fragmented across tax types	Easier, centralized, and real-time monitoring
5	Reporting Paradigm	Administrative and fragmented	Digital, integrated, and user-responsive

Analysis of the Results and Implementation of Unified e-Bupot in Accordance with Just-in-Time Systems and Characteristics

The implementation of Unified e-Bupot clearly aligns with the JIT principles in modern management systems, particularly in the context of process efficiency, waste elimination, and on-demand processing. The details are as follows:

- 1) Reducing Lead Time and Eliminating Waste
 - a) With a fully digitized system, processes are no longer hampered by the need to wait for multi-level processing. Users simply need to enter the correct data, and the system automatically calculates, verifies, and generates output (withholding tax receipts, billing codes, and SPT). A source stated: *"Fill in the transaction data, then withholding tax receipts are immediately generated, and billing codes can automatically be generated for payment... A single SPT can accommodate multiple types of income tax."*
 - b) This reflects the JIT principle, which requires output to be produced only when absolutely necessary, with a streamlined and repeat-free process.
- 2) Process and Human Resource Optimization
 - a) The Unified e-Bupot aligns with the JIT concept as explained by Tjiptono and Diana (2001), which involves producing or processing only when needed to avoid waste. As a digital system, e-Bupot supports lean production principles (Heizer and Render, 2004) by eliminating redundant administrative processes and promoting efficiency through real-time services (García-Alcaraz, J.L. Maldonado-Macias, 2016).
 - b) JIT emphasizes the efficient use of resources. At the Sanggau Tax Office (KPP Pratama), the number of extension workers is limited, but with this system, the workload is lighter and can be handled more quickly. A source stated: *"If I were still using e-SPT, consultations would take a long time... now I only need one application, consultations are faster and queues are shorter."*
 - c) This demonstrates how the implementation of the Unified e-Bupot system reduces bottlenecks in tax services and increases the productivity of limited human resources.
- 3) Standardization and Quality Control
 - a) This system forces taxpayers to follow a standardized process, including data types, reporting formats, and automatic validation. This process indirectly improves data accuracy and consistency, which are important aspects of JIT-based system quality control. A source stated: *"The system will automatically generate tax rates... avoiding errors in calculating tax payable and determining tax rates."*



- b) This function reduces waste in the form of errors or repeated corrections, and speeds up the processing flow to final reporting.
- 4) Cost Efficiency and Technology Integration

One application replaces multiple applications, reducing the burden of system development and maintenance. A source stated: "*For the Directorate General of Taxes, e-Bupot Unification significantly reduces development and maintenance costs because only one application is managed.*" This demonstrates that the implementation of JIT not only benefits users but also optimizes the DGT's organizational system, making operations more agile and cost-effective.

Based on the comprehensive analysis above, it can be concluded that the Unified e-Bupot represents a concrete form of tax modernization that meets the principles of modern system efficiency while simultaneously adopting the characteristics of JIT (Just-In-Time Information). The tax reporting process, which was previously fragmented and inefficient, is now systematic, real-time, and user-oriented. Thus, the implementation of the Unified e-Bupot not only simplifies administrative procedures but also reflects the basic principles of efficiency- and responsiveness-based strategic management. This demonstrates how digital innovation in taxation can adopt the JIT concept not only in the manufacturing sector but also in public services and accounting information systems.

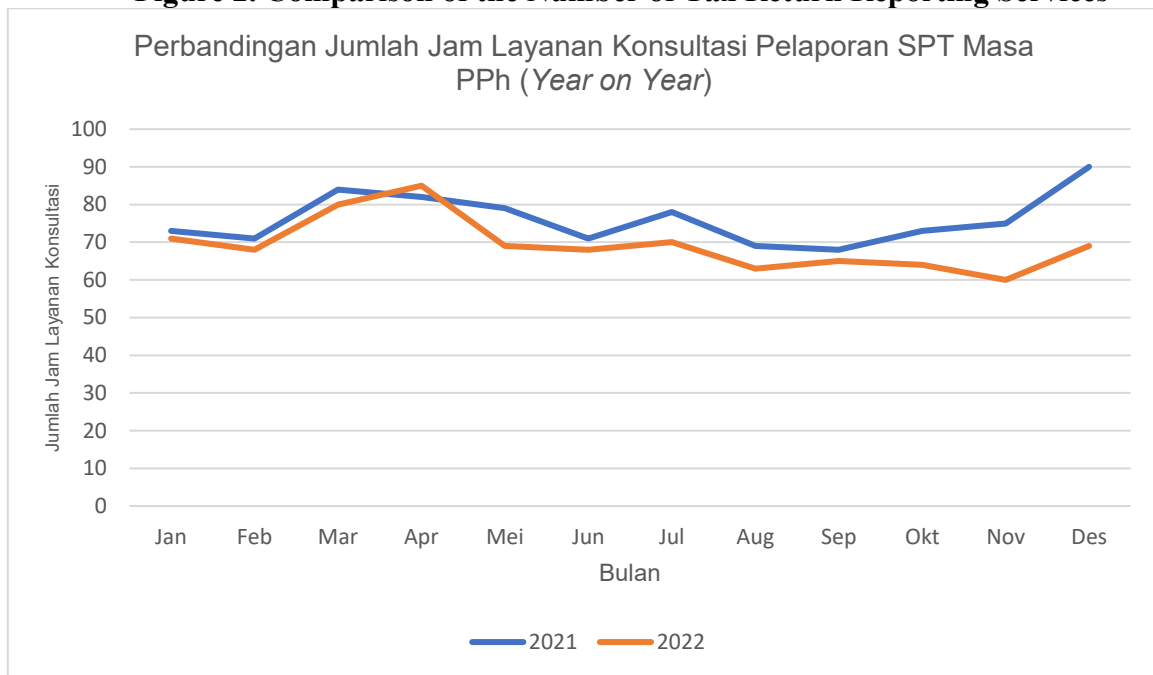
Based on the data above, it can be concluded that the Unified e-Bupot meets the fundamental principles of JIT, namely:

1. Pull system. This principle is met because this application is used only when there is a withholding/collection of Final Income Tax Article 4 paragraph (2), Income Tax Article 15, Income Tax Article 22, Article 23, and/or Income Tax Article 26. Transaction data input by taxpayers triggers the pull of DGT services, which is in line with the JIT concept. Every withholding/collection receipt, billing code, and proof of receipt of the Tax Return issued is based on the taxpayer's input.
2. Waste elimination. The web-based and paperless implementation of Unified e-Bupot will undoubtedly reduce waste. Another study supports the advantages of JIT in eliminating unnecessary tasks (Indriyastuti, 2011). This is because taxpayers no longer need to submit hard copies of their SPT to the Tax Office (KPP), which results in a reduction in hard copy storage and waste in the form of CDs/flash drives used to submit CSV files. Furthermore, Unified e-Bupot will eliminate the need for obsolete e-SPT applications, which are no longer relevant to current tax regulations.
3. Smooth workflow. The Unified e-Bupot framework is excellent and fully accommodates all the initial stages: recording withholding/collection data, creating withholding certificates, generating billing codes, recording tax payment data, and reporting Unified Periodic SPTs, all within a single application without the need for application switching.
4. Total quality management. Quality control is implemented on the e-Bupot Unification workflow by conducting regular maintenance on weekends that do not coincide with tax payment and/or reporting due dates. This is done to maintain the quality of taxpayer service and ensure the success of the Ease of Doing Business program and increase taxpayer satisfaction.
5. Top management commitment. The management implementation process involves commitment from echelon I officials to the implementing officials through understanding the flow and procedures for using e-Bupot Unification and disseminating information related to this application according to their respective levels of authority.
6. Regarding the supplier relations criterion, researchers did not obtain much information regarding this issue, as this area falls under the jurisdiction of employees at the DGT headquarters.



Then, to determine the efficiency of the consultation services related to reporting Unified Periodic Tax Returns, the following data was obtained.

Figure 2. Comparison of the Number of Tax Return Reporting Services



Source: Sanggau Pratama Tax Office Data (2022)

Researchers chose these two years because they coincided with the transition period from e-SPT to e-Bupot Unification. 2021 represents the period before the implementation of e-Bupot Unification, while 2022 represents the period when e-Bupot Unification was implemented. Based on this data, the number of consultation hours related to reporting Periodic Income Tax Returns decreased compared to the previous year, except in April 2022, when the mandatory use of e-Bupot Unification was implemented for all taxpayers, leading to many people applying for electronic certificates and consulting on how to use it. However, there has been a significant decrease since then due to several factors, including:

1. Taxpayers no longer need to update the e-SPT application, as they typically encounter failed updates;
2. Taxpayers do not need to be taught how to install or setup e-SPT for first-time users, as e-SPT is quite complex;
3. Taxpayers do not need to be consulted on separate matters, such as how to create CSV files, generate billing codes, or report SPTs.

The aforementioned issues can be mitigated thanks to the Unified e-Bupot feature, which can be considered cellular manufacturing. This single application accommodates tax obligations, from creating withholding/collection receipts to reporting the Periodic Income Tax Return (SPT Masa PPh). Furthermore, the unification of five types of Income Tax reporting obligations into a single report, the Unified Periodic Income Tax Return (SPT Masa PPh) (Dhaniswara, 2021). Furthermore, when viewed from the JIT objectives of the Unified e-Bupot application, the following results are obtained:

1. Waste reduction. Waste in the form of SPT forms in the warehouse or CDs/flash drives storing CSV files of taxpayers' SPTs is eliminated.
2. Improved efficiency. The elimination of manual SPTs that need to be recorded by the PKD and PPDDP sections makes the process of managing the Periodic Income Tax Returns more efficient.



