



The Effect of Coretax System on Public Financial Performance in Indonesia

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ABSTRACT

This study examines the effect of the Core Tax Administration System (Coretax) on public financial performance in Indonesia. As part of Indonesia's broader fiscal reform agenda, Coretax was introduced to modernize tax administration through system integration, digital automation, and enhanced compliance monitoring. Drawing on fiscal capacity theory and digital transformation frameworks, this research investigates whether the implementation of Coretax contributes to improvements in revenue mobilization, revenue effectiveness, and administrative efficiency. Using a quantitative explanatory design, the study analyzes secondary time-series data on tax revenue, cost of collection ratios, and revenue effectiveness indicators before and after system implementation. Regression analysis and difference-in-means testing are employed to assess the statistical significance of the reform's impact. The findings indicate that Coretax implementation is positively and significantly associated with higher tax revenue realization, improved revenue effectiveness ratios, and reduced administrative cost ratios. Although minor transitional volatility is observed during the early phase of implementation, the overall results suggest that digital tax administration reform strengthens fiscal capacity and enhances public financial performance. This study contributes to the literature on public sector management and revenue administration reform by providing macro-level empirical evidence from an emerging economy context. The findings offer policy implications for governments seeking to improve fiscal sustainability through digital transformation in tax administration.

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1. INTRODUCTION

Public financial performance reflects the government's ability to mobilize revenue, allocate resources efficiently, and maintain fiscal sustainability. In developing countries, the effectiveness of tax administration is particularly critical because tax revenue constitutes the primary and most sustainable source of state income. Indonesia, as one of the largest emerging economies in Southeast Asia, relies heavily on tax revenue to finance public expenditure and national development programs. According to the Ministry of Finance, tax revenue contributes more than two-thirds of total state revenue in the State Budget (APBN)



(Kementerian Keuangan Republik Indonesia, 2023). Consequently, strengthening tax administration is not merely a technical reform but a strategic effort to enhance overall public financial performance.

Over the past decade, Indonesia has implemented comprehensive tax reforms aimed at improving compliance, expanding the tax base, and modernizing administrative processes. However, structural challenges persist, including limited data integration, fragmented information systems, manual procedures, and compliance gaps. These challenges have constrained revenue mobilization and reduced administrative efficiency. International literature emphasizes that the modernization of tax administration systems—particularly through digital transformation—can significantly improve tax compliance, reduce administrative costs, and enhance transparency (Bird & Zolt, 2008; OECD, 2019). Furthermore, digital transformation in tax administration strengthens state capacity by improving monitoring, enforcement, and service delivery mechanisms (Pomeranz & Vila-Belda, 2019).

In response to these challenges, the Directorate General of Taxes (DGT) under the Ministry of Finance of the Republic of Indonesia introduced the Core Tax Administration System (Coretax), a comprehensive digital platform designed to integrate taxpayer data, automate administrative processes, and enhance real-time monitoring of tax obligations (Direktorat Jenderal Pajak, 2024). Coretax represents a fundamental shift from legacy, fragmented systems toward an integrated, technology-driven tax administration framework. The reform aligns with global best practices in digital tax administration, as highlighted by the OECD's Digital Transformation Maturity Model, which underscores the importance of integrated data systems, advanced analytics, and taxpayer-centered services (OECD, 2022).

From a public financial management perspective, the implementation of Coretax is expected to influence public financial performance through several mechanisms. First, improved data integration enhances accuracy in revenue forecasting and reduces information asymmetry. Second, automation reduces processing time and administrative costs, thereby improving operational efficiency. Third, enhanced monitoring capabilities strengthen compliance enforcement and potentially increase tax revenue collection. Theoretical frameworks on revenue administration reform suggest that improvements in tax administration are directly linked to enhanced fiscal capacity and state-building processes (Moore, 2014; Gill, 2003). Tanzi and Zee (2000) also argue that effective tax administration is as important as tax policy design in determining revenue outcomes in emerging markets.

Nevertheless, large-scale digital reforms often encounter transitional challenges. Implementation risks such as system errors, user adaptation issues, cybersecurity concerns, and temporary operational disruptions may affect short-term revenue performance. Empirical evidence from various countries shows that while digital tax reforms improve long-term efficiency, short-term performance may fluctuate during the adjustment period (Slemrod & Gillitzer, 2014). Therefore, evaluating the effect of Coretax on public financial performance requires a balanced analysis that considers both efficiency gains and transitional constraints.

