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The Complex Dynamics of Agricultural Taxation in Developing Countries-Insights from Indonesia

Rio Fernando Alexander[1*], Twee Leony Bintang Yuristine[2]
Universitas Indonesia Depok, Indonesia[1], Universitas Diponegoro Semarang, Indonesia[2]
E-mail: rio.fernando21@ui.ac.id[1*], tweeleonybintang@students.undip.ac.id[2]

*Correspondence: rio.fernando21@ui.ac.id

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ABSTRACT
Indonesia's agricultural sector plays a vital role in its economy, contributing significantly to its Gross Domestic Product (GDP) while facing challenges in tax revenue collection due to the dominance of micro and small-scale players. The research framework combines insights from various scholarly sources, including Scopus and Google Scholar, to provide a holistic understanding of the dynamics of agricultural taxation. The review reveals a nuanced landscape in which tax policy impacts market dynamics, welfare outcomes, and historical trends in the agricultural sector. This synthesis highlights the importance of balancing efficiency and fairness in the tax system, given the specific needs of agricultural producers. In addition, the analysis delves into the complexities of tax design, emphasising the interplay between tax rates, emissions, investments, and perceptions of fairness. This paper identifies opportunities for future research, including exploring regional variations in the impact of tax knowledge, assessing the effectiveness of tax audit approaches, and examining innovative tax management tools for agricultural enterprises. Overall, the study contributes to understanding the dynamics of agricultural taxation and provides insight for policymakers looking to optimise tax policies in developing countries.

Introduction

Agriculture plays a strategic role in the Indonesian economy, serving as its backbone and contributing significantly to the nation's economic foundation—especially to PDB and the survival of the society (Lubis & Salsabila, 2024). The agricultural value-added within the agricultural sector has shown a consistent upward trajectory, from 23.57 billion USD in 1960 to 143.78 billion USD by 2018 (Apip Alansori & Erna Listyaningsih, 2020). Despite the relatively high Gross Domestic Product (GDP), the agricultural sector finds itself among the undertaxed sectors, sectors whose contribution to GDAuditP (Gross Domestic Product) surpasses the corresponding tax revenues, alongside the construction and the mining sector. The agricultural sector contributes 12.4 per cent to the Gross Domestic Product (GDP), but its contribution to taxation is only 1.4 per cent (Buletin

APBN, 2023).

The low contribution of the agricultural sector to Indonesia's taxation is because the predominant players—who simultaneously function as taxpayers—are in the micro and small classes, making the agricultural sector one of the hard-to-tax sectors (The Directorate General of Taxes, 2021). Most of the agricultural workers come from rural areas (Masyhur, 2016) with poor levels of economy (according to Indonesian standards) and sole source of income (Septiadi & Nursan, 2020). Moreover, the income of the labourers working in the agricultural sector is meagre (Arham & Dai, 2020) due to the low agricultural land ownership (less than 0.5 ha) per family. This condition explains why the agricultural sector contributes truly little to Indonesia's taxation: the more educated, healthier, and have an average or above average standard of living, the higher the willingness to pay more taxes (Schipor et al., 2019), while the condition in Indonesia is far from the average.

As one of the developing countries, Indonesia also faces several problems, similar to many other developing countries, such as unintegrated tax structures, inadequate administration systems, and instability in economics and governance. The combination of the characteristics of agricultural players and Indonesia's condition made the low tax revenue collection from the agricultural sector very reasonable.

The Uniqueness of Tax Approaches in the Agricultural Sector

Even though the food sector is vital in the economy, agricultural sectors have not received much attention in the tax literature (Cnossen, 2018). As the world moves on, new research shows that agricultural tax is a tool to encourage economic players in the agricultural sector to distribute more of their resources to investment rather than personal consumption, leading to unbiased redistribution of wealth. In recent years, there has been increased scholarly focus on the taxation of the informal sector in developing countries. Taxation has globally proven itself as a strategic approach for funding modern civilisation's social and economic development, owing to its significant ability for revenue mobilisation. Developed nations, including the United States of America, the Netherlands, Canada, and the United Kingdom, have effectively used robust taxation systems to generate adequate annual revenues. The conditions are different in developing countries. Besides developing robust taxation systems, these countries could not ignore the potential taxation sector, including the hard-to-tax-like agricultural sector.

There are four different purposes for the government to tax the agricultural sector: (i) to generate revenues that can be utilised to finance government expenditures; (ii) to transfer resources, particularly agricultural surplus, from the agricultural sector to non-agricultural sectors; (iii) to foster efficiency and encourage diversification in agricultural production; and (iv) to facilitate the redistribution of incomes within the agricultural sector. Taxation in the agricultural sector of developing countries has proven to be a significant source of revenue mobilisation.

However, levying taxes on the agricultural sector presents challenges, as highlighted by Soliwoda & Pawłowska-Tyszko, 2014. Despite the inherent difficulties in taxing the informal sector, Nasim (2012) proposed two different strategies for taxing the agricultural sector: (1) imposing a tax on cultivated land and (2) implementing a tax on agricultural income. This strategy has different perspectives from the European Union, where the European Union is trying to tax the agricultural sector through the value-added tax (VAT) with three different options for VAT treatment. Explicit taxes on agricultural producers are included in (1) direct taxes on income, whether actual or presumed, individuals (heads of households), and personal movable and immovable wealth or

property, with a particular focus on agricultural land; and (2) indirect taxes, including sales taxes (such as GST and VAT), turnover tax, excises, stamp duties, cesses applied to specific products, customs duties, and export taxes.

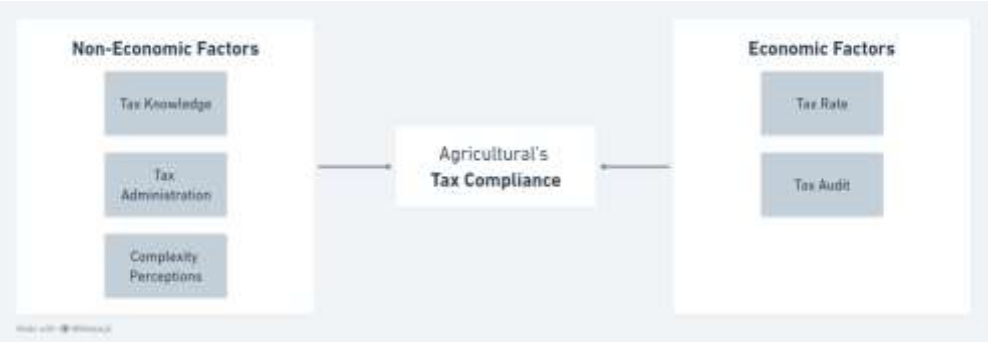
Additionally, Soliwoda and Pawłowska-Tyszko (2014) categorise revenue, income, and property taxes as the primary types of agricultural taxes. According to these authors, revenue tax is realised when tax is imposed on cultivation and land ownership proceeds. The tax is contingent on gross revenue, encompassing all proceeds without deducting incurred expenses. Farmers are bound to pay the revenue tax irrespective of whether they generate a surplus from their enterprise.

On the other hand, property tax is levied based on the size of agricultural land, implying that larger farm sizes incur higher taxes and vice versa. Furthermore, income tax is imposed according to the farmer's income group. Maintaining a robust financial record eases the exact assessment and imposition of income tax, enabling farmers to manage the tax burden effectively.

In the context of Ghana, efforts to stimulate investment in economically disadvantaged regions involve reducing tax rates as incentives for agro-processing and manufacturing enterprises. Furthermore, companies working in designated free zones enjoy ten years of tax holidays. In Ghana, specific durations of tax exemptions are granted to agro-processing enterprises, tree crops, and livestock farming, amounting to three, ten, and five years, respectively.

Research Methods

The paper aims to see different perspectives on some factors in tax compliance and then reflect on Indonesia's agricultural conditions. The selected factors are economic factors and non-economic factors.



The literature search was confined to the Scopus database, a resource subscribed to and provided by the author's university library, chosen for its reputation and high quality. Scopus is widely used as one of the primary sources when conducting literature reviews (Casino et al., 2019). The Scopus database was selected to ensure a comprehensive coverage of relevant articles. The search was not constrained by any specified period to avoid limiting the opportunity to incorporate relevant studies into the literature review.

The author conducted the search using keywords such as "farmer AND tax AND compliance,"" informal AND tax AND compliance," or "informal AND tax AND compliance AND factors." The total search resulted in 192 published articles. After removing duplicate entries, this procedure yielded a preliminary sample of 180 published articles. To ensure the quality and relevance of the research, the author applied filtering by keeping only those articles published in journals listed in either the "Accounting,"

"Finance," "Economics," or "Social Sciences" subsections, which leads to 175 publications. Because the author is focusing on influencing factors in the agricultural sector, the author excluded all articles that were either out of the scope (-37), not empirical (-15), and did not fit the criteria (-7). The author then chooses the articles manually by analysing the titles/abstracts and the contents, which leads to 4 final articles.

Moreover, to enrich the literature, the author uses Google Scholar as the added source since this paper uses five factors as the literature reviews, where each factor is taken from at least four papers, which leads to 20 final papers.

Results and Discussions

Summary from earlier literature

A farmer is an individual engaged in agriculture, primarily in managing land to cultivate and maintain crops such as rice, fruits, flowers, and others. This activity is carried out with the expectation of obtaining yields from these crops for personal use or sale to others. Farmers may also provide various raw materials for industries, such as fruits for juice, cereals for alcoholic beverages, and wool or cotton for weaving and clothing manufacturing.

Research on Indonesia A farmer is an individual engaged in agriculture, primarily in managing land to cultivate and maintain crops such as rice, fruits, and flowers. This activity is carried out with the expectation of obtaining yields from these crops for personal use or sale to others. Farmers may also provide various raw materials for industries, such as fruits for juice, cereals for alcoholic beverages, and wool or cotton for weaving and clothing manufacturing. The agricultural tax has shown mixed effects on the market. (Dewanti & Purna, 2022) The tax decreased demand, imports, and exports but increased sales and welfare for the country. (Setiawan et al., 2020) A value-added tax (VAT) on the agricultural sector could positively impact the economy if the revenue is distributed to people experiencing poverty. Highlighted the decline in the importance of the land tax in British India and Dutch Indonesia and the potential impoverishment of cultivators. (Montgomery et al., 2002) discussed the deregulation of Indonesia's interregional agricultural trade, eliminating distorting taxes and levies and leading to higher accurate prices for farmers.

The newest regulations show that agricultural products are included in the taxable goods handed over by groups of farmers to buyers. Therefore, agricultural products are subject to VAT following applicable regulations. Based on Minister of Finance Regulation (PMK) Number 64/PMK.03/2022, VAT collection on the delivery of certain agricultural goods from farmer groups (PKP) is subject to a rate of 1.1% of the selling price. The amount of VAT collection is obtained by multiplying 10% of the applicable VAT rate, resulting in 11%.

Horticultural agricultural products are categorised into various types. Firstly, Taxable Goods (BKP) include ornamental and medicinal plants. Secondly, Non-Taxable Goods (Non-BKP) involve food crops such as rice, peanuts, corn, rice, cassava, and unhusked rice. Meanwhile, another Non-BKP comprises necessities like fruits and vegetables.

All plantation products subjected to the 1.1% VAT DPP fall under the Taxable Goods category. Examples of such plantation products include cocoa, coffee, palm sugar, cashews, mace, pepper, cloves, tea, rubber, cotton, tobacco, kapok, cinnamon, vanilla, quinine, patchouli, essential oils, lemongrass, and coconuts.

For forestry products, there are two types subject to a 1.1% VAT DPP rate:

1. Timber Forest products, including round logs of sawdust wood, dried round logs, latex round logs, and large or small round logs.
2. Non-timber forest products include original rattan, gubal agarwood, WS round rattan, kamendangan, candlenuts, tengkawang seeds, and damar copal.

Synthesis and areas for future research

The research on Indonesia's agricultural tax landscape presents a nuanced picture with mixed effects on the agricultural market. (Dewanti & Purna, 2022) Find that the imposition of agricultural tax led to a decrease in demand, imports, and exports, but paradoxically resulted in increased sales and improved welfare for the country. This suggests a complex interplay of market dynamics influenced by the tax policy. (Setiawan et al., 2020) Contribute to the discussion by suggesting that a value-added tax (VAT) on the agricultural sector could have positive impacts, mainly if the generated revenue is effectively distributed to people experiencing poverty. This perspective emphasises the importance of considering the broader socio-economic implications of tax policies.

Introduces the idea of deregulation in Indonesia's interregional agricultural trade, emphasising the positive outcomes of eliminating distorting taxes and levies. The deregulation resulted in higher accurate prices for farmers, indicating the potential benefits of removing obstacles in the form of certain taxes on agricultural trade.

In summary, the research on Indonesia's agricultural tax landscape reveals a complex interplay of effects on the market, welfare, and historical trends. The recent regulations introducing VAT on certain agricultural goods highlight the ongoing efforts to refine tax policies in the agricultural sector. It remains essential for policymakers to carefully consider the multifaceted impacts of taxation on farmers, market dynamics, and overall economic welfare to ensure that tax policies contribute positively to the sustainable development of Indonesia's agricultural sector.

Summary from earlier literature

Tax knowledge in agriculture is a complex and multifaceted issue with implications for individual farmers and the sector. Research shows that there should be an emphasis on the need for a tax system that balances efficiency and equity, considering the specific characteristics of the agriculture industry highlight the significant impact of tax policy on farmers' decision-making and the supply and prices of agricultural commodities. These studies underscore the importance of understanding and effectively managing agricultural tax implications.

In the self-assessment system, the fact that tax knowledge is the critical determinant of voluntary tax compliance is undeniable among researchers (Sebele-Mpofu & Chinoda, 2019). Farmers' tax knowledge in Ethiopia has significantly correlated with the tax-compliant attitude (Azime & Ramakrishna, 2018). The same result is also shown among the commercial sugarcane farmers in Zimbabwe, where a lack of tax knowledge and understanding has a significant relationship with non-compliance in tax payments . Positive effects are also shown in the poultry farmers in Ghana, where tax knowledge (or tax awareness as mentioned in the journal) is one of the three main factors that could influence their willingness to pay (Sebele-Mpofu & Chinoda, 2019).

Analysis and future research to be explored

The existing research underscores the intricate nature of taxation in agriculture, emphasising the necessity for a tax system that balances efficiency and equity, considering the industry's unique characteristics. These insights stress the importance of comprehending and effectively managing agricultural tax implications. Furthermore, within the self-assessment system, tax knowledge emerges as a pivotal factor influencing

voluntary tax compliance among farmers (Sebele-Mpofu & Chinoda, 2019). Studies in Ethiopia and Zimbabwe reveal a significant correlation between farmers' tax knowledge and compliance attitudes and behaviours (Azime & Ramakrishna, 2018). Positive effects are also noted in Ghana, where tax knowledge plays a crucial role in influencing the willingness of poultry farmers to pay taxes.

For future research, there is a need to delve deeper into designing tax policies that address the specific needs of the agriculture sector, explore regional and sectoral variations in the impact of tax knowledge, and consider innovative approaches to tax education. Longitudinal studies tracking changes in tax knowledge and compliance, coupled with collaboration between researchers and policymakers, can contribute to refining strategies and policies for better outcomes in the agriculture taxation landscape.

Summary from earlier literature

One of the main problems in developing countries is poor administration and unintegrated tax structures. Even with data gathered from public institutions, the data probably differs from reality and does not reflect the actual condition. Albania has an unclear data challenge where farmers' lack of registration makes the agricultural sector's taxation difficult to measure the effective government incentive or define fiscal incentive.

To solve this problem, countries like EU member states have already developed a Land Parcel Identification System (LPIS) as part of the Integrated Administration and Control Systems (Kocur-Bera, 2020) for various purposes, including the calculation of taxes (Regulation, 1989). This LPS, then widely adopted by Poland as the National Registration System of Agricultural Products, consists of three main components: Register of Farms, Register of Agricultural Producers, and Register of Payment Applications (Kocur-Bera, 2020).

Analysis and future research to be explored

The challenge of poor administration and unintegrated tax structures in developing countries, as outlined by Tesfaye (2015), reflects a broader issue of information asymmetry and ineffective governance. The disparity between officially gathered data and the actual conditions on the ground, as emphasised, not only complicates tax assessment but also hampers the formulation of targeted policies that address the specific needs of the agricultural sector.

In the case of Albania, the lack of farmer registrations adds another layer of complexity to the taxation landscape. This impedes measuring government incentives' effectiveness and makes it challenging to design fiscal policies that foster sustainable agricultural development. The consequences of such gaps in data are significant, potentially leading to inefficient resource allocation, misdirected subsidies, and an overall lack of precision in economic planning.

The European Union's successful implementation of the Land Parcel Identification System (LPIS), as noted (Kocur-Bera, 2020), stands out as a proactive solution to these challenges. The integration of LPIS into the broader framework of Integrated Administration and Control Systems streamlines tax calculations and enhances transparency and accountability. Poland's adoption of LPIS in its National Registration System of Agricultural Products is a noteworthy example of how a well-designed information system can address data challenges in agriculture.

Moreover, beyond tax calculations, the LPIS provides a valuable tool for land management and agricultural planning. It enables policymakers to make informed decisions about resource allocation, environmental sustainability, and rural development. The three main components of Poland's system - the Register of Farms, the Register of

Agricultural Producers, and the Register of Payment Applications - create a comprehensive database that facilitates holistic policy approaches.

For other developing countries facing similar challenges, the EU's model offers insights into the transformative potential of integrated information systems. As seen in the Register of Agricultural Producers, establishing accurate and up-to-date databases through farmer registrations lays the groundwork for effective policy implementation. Furthermore, the success of LPIS emphasises the importance of a holistic approach to data management, encompassing multiple facets of the agricultural sector.

In conclusion, addressing the challenges of poor administration and data discrepancies in taxation requires a multifaceted approach. Integrating systems like LPIS enhances tax assessment and contributes to more effective and targeted policymaking, ultimately fostering sustainable development in the agricultural sector of developing countries.

Summary from earlier literature

(Chodorow, 2006) argues that any income-based tax, including those applied to agricultural produce, will inherently be complex due to the challenges of defining income, addressing tax avoidance, and managing timing issues. (Freebairn, 1995) further complicates the issue by highlighting the difficulty of assessing the efficiency properties of agricultural taxation, given the various bases for taxing capital income. It adds a psychological dimension, suggesting that tax complexity can negatively impact perceptions of equity, particularly when no explicit justification is provided. Finally, (Boehlje Carman, 1982b) underscores the significant role of taxes in shaping the decision-making of agricultural producers, with changes in tax rules expected to have a substantial impact on savings, investment behaviour, and supply and prices of agricultural commodities.

Analysis and future research to be explored

Chodorow, (2006). The argument that income-based taxes on agricultural produce are inherently complex resonates with the broader discourse on tax complexity, which has significant implications for the agricultural sector. Defining income in the context of agriculture poses unique challenges due to the variability of revenue streams, the valuation of produce, and the dynamic nature of farming operations. This complexity is exacerbated by difficulties addressing tax avoidance strategies and navigating timing issues specific to agricultural cycles.

Contributes to this discussion by highlighting the complexity associated with assessing the efficiency properties of agricultural taxation. The varied bases for taxing capital income in the agricultural sector add layers of intricacy, making it challenging to determine the most effective and equitable taxation approach. The nuanced nature of agricultural income, influenced by crop yields, market fluctuations, and input costs, requires carefully examining taxation mechanisms to ensure both efficiency and fairness.

(Cuccia & Carnes, 2001) Introduce a psychological dimension to the analysis, emphasising that tax complexity can negatively impact perceptions of equity, mainly when justifications for such complexities are not explicitly provided. In the context of agricultural taxation, where farmers' livelihoods are directly affected, the perceived fairness of the tax system becomes crucial. A lack of transparency and clear justification for complex tax structures may erode trust and support for taxation policies in the agricultural community and the broader public.

Emphasis on the significant role of taxes in shaping the decision-making of agricultural producers further underscores the importance of considering complexity

perceptions. Tax rule changes can profoundly impact farmers' savings, investment behaviour, and the supply and prices of agricultural commodities. Complex tax structures may introduce uncertainties and challenges in decision-making processes, potentially affecting the long-term sustainability and competitiveness of the agricultural sector.

In integrating these perspectives, it becomes evident that tax complexity in agriculture goes beyond the technical intricacies of income definition and efficiency assessments. It extends to psychological and behavioural dimensions, influencing how farmers perceive the tax system's fairness and make crucial decisions about their operations. To improve the design and acceptance of agricultural taxation, policymakers should address technical complexities and prioritise clear communication, transparency, and justifications for the intricacies involved. A holistic approach considering tax complexity's economic and psychological aspects is essential for building a tax system supporting a vibrant and sustainable agricultural sector.

Summary from earlier literature

Research on the tax rate in agriculture reveals a complex relationship between taxation, emissions, and investment. (Mardones & Lipski, 2020) Finds that a tax on agricultural emissions can reduce production and GDP, suggesting that a broader tax approach may be more effective. Moreover, (Andrejovská et al., 2019) emphasise the importance of effective average tax rates in assessing the financial impact on capital investment and taxation efficiency in agricultural businesses. (Freebairn, 1995) underscores the need for a progressive income tax rate schedule to achieve social equity, highlighting the complexity of tax design in the agricultural sector. (Petrukha & Nazukova, 2015) Both emphasise the importance of effective average tax rates in assessing the financial impact on capital investment and taxation efficiency in agricultural businesses.

Analysis and future research to be explored

The research on tax rates in agriculture reveals a multifaceted relationship involving taxation, emissions, and investment, with implications for economic production and social equity. (Mardones & Lipski, 2020) Provide insights into the intricate dynamics by suggesting that a tax explicitly targeting agricultural emissions can adversely affect production and GDP. This finding implies the need for a more comprehensive and nuanced approach to agricultural taxation, considering broader factors beyond emissions alone.

Contribute to the discourse by emphasising the significance of effective average tax rates in evaluating the financial impact on capital investment and the overall efficiency of taxation in agricultural businesses. This underscores the importance of considering the nominal tax rates and their practical implications on investment decisions and economic outcomes. Therefore, the efficiency of taxationeeeeeeeee in the agricultural sector is intricately tied to how tax rates influence the financial decisions and behaviours of farmers and businesses.

(Freebairn, 1995) advocacy for a progressive income tax rate schedule in agriculture adds another layer to the complexity of tax design. While the call for progressivity aligns with social equity goals, it introduces challenges in balancing the fiscal needs with the economic realities of the agricultural sector. Crafting a tax structure that fosters equity while supporting the economic viability of farms requires careful consideration of various factors, including income distribution, farm sizes, and the diversity of agricultural operations.

Integrating these perspectives reveals a delicate balance that policymakers must strike in designing effective tax rates for agriculture. As suggested by (Mardones and Lipski, 2020), a broader tax approach may be necessary to address diverse environmental and economic considerations. Meanwhile, the focus on effective average tax rates, highlighted by (Andrejovská et al., 2019), emphasises the practical implications of tax policies on investment decisions, economic efficiency, and the overall health of agricultural businesses.

Summary from earlier literature

A range of studies have explored the tax audit process in the agricultural sector. Emphasises the need for tax auditors to adopt a more collaborative approach, focusing on education and communication with taxpayers. (Kotsupatryi et al., 2019) further underscores the importance of tax audit efficiency and effectiveness, particularly in detecting and addressing violations. (Reshetnyak et al., 2020) Highlight the complexity of tax design and the potential for tax management tools to reduce the tax burden and improve financial results in the agricultural sector. These studies underscore the need for a balanced and practical tax audit approach in the agricultural industry.

Analysis and future research to be explored

As highlighted by various studies, the exploration of the tax audit process in the agricultural sector reveals essential insights into the dynamics of taxation, compliance, and financial management. It highlights the necessity of a collaborative approach in tax auditing, emphasising the importance of education and communication between tax auditors and taxpayers. This perspective recognises the significance of fostering a cooperative environment that promotes understanding and compliance rather than solely relying on punitive measures.

(Kotsupatryi et al., 2019) adds another layer to the discussion by emphasising the critical role of tax audit efficiency and effectiveness. The focus here is on detecting and correcting violations within the agricultural sector. Efficient tax audits ensure compliance with tax regulations and contribute to the tax system's overall integrity. This perspective aligns with the idea that a well-functioning tax audit process is crucial for maintaining fairness and equity in taxation.

Moreover, both draw attention to the complexity of tax design in the agricultural sector. They highlight the potential for tax management tools to play a role in reducing the tax burden and improving financial results for agricultural businesses. This underscores the need for a nuanced understanding of tax policies and the implementation of tools that align with the unique characteristics of the agricultural industry. Effective tax management can enhance compliance and contribute to the financial sustainability of agricultural enterprises.

Conclusion

This literature review concludes that although research on taxation has increased in recent years, particularly within the agricultural sector, research specific to the agricultural sector is still very limited compared to other sectors. However, certain factors, such as the national registration system of agricultural products, different tax rate options, buyer assistance, and tax knowledge through fertiliser incentives, are estimated to correlate with tax compliance strongly.

The literature review also highlighted the growing role of agricultural taxation as a tool for economic development and wealth redistribution. Recent research emphasises the importance of agricultural taxation in diverting resources to investment rather than

personal consumption. The government seeks to obtain revenue, transfer resources to the non-agricultural sector, increase efficiency, and distribute revenue within the sector. Tax audits are becoming a vital tool for regulators in improving tax compliance, primarily through the application of technology. The prospect of a tax audit is a deterrent, encouraging taxpayers to comply with tax regulations to avoid legal consequences. Meanwhile, future research should expand the scope of research to understand tax compliance in the agricultural sector further so that the results can be more accepted and valid in general.

References

Andrejovská, A., Buleca, J., & Puliková, V. (2019). Capital taxation efficiency of agricultural businesses in the Slovak Republic. *Potravinarstvo*, *13*(1).

Apip Alansori, S. E., & Erna Listyaningsih, S. E. (2020). *Kontribusi UMKM terhadap kesejahteraan masyarakat*. Penerbit Andi.

Arham, M. A., & Dai, S. I. (2020). Does agricultural performance contribute to rural poverty reduction in Indonesia? *JEJAK: Jurnal Ekonomi Dan Kebijakan*, *13*(1), 69–83. https://doi.org/10.15294/jejak.v13i1.20178

Azime, H., & Ramakrishna, G. (2018). Tax Compliance Attitude of Rural Farmers: An Analysis Based on Survey Data in Ethiopia. *Economic Growth and Development in Ethiopia*, 137–158.

Casino, F., Dasaklis, T. K., & Patsakis, C. (2019). A systematic literature review of blockchain-based applications: Current status, classification and open issues. *Telematics and Informatics*, *36*, 55–81.

Cnossen, S. (2018). VAT and agriculture: lessons from Europe. *International Tax and Public Finance*, *25*, 519–551.

Dewanti, D. S., & Purna, F. P. (2022). Indonesia's Agriculture Tax: An Approach to the GTAP Model. *Jurnal Ekonomi Dan Studi Pembangunan*, *14*, 1.

Kocur-Bera, K. (2020). Understanding information about agricultural land. An evaluation of the extent of data modification in the Land Parcel Identification System for the needs of area-based payments–a case study. *Land Use Policy*, *94*, 104527.

Kotsupatryi, M., Novak, N., & Sarapina, O. (2019). Improving and raising the effectiveness of audit of tax accounting at the agricultural enterprises. *University Economic Bulletin*, *41*, 15–21.

Lubis, P. S. I., & Salsabila, R. (2024). Peran UMKM (Usaha Mikro, Kecil, Dan Menengah) Dalam Meningkatkan Pembangunan Ekonomi Di Indonesia. *MUQADDIMAH: Jurnal Ekonomi, Manajemen, Akuntansi Dan Bisnis*, *2*(2), 91–110.

Mardones, C., & Lipski, M. (2020). A carbon tax on agriculture? A CGE analysis for Chile. *Economic Systems Research*, *32*(2), 262–277.

Masyhur, F. (2016). Implementasi Strategi E-Government Kota Parepare Menggunakan Model Cassidy Dan Dimensi Pemeringkatan E-Government Indonesia (Pegi). *J. Penelit. Komun. Dan Opini Publik*, *20*(2), 111–122.

Reshetnyak, E., Ntamatungiro, M., Pinheiro, L. C., Howard, V. J., Carson, A. P., Martin, K. D., & Safford, M. M. (2020). Impact of multiple social determinants of health on incident stroke. *Stroke*, *51*(8), 2445–2453.

Schipor, O.-A., Vatavu, R.-D., & Vanderdonckt, J. (2019). Euphoria: A Scalable, event-driven architecture for designing interactions across heterogeneous devices in smart environments. *Information and Software Technology*, *109*, 43–59.

Septiadi, D., & Nursan, M. (2020). Pengentasan kemiskinan Indonesia: Analisis indikator makroekonomi dan kebijakan pertanian. *Jurnal Hexagro*, *4*(1), 1–14.