3. Greater productivity. The one-stop application concept, which promotes cellular manufacturing, increases the productivity of DGT services by providing a single application that accommodates multiple products needed by taxpayers.
4. Smoother production flow. The web-based unified tax return data flow, integrated into a single application, makes the process easier and simpler for taxpayers. Account Representatives can monitor the tax return process more quickly and in real time (no need for manual recording).
5. Lower costs. Application management costs are reduced because they are focused on a single application, and the cost of manually submitting tax returns to the Taxpayer Data Entry (PPDDP) is reduced, or even eliminated.
6. Improved quality. By reducing the costs and time spent by taxpayers to fulfill their tax obligations, taxpayer satisfaction increases, which is an indicator of improved DGT service quality and the fulfillment of the EoDB indicator in the paying taxes indicator.

CONCLUSION

The Just-in-Time (JIT) concept, commonly used in the manufacturing sector, has proven quite relevant and effective when adopted in the public sector, particularly in the context of digitizing tax services. The Directorate General of Taxes' implementation of JIT through the Unified e-Bupot system reflects an efficient and integrated business process transformation. This system eliminates various non-value-added activities—such as manual tax return filing, CSV file submission, and the operation of different applications for each type of income tax—by simplifying them into a single, fully automated online platform.

The analysis shows that the implementation of the Unified e-Bupot system has successfully supported time efficiency, reporting accuracy, and reduced administrative burdens for both taxpayers and the Directorate General of Taxes. By implementing JIT principles such as a pull system, waste elimination, and smooth workflow, the system improves service quality, eases business operations, and optimizes human resources and existing technology. This success strengthens the position of the Unified e-Bupot system as a concrete example of tax administration modernization that supports bureaucratic reform.

Recommendations

To maintain the ongoing effectiveness of the Unified e-Bupot implementation, strengthening digital infrastructure and technical services is a priority. Access to a stable e-Bupot system and responsive technical support will ensure the smooth processing of taxpayers' tax reporting. Technical obstacles, such as slow systems or difficulties in data validation, if not promptly addressed, have the potential to reduce compliance rates and hinder the efficiency goals of this system. Therefore, infrastructure improvements and strengthening helpdesk services must be implemented continuously and adapt to user needs.

Similarly, intensive outreach and mentoring for taxpayers also needs to be a primary focus. Although the Unified e-Bupot offers convenience, not all taxpayers—especially MSMEs or new users—have adequate digital literacy or technical understanding. Online and offline training programs, accompanied by practical educational modules, will accelerate the system's adoption process. This not only strengthens user acceptance but also ensures that the system is used according to procedures and minimizes the potential for input errors.

Furthermore, the Directorate General of Taxes (DGT) needs to consistently apply the principle of continuous improvement to the Unified e-Bupot system. Regular evaluations based on user feedback and internal monitoring results will enable the development of features that are more responsive to taxpayer needs. For example, integration with other tax reporting systems, simplifying the user interface, or expanding services through a mobile application.



This continuous improvement aligns with the Kaizen philosophy in JIT, which prioritizes gradual and continuous improvement for long-term efficiency.

The next recommendation is to encourage the application of JIT principles to other tax administration systems beyond e-Bupot. The success of e-Bupot in simplifying and integrating Periodic Income Tax reporting can be replicated for other services such as e-Invoices, e-Corporate Tax Returns, or even the restitution and objection submission system. Lean, waste-free, and user-centric system integration will create a more resilient digital tax ecosystem and fully support the national bureaucratic reform agenda.

As a complement, further research is highly recommended to deepen the findings obtained. Given the limited information in this study, which only came from a single source at the vertical unit level, future studies could involve additional informants from the DGT headquarters or from the perspective of taxpayers actively using e-Bupot. Furthermore, research could be expanded to quantitative analysis, such as measuring the impact of e-Bupot implementation on taxpayer compliance levels, reporting time efficiency, or reduced administrative costs. Comparative research between tax offices (KPP) and comparative studies with similar systems in other countries could also provide deeper and strategic insights for the development of a digital-based tax system in Indonesia.

This study has several limitations. Efficiency is measured solely through consultation hours, without accounting for other dimensions such as user satisfaction, error rates, or taxpayer compliance. Future research should adopt a more comprehensive set of indicators to better assess service performance. The study needs more data sources, as it does not include perspectives from taxpayers, the DGT central office, or independent sources. Incorporating diverse viewpoints in future studies will improve the validity and robustness of the findings. Lastly, although the JIT framework is originally rooted in manufacturing, it is used here to draw relevant parallels in digital service delivery. Future research is encouraged to further justify or explore alternative conceptual frameworks better suited to digital contexts.

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