

# An Evaluation of Scholarly Works of Tax Incentives in Indonesia: Bibliometric Analysis of Policy Learning

Ririn Riani<sup>1</sup> and Aam Slamet Rusydiana<sup>2</sup>

<sup>1</sup> Tazkia Institute, Bogor, Indonesia

<sup>2</sup> SMART Indonesia, Bogor, Indonesia

Over the years, the issue of tax policy design has been a major concern requiring extensive scientific research. In light of these considerations, the purpose of this paper is to investigate the extent to which prior research has focused on tax incentives in Indonesia. This paper employs bibliometric analytic techniques to examine the empirical literature published between 1987 and 2023. This paper utilizes the Scopus database and the "bibliometrix" package to conduct a bibliometric analysis. The analysis emphasizes on the most important information regarding the analysis of scientific production by field (journals, authors, and keywords), mapping the research path and proposing initiatives based on prior literature. This investigation revealed various results. Initially, the government must offer 'renewable' and 'sustainable' tax incentives to vital businesses and economic sectors. Second, tax incentives should also be provided to the MSMEs industry, as this industry has the largest market as a pillar of Indonesia's economy. There is a great deal of room for theoretical development, contextualization, and methodological contributions. In addition, this study provides policy recommendations from prior research and directions for future research.

**Keywords:** Tax incentives; Indonesia; Bibliometric; Policy learning.

**JEL Classification Codes:** H21; H23.

## OPEN ACCESS

\*Correspondence:  
Ririn Riani  
ririnsmart@gmail.com

Received: 9 November 2022

Accepted: 19 November 2022

Published: 15 December 2022

Citation:  
(2022) An Evaluation of Scholarly Works of Tax Incentives in Indonesia: Bibliometric Analysis of Policy Learning  
Accounting and Sustainability  
1.1.

## INTRODUCTION

The theoretical and empirical appeal of taxation as a subject of study stems from the fact that the real-world issues associated with tax collection are relevant to scientists' analytic concerns. Taxes are a distinct form of public revenue from public debt, revenue from state pioneering operations, and revenue from taxpayer payments for various administrative demands. Globally, nations are presently confronted with limited fiscal resources, rising expenditures due to the COVID-19 pandemic, inadequate public budgets, and high levels of debt. A quick formula for optimizing the tax system to meet the government system's requirements and the residents' demands is necessary to address these current issues.

Taxation is an important economic instrument for any country, including Indonesia. Indonesia's tax system has been self-assessment since 1984. The self-assessment system is a tax-collecting method that empowers taxpayers to carry out their own obligations, beginning with calculating, paying, and reporting the amount of tax owed in accordance with applicable tax laws and regulations. As a result, taxpayers have the option to engage in tax collection. Without revenue collection, state finances in developing countries like Indonesia will become even more immobilized (Wasilah & Tambunan, 2019).

"Taxes and levies that are compelling for the needs of the state are regulated by law," according to Article 23A of the 1945 Constitution. This demonstrates that all Indonesian citizens are required to follow all government regulations.

Throughout much of its existence, Indonesia had a government that was quite centralized. Due in large part to the devolution of service authority since Soeharto's collapse in 1998 and the country's regional autonomy program's inception in 2001, Indonesia's public sector has become one of the most decentralized places (Lewis, 2023). Many decision-makers and economists are concerned about optimizing the tax structure. The introduction or modification of a tax obligation is a problem that must be a top priority because of the effects that are generated on several levels: financial, social, economic, and political.

In Indonesia, there have been a number of legislative changes concerning tax incentives. Tax incentives range from targeted investment to a combination of targeted and broad tax incentives (Van Parys, 2012). It began in 1958 with Law No. 78 of 1958, was altered with Law No. 1 of 1967, Law No. 11 of 1970, and was finally repealed with Law No. 7 of 1983. The government revised its tax policy in 2007 by

passing tax incentives regulations, including Tax Holiday and Tax Allowance with Law No. 25 of 2007. Following that, the law was examined on a regular basis for its effectiveness and efficiency, and policy and regulatory modifications were implemented.

The government is attempting to reach its tax revenue goal by modifying tax incentives for 2020. On the one hand, the government needs tax revenue to help combat the Covid-19 outbreak, but on the other hand, it does not want to burden its citizens who are experiencing financial distress (Sutantio et al., 2022). In the midst of the Covid-19 outbreak, the government altered its policies regarding tax incentives through Minister of Finance Regulation Number 23 of 2020, which was subsequently replaced by Minister of Finance Regulation Number 44 of 2020, which later became a Ministerial Regulation, and was subsequently revoked and declared invalid by Minister of Finance Regulation Number 86/PMK.03/2020. In addition, the government has issued a number of regulations that serve as the legal framework for parties to conduct activities in order to maintain the stability of sectors affected by the presence of Covid-19 in Indonesia. By doing so, it is anticipated that losses and other disruptions in the sector, which can have an impact on the Indonesian economy, will be minimized.

