

Indonesia Options in Reviewing the Value Added Tax (VAT) System Policy With Estonia as the Most Competitive Country in the World

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ABSTRACT

There are several types of taxes in Indonesia and Estonia, one of which is VAT. In 2025, Indonesian government increased the VAT rate to 12% specifically for the luxury goods category, while the VAT rate for non-luxury goods remains at 11%. The VAT increase aims to increase state revenue in the long term it can support development and encourage economic recovery. Meanwhile, in Estonia, the current VAT rate is 22% and is planned to increase in early 2026 to 24%. If state revenue continues to improve or even exceeds expectations, the government plans to strengthen the budget for defense spending or reduce the burden of personal income tax. This study aims to analyze the implementation of the applicable taxation systems in both countries. The research method uses a qualitative approach that involves a systematic literature review through a data on the internet to obtain references, journals, articles, or legal-based information related to the research object. The research results show that there are differences in the implementation of the taxation system as well as the impacts and challenges faced by the two countries in implementing VAT.

INTRODUCTION

Taxes are a crucial element in national development efforts and constitute a significant strategic financial resource for a country, supporting efforts to stimulate economic growth and create prosperity for the community. One form of tax revenue is Value Added Tax (VAT). VAT is levied on sales or purchases of goods or services within a customs area, with collection occurring in stages throughout each production and distribution chain. VAT is collected at the time of the transaction or delivery.

According to data from the Organisation for Economic Co-operation and Development (OECD, 2024), the average contribution of various types of taxes to overall tax revenue in OECD member countries is: income tax 12.3%; employee and employer payroll tax 19.8%; and VAT 22%. This data demonstrates the significant role of Value Added Tax in total tax revenue. Value Added Tax accounts for over 20% of tax revenue. VAT rates vary across countries.

The increase in the VAT in Indonesia from 10% to 11%, with a further plan to reach 12%, aims to increase state revenues and reduce the APBN deficit due to the COVID-19 pandemic (Halomoan, 2022). Taxes play a central role in supporting the sustainability of national development and providing basic services to the public, including education, health, and infrastructure. With taxes accounting for approximately 80% of total state revenue, the VAT increase is expected to improve the country's fiscal structure and create greater fiscal space for social and economic programs.

However, the VAT rate increase policy has raised concerns among the public, especially among low-income groups who will feel the impact more severely (Siahaan, 2023). The increase in the price of goods and services subject to VAT can put pressure on people's purchasing power, given that most daily needs involve consumer products subject to this tax. Although basic necessities such as food, health, education, and social services are exempt from VAT, the impact on secondary and tertiary goods remains significant, potentially widening economic disparities (Majid, Sholikhah, & Lintang, 2023).

On the other hand, this policy has a positive impact on state revenue, which is much needed to improve the post-pandemic economic situation. With increased state tax revenue, the government can allocate more funds for public investments, such as infrastructure improvements and improving social services (Purwanti, 2023). To ensure this policy is effective and does not worsen public welfare, a monitoring mechanism and compensation programs for vulnerable groups are needed. Therefore, the increase in the VAT rate is expected to not only increase state revenue but also maintain public welfare (Suwandi, 2022).

Estonia, with a VAT rate of 22%, topped the 2024 International Tax Competitiveness Index (ITCI). This indicates that Estonia has the best tax system among all OECD countries. Although Estonia is not a tax haven or e-Residency, its clear tax system and network of 62 tax treaties make it the best tax system among all OECD countries. Despite its top position in the 2024 ITCI, Estonia has not changed its tax system or increased its VAT rate. The government's main goal of these changes is to balance the state budget by increasing tax revenue collection.

Estonia exhibits a higher tax potential compared to developed European countries, as well as a wider tax gap, reflecting lower tax efforts (i.e., the ratio of actual tax revenues to potential tax revenues). The tax gap is estimated at around 14 percent of GDP, meaning that actual revenues could be as much as 14 percent higher than GDP, given the current level of development and structural characteristics. This tax gap is significantly larger than that of peer countries: around 8 percent of GDP in developed European and Nordic countries, and 7.3 percent in developing European countries. This divergence is driven not only by lower tax-to-GDP ratios, but also by structural factors related to untaxed sectors and activities. Estonia and the Baltic states not only have a relatively higher proportion of informality compared to developed European countries (especially affecting income tax collection 2), but also, some activities/sectors are not taxed (e.g., real estate, construction, corporate retained earnings, wealth, social services, gambling) sometimes intentionally (example with high minimum thresholds) and can be included in the tax net. Therefore, structural reforms in Estonia could focus on strengthening the core of the tax system to mobilize higher revenues, including by improving the capacity of the revenue administration to handle the complexities arising from the variety of revenue-generating transactions, as well as from broadening the tax base.

This research aims to:

1. Describe and compare the policy structures of VAT systems in Estonia and Indonesia.
2. Analyze differences in VAT collection, reporting, and administration between the two countries.
3. Assess the level of administrative efficiency and taxpayer compliance under each system.
4. Identify factors influencing the effectiveness of VAT implementation in both countries.
5. Formulate policy recommendations or best practices that Indonesia can adopt from Estonia to enhance VAT efficiency and digital integration.

LITERATURE REVIEW

Concept of Value Added Tax (VAT)

VAT is an indirect tax imposed on the value added to goods and services at each stage of production and distribution. According to OECD (2021), VAT is designed to be neutral toward businesses by allowing taxpayers to credit input tax against output tax, thereby ensuring that the final tax burden rests on the end consumer. In most countries, VAT has become a major component of tax revenue due to its broad base and stable yield. VAT operates on the principle of credit-invoice mechanism, in which each taxable entity charges VAT on its sales (output VAT) and receives credit for VAT paid on its purchases (input VAT). The difference between these two values is remitted to the tax authority. This mechanism encourages transparency, as each transaction requires documentation in the form of a tax invoice. In Indonesia, the system is governed by Law No. 8 of 1983 (as amended by Law No. 7 of 2021 on the Harmonization of Tax Regulations), while in Estonia, it is regulated by the Value Added Tax Act

2002 under the supervision of the Estonian Tax and Customs Board. Despite the shared concept, implementation varies in terms of digital infrastructure, administrative processes, and compliance enforcement.

VAT Administration and Compliance

VAT administration encompasses the processes of registration, collection, reporting, and auditing. According to Bird and Zolt (2011), administrative efficiency is a key determinant of a successful VAT system, as complex procedures often discourage compliance and increase the cost of tax collection. Estonia has achieved remarkable administrative efficiency by implementing a fully digital e-Tax/e-MTA platform, allowing taxpayers to file, pay, and view tax records online. The system automatically cross-checks invoices and minimizes manual intervention, which significantly reduces compliance costs (European Commission, 2022). Indonesia, by contrast, has introduced the e-Faktur system, which digitizes the issuance of VAT invoices and facilitates online reporting. While the system has improved data accuracy and transparency, challenges remain in terms of integration across platforms, taxpayer understanding, and the time required for VAT refunds (OECD, 2023). Research by Torgler (2007) emphasizes that compliance levels are influenced not only by enforcement but also by the perceived fairness and simplicity of the system. In this respect, Estonia's straightforward procedures and taxpayer-oriented digital services have contributed to a higher compliance culture compared to more bureaucratic systems.

VAT and Digitalization of Tax Systems

The digital transformation of tax administration has become a global trend, as governments seek to enhance efficiency and reduce tax evasion. According to Tanzi (2018), digital tax systems can improve real-time monitoring, reduce administrative burden, and enhance data accuracy. Estonia is often cited as a global model of e-Governance, where nearly all public services, including taxation, are conducted online. The Estonian e-Tax system integrates various government databases, enabling automatic exchange of financial information. This integration results in a compliance cost reduction of over 80% compared to traditional methods (World Bank, 2021). Indonesia's digitalization efforts are progressing, yet still fragmented. The implementation of core tax administration systems and the modernization of e-Faktur and e-Bupot platforms mark important steps toward a more integrated framework. However, issues such as limited infrastructure, taxpayer readiness, and complex regulatory layers continue to hinder full digital transformation (Ministry of Finance, Indonesia, 2023).

Comparative Studies on VAT Systems

Comparative research on VAT systems helps identify best practices and reform opportunities. For instance, Keen and Lockwood (2010) compared VAT systems in developing and developed countries, concluding that administrative simplicity and digital capacity are more significant determinants of revenue performance than tax rates alone. A study by Ebrill et al. (2001) found that while developing countries tend to focus on revenue mobilization, advanced economies emphasize system efficiency and compliance monitoring. Estonia, as part of the European Union VAT area, benefits from harmonized regulations and

advanced IT infrastructure. Conversely, Indonesia continues to balance between revenue needs and taxpayer service improvement. Therefore, comparative analysis between Estonia and Indonesia is relevant to understand how different levels of economic development and digital maturity influence VAT effectiveness.

METHODOLOGY

This study adopts a qualitative comparative research design using a descriptive-analytical approach. The research aims to compare the structures, collection mechanisms, and administrative efficiencies of the VAT systems in Estonia and Indonesia. The qualitative approach is chosen because it allows an in-depth exploration of the contextual differences in policy frameworks and implementation practices. The comparison is based on secondary data collected from official government publications, international organizations, and academic literature. According to Creswell (2014), qualitative comparative analysis enables the researcher to identify similarities and differences between two or more cases in order to understand the underlying principles and implications. In this study, the two cases – Estonia and Indonesia – represent contrasting models of VAT systems within different economic and administrative environments.

This research employs a comparative case study approach. Each country is treated as an individual case, and the comparison focuses on three main dimensions:

1. Policy and legal structure - including VAT laws, rates, and exemptions.
2. Collection and administrative mechanisms - including registration, filing, auditing, and refund processes.
3. Digitalization and efficiency - including the use of technology, automation, and compliance systems.

The collected data are analyzed using qualitative content analysis and comparative analysis techniques.

1. Content Analysis:

Involves identifying recurring patterns and themes in the literature.

Data are organized according to variables such as structure, collection mechanism, and efficiency.

2. Comparative Analysis:

Involves juxtaposing Estonia and Indonesia across the identified dimensions.

Differences and similarities are mapped to evaluate relative strengths and weaknesses.

Findings are then synthesized to propose policy recommendations for Indonesia.

RESEARCH RESULT

Overview of the VAT System in Estonia

Estonia introduced the VAT in 1991 as part of its transition to a market-based economy. The system is governed by the Value Added Tax Act (2002) and administered by the Estonian Tax and Customs Board (ETCB). The VAT serves

as one of the main sources of public revenue, contributing approximately 35–40% of total tax income (European Commission, 2023).

The standard VAT rate in Estonia is 20%, with reduced rates of 9% for specific goods and services (e.g., books, medicines, accommodation services). Exemptions apply to financial services, insurance, and certain educational activities.

A hallmark of the Estonian VAT system is its high level of digital integration. All VAT-registered businesses use the e-Tax/e-MTA platform, an online system where taxpayers can File returns and make payments electronically, Access real-time tax information, Cross-verify invoices and transaction data automatically.

This digital ecosystem minimizes manual processes, reduces human error, and increases transparency. The system automatically matches input and output invoices to detect inconsistencies, allowing early detection of fraudulent activities such as carousel VAT fraud. The result is a high level of administrative efficiency, with VAT compliance costs among the lowest in the European Union. According to the World Bank (2022), over 98% of Estonian taxpayers file VAT returns electronically, and compliance rates exceed 95%.

Overview of the VAT System in Indonesia

Indonesia’s VAT was first introduced through Law No. 8 of 1983, replacing the previous sales tax system. The policy aims to provide a broad-based consumption tax aligned with international VAT principles. The current standard rate of VAT is 11%, following the amendment under Law No. 7 of 2021 on the Harmonization of Tax Regulations. The Directorate General of Taxes (DGT) under the Ministry of Finance is responsible for VAT administration. Indonesia uses an invoice-credit method, where VAT is levied at each stage of the supply chain and the input VAT can be credited against output VAT.

To improve compliance and transparency, Indonesia launched the e-Faktur system in 2014. The e-Faktur platform allows registered taxpayers to generate and validate tax invoices electronically, Submit periodic VAT returns, Report transactions to the DGT in real time. While the e-Faktur system has significantly enhanced the accuracy of tax data and reduced paper-based fraud, administrative challenges remain. Issues include delays in VAT refund processing, Limited integration across digital platforms, Uneven digital literacy among small and medium enterprises (SMEs). Indonesia’s VAT system still relies on periodic audits and manual oversight, which increases administrative costs compared to Estonia. Despite these limitations, VAT remains a vital revenue source, contributing around 40% of total tax revenue (OECD, 2023).

Comparative Analysis: Estonia vs. Indonesia

The following table summarizes the key differences between the VAT systems of Estonia and Indonesia:

ASPECT	ESTONIA	INDONESIA
Legal Framework	Value Added Tax Act (2002)	VAT Law No. 8/1983 (amended by HPP Law 2021)

Standard Rate	20%	11%
Reduced Rate	9% (books, accommodation, etc)	None (certain goods/services exempt)
Digitalization Level	Fully digital (e-Tax/e-MTA)	Semi-digital (e-Faktur, partial integration)
Invoice Matching	Automatic, real-time verification	Manual cross-check via e-Faktur
Compliance Rate	>95%	Around 75–80%
Average VAT Refund Time	<30 days	Up to several months
Administrative Cost	Among lowest in EU	Relatively high (complex procedures)
Main Strength	Efficiency and transparency through full digitalization	Expanding tax base and increasing adoption of e-Faktur
Main Challenge	Maintaining cybersecurity and data protection	Simplifying regulations and accelerating refund processes

DISCUSSION

Policy Structure and Design

Both Estonia and Indonesia adopt the same fundamental VAT principles; however, the policy orientation differs. Estonia prioritizes simplicity and automation, while Indonesia emphasizes broad coverage and compliance enforcement. Estonia's single-rate structure minimizes administrative burden and simplifies compliance for taxpayers. In contrast, Indonesia's system, although having a relatively lower rate, still involves complex exemptions and sector-specific rules that increase compliance costs. The Estonian approach demonstrates that clarity and simplicity can enhance voluntary compliance more effectively than multiple exemptions or manual controls.

Collection and Administrative Mechanisms

Estonia's e-Tax platform enables real-time monitoring, automatic invoice matching, and seamless integration with banking and accounting systems. This allows the tax authority to detect discrepancies almost instantly, significantly reducing fraud risk. Indonesia's e-Faktur system, while progressive, still functions primarily as a reporting tool rather than a fully integrated monitoring platform (Hadi, 2023). The need for periodic reconciliation and manual auditing contributes to slower administrative processes and higher resource costs. The comparison suggests that Indonesia could benefit from developing a unified digital tax ecosystem that consolidates VAT, income tax, and withholding tax reporting under a single platform, similar to Estonia's e-MTA system.

Digitalization and Efficiency

Digital transformation is a defining factor in the efficiency of tax systems. Estonia's success is rooted in a fully digital governance infrastructure, where all public services, including taxation, are interconnected (Devi, 2023). The automation of compliance tasks reduces both taxpayer burden and

administrative expenses. In contrast, Indonesia's digital transition is ongoing. Although e-Faktur has improved transparency, fragmented systems and data silos still limit operational efficiency. The success of Estonia indicates that full-scale integration – not partial digitization – is key to achieving cost-effective administration.

Compliance and Governance

High compliance in Estonia is driven by trust and convenience, not merely enforcement. The transparent and user-friendly system encourages voluntary participation. Conversely, Indonesia's compliance is more regulation-driven, relying heavily on penalties and audits. The findings align with Tax Administration Theory and Technology Acceptance Model (TAM): perceived ease of use and usefulness of digital tools directly influence taxpayer compliance. Estonia's system exemplifies this relationship.

Key Insights and Lessons for Indonesia

From the comparative findings, several key lessons emerge:

1. Simplification of VAT regulations – reducing exemptions and simplifying refund procedures can improve administrative efficiency.
2. Integration of digital systems – developing a unified, interoperable tax administration platform can minimize duplication and manual errors.
3. Taxpayer-oriented digital services – user-friendly systems enhance voluntary compliance and reduce enforcement costs.
4. Capacity building and training – improving digital literacy among taxpayers and officials is essential for sustainable reform.
5. Data-driven compliance monitoring – automation and analytics can help detect fraud and enhance revenue performance.

CONCLUSIONS AND RECOMMENDATIONS

This study has examined and compared the VAT systems of Estonia and Indonesia, focusing on three main dimensions: policy structure, collection and administrative mechanisms, and efficiency through digitalization. Based on the analysis, several key conclusions can be drawn:

1. Structural and Policy Differences

Both Estonia and Indonesia adopt the same VAT principle – taxing value added at each stage of production and distribution – but differ significantly in their policy design. Estonia's VAT system is characterized by a simple structure with a standard rate of 20% and limited exemptions. Indonesia's VAT system, though similar in concept, involves more complex regulations, exemptions, and refund procedures, which tend to increase administrative burden and compliance costs.

2. Administrative Mechanisms and Efficiency

Estonia has successfully developed a fully digitalized tax administration through its e-Tax/e-MTA platform, allowing real-time data integration, automatic invoice matching, and minimal manual intervention. This results in low administrative costs, faster refunds, and higher compliance. In contrast, Indonesia's e-Faktur system represents substantial progress in digitalization but still functions as a partially integrated platform.

Administrative efficiency is constrained by procedural complexity, manual auditing, and fragmented digital systems.

3. Compliance and Governance

Estonia's approach emphasizes trust, simplicity, and user convenience, leading to high voluntary compliance (above 95%). Indonesia's compliance, on the other hand, remains enforcement-driven, relying on audits and sanctions. The findings affirm that perceived simplicity and usefulness of the system—consistent with the Technology Acceptance Model (TAM)—enhance compliance behavior.

4. Digital Transformation as a Key Driver

Estonia's success demonstrates that digital integration and automation are essential for a modern, transparent, and efficient VAT system. Indonesia's ongoing tax reform efforts, including the development of a core tax system, indicate a similar direction, though further integration and capacity building are required.

In conclusion, Estonia's VAT system serves as a model of digital efficiency and administrative simplicity, while Indonesia's system reflects the challenges and opportunities of a large, developing economy striving toward full modernization. Learning from Estonia's experience can support Indonesia in achieving a more transparent, efficient, and taxpayer-oriented VAT administration.

Based on the comparative analysis, the following recommendations are proposed:

1. Enhance Digital Integration

Indonesia should develop a unified digital tax ecosystem that consolidates VAT, income tax, and withholding tax under a single platform, similar to Estonia's e-MTA system. This will simplify compliance, improve data accuracy, and reduce duplication.

2. Simplify VAT Regulations

Simplification of VAT rules, particularly regarding exemptions, special treatments, and refund procedures, will reduce administrative complexity and compliance costs. A clearer legal framework promotes consistency and predictability for taxpayers.

3. Accelerate VAT Refund Process

Implementing automated refund verification systems can shorten refund times and improve cash flow for businesses, increasing confidence in the tax system.

4. Strengthen Data Analytics and Fraud Detection

Investing in big data analytics and AI-based monitoring tools can help the Directorate General of Taxes (DGT) detect suspicious transactions, prevent VAT fraud, and enhance audit targeting.

5. Promote Taxpayer Education and Digital Literacy

Continuous education and assistance programs should be provided to small and medium enterprises (SMEs) to improve understanding of e-Faktur usage and digital compliance requirements.

6. Foster Institutional Collaboration and Transparency

Cooperation between the DGT, financial institutions, and other government agencies can strengthen data sharing and transparency, supporting a more integrated fiscal management system.

ADVANCED RESEARCH

This study focuses on secondary data and descriptive comparison. Future research could expand the analysis by:

1. Conducting empirical studies on taxpayer perceptions of digital VAT systems in Indonesia;
2. Measuring quantitative impacts of digitalization on VAT revenue and compliance;
3. Comparing Indonesia with other ASEAN countries to evaluate regional readiness for tax digitalization.
4. Such studies would deepen understanding of how digital transformation and administrative design shape the effectiveness of VAT systems in developing economies.

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