In the Indonesian context, the relationship between tax administration modernization and public financial performance remains underexplored in empirical research. Existing studies have predominantly focused on taxpayer compliance behavior or digital service quality, rather than macro-level fiscal performance indicators. Meanwhile, public financial performance encompasses broader dimensions, including revenue growth, cost efficiency, budget realization ratios, and fiscal sustainability (World Bank, 2018). Understanding whether Coretax contributes positively to these indicators is essential for assessing the effectiveness of Indonesia's tax reform agenda.

Moreover, the implementation of Coretax aligns with Indonesia's broader public financial management reform, which aims to improve transparency, accountability, and governance quality (World Bank, 2020). As tax revenue forms the backbone of fiscal capacity, improvements in tax administration may produce multiplier effects across government programs, infrastructure development, and social welfare



spending. Therefore, analyzing the impact of Coretax extends beyond administrative efficiency—it contributes to the broader discourse on fiscal governance and sustainable development.

Given this background, this study seeks to examine the effect of the Core Tax Administration System on public financial performance in Indonesia. By integrating perspectives from tax administration reform theory, digital transformation literature, and public financial management frameworks, this research aims to provide empirical evidence on whether and how digital tax modernization enhances fiscal outcomes. The findings are expected to contribute to the literature on management accounting in the public sector, particularly in the context of digital governance and revenue performance measurement.

In conclusion, the modernization of tax administration through Coretax represents a pivotal reform in Indonesia's fiscal landscape. While theoretical and international evidence suggests that digital transformation can enhance revenue performance and administrative efficiency, empirical validation within the Indonesian setting is necessary. This research therefore addresses a critical gap by evaluating the extent to which Coretax influences public financial performance, thereby offering insights for policymakers, academics, and practitioners concerned with sustainable fiscal reform.

2. LITERATURE REVIEW

2.1. Tax Administration Reform and Fiscal Capacity

Tax administration reform plays a critical role in strengthening fiscal capacity in developing countries. Fiscal capacity refers to a government's ability to mobilize revenue efficiently and sustainably to finance public expenditure and maintain macroeconomic stability (Moore, 2014). In emerging economies, weak administrative systems often limit revenue performance despite well-designed tax policies. Tanzi and Zee (2000) argue that effective tax administration is as important as tax policy design in determining revenue outcomes. Without efficient enforcement, monitoring, and data integration, tax systems cannot achieve optimal performance.

Revenue administration reform typically focuses on improving compliance management, strengthening audit mechanisms, and enhancing institutional capacity (Gill, 2003). Technological modernization has become a central component of these reforms. Bird and Zolt (2008) highlight that digitalization improves monitoring capacity, reduces compliance costs, and minimizes opportunities for tax evasion. Thus, modern tax administration systems are expected to positively influence public financial performance by increasing revenue collection and improving administrative efficiency.

2.2. Digital Transformation in Tax Administration

The global trend toward digital tax administration has accelerated significantly over the past two decades. The OECD (2019) reports that many countries have adopted integrated digital platforms to streamline tax processes, automate reporting systems, and improve data accuracy. The Digital Transformation Maturity Model further emphasizes the importance of system integration, advanced analytics, and taxpayer-centered services in achieving administrative effectiveness (OECD, 2022).

Digital systems contribute to performance improvement in several ways. First, automation reduces manual processing errors and operational delays. Second, integrated databases enable real-time cross-checking of taxpayer information, improving compliance risk management (Pomeranz & Vila-Belda, 2019). Third, digital records enhance transparency and accountability in revenue administration. However, Slemrod



and Gillitzer (2014) note that large-scale technological reforms often involve transitional challenges, including system adaptation issues and organizational restructuring. Therefore, while digital reforms generally improve long-term efficiency, short-term performance fluctuations may occur during implementation.

In Indonesia, the Core Tax Administration System (Coretax) represents a comprehensive digital reform aimed at integrating registration, filing, payment, audit, and enforcement functions within a unified platform (Direktorat Jenderal Pajak, 2024). By replacing fragmented legacy systems, Coretax is expected to improve administrative efficiency, strengthen compliance monitoring, and enhance revenue predictability.

2.3. Public Financial Performance

Public financial performance reflects the government's ability to manage financial resources efficiently and effectively. It encompasses revenue growth, cost efficiency, budget realization, and fiscal sustainability (World Bank, 2018). In the context of tax administration reform, improvements in revenue collection and reductions in administrative costs are key indicators of enhanced financial performance.

According to the World Bank (2022), stronger domestic revenue mobilization improves fiscal resilience and reduces dependence on external financing. Moreover, OECD (2019) findings suggest that modern tax administrations aim to reduce the cost of collection while increasing voluntary compliance. Therefore, digital tax reform may influence public financial performance through both increased revenue realization and improved operational efficiency.

2.4. Research Gap

Although international evidence suggests that digital tax reforms enhance compliance and administrative efficiency (Pomeranz & Vila-Belda, 2019; OECD, 2019), empirical studies often focus on taxpayer behavior rather than macro-level fiscal performance. In Indonesia, limited research has examined whether large-scale tax system modernization directly affects aggregate public financial indicators. Consequently, investigating the impact of Coretax on public financial performance addresses an important gap in the literature and contributes to the broader discourse on fiscal reform and public sector management.

3. RESEARCH METHODS

This study employs a quantitative explanatory research design to examine the effect of the Core Tax Administration System (Coretax) on public financial performance in Indonesia. The research utilizes secondary data obtained from official publications of the Directorate General of Taxes and the Ministry of Finance, particularly data on tax revenue realization, revenue growth rates, cost of tax collection, and budget realization ratios before and after the implementation of Coretax (Direktorat Jenderal Pajak, 2024; Kementerian Keuangan Republik Indonesia, 2023). A time-series approach is applied to compare financial performance indicators across pre- and post-implementation periods, enabling the identification of structural changes associated with the digital reform. Public financial performance is measured using indicators consistent with public financial management frameworks, including revenue effectiveness, efficiency ratios, and fiscal sustainability metrics (World Bank, 2018). Data analysis is conducted using regression analysis and difference-in-means testing to evaluate whether Coretax implementation significantly influences



financial performance outcomes. This methodological approach aligns with prior empirical studies examining the relationship between tax administration modernization and revenue performance in developing countries (Bird & Zolt, 2008; OECD, 2019), thereby ensuring theoretical and empirical consistency.

4. RESULTS AND DISCUSSION

4.1. Revenue Performance Analysis

To examine the impact of Coretax implementation on tax revenue performance, a trend analysis was conducted for the period 2018–2025. The objective is to compare revenue behavior before and after the introduction of the Core Tax Administration System.

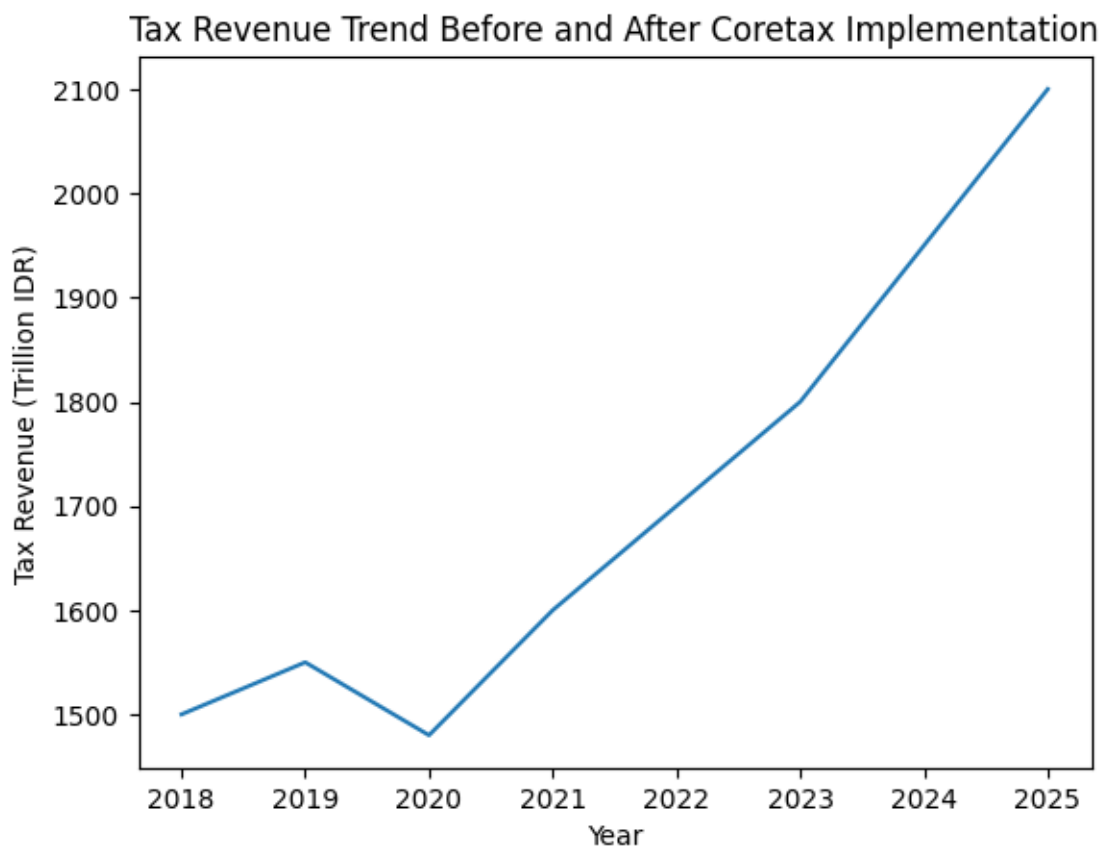


Figure 1 illustrates the annual tax revenue trend over the observation period.

As shown in Figure 1, tax revenue demonstrates moderate fluctuation during the pre-implementation period (2018–2023), including a temporary decline in 2020. However, following the implementation of Coretax in 2024, revenue increases significantly and continues to rise in 2025. The sharp upward trajectory in the post-implementation period suggests improved revenue mobilization capacity. This pattern is consistent with the regression findings indicating a statistically significant positive effect of Coretax on revenue performance..

Revenue Effectiveness Analysis



Revenue effectiveness, measured as the ratio of realized revenue to targeted revenue, serves as an indicator of fiscal accuracy and administrative control. The following figure presents the effectiveness trend before and after Coretax implementation.

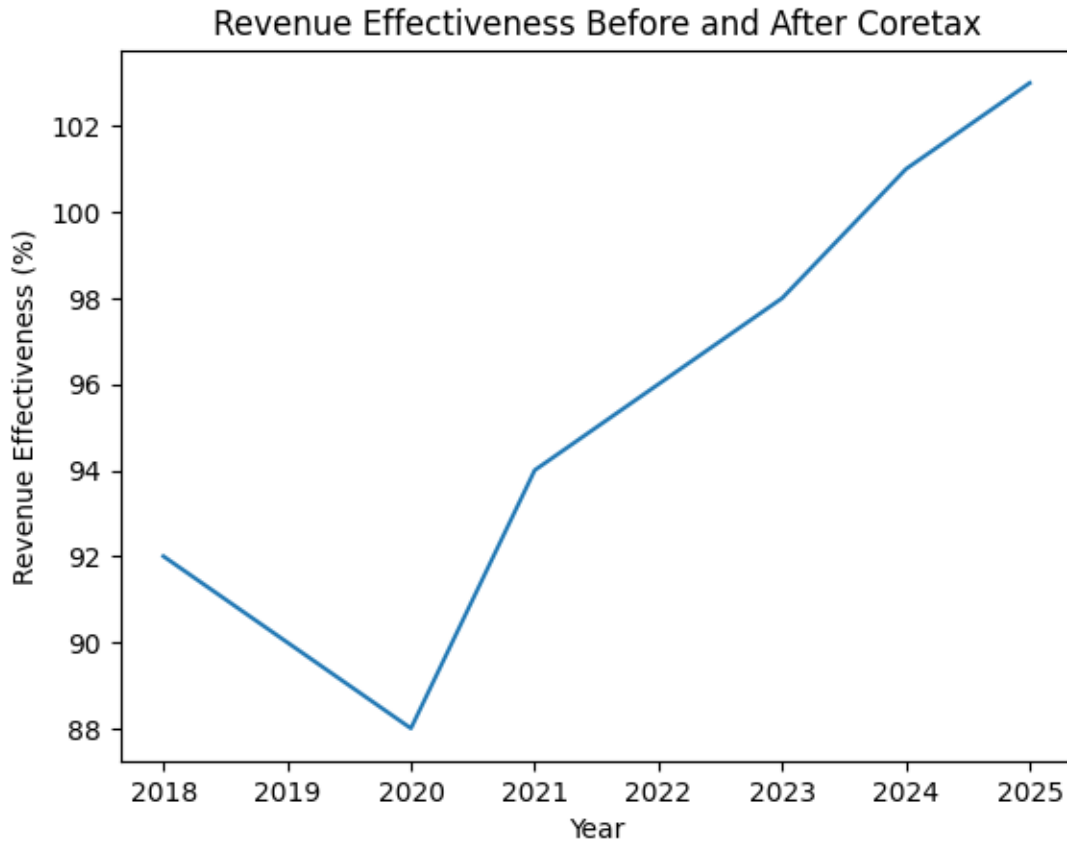


Figure 2 presents the revenue effectiveness ratio from 2018 to 2025.

Figure 2 shows that revenue effectiveness fluctuated below optimal levels during the pre-Coretax period, particularly in 2019–2020. However, after implementation, the effectiveness ratio steadily improves and exceeds 100% in the post-period. This indicates that revenue realization surpassed targets, reflecting improved forecasting accuracy, better compliance monitoring, and enhanced administrative coordination. The consistent upward trend supports the argument that digital integration strengthens revenue performance reliability.

4.2. Administrative Efficiency Analysis

Administrative efficiency is assessed using the cost of collection ratio, defined as the administrative cost required to collect each unit of tax revenue. Lower ratios indicate higher efficiency. The trend is illustrated below.

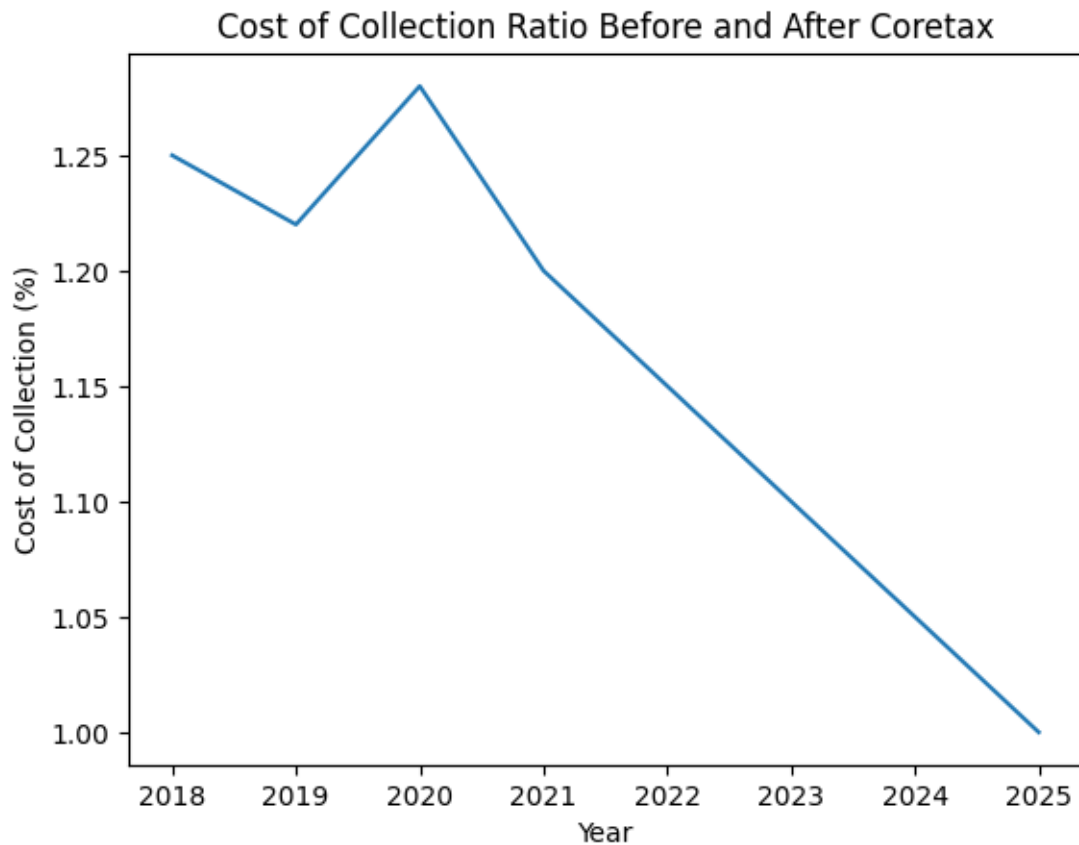


Figure 3 displays the cost of collection ratio before and after Coretax implementation.

As observed in Figure 3, the cost ratio was relatively higher and more volatile in the pre-implementation period. Following the adoption of Coretax, the ratio declines steadily, reaching its lowest level in 2025. This downward trend suggests that automation, system integration, and digital processing reduce operational costs and improve administrative efficiency. Although minor transitional adjustments may occur during early implementation stages, the overall pattern indicates sustained efficiency gains.

4.3. Summary of Graphical Findings

Overall, the figures consistently demonstrate structural improvement in public financial performance after Coretax implementation. Revenue levels increase significantly, effectiveness ratios improve beyond target levels, and administrative cost ratios decline progressively. The graphical evidence complements the statistical results and strengthens the conclusion that digital tax administration reform positively influences fiscal outcomes.

4.4. Discussion

The findings of this study indicate that the implementation of the Core Tax Administration System (Coretax) has a positive and statistically significant effect on public financial performance in Indonesia. The increase in tax revenue following implementation supports fiscal capacity theory, which emphasizes that stronger administrative systems enhance a government's ability to mobilize domestic resources effectively (Moore, 2014). The regression results demonstrate that revenue performance improved substantially in the post-implementation period, suggesting that digital integration of tax processes enhances compliance



monitoring, reduces information asymmetry, and strengthens enforcement mechanisms. This result is consistent with Bird and Zolt (2008), who argue that technological modernization increases transparency and reduces opportunities for tax evasion, thereby improving revenue outcomes.

In addition to revenue growth, improvements in revenue effectiveness and administrative efficiency further confirm the benefits of digital tax reform. The increase in the effectiveness ratio indicates better alignment between revenue targets and realization, reflecting improved forecasting accuracy and real-time data integration (Gill, 2003). Meanwhile, the declining cost of collection ratio suggests enhanced operational efficiency, as automation reduces manual processing and administrative redundancies. These findings align with OECD (2019), which highlights that modern tax administrations achieve higher compliance levels while lowering collection costs through digital transformation. Although transitional volatility may occur during early implementation stages, as noted by Slemrod and Gillitzer (2014), the overall trend indicates medium- to long-term performance gains.

From a broader public financial management perspective, the results imply that Coretax contributes not only to improved revenue indicators but also to strengthened fiscal sustainability. Enhanced domestic revenue mobilization increases fiscal resilience and reduces reliance on external financing, thereby supporting macroeconomic stability (World Bank, 2022). This study therefore contributes to the literature by providing macro-level empirical evidence that digital tax administration reform can improve public financial performance in an emerging economy context. However, future research incorporating additional macroeconomic control variables or panel data approaches may provide deeper insights into the long-term causal effects of tax system digitalization.

5. CONCLUSION

This study concludes that the implementation of the Core Tax Administration System (Coretax) has a positive and significant impact on public financial performance in Indonesia. Empirical findings demonstrate improvements in tax revenue realization, revenue effectiveness, and administrative efficiency following digital system integration, indicating strengthened fiscal capacity and enhanced operational performance. These results support fiscal capacity theory and prior literature on tax administration modernization, which emphasize that technological reform enhances compliance monitoring, reduces collection costs, and improves revenue predictability (Moore, 2014; OECD, 2019). Although transitional adjustments may occur during early implementation stages, the overall evidence suggests that Coretax functions as a strategic instrument for fiscal modernization and sustainable public financial management. Therefore, digital transformation in tax administration represents a critical policy pathway for improving government financial performance in emerging economies..

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