Fiscal policy can be used to determine the most effective taxation to generate the necessary budgetary resources to pay government spending (Zainal et al., 2022). Any modern nation cannot function without an efficient tax system that distributes revenue to the government while putting pressure on taxpayers. Any government's practical task is to devise optimal tax-related policies. As a result, both international and national researchers are interested in the topic of taxation in general, and tax incentives in particular, in order to suggest relevant answers to policymakers. For example, Scopus has indexed over 11,000 papers relating to tax incentives (keyword= tax incentive\*) since 1975, with the number gradually increasing from around 73 publications in 1975 to more than 750 papers in 2022.

Literature on taxation can be viewed as datasets containing a variety of information, including titles, publication years, authors, journals, keywords, and references. Numerous publications contain an extensive variety of data, resulting in manual collection and compilation inefficient, if not impossible. This material and its connections can be evaluated quantitatively to disclose the intellectual structure of any research topic, including optimal taxation. The methodology employed is known to have a

direct relationship with the study's credibility. The bibliometric analysis lends objectivity and credibility to the publication review process. The bibliometric analysis enhances the accuracy of scientific publications and eliminates or reduces researcher bias in literature assessment. In addition, the research's credibility is enhanced by integrating the expertise of numerous field researchers.

The lack of bibliometric analysis of the literature on tax studies, particularly on tax incentives in Indonesia, highlights the originality of our analysis. The current study provides researchers with direction and guidance in the field of taxation. This bibliometric and visualization analysis of tax incentive research can help novice researchers identify the most pertinent topics and articles in the field of incentives. It makes practical contributions by discussing societally pertinent topics and identifying the optimal future directions of tax research in order to aid in policy decision-making and the formulation of potential tax legislative reforms. In addition, policymakers can evaluate prospectively which priority policies can be considered.

## PREVIOUS STUDY

The term "tax incentives" refers to special tax provisions intended to encourage certain behaviors or activities regarded as advantageous to the economy or society (Halimatussadiyah et al., 2023). These incentives may take the form of tax credits, deductions, exemptions, or deferrals, among others. Governments frequently use them to encourage investment, create employment, promote research and development, or support particular industries or regions (Appiah-Kubi et al., 2021).

Akanbi (2020) defines tax incentives as a deliberate reduction of the tax debt provided by the government to encourage certain economic units to act in a desired way. Barry (2002) say that tax incentives are a form of tax facility provided by the government to certain taxpayers in the form of reducing tax rates with the aim of minimizing the amount of the tax burden to be paid. Tax incentives are tax reductions or exemptions provided by the government to encourage investment, economic growth, job creation, and so on. Tax incentives are often used as a fiscal policy instrument to encourage economic growth and investment, both at the national and local levels (Ernie & Marcelino, 2021).

In Indonesia, tax incentives have been employed to encourage foreign investment, stimulate domestic investment, and foster the expansion of a wide range of industries (Jan et al., 2021). In recent years, the necessity of

reforming Indonesia's tax incentives has become increasingly apparent. This is due to a number of factors, including concerns about the efficiency of the current system, the need to increase revenue collection, and the wish to create a more level playing field for businesses (Ispriyarso & Wibawa, 2023).

The Indonesian government has made substantial efforts in recent years to reform its tax system and make it more business-friendly. These reforms have included the simplification of the tax legislation, the reduction of the corporate tax rate, and the introduction of new investment incentives. The Tax Holiday program, which was launched in 2016, is a noteworthy tax incentive program in Indonesia. Under this program, new enterprises that invest at least IDR 500 billion (approximately USD 35 million) in certain sectors are eligible for a five-year exemption from corporate income tax.

The Tax Holiday program is attributed with attracting substantial foreign investment to Indonesia, especially in the manufacturing and infrastructure sectors (Rulandari et al., 2021). It has also contributed to economic development and job creation. The economy of Indonesia has benefited greatly from tax incentives in recent years. These measures have improved the country's competitiveness, growth, and job creation through stimulating investment and economic activity.

Research related to the study of Indonesian tax incentive literature is still very limited, especially in Indonesia, among the relevant studies, namely Irwanto & Meilani (2022) explaining a comparison of tax incentives in Indonesia, Malaysia and the United States. Other relevant research includes Dwianika et al (2021) explaining a review of tax compliance in Indonesia during the COVID-19 Pandemic; Safitri & Widarjo (2023) explain research developments related to tax evasion; Ibrahim et al (2018) explain tax policy in Indonesia in the energy sector; Sari et al (2023) reviewed tax compliance research mapping in Indonesia; and Novita & Fahmy (2022) explain tax planning in multinational companies that occur as a result of business transactions in Indonesia. More recent tax incentive studies can be found in research by Ali et al., (2022), Dai & Chapman (2022), Todorovic et al., (2022), and Song et al., (2020).

