Owner: Riset & Jurnal Akuntansi
e –ISSN : 2548-9224 | p–ISSN : 2548-7507
Volume 9 Nomor 4, Oktober 2025
DOI : https://doi.org/10.33395/owner.v9i4.2832

Carbon Tax, Green Innovation, and Sustainable Development: Evidence from a Systematic Literature Review

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ABSTRACT

This study employs a Systematic Literature Review (SLR) using the PRISMA framework to examine the role of carbon tax in fostering green innovation and advancing sustainable development. A total of 40 peer-reviewed articles published between 2015 and 2025 were analyzed from major databases including Scopus, Web of Science, and Google Scholar. The findings reveal that the carbon tax not only functions as a fiscal instrument to reduce carbon emissions but also acts as a catalyst for corporate green innovation and environmental disclosure practices. Three dominant themes emerged: (1) the effectiveness of carbon tax in reducing emissions and strengthening fiscal capacity, (2) its influence on corporate strategies to promote green technology and sustainable business models, and (3) its contribution to achieving the Sustainable Development Goals (SDGs), particularly in developing economies. While the carbon tax shows significant potential, challenges such as policy inconsistency, institutional weakness, and industrial resistance remain obstacles to its full implementation. The review offers guidance for policymakers to integrate fiscal and innovation policies toward sustainable growth.

***Keywords*:**, *Carbon Tax, Green Innovation, Sustainable Development, Tax Policy.*

INTRODUCTION

The urgency of addressing climate change has pushed governments, businesses, and societies to search for more effective policies to reduce greenhouse gas (GHG) emissions. Among the various instruments available, carbon taxation has emerged as one of the most widely debated and implemented mechanisms worldwide. By assigning a monetary cost to carbon emissions, carbon taxes seek to internalize environmental externalities, thereby encouraging polluters to reduce emissions and adopt cleaner technologies (Meila et al., 2024). Beyond its fiscal function, the carbon tax represents a strategic policy tool for promoting behavioral change at both corporate and individual levels (Xie & Jamaani, 2022).

Globally, the adoption of carbon taxation has varied significantly across countries. Developed economies such as Sweden, Finland, and Canada have long implemented carbon tax schemes with measurable success in reducing emissions while maintaining economic growth. In contrast, developing countries face challenges in balancing the need for economic expansion with the pressure to reduce emissions (Sofiyati & Hernawan, 2023). This global variation highlights the importance of contextual factors, such as governance structures, institutional capacity, and economic maturity, in determining the effectiveness of carbon tax policies (Soekarno et al., 2024).

Indonesia, as one of the largest emitters in Southeast Asia, has gradually integrated carbon pricing into its fiscal reform agenda (Pramita et al., 2024). The government formally introduced carbon tax legislation in 2021 as part of the Harmonized Tax Law (UU HPP), with implementation beginning in 2022 and a broader rollout expected in subsequent years. This policy reflects Indonesia's commitment to achieving its Nationally Determined Contribution (NDC) targets under the Paris Agreement and its long-term goal of net-zero emissions by 2060. Carbon tax in Indonesia

is therefore not only a fiscal innovation but also a central component of the nation's sustainability agenda (Dilasari et al., 2022; Sulistyowati et al., 2025).

In addition to reducing emissions, carbon taxes are expected to influence corporate strategies and drive green innovation (Bui et al., 2021; Ladista et al., 2023; Toumi et al., 2022) . By increasing the cost of carbon-intensive practices, the tax creates incentives for firms to invest in renewable energy, cleaner production technologies, and sustainable business models (Putu Dian Pusparini et al., 2023). This aligns with the broader shift toward environmental, social, and governance (ESG) practices, which are increasingly demanded by investors, regulators, and consumers. Thus, carbon tax serves as both a regulatory constraint and a market-driven stimulus for innovation.

However, the effectiveness of carbon taxes in promoting sustainability has been debated. While some studies highlight their success in reducing emissions and stimulating innovation, others argue that the outcomes are highly context-dependent (Karlinah et al., 2025). Issues such as policy design, rate setting, administrative capacity, and industry resistance can significantly affect results (Pramita et al., 2024). For instance, a carbon tax set too low may fail to incentivize meaningful change, while one set too high could generate backlash from industries and consumers. These dynamics make carbon taxation a complex and multidimensional policy instrument.

From an academic perspective, research on carbon tax spans several domains, including economics, environmental studies, public policy, and corporate governance. Scholars have explored its fiscal impacts, distributional consequences, political feasibility, and implications for competitiveness (Meila et al., 2024). More recently, there has been a growing interest in examining how carbon taxes intersect with green innovation and sustainable development goals (SDGs) (Halizah & Furqon, 2024). This reflects a recognition that fiscal tools should not be evaluated in isolation but rather in terms of their broader contributions to sustainability.

Despite this growing body of research, much of the existing literature remains fragmented. Many studies focus narrowly on the environmental or fiscal impacts of carbon tax, while fewer explore its relationship with corporate behavior, innovation, and long-term sustainability outcomes. Moreover, empirical evidence is uneven across countries, with most studies concentrated in developed economies, leaving gaps in understanding how carbon tax functions in developing contexts such as Indonesia. These limitations highlight the need for a systematic review that synthesizes findings across diverse disciplines and geographies.

However, previous studies remain fragmented and lack a systematic synthesis linking carbon tax, green innovation, and Sustainable Development Goals (SDGs), particularly in developing countries. Therefore, this study addresses the following research question: *How does carbon tax influence green innovation and sustainable development across contexts?*

A Systematic Literature Review (SLR) offers an appropriate method to address this gap. By applying structured and transparent criteria for article selection and synthesis, an SLR allows for the identification of consistent themes, divergent findings, and emerging research trends. This approach not only provides a comprehensive overview of the current state of knowledge but also offers insights into areas where further research is needed. For policymakers, the results of such a review can inform the design of more effective carbon tax schemes that align with sustainability objectives.

This study therefore aims to synthesize academic and professional literature on the nexus between carbon tax, green innovation, and sustainable development. By reviewing publications from 2015 to 2025, the research seeks to capture both the early debates and more recent developments in this field. The review focuses on three main dimensions: the effectiveness of carbon tax in reducing emissions and enhancing fiscal capacity, its role in shaping corporate innovation strategies, and its contribution to achieving broader sustainability goals.

Ultimately, this paper contributes to both academic discourse and policy practice. Academically, it integrates insights from multiple disciplines into a coherent framework for understanding the multifaceted impacts of carbon tax. Practically, it provides evidence-based recommendations for policymakers and corporate leaders seeking to align fiscal tools with sustainability transitions. By situating the analysis within global debates while emphasizing

relevance for developing countries, particularly Indonesia, this study underscores the transformative potential of carbon tax in advancing green innovation and sustainable development.

LITERATUR REVIEW

Environmental Tax Theory

The Environmental Tax Theory originates from the economic concept of externalities introduced by Pigou (1920). In conventional markets, polluters often impose costs on society—such as air pollution or greenhouse gas emissions—without bearing responsibility for the damage caused. This leads to market failure, as private costs diverge from social costs (He et al., 2021; Xie & Jamaani, 2022). A Pigouvian tax, or environmental tax, seeks to correct this imbalance by making polluters internalize the social costs of their activities (Mikhno et al., 2021; Yudhana & Madalina, 2022). By attaching a monetary value to pollution, governments create incentives for firms and individuals to reduce environmentally harmful behavior (Adi Prawira & Nur Apandi, 2023).

Applied to climate change, the carbon tax is a specific form of Pigouvian tax designed to reduce carbon dioxide (CO_2) and other greenhouse gas emissions. By setting a price per ton of carbon, governments directly influence production and consumption decisions. Industries that rely heavily on fossil fuels face higher costs, which motivates them to adopt cleaner technologies or shift toward renewable energy. Similarly, consumers may change their preferences, for instance by reducing reliance on carbon-intensive goods and services (Nurfatimah et al., 2024). The environmental tax framework thus provides a clear theoretical justification for carbon taxation as both an environmental and fiscal instrument (Wang et al., 2022).

Empirical studies across the globe provide evidence supporting Environmental Tax Theory in the context of carbon tax. Countries such as Sweden and Finland, which implemented carbon taxes decades ago, have achieved significant reductions in emissions without hindering economic growth. Their experiences suggest that well-designed environmental taxes can align environmental goals with fiscal sustainability. However, other cases illustrate the limitations of the theory when policies are poorly designed or inadequately enforced. For instance, if carbon taxes are set too low or enforcement is weak, polluters may continue emitting without significant behavioral change. These variations demonstrate the importance of contextual and institutional factors in shaping outcomes.

For developing countries like Indonesia, Environmental Tax Theory offers both opportunities and challenges. On the one hand, carbon taxation has the potential to generate revenue while simultaneously reducing emissions, aligning fiscal policy with sustainability objectives. On the other hand, weak enforcement capacity, industrial resistance, and limited public trust may hinder the realization of theoretical benefits. Thus, while Environmental Tax Theory provides the foundation for understanding the rationale behind carbon taxation, its practical effectiveness depends on policy design, administrative capacity, and broader socio-economic conditions.

Porter Hypothesis

The Porter Hypothesis, introduced by Michael Porter and Claas van der Linde (1995), challenges the traditional view that environmental regulations only impose costs on firms (van Leeuwen & Mohnen, 2017; Yu et al., 2023). Instead, it posits that well-designed regulations can stimulate innovation, improve efficiency, and ultimately enhance competitiveness. By increasing the cost of polluting activities, firms are pushed to seek innovative solutions that not only comply with regulations but also create new opportunities for growth. This hypothesis has become highly relevant in the context of carbon tax, where regulation and innovation are closely intertwined.

In the case of carbon taxation, the rising cost of carbon-intensive practices incentivizes firms to invest in green technologies, improve energy efficiency, and develop sustainable business models (Albab & Tjaraka, 2024; Wibisono & Soepriyanto, 2024). For example, companies subject to carbon tax may adopt renewable energy sources, redesign production processes, or create environmentally friendly products to reduce their tax burden. This dynamic supports the notion that carbon tax is not only a constraint but also a driver of innovation, reinforcing the dual role of regulation as both deterrent and catalyst.

Owner: Riset & Jurnal Akuntansi
e –ISSN : 2548-9224 | p–ISSN : 2548-7507
Volume 9 Nomor 4, Oktober 2025
DOI : https://doi.org/10.33395/owner.v9i4.2832

Empirical evidence offers mixed but insightful findings on the Porter Hypothesis in the context of carbon taxation. Studies from Europe and North America show that firms exposed to carbon tax regimes often increase research and development in green technologies, demonstrating the innovative stimulus effect. However, in some cases, firms have responded by shifting operations to jurisdictions with weaker regulations, a phenomenon known as carbon leakage. These mixed outcomes highlight the importance of complementary policies, such as subsidies for clean technology or international coordination, to fully realize the benefits envisioned by Porter.

For Indonesia, the Porter Hypothesis suggests that carbon tax could play a crucial role in transforming industries toward sustainability. However, this potential depends heavily on the country's innovation ecosystem, including the availability of financing for green projects, the capacity for research and development, and supportive regulatory frameworks. Without these conditions, firms may perceive carbon tax solely as a burden rather than as an opportunity for innovation. Thus, the applicability of the Porter Hypothesis in developing countries underscores the importance of creating an enabling environment for green innovation alongside carbon taxation.

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), developed by Davis (1989), offers a behavioral perspective on the adoption of new technologies or systems. It argues that users' willingness to adopt is influenced primarily by two factors: perceived usefulness and perceived ease of use (Ilmi et al., 2020; Putu et al., n.d.). Although originally designed to explain the adoption of information technologies, TAM can be extended to understand how taxpayers and corporations respond to new regulatory instruments such as carbon tax, which involves new administrative procedures and compliance mechanisms.

Perceived usefulness refers to the belief that adopting carbon tax policies will provide tangible benefits, such as improving sustainability, enhancing corporate reputation, or reducing long-term costs through efficiency gains (Pangestu & Nawirah, 2025) . If taxpayers and firms view the carbon tax as contributing positively to environmental and economic outcomes, they are more likely to support and comply with it (Utama & Setiawan, 2024). Conversely, if the policy is perceived as ineffective or merely burdensome, resistance to adoption may occur, undermining compliance rates.

Perceived ease of use relates to the simplicity and clarity of the tax system's design and administration. If carbon tax procedures are straightforward, accessible, and supported by adequate infrastructure, taxpayers will find compliance less burdensome. However, complex reporting requirements, weak administrative support, or lack of transparency may discourage participation and foster evasion. Thus, behavioral perceptions play a pivotal role in shaping the effectiveness of carbon tax beyond its economic design.

The application of TAM to carbon tax highlights the importance of communication, education, and institutional support in securing compliance. Governments must ensure that stakeholders understand the purpose, benefits, and procedures of carbon tax to shape positive perceptions. Public campaigns, training programs, and accessible digital platforms can enhance perceived usefulness and ease of use. In Indonesia, where digital literacy and public trust in tax authorities remain uneven, applying TAM underscores the necessity of building not only a technically sound policy but also one that is perceived as legitimate, beneficial, and easy to comply with.

RESEARCH METHOD

This study employs a Systematic Literature Review (SLR) approach to examine the role of carbon tax in promoting green innovation and sustainable development. An SLR is a rigorous method that synthesizes existing research using a transparent and replicable process, ensuring that the findings are not biased by selective citation or anecdotal evidence (Mediaty et al., 2024)). By adopting this method, the study systematically maps the landscape of existing research, identifies dominant themes, and highlights gaps in the literature. The review adheres to the

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Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines, which provide structured protocols for study selection, screening, and synthesis.

The literature search was conducted across multiple reputable academic databases, including Scopus, Web of Science, and Google Scholar, to ensure a comprehensive coverage of both peer-reviewed journal articles and high-quality conference proceedings. The search strategy combined keywords and Boolean operators such as "carbon tax" AND "sustainability", "carbon tax" AND "green innovation", and "carbon tax" AND "sustainable development". These keywords were carefully chosen to capture studies addressing the intersection of fiscal policy, environmental innovation, and sustainable development outcomes. The search was limited to publications between 2015 and 2025 to capture both early discussions of carbon tax in the post-Paris Agreement period and more recent developments that align with global net-zero commitments.

To ensure methodological rigor, the study applied inclusion and exclusion criteria. The inclusion criteria consisted of: (1) peer-reviewed journal articles or high-quality conference papers; (2) studies written in English or Indonesian; (3) research focusing on carbon tax in relation to environmental, innovation, or sustainability outcomes; and (4) publications between 2015 and 2025. Exclusion criteria included: (1) non-academic sources such as news articles or opinion pieces; (2) studies not directly addressing carbon tax (e.g., broader discussions on climate finance without tax focus); and (3) duplicate publications. This filtering process ensured that the review concentrated on scientifically credible and thematically relevant literature.

The screening process followed the PRISMA flow model, which consists of four stages: identification, screening, eligibility, and inclusion. In the identification stage, an initial pool of approximately 1,200 records was retrieved from the databases. After removing duplicates, around 950 records remained for screening. Titles and abstracts were screened to exclude irrelevant studies, leaving about 180 full-text articles for eligibility assessment. Following detailed review against the inclusion and exclusion criteria, 40 articles were selected for final synthesis. This systematic process not only enhanced transparency but also minimized potential bias in study selection. To provide a clearer overview of the selection process, this study presents the PRISMA 2020 flow diagram. The diagram illustrates the number of records identified, screened, excluded, and ultimately included in the final synthesis (Figure 1).

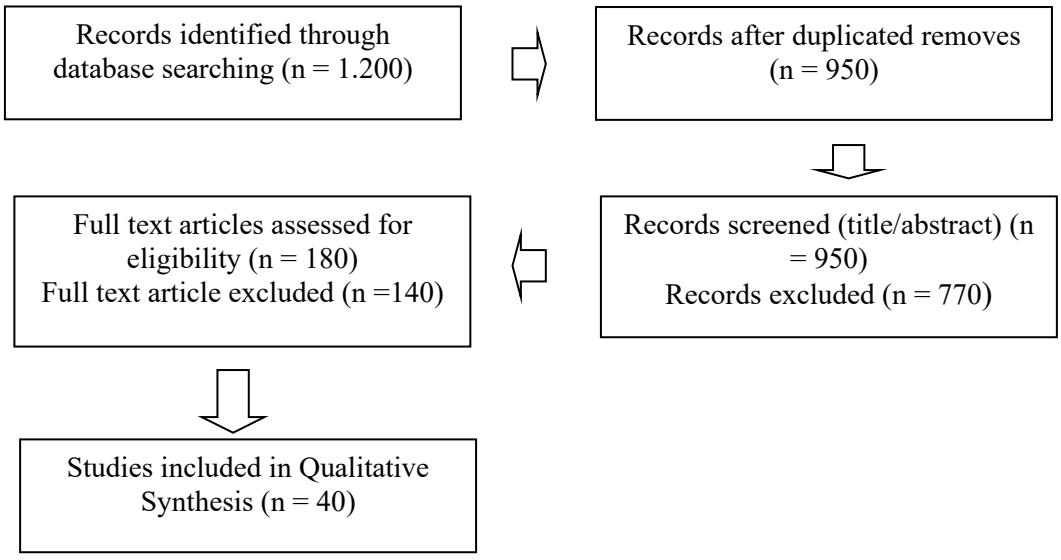

Figure 1. PRISMA 2020 Flow Diagram

For data extraction and synthesis, a structured coding framework was applied to the selected articles. Each article was analyzed for key variables such as research objectives, methodology, geographic focus, policy context, and main findings. Thematic analysis was then

conducted to identify recurring patterns and categorize findings into broader themes. This enabled the synthesis of literature into three dominant thematic clusters: (1) the effectiveness of carbon tax in emission reduction and fiscal capacity, (2) its role in stimulating green innovation and corporate strategies, and (3) its contribution to sustainable development goals. By clustering results into themes, the study provides a coherent narrative that bridges disparate findings across disciplines and geographies.

To enhance reliability, the study also applied triangulation of sources. While the primary focus was on peer-reviewed literature, complementary references such as reports from the OECD, World Bank, and IPCC were consulted to contextualize findings within policy frameworks and global best practices. This approach strengthens the validity of conclusions by situating academic evidence within broader institutional and policy discourses. At the same time, limitations are acknowledged, including the restriction to publications in English and Indonesian, which may exclude relevant research published in other languages. Nonetheless, the methodological design ensures that the findings are robust, credible, and relevant for both academic and policy audiences.

RESULTS AND DISCUSSION

Effectiveness of Carbon Tax in Reducing Emissions and Enhancing Fiscal Capacity

The literature strongly emphasizes the dual function of carbon taxation: reducing greenhouse gas (GHG) emissions while enhancing fiscal revenues. As an environmental instrument, the carbon tax directly targets the root cause of climate change by attaching a cost to emissions, thereby incentivizing behavioral changes among firms and individuals. From a fiscal perspective, it simultaneously broadens the tax base and creates new sources of government revenue that can be allocated to climate-related programs or other public expenditures. This dual functionality has made carbon tax an attractive policy choice in both developed and developing countries, though its outcomes vary significantly depending on the policy design and institutional capacity.

Evidence from developed countries demonstrates the potential of carbon tax in achieving emission reduction. Sweden, which introduced carbon tax in 1991, is widely cited as a success story, reducing emissions by over 25% while maintaining steady economic growth. Similarly, Finland and Norway have reported measurable declines in fossil fuel consumption following the introduction of carbon pricing. These cases highlight how robust institutions, strong enforcement mechanisms, and high levels of public trust can amplify the effectiveness of carbon tax. Importantly, these countries also allocated revenues to support renewable energy investments and provide social compensation, thereby increasing policy acceptance.

Another strand of literature shows that in some OECD countries, carbon tax revenues have contributed significantly to fiscal sustainability (Chandra Aldi Wibowo & Benny Sumardiana, 2025). Canada, for instance, recycles a large proportion of carbon tax revenue back to households through rebates, mitigating regressive effects while maintaining public support. In other cases, revenues are earmarked for green innovation funds or subsidies for renewable energy projects, thereby creating a virtuous cycle between taxation and environmental investment. These findings reinforce the Environmental Tax Theory, which posits that pollution taxes can both correct externalities and generate revenue without undermining economic growth.

In contrast, studies focusing on developing countries highlight more complex outcomes. South Africa introduced a carbon tax in 2019, but its impact has been constrained by weak enforcement and limited industrial compliance. The Philippines and Vietnam have also explored carbon tax designs, though implementation remains partial due to political resistance and administrative limitations. These examples demonstrate that without strong governance and institutional support, carbon tax may fail to achieve its intended environmental outcomes, serving more as a symbolic gesture than a transformative policy.

Indonesia provides an illustrative case. As part of its Harmonized Tax Law (UU HPP), the government introduced carbon tax legislation in 2021 with phased implementation starting in 2022.

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e –ISSN : 2548-9224 | p–ISSN : 2548-7507
Volume 9 Nomor 4, Oktober 2025
DOI : https://doi.org/10.33395/owner.v9i4.2832

However, reports from practitioners and policy briefs suggest that the policy remains limited in scope, initially targeting only coal-fired power plants. Furthermore, the tax rate has been criticized as too low to create meaningful incentives for emission reduction. From a fiscal perspective, while the tax contributes modestly to revenue, its potential remains underutilized. These dynamics underscore the challenges of aligning environmental and fiscal goals in contexts where industrial resistance and political compromises shape tax design.

From a theoretical standpoint, the mixed evidence across countries aligns with environmental tax theory but also highlights its limitations in practice. The theory assumes that polluters respond rationally to price signals, yet in developing contexts, enforcement gaps, lobbying pressures, and weak institutional capacity often dilute these incentives (Lanoie et al., 2008). In addition, Institutional Theory suggests that legitimacy and governance play crucial roles in shaping compliance. Without strong institutional backing and public trust, carbon tax policies risk being perceived as ineffective or unfair, limiting their environmental and fiscal potential. Thus, while carbon tax has proven effective in some cases, its success is highly contingent on context-specific factors.

Impact of Carbon Tax on Corporate Strategies, Particularly in Promoting Green Technology and Eco-Friendly Business Models

A central theme in the literature concerns the influence of carbon taxation on corporate strategies, particularly its role in stimulating green innovation and eco-friendly business models. By raising the cost of carbon-intensive practices, the tax creates financial incentives for firms to adopt more sustainable operations. This dynamic directly reflects the Porter Hypothesis, which argues that stringent environmental regulations can enhance competitiveness by encouraging innovation. Carbon tax, therefore, functions not only as a constraint but also as a driver of strategic transformation.

Evidence from developed economies supports this hypothesis. In the European Union, where carbon pricing mechanisms are integrated with broader environmental regulations, firms have accelerated investment in renewable energy, clean technologies, and low-carbon production systems. Studies in Germany and the UK show that companies subject to carbon taxation or pricing schemes increased their research and development (R&D) expenditures on green technologies. Similarly, Scandinavian firms have been leaders in eco-innovation, partly due to long-standing exposure to carbon pricing and supportive government policies. These cases highlight how policy certainty and consistent enforcement encourage firms to integrate sustainability into their long-term strategies.

Empirical findings from North America also reinforce this dynamic. In Canada, companies facing carbon tax have adopted carbon capture and storage technologies, while U.S. states with carbon pricing schemes (such as California under cap-and-trade) have seen growth in clean tech startups (Karlinah et al., 2024; Ya'u et al., 2023). These findings indicate that carbon tax not only shapes corporate compliance but also fosters market opportunities for innovation-driven firms. However, literature also notes the risk of "carbon leakage," where firms relocate operations to jurisdictions with weaker regulations. This highlights the need for international coordination to prevent uneven competitiveness.

In developing countries, however, the impact of carbon tax on corporate strategy is less straightforward. Studies from South Africa and Chile suggest that many firms view carbon tax primarily as a financial burden, especially in industries with limited capacity for innovation. SMEs, in particular, often lack the resources and knowledge to adapt, leading to resistance or minimal compliance. This gap underscores the importance of complementary policies, such as subsidies for clean technology adoption or targeted support for vulnerable industries, to enable effective transitions.

Indonesia faces similar challenges. While carbon tax has been introduced, many domestic firms—particularly in energy-intensive sectors like mining, manufacturing, and textiles—struggle to adopt green technologies due to cost constraints and limited access to financing. Reports suggest

that larger corporations, especially those with international exposure, are more proactive in adopting eco-friendly practices, partly to align with global ESG standards. In contrast, smaller firms remain constrained by resource limitations and a lack of technical capacity. This divergence illustrates the uneven corporate response to carbon tax in developing contexts.

From a theoretical perspective, these findings resonate strongly with the Porter Hypothesis but also reveal its conditional nature. While the hypothesis predicts innovation, its realization depends on an enabling ecosystem, including access to finance, R&D capacity, and institutional support. Furthermore, Technology Acceptance Model (TAM) suggests that corporate willingness to adapt depends on perceived usefulness (e.g., long-term competitiveness, market access) and perceived ease of compliance (e.g., administrative simplicity, availability of support mechanisms). In the absence of these conditions, carbon tax risks being perceived merely as a punitive measure rather than a catalyst for transformation.

Implications of Carbon Tax for Achieving Sustainable Development Goals (SDGs), Especially in Developing Countries

The third theme in the literature addresses the broader implications of carbon tax for achieving the Sustainable Development Goals (SDGs). Beyond reducing emissions and fostering innovation, carbon tax is increasingly evaluated in terms of its contributions to global sustainability agendas. Specifically, it relates to SDG 7 (Affordable and Clean Energy), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action). Literature suggests that by influencing production and consumption patterns, carbon tax can serve as a policy lever that aligns fiscal systems with sustainable development objectives (Halizah & Furqon, 2024).

Evidence from developed countries shows how carbon tax revenues have been strategically used to support SDG-related programs (Rasoolimanesh et al., 2023; Sampedro, 2021). In Sweden, revenues have been allocated to expand renewable energy infrastructure, thereby advancing SDG 7. Similarly, in Finland, part of the revenue has been directed toward social compensation schemes, reducing the regressive impact of the tax and contributing to SDG 10 (Reduced Inequalities). These cases demonstrate how carbon tax can integrate fiscal and social objectives when revenues are managed transparently and effectively (Castro & Lopes, 2022).

Another dimension is the role of carbon tax in shaping sustainable consumption and production (SDG 12). Studies in European countries indicate that higher carbon prices reduce demand for carbon-intensive goods, leading to behavioral changes among consumers and producers. These shifts contribute not only to emission reductions but also to more sustainable economic structures. The literature suggests that this effect is stronger when carbon tax is complemented by public education campaigns and incentives for green consumption.

For developing countries, however, the linkage between carbon tax and SDGs is less direct. South Africa's carbon tax, while generating revenue, has faced criticism for limited reinvestment in sustainability programs. Similarly, in Latin America, carbon tax revenues often flow into general budgets without clear earmarking for environmental or social objectives. This weakens the potential of carbon tax to act as a strategic tool for advancing SDGs. Without transparent revenue allocation, the policy risks being perceived as a revenue-raising mechanism rather than a sustainability instrument.

Indonesia provides an illustrative case. While carbon tax legislation has been introduced, its contribution to SDGs remains unclear due to limited revenue earmarking and low tax rates. Reports indicate that revenues are primarily absorbed into the general state budget, with little direct allocation to renewable energy or social programs. As a result, the potential of carbon tax to support SDG 7 and SDG 13 is underutilized. Furthermore, uneven digital and financial literacy across regions hampers the equitable impact of the policy, raising concerns about inclusivity and effectiveness.

From a theoretical perspective, the implications for SDGs highlight the Environmental Tax Theory. While the latter emphasizes efficiency and externality correction, Institutional Theory underscores the importance of legitimacy, governance, and stakeholder trust in determining

whether revenues are used effectively. In contexts where governance is weak, carbon tax may fail to deliver on its broader sustainability promises. Conversely, in countries with strong institutions, carbon tax can become a cornerstone of integrated fiscal-environmental strategies that advance multiple SDGs simultaneously.

CONCLUSION

This study has systematically reviewed the literature on the role of carbon tax in advancing environmental and fiscal objectives, corporate strategies, and broader sustainability goals. By synthesizing evidence from 40 selected studies published between 2015 and 2025, three dominant themes emerged: (1) the effectiveness of carbon tax in reducing emissions and enhancing fiscal capacity, (2) its impact on corporate strategies, particularly in fostering green technologies and eco-friendly business models, and (3) its implications for achieving Sustainable Development Goals (SDGs), especially in developing countries. The findings highlight that carbon tax is more than just a fiscal instrument—it is a transformative policy tool that connects environmental governance, corporate innovation, and sustainable development.

The first theme underscores that the effectiveness of carbon tax in reducing emissions and enhancing fiscal capacity is highly context-dependent. While countries like Sweden, Finland, and Canada demonstrate strong success stories, developing countries such as South Africa and Indonesia face limitations due to weak enforcement, low tax rates, and political compromises. These results reinforce the Environmental Tax Theory while also stressing the importance of Institutional Theory, which highlights governance and legitimacy as key determinants of policy success.

The second theme reveals that carbon tax can influence corporate strategies, supporting the Porter Hypothesis that stringent regulations may foster innovation. Evidence from OECD countries shows that carbon tax incentivizes firms to invest in renewable energy, clean technologies, and sustainable practices. However, in developing economies, the corporate response is uneven: large firms with global exposure adapt more readily, while smaller firms face financial and technical barriers. This indicates that the realization of Porter's Hypothesis requires complementary policies, financial support, and capacity building.

The third theme links carbon tax with the global sustainability agenda, particularly the SDGs. When revenues are transparently allocated to renewable energy, social programs, and environmental innovation, carbon tax strengthens SDG 7, 12, and 13. Yet, in many developing countries, including Indonesia, revenues are absorbed into general budgets with little earmarking for sustainability purposes, undermining the potential of carbon tax as a strategic tool for achieving SDGs. This finding suggests that the success of carbon tax depends not only on tax design but also on how revenues are reinvested to create long-term social and environmental value.

From a theoretical perspective, this review highlights the interplay between Environmental Tax Theory, Porter Hypothesis, and Technology Acceptance Model (TAM). These frameworks collectively explain why carbon tax produces divergent outcomes across contexts. Environmental Tax Theory provides the rationale for internalizing externalities, while Institutional Theory emphasizes the role of governance and legitimacy. The Porter Hypothesis explains how regulation can stimulate innovation, and TAM sheds light on behavioral adoption factors. Together, these perspectives illustrate that carbon tax is both a technical and institutional reform, requiring policy integration and stakeholder trust.

Finally, this study acknowledges several limitations. The review is restricted to studies published in English and Indonesian, which may exclude insights from other languages. In addition, the focus on 2015–2025 limits the scope to recent debates, leaving out earlier historical perspectives. Future research could conduct comparative cross-country studies to further explore best practices and long-term impacts of carbon tax on compliance, innovation, and sustainable development. Nonetheless, the findings of this review provide valuable insights for both academic and policy audiences, reaffirming that carbon tax, when properly designed and implemented, has the potential to be a cornerstone of climate policy and sustainable fiscal governance.

From a policy perspective, the findings suggest that carbon tax can serve as both an environmental and fiscal instrument, but its success requires careful policy design and institutional support. Governments must ensure that tax rates are sufficiently high to create behavioral incentives, while simultaneously providing mechanisms for revenue recycling to mitigate regressive effects. Transparent allocation of revenues toward renewable energy, social programs, and green innovation is crucial for linking carbon tax to broader sustainability goals and maintaining public trust.

For businesses, carbon tax should be viewed not merely as a compliance burden but as a catalyst for strategic transformation. Firms that proactively adopt green technologies and align with global ESG standards can gain long-term competitive advantages. However, smaller firms will require targeted support, such as subsidies, training, and access to financing, to adapt successfully. In this regard, collaboration between government, private sector, and international institutions is essential to ensure an inclusive transition.

Overall, the implications of this study suggest that carbon tax, when supported by strong governance and complementary measures, has the potential to become a cornerstone of climate policy, corporate strategy, and sustainable fiscal management.

In line with the results and synthesis of this review, the following sections outline the academic contribution, policy implications, and directions for future research derived from this study. Academic Contribution :This study integrates fiscal, innovation, and behavioral perspectives to explain the effectiveness of carbon tax in achieving sustainable development. By combining Environmental Tax Theory, Porter Hypothesis, and Institutional perspectives, it provides a comprehensive understanding of how fiscal instruments drive environmental and corporate transformation across contexts. Policy Implication: The findings emphasize the importance of transparent revenue allocation and institutional strengthening, particularly in developing countries. Policymakers should ensure that carbon tax revenues are reinvested in renewable energy, social programs, and technological innovation to create long-term sustainability impacts and build public trust. Future Research: Future research should employ cross-country comparative or meta-analytic approaches to quantify the magnitude of carbon tax impacts on emission reduction, innovation outcomes, and fiscal performance. Expanding the scope to include diverse policy designs and regional contexts will deepen understanding and support evidence-based policy formulation.

ACKNOWLEDGEMENT

The authors would like to express their sincere gratitude to Trisakti School of Management and Matana University for their academic support and facilities provided during the preparation of this study. The authors also wish to thank colleagues who contributed valuable comments and insights throughout the writing process. This research received no external funding.

REFERENCE

Adi Prawira, I. F., & Nur Apandi, R. N. (2023). Limiting Factory Waste By Imposing a Pigouvian Tax. *Journal of Engineering Science and Technology*, *18*.

Albab, Y. M. U., & Tjaraka, H. (2024). Efektivitas Pajak Karbon: Studi Literatur. *Owner*, *8*(2), 2009–2017. https://doi.org/10.33395/owner.v8i2.1983

Bui, B., Truong, T. P., & Chapple, E. J. (2021). Financial and non-financial benefits of carbon controls. *Meditari Accountancy Research*, *29*(2), 219–246. https://doi.org/10.1108/MEDAR-12-2019-0663

Castro, C., & Lopes, C. (2022). Digital Government and Sustainable Development. *Journal of the Knowledge Economy*, *13*(2). https://doi.org/10.1007/s13132-021-00749-2

Chandra Aldi Wibowo, & Benny Sumardiana. (2025). Analisis Kesiapan Pelaksanaan Pajak Karbon Dalam Pencegahan Kejahatan Ekonomi Hijau Di Jawa Tengah. *Journal Presumption of Law*, *7*(1), 86–105. https://doi.org/10.31949/jpl.v7i1.13178

Dilasari, A. P., Ani, H. N., & Rizka, R. J. H. (2022). Analisis Best Practice Kebijakan Carbon Tax Dalam Mengatasi Eksternalitas Negatif Emisi Karbon Di Indonesia. *Owner*, *7*(1), 184–194.

https://doi.org/10.33395/owner.v7i1.1182

Halizah, A., & Furqon, I. K. (2024). Carbon Tax Transformation Strategy in Sustainable Economic Development towards Green Economy in Indonesia. *Jurnal Lemhannas RI*, *12*(3), 333–349. https://doi.org/10.55960/jlri.v12i3.951

He, P., Ya, Q., Chengfeng, L., Yuan, Y., & Xiao, C. (2021). Nexus between Environmental Tax, Economic Growth, Energy Consumption, and Carbon Dioxide Emissions: Evidence from China, Finland, and Malaysia Based on a Panel-ARDL Approach. *Emerging Markets Finance and Trade*, *57*(3). https://doi.org/10.1080/1540496X.2019.1658068

Ilmi, M., Setyo Liyundira, F., Rachmawati, A., Juliasari, D., & Habsari, P. (2020). Perkembangan Dan Penerapan Theory Of Acceptance Model (TAM) Di Indonesia. *Relasi : Jurnal Ekonomi*, *16*(2). https://doi.org/10.31967/relasi.v16i2.371

Karlinah, Lady, Meutia, M., Hanifah, I. A., & Ismawati, I. (2024). How Can Financial Distress Moderate Financial Performance Relationships Affect Tax Avoidance? *Financial and Credit Activity: Problems of Theory and Practice*, *6*(59), 106–121. https://doi.org/10.55643/fcaptp.6.59.2024.4528

Karlinah, Lady, Sugondo, L. Y., Falatifah, M., & Wahyuda, D. A. (2025). Systematic Literature Review : Dampak Tax Incentives terhadap Inovasi dan Pertumbuhan Ekonomi. *Owner*, *9*(2), 1318–1330. https://doi.org/10.33395/owner.v9i2.2678

Ladista, R. D., Lindrianasari, L., & Syaipudin, U. (2023). Determinan Pengungkapan Emisi Karbon dan Pengaruhnya Terhadap Kinerja Keuangan. *Owner*, *7*(3), 2262–2283. https://doi.org/10.33395/owner.v7i3.1535

Lanoie, P., Patry, M., & Lajeunesse, R. (2008). Environmental regulation and productivity: Testing the porter hypothesis. *Journal of Productivity Analysis*, *30*(2). https://doi.org/10.1007/s11123-008-0108-4

Mediaty, M., Rante, M. I., & Habbe, A. H. (2024). World Controversy: Water Sustainability In An Environmental Accounting Perspective. *Advances In Social Humanities Research*, *2*(4), 600–609. https://doi.org/10.46799/adv.v2i4.224

Meila, K. D., Dianty, A., & Veronica, L. (2024). Penerapan Pajak Karbon dalam Mewujudkan Sustainability Development Goals Serta Dampaknya Terhadap Penerimaan Pajak di Indonesia. *Owner*, *8*(2), 1849–1864. https://doi.org/10.33395/owner.v8i2.2001

Mikhno, I., Koval, V., Shvets, G., Garmatiuk, O., & Tamošiūnienė, R. (2021). Green Economy In Sustainable Development And Improvement Of Resource Efficiency. *Central European Business Review*, *10*(1). https://doi.org/10.18267/j.cebr.252

Nurfatimah, G., Handayani, J., Amalia Harahap, K., Pratiwi, D., Sinurat, S., uli BrMatondang, R., Rambe, M., dan Bisnis, E., & Muslim Nusantara Al-Washliyah, U. (2024). Memperbaiki Ekonomi dan Melindungi Bumi dengan Pajak Karbon. *Jurnal Akuntansi Audit Dan Perpajakan Indonesia (JAAPI)(JAAPI)*, *5*(2), 626–633. https://jurnal-lp2m.umnaw.ac.id/index.php/JAAPI/article/view/3829

Pangestu, A. D., & Nawirah, N. (2025). Carbon Emission Disclosure, Corporate Social Responsibility, Green Accounting : Nilai Perusahaan Dimoderasi Profitabilitas. *Owner*, *9*(2), 1175–1186. https://doi.org/10.33395/owner.v9i2.2559

Pramita, S. A., Alfikri, R. S., Ansori, M. T., Iskandar, & Wulandari. (2024). Potensi Hukum Dan Upaya Perlindungan Pajak Karbon Dalam Lingkungan. *Jurnal Hukum Dan Kewarganegaraan*, *8*(12), 1–23.

Putu Dian Pusparini, I Gede Widyana, Salsabila Zera Pharresia, & M. Hit Fawlung. (2023). Analisis Penerapan Pajak Karbon Dan Ulez Terhadap Penurunan Emisi Karbon Di Indonesia. *Jurnal Pajak Indonesia*, *7*(1), 57–66.

Putu, I., Pratama, N., Luh, N., & Widhiyani, S. (n.d.). The Effect of the Effectiveness of Accounting Information Systems, Implementation of Good Governance, And Organizational Culture on Financial Performance. In *American Journal of Humanities and Social Sciences Research* (Issue 5). www.ajhssr.com

Rasoolimanesh, S. M., Ramakrishna, S., Hall, C. M., Esfandiar, K., & Seyfi, S. (2023). A systematic scoping review of sustainable tourism indicators in relation to the sustainable development goals. *Journal of Sustainable Tourism*, *31*(7). https://doi.org/10.1080/09669582.2020.1775621

Sampedro, R. (2021). The Sustainable Development Goals (SDG). *Carreteras*, *4*(232). https://doi.org/10.1201/9781003080220-8

Soekarno, G. R., Sundari, S., Boedoyo, M. S., & Sianipar, L. (2024). Pajak Karbon sebagai Instrumen Kebijakan untuk Mendorong Transisi Energi dan Pertumbuhan Ekonomi yang Berkelanjutan. *El-Mal: Jurnal Kajian Ekonomi & Bisnis Islam*, *5*(4), 2015–2026. https://doi.org/10.47467/elmal.v5i4.870

Sofiyati, R. A., & Hernawan, S. (2023). Tantangan dan Faktor yang Mempengaruhi Penundaan Implementasi Pajak Karbon di Indonesia. *Bilancia: Jurnal Studi Ilmu Syariah Dan Hukum*, *17*(2), 187–208. https://doi.org/10.24239/blc.v17i2.2150

Sulistyowati, R., Winarsih, T., Ani, M., & Kurniawan, R. B. (2025). Urgensi Penerapan Carbon Tax Sebagai Upaya Mitigasi Perubahan Iklim Untuk Meningkatkan Sustainable Economic Growth. *Owner*, *9*(2), 789–799. https://doi.org/10.33395/owner.v9i2.2564

Toumi, F., Bouraoui, M. A., & Khlif, H. (2022). National culture and tax avoidance: a quantile regression analysis. *Arab Gulf Journal of Scientific Research*, *40*(2), 196–211. https://doi.org/10.1108/AGJSR-05-2022-0047

Utama, R. P., & Setiawan, R. (2024). Pengungkapan carbon emission dan Kinerja Perusahaan: A Bibliometric Review. *Owner*, *8*(4), 4449–4464. https://doi.org/10.33395/owner.v8i4.2471

van Leeuwen, G., & Mohnen, P. (2017). Revisiting the Porter hypothesis: an empirical analysis of Green innovation for the Netherlands. *Economics of Innovation and New Technology*, *26*(1–2). https://doi.org/10.1080/10438599.2016.1202521

Wang, X., Khurshid, A., Qayyum, S., & Calin, A. C. (2022). The role of green innovations, environmental policies and carbon taxes in achieving the sustainable development goals of carbon neutrality. *Environmental Science and Pollution Research*, *29*(6). https://doi.org/10.1007/s11356-021-16208-z

Wibisono, A. H., & Soepriyanto, G. (2024). Tantangan Pajak Karbon Sebagai Alternatif Kebijakan Transisi Energi Bersih di Indonesia Studi Kasus Industri Otomotif. *Owner*, *8*(1), 258–265. https://doi.org/10.33395/owner.v8i1.1907

Xie, P., & Jamaani, F. (2022). Does green innovation, energy productivity and environmental taxes limit carbon emissions in developed economies: Implications for sustainable development. *Structural Change and Economic Dynamics*, *63*. https://doi.org/10.1016/j.strueco.2022.09.002

Ya'u, A., Miraz, M. H., Saad, N., Bala, H., Rangasamy, D., Olaniyi, O. N. I., & Mustapha, U. A. (2023). Effects of Economic Deterrence Theory and Environmental Regulation on Tax Evasion: Evidence from Energy Sector. *International Journal of Energy Economics and Policy*, *13*(5). https://doi.org/10.32479/ijeep.14736

Yu, H., Peng, F., Yuan, T., Li, D., & Shi, D. (2023). The effect of low-carbon pilot policy on low-carbon technological innovation in China: Reexamining the porter hypothesis using difference-in-difference-in-differences strategy. *Journal of Innovation and Knowledge*, *8*(3). https://doi.org/10.1016/j.jik.2023.100392

Yudhana, F. W., & Madalina, M. (2022). Formulasi Kebijakan Penerapan Pajak Karbon di Indonesia. *Jurnal Demokrasi Dan Ketahanan Nasional* |, *1*(1).

Adi Prawira, I. F., & Nur Apandi, R. N. (2023). Limiting Factory Waste By Imposing a Pigouvian Tax. *Journal of Engineering Science and Technology*, *18*.

Albab, Y. M. U., & Tjaraka, H. (2024). Efektivitas Pajak Karbon: Studi Literatur. *Owner*, *8*(2), 2009–2017. https://doi.org/10.33395/owner.v8i2.1983

Bui, B., Truong, T. P., & Chapple, E. J. (2021). Financial and non-financial benefits of carbon

controls. *Meditari Accountancy Research*, *29*(2), 219–246. https://doi.org/10.1108/MEDAR-12-2019-0663

Castro, C., & Lopes, C. (2022). Digital Government and Sustainable Development. *Journal of the Knowledge Economy*, *13*(2). https://doi.org/10.1007/s13132-021-00749-2

Chandra Aldi Wibowo, & Benny Sumardiana. (2025). Analisis Kesiapan Pelaksanaan Pajak Karbon Dalam Pencegahan Kejahatan Ekonomi Hijau Di Jawa Tengah. *Journal Presumption of Law*, *7*(1), 86–105. https://doi.org/10.31949/jpl.v7i1.13178

Dilasari, A. P., Ani, H. N., & Rizka, R. J. H. (2022). Analisis Best Practice Kebijakan Carbon Tax Dalam Mengatasi Eksternalitas Negatif Emisi Karbon Di Indonesia. *Owner*, *7*(1), 184–194. https://doi.org/10.33395/owner.v7i1.1182

Halizah, A., & Furqon, I. K. (2024). Carbon Tax Transformation Strategy in Sustainable Economic Development towards Green Economy in Indonesia. *Jurnal Lemhannas RI*, *12*(3), 333–349. https://doi.org/10.55960/jlri.v12i3.951

He, P., Ya, Q., Chengfeng, L., Yuan, Y., & Xiao, C. (2021). Nexus between Environmental Tax, Economic Growth, Energy Consumption, and Carbon Dioxide Emissions: Evidence from China, Finland, and Malaysia Based on a Panel-ARDL Approach. *Emerging Markets Finance and Trade*, *57*(3). https://doi.org/10.1080/1540496X.2019.1658068

Ilmi, M., Setyo Liyundira, F., Rachmawati, A., Juliasari, D., & Habsari, P. (2020). Perkembangan Dan Penerapan Theory Of Acceptance Model (TAM) Di Indonesia. *Relasi : Jurnal Ekonomi*, *16*(2). https://doi.org/10.31967/relasi.v16i2.371

Karlinah, Lady, Meutia, M., Hanifah, I. A., & Ismawati, I. (2024). How Can Financial Distress Moderate Financial Performance Relationships Affect Tax Avoidance? *Financial and Credit Activity: Problems of Theory and Practice*, *6*(59), 106–121. https://doi.org/10.55643/fcaptp.6.59.2024.4528

Karlinah, Lady, Sugondo, L. Y., Falatifah, M., & Wahyuda, D. A. (2025). Systematic Literature Review : Dampak Tax Incentives terhadap Inovasi dan Pertumbuhan Ekonomi. *Owner*, *9*(2), 1318–1330. https://doi.org/10.33395/owner.v9i2.2678

Ladista, R. D., Lindrianasari, L., & Syaipudin, U. (2023). Determinan Pengungkapan Emisi Karbon dan Pengaruhnya Terhadap Kinerja Keuangan. *Owner*, *7*(3), 2262–2283. https://doi.org/10.33395/owner.v7i3.1535

Lanoie, P., Patry, M., & Lajeunesse, R. (2008). Environmental regulation and productivity: Testing the porter hypothesis. *Journal of Productivity Analysis*, *30*(2). https://doi.org/10.1007/s11123-008-0108-4

Mediaty, M., Rante, M. I., & Habbe, A. H. (2024). World Controversy: Water Sustainability In An Environmental Accounting Perspective. *Advances In Social Humanities Research*, *2*(4), 600–609. https://doi.org/10.46799/adv.v2i4.224

Meila, K. D., Dianty, A., & Veronica, L. (2024). Penerapan Pajak Karbon dalam Mewujudkan Sustainability Development Goals Serta Dampaknya Terhadap Penerimaan Pajak di Indonesia. *Owner*, *8*(2), 1849–1864. https://doi.org/10.33395/owner.v8i2.2001

Mikhno, I., Koval, V., Shvets, G., Garmatiuk, O., & Tamošiūnienė, R. (2021). Green Economy In Sustainable Development And Improvement Of Resource Efficiency. *Central European Business Review*, *10*(1). https://doi.org/10.18267/j.cebr.252

Nurfatimah, G., Handayani, J., Amalia Harahap, K., Pratiwi, D., Sinurat, S., uli BrMatondang, R., Rambe, M., dan Bisnis, E., & Muslim Nusantara Al-Washliyah, U. (2024). Memperbaiki Ekonomi dan Melindungi Bumi dengan Pajak Karbon. *Jurnal Akuntansi Audit Dan Perpajakan Indonesia (JAAPI)(JAAPI)*, *5*(2), 626–633. https://jurnal-lp2m.umnaw.ac.id/index.php/JAAPI/article/view/3829

Pangestu, A. D., & Nawirah, N. (2025). Carbon Emission Disclosure, Corporate Social Responsibility, Green Accounting : Nilai Perusahaan Dimoderasi Profitabilitas. *Owner*, *9*(2), 1175–1186. https://doi.org/10.33395/owner.v9i2.2559

Pramita, S. A., Alfikri, R. S., Ansori, M. T., Iskandar, & Wulandari. (2024). Potensi Hukum Dan Upaya Perlindungan Pajak Karbon Dalam Lingkungan. *Jurnal Hukum Dan Kewarganegaraan*, *8*(12), 1–23.

Putu Dian Pusparini, I Gede Widyana, Salsabila Zera Pharresia, & M. Hit Fawlung. (2023). Analisis Penerapan Pajak Karbon Dan Ulez Terhadap Penurunan Emisi Karbon Di Indonesia. *Jurnal Pajak Indonesia*, *7*(1), 57–66.

Putu, I., Pratama, N., Luh, N., & Widhiyani, S. (n.d.). The Effect of the Effectiveness of Accounting Information Systems, Implementation of Good Governance, And Organizational Culture on Financial Performance. In *American Journal of Humanities and Social Sciences Research* (Issue 5). www.ajhssr.com

Rasoolimanesh, S. M., Ramakrishna, S., Hall, C. M., Esfandiar, K., & Seyfi, S. (2023). A systematic scoping review of sustainable tourism indicators in relation to the sustainable development goals. *Journal of Sustainable Tourism*, *31*(7). https://doi.org/10.1080/09669582.2020.1775621

Sampedro, R. (2021). The Sustainable Development Goals (SDG). *Carreteras*, *4*(232). https://doi.org/10.1201/9781003080220-8

Soekarno, G. R., Sundari, S., Boedoyo, M. S., & Sianipar, L. (2024). Pajak Karbon sebagai Instrumen Kebijakan untuk Mendorong Transisi Energi dan Pertumbuhan Ekonomi yang Berkelanjutan. *El-Mal: Jurnal Kajian Ekonomi & Bisnis Islam*, *5*(4), 2015–2026. https://doi.org/10.47467/elmal.v5i4.870

Sofiyati, R. A., & Hernawan, S. (2023). Tantangan dan Faktor yang Mempengaruhi Penundaan Implementasi Pajak Karbon di Indonesia. *Bilancia: Jurnal Studi Ilmu Syariah Dan Hukum*, *17*(2), 187–208. https://doi.org/10.24239/blc.v17i2.2150

Sulistyowati, R., Winarsih, T., Ani, M., & Kurniawan, R. B. (2025). Urgensi Penerapan Carbon Tax Sebagai Upaya Mitigasi Perubahan Iklim Untuk Meningkatkan Sustainable Economic Growth. *Owner*, *9*(2), 789–799. https://doi.org/10.33395/owner.v9i2.2564

Toumi, F., Bouraoui, M. A., & Khlif, H. (2022). National culture and tax avoidance: a quantile regression analysis. *Arab Gulf Journal of Scientific Research*, *40*(2), 196–211. https://doi.org/10.1108/AGJSR-05-2022-0047

Utama, R. P., & Setiawan, R. (2024). Pengungkapan carbon emission dan Kinerja Perusahaan: A Bibliometric Review. *Owner*, *8*(4), 4449–4464. https://doi.org/10.33395/owner.v8i4.2471

van Leeuwen, G., & Mohnen, P. (2017). Revisiting the Porter hypothesis: an empirical analysis of Green innovation for the Netherlands. *Economics of Innovation and New Technology*, *26*(1–2). https://doi.org/10.1080/10438599.2016.1202521

Wang, X., Khurshid, A., Qayyum, S., & Calin, A. C. (2022). The role of green innovations, environmental policies and carbon taxes in achieving the sustainable development goals of carbon neutrality. *Environmental Science and Pollution Research*, *29*(6). https://doi.org/10.1007/s11356-021-16208-z

Wibisono, A. H., & Soepriyanto, G. (2024). Tantangan Pajak Karbon Sebagai Alternatif Kebijakan Transisi Energi Bersih di Indonesia Studi Kasus Industri Otomotif. *Owner*, *8*(1), 258–265. https://doi.org/10.33395/owner.v8i1.1907

Xie, P., & Jamaani, F. (2022). Does green innovation, energy productivity and environmental taxes limit carbon emissions in developed economies: Implications for sustainable development. *Structural Change and Economic Dynamics*, *63*. https://doi.org/10.1016/j.strueco.2022.09.002

Ya'u, A., Miraz, M. H., Saad, N., Bala, H., Rangasamy, D., Olaniyi, O. N. I., & Mustapha, U. A. (2023). Effects of Economic Deterrence Theory and Environmental Regulation on Tax Evasion: Evidence from Energy Sector. *International Journal of Energy Economics and Policy*, *13*(5). https://doi.org/10.32479/ijeep.14736

Yu, H., Peng, F., Yuan, T., Li, D., & Shi, D. (2023). The effect of low-carbon pilot policy on low-carbon technological innovation in China: Reexamining the porter hypothesis using difference-in-difference-in-differences strategy. *Journal of Innovation and Knowledge*, *8*(3). https://doi.org/10.1016/j.jik.2023.100392

Yudhana, F. W., & Madalina, M. (2022). Formulasi Kebijakan Penerapan Pajak Karbon di Indonesia. *Jurnal Demokrasi Dan Ketahanan Nasional* |, *1*(1).