## RESEARCH METHODS

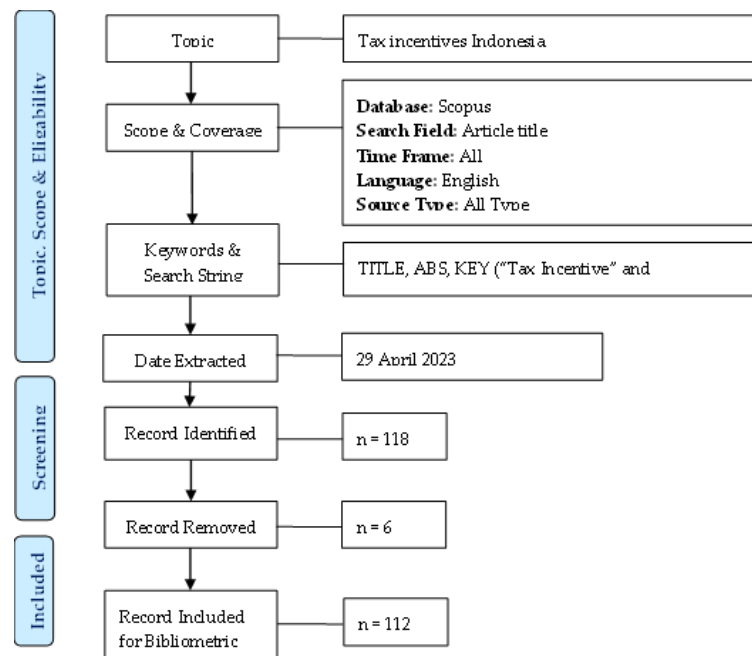
The ultimate goal of this research is to create a map of the existing body of knowledge concerning Tax incentives in Indonesia. The study used bibliometric analysis and content analysis to achieve this goal. Information about the

development of a field can be gleaned through bibliometric techniques such as performance analysis and scientific mapping. The Systematic Literature Review (SLR) technique was used to search for relevant articles for the study's bibliometric analysis. The quality of SLR is improved since it is conducted according to set standards, which involve scanning many databases using a predefined search strategy. Doing a systematic literature review not only improves the trustworthiness of the research but also reduces the likelihood that unnecessary studies will be included. What follows is a detailed explanation of how we went about our literature review for this paper.

The outcomes of conducted and published studies constitute an existing body of knowledge. The citations indicate the fundamental characteristics that were recognized and examined, as well as the various relationships that were made. Hence, a thorough literature search not only compiles existing information but also identifies research gaps for future studies. This paper's literature review focuses on tax incentives in Indonesia research conducted between 1987

and 2023. Scopus is the database that is utilized to locate existing publications that are pertinent. Scopus is one of the numerous databases used to locate literature on social science topics. Many reasons exist for using the Scopus database to retrieve literature: (1) it is the greatest repository of abstract and citation data in the world (2) Regularity of rapid updates (3) flexibility in debugging and data processing.

When choosing a keyword, the author concentrated on the article's title, abstract, and keyword because it describes the issue that is related to the research scope and objectives. The title, abstract, and keyword of an article should include information that can be used to attract the reader's attention. To conduct the bibliometric study, a total of 112 documents were gathered based on the query. Then, the selected papers were examined using Biblioshiny, an R-supported software that provides a suite of tools for quantitative investigations in scientometrics and bibliometrics. Figure 1 depicts the search strategy flow for this investigation:



**Figure 1:** Depicts the search strategy flow

Finally, an extensive content analysis was carried out in order to identify and characterize the main research areas. Although the research questions were formulated at the beginning of the study, we considered possible categories of research areas that could have emerged at later stages. The

authors read all of the articles and highlighted in the text any findings or insights that seemed relevant to the research question. To avoid personal bias, all authors contributed directly, working independently, carefully examining each document, comparing their results, and constructing

research categories to increase the work's validity.

## RESULTS AND DISCUSSION

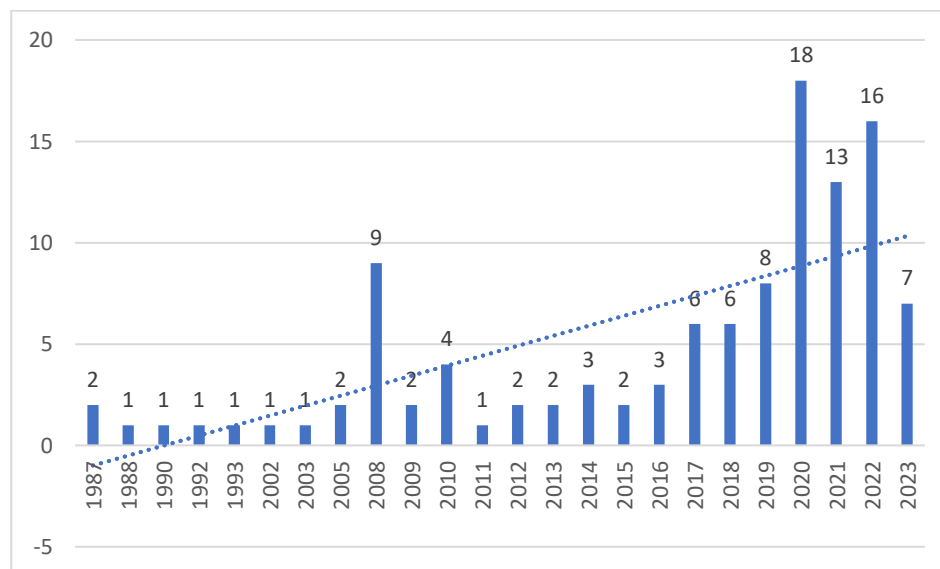
### Result

Timespan	1987:2023
Documents	112
Average years from publication	7,19
Average citations per document	6,339
Average citations per year per doc	0,8375
References	1
Document Types	
article	80
book chapter	10
conference paper	18
note	2
review	1
short survey	1

**Table 1:** Main Information

Figure 2 depicts the rise in the number of tax incentives publications. It includes a total of research papers published in each year from 1987 to 2023. As indicated by the given figure, the average number of research papers published each year has steadily increased over the years. 2017 and later are the years with the highest prevalence. This

topic has sparked a growing amount of interest among those conducting research on it. Throughout the review period, these indicators show a statistically significant increase in published papers. As a result, the topic continues to be favourable for research in its respective field.



**Figure 2:** Publication Trend

The Three Fields Plot depicts three components: a list of sources, authors, and keyword. The relationship between

the three fields is depicted in grey ribbons, which start at the name of the journal, continue to the author, and finish at the

topic of each author's article. The size of the rectangle of each item shows the number of connected papers. The items on the left are the name of the journals. The plot identified five journals. The journal that published the most papers on this topic is Textiles South East Asia. The middle field is comprised of the names of authors. Authors such as Wiguna IPA, Anwar N, Suryani E, Sutantio A, Hidayatno A, etc, however, they have no links to any journal in the left field. In this plot, the top 15 authors are listed. Additionally, each author is linked to the right field, which lists the terms associated with the most prevalent subjects. Finally, each

subject is linked to the country that publishes on that subject. There are 11 keyword themes listed, and "Environmental Impact" is the most prevalent, as demonstrated by the size of the green rectangle, which dwarfs the other rectangles. In addition to that, this plot contains several other standard terms, such as "Lean Construction" and "Indonesia". It appears that nearly all registered writers utilize the topic of tax incentives in their respective authors, which is consistent with this study's focus on scholarly works on the tax incentives research.

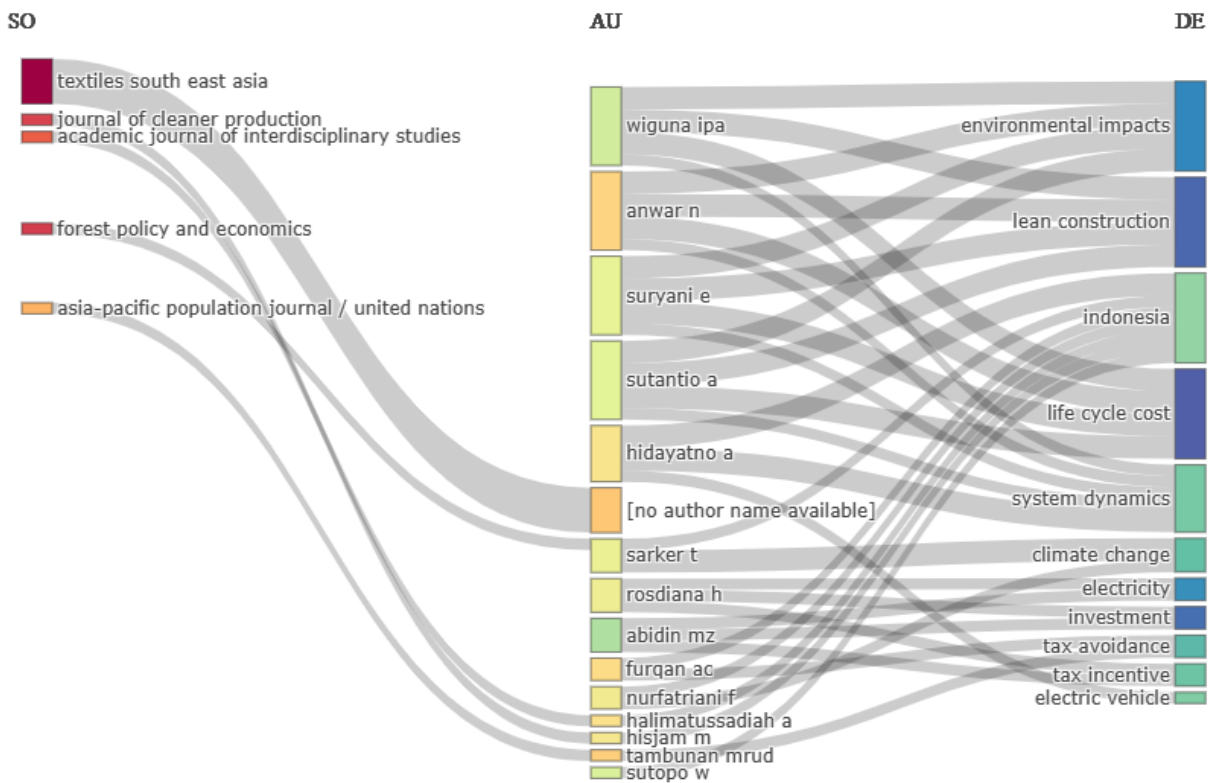


Figure 3: Three Fields Plot

Furthermore, words related to the study on the topic of tax incentives will be presented in the keyword plus of the paper as a word cloud. The word cloud is a visual representation of the terms that frequently appear in the data collection of articles studied with the keywords "tax incentives" from the title. The word cloud shows an overview of words represented in various sizes based on the number of words that appear. The word cloud's placement

is random, but the dominant words are positioned in the middle so that they are more noticeable with a relatively greater size. The word cloud results in this study were derived by an analysis of document titles.

According to the results of an image analysis of the keyword plus of the article, the most frequent words are related to tax incentives, mainly Indonesia, public policy, and socioeconomic factors.



Figure 4: World Cloud

In the next step, a word tree map containing terms pertinent to research on the topic of tax incentives will be depicted in the title of the document. The Word Tree Map displays frequently occurring words in squares resembling regions on a map, where the larger the square area, the more

frequently the word appears. Based on the results of an analysis of the abstract documents, it was determined that tax, Indonesia, and incentives were the most prevalent terms in the research on the topic of tax incentives.

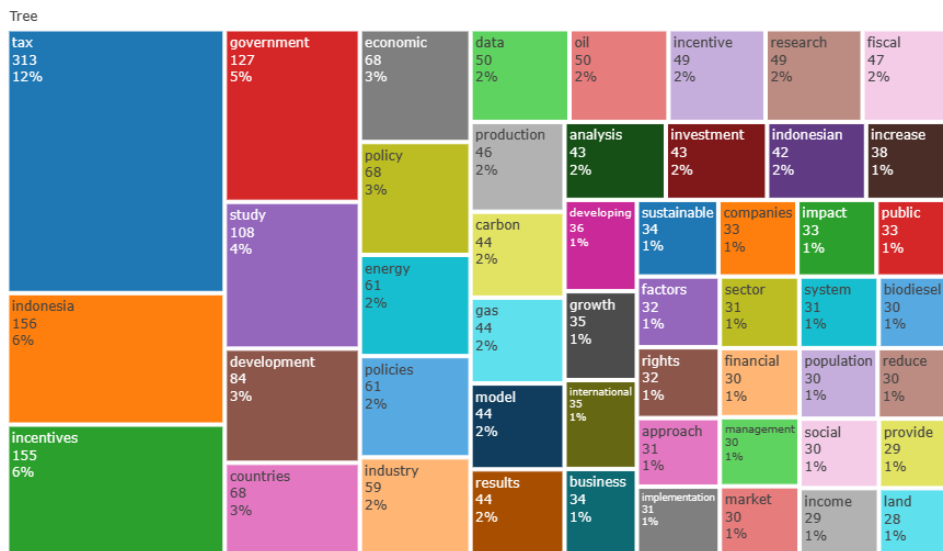


Figure 5: Tree Map

Based on the results of the analysis of the author in research on the issue of tax incentives, topic trends are also a crucial component of this investigation. Where the image below provides an overview of the evolution of tax incentives-related topics over time, divided by year so that it

is clear which topics have been used for a long time and which have been used more recently. This topic's trend additionally takes into account the frequency value of each word as indicated by the log axis.

In addition to considering the annual trend, the formation of topics is also influenced by the frequency of the number of terms that appear in tax incentives-related research themes. The higher the bar, the more frequently the word is used, whereas the further to the right, the more recently it has been used. Since 2011, the development of the tax incentives theme has accelerated significantly.

According to the data described in the image, the most recent and frequently used themes are related to the issue of tax incentives, namely taxation, MSMEs, life cycle cost, lean constructions, environmental impact and covid-19 pandemic.

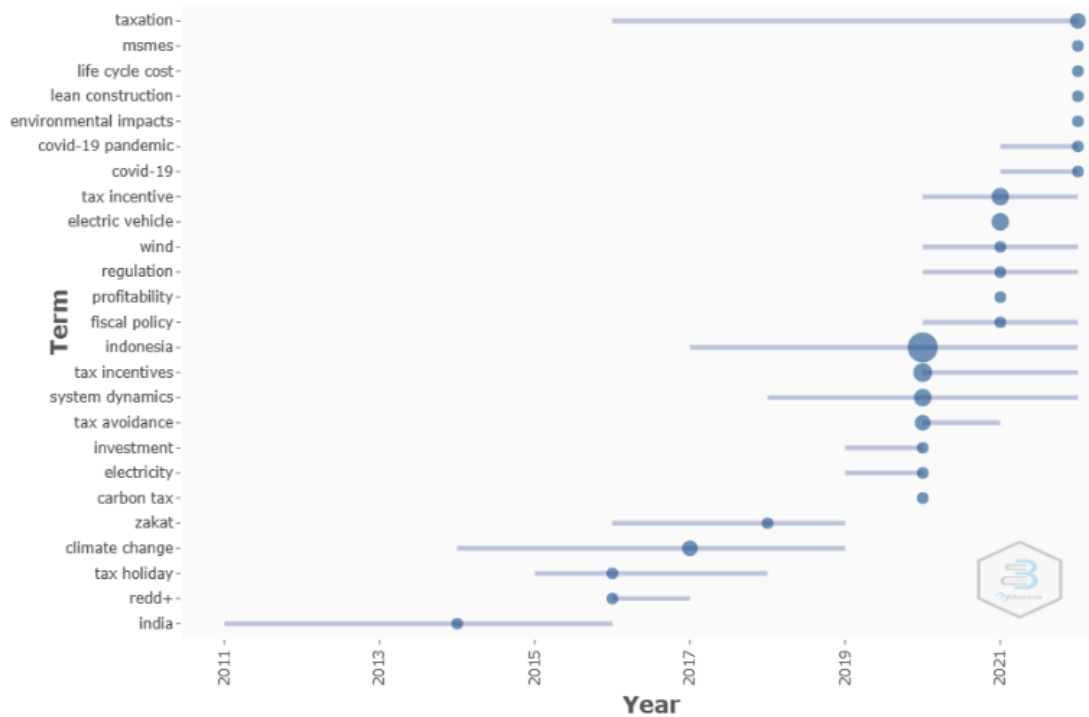


Figure 6: Trend Topics

Techniques for scientific mapping consist of thematic maps that depict the conceptual framework of a certain research field. The thematic map is comprised of a network analysis of word occurrence to describe the essential themes and trends in a scientific topic. Thematic mapping divides the literature on a domain into four distinct theme types. This study utilizes the authors' keywords field to determine the topic's underlying conceptual structure. A thematic map defines four topic classifications depending on the quadrant in which each subject is located.

The "driving" theme, which includes "climate change, redd+" and "tax incentives, MSMEs, taxpayer compliance", "system dynamic, environmental impact, lean construction", and "tax incentives, electricity, india" is represented by the

upper right quadrant, which is characterized by high density and centrality. This topic should be developed further in light of its importance in the future study. The upper left quadrant indicates distinct and underrepresented subjects that are regions of rapid expansion, as shown by high density but low centrality, including "tax aggressiveness". The lower left quadrant covers subjects that have been used but are on the decline, as seen by low centrality and density; these areas include "covid-pandemic and tax law". Finally, the lower right quadrant comprises the basic subjects, which are represented by high centrality but low density; this topic is significant for research as a general topic, and includes "tax avoidance, profitability, tranfer pricing", "Indonesia, taxation, carbon tax", and "electric vehicle".



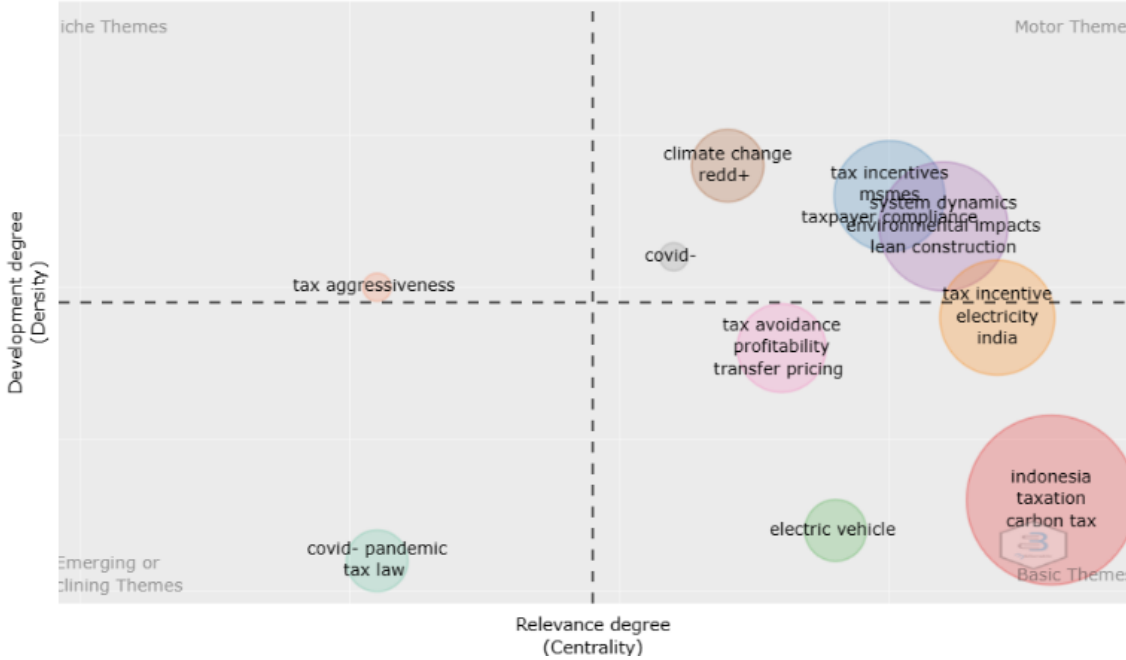


Figure 7: Thematic Map

For content analysis, this research follows a narrative synthesis approach. In this approach, the actual content of the research study is used for literature classification. We use

the network analysis as a reference to carry out an in-depth explanation of research themes with the tax incentives topic area.

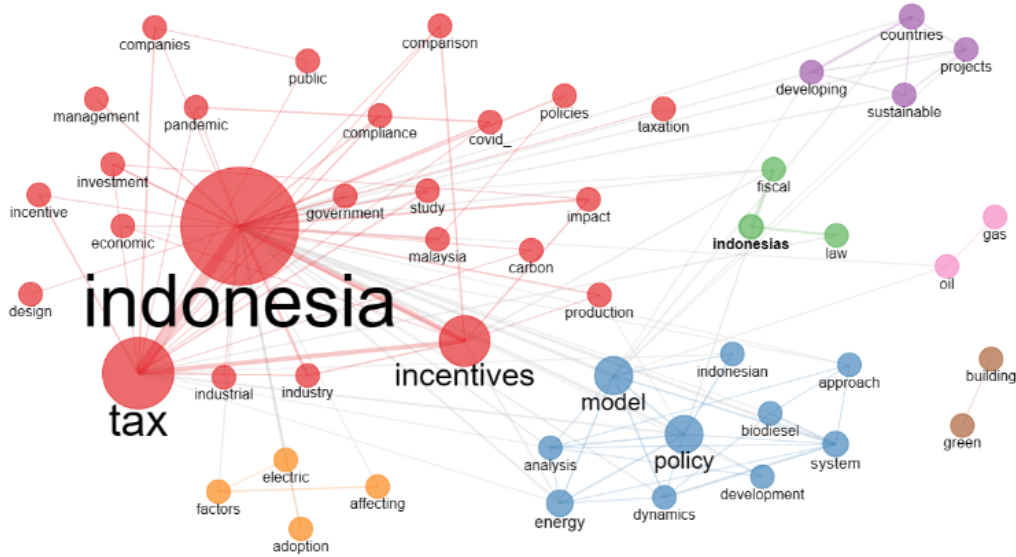


Figure 8: Co-occurrence Network

The co-occurrence network presents, in the form of colored clusters, words that are associated with document keywords that are associated with the topic of central bank digital currency. This is accomplished by taking into consideration the relationship that exists between each

particular word. Several keywords that frequently appear in research on the topic of central bank digital currency have been grouped together into the following five categories:

- Cluster 1 (red color) consists of keywords: Indonesia, tax, incentives, economic, management, investment,

companies, public compliance, government, policy, taxation, impact, design, malaysia, study, carbon, comparison, industrial, industry.

- Cluster 2 (green color) consist of keywords: Indonesia, fiscal, law.
- Cluster 3 (blue color) consists of keywords: model, policy, Indonesian, energy, dynamic, development, system, biodiesel, analysis, approach.
- Cluster 4 (yellow color) consists of keywords: affecting, adoption, factors, electric.
- Cluster 5 (purple color) consist of keywords: sustainable, project, developing, countries.
- Cluster 6 (pink color) consist of keywords: gas and oil.
- Cluster 7 (brown color) consist of keyword: green and building.

Furthermore, the authors present six major research paths based on the findings of the co-occurrence network keyword cluster mapping. The authors conducted a search of the Scopus database, which was used for this investigation, for publications that contained the keywords identified on the cluster map. These publications were then screened to determine whether or not they are directly relevant to this investigation. It is important to keep in mind that each existing cluster does not simply represent a separate line of inquiry. This is due to the fact that a single cluster might not address a single topic, and keywords from one cluster might already be included.

In addition, two different topics could be represented by two different keywords that are part of the same cluster. This evaluation is carried out by looking at the abstract of each article to see if it contains any of the keywords from the map that came before it.

### **Research Path 1 – Tax Incentives and Investment Climate**

A tax incentive is a government policy that provides a decrease in taxes to encourage specific actions or investments. Examples of such activities or investments include investing in certain types of assets. Tax incentives can be structured in a variety of ways, including tax avoidance, tax deductions, and credit programs.

Investment promotion and encouragement is a common application of tax exemptions and incentives. For investments made in economically disadvantaged areas or in certain industries, such as renewable energy, for instance, governments may provide tax credits or discounts. In these

regions, the stimulation of investment and economic growth can be helped along by this.

Tax incentives are another instrument that can be used to encourage innovation, research, and development. Government tax allowances and deductions may be available to businesses that invest in research and development or produce innovative technologies.

Overall, tax incentives have the potential to be an efficient tool for governments seeking to stimulate economic development and investment. However, they must be meticulously crafted to ensure that they accomplish their intended purposes and do not produce unintended outcomes.

### **Research Path 2 – Fiscal Law in Indonesia**

As part of economic policy, fiscal policy regulates taxes and government expenditures (Shaw, 1972). The term "fiscal law" is used to describe Indonesia's regulatory framework for handling tax revenue and government spending. Laws, regulations, and administrative procedures governing the country's public finances can be found in its broad and intricate fiscal legal system.

Fiscal law in Indonesia is the legal framework governing the collection, administration, and enforcement of taxes. Several laws govern the Indonesian tax system, including the General Tax Law (Law No. 28 of 2007), the Income Tax Law (Law No. 36 of 2008), the Value-Added Tax Law (Law No. 42 of 2009), and the Tax Court Law (Law No. 14 of 2002).

In accordance with the General Tax Law, all individuals and businesses that generate income in Indonesia are taxed. The Income Tax Law governs the imposition of income tax on individuals and businesses, whereas the Value Added Tax Law regulates the imposition of value-added tax on the sale of products and services.

The Indonesian tax system also includes a variety of tax incentives and exemptions intended to encourage investment and foster economic growth. Several laws, including the Investment Law (Law No. 25 of 2007), the Regional Incentives Law (Law No. 32 of 2004), and the Taxation Incentives Law (Law No. 36 of 2008), provide these incentives.

### **Research Path 3 – Tax Incentives for Renewable Energy**

Governments implement a tax incentive for renewable energy to encourage the adoption and expansion

of renewable energy sources, such as solar, wind, hydro, and geothermal power. Individuals and businesses who invest in renewable energy initiatives, such as the purchase of solar panels or wind turbines, are eligible for tax deductions or credits.

Tax incentives for renewable energy may include investment tax credits (ITCs), production tax credits (PTCs), and accelerated depreciation, among others. ITCs enable taxpayers to deduct a portion of the cost of a renewable energy project from their federal tax liability, whereas PTCs provide a credit for each unit of renewable energy produced by an eligible facility. Accelerated depreciation, on the other hand, permits companies to deduct the cost of their renewable energy investments over a brief period of time, thereby reducing their tax liability.

The objective of tax incentives for renewable energy is to increase the financial attractiveness of investing in sustainable energy, which can help reduce carbon emissions and combat climate change. These incentives also contribute to the creation of jobs in the renewable energy sector and stimulate economic development.

#### **Research Path 4 - Tax Affecting for Electric Adoption**

Tax affecting is the practice of modifying the cost of capital by factoring in the tax benefits or liabilities of an investment's evaluation. Tax incentives can be used to encourage the purchase and use of electric vehicles (EVs) and other renewable energy technologies in the context of electric adoption.

Providing tax credits or rebates on the purchase of EVs is one method to encourage electric vehicle adoption. These tax incentives lower the cost of EV ownership, making them more affordable and appealing to prospective purchasers. In the United States, for instance, the federal government provides a tax credit of up to \$7,500 for the purchase of a new electric vehicle.

By imposing taxes or levies on the consumption of fossil fuels, electric adoption can also be impacted. These taxes can create a price advantage for clean energy technologies, such as electric vehicles, and encourage consumers to transition to cleaner options. Some nations have implemented carbon taxes, which impose a tax on the carbon emissions associated with the consumption of fossil fuels.

In addition to tax incentives and fees, governments can use tax revenue to finance infrastructure enhancements that encourage electric vehicle adoption, such as the

construction of EV charging stations and the expansion of public transportation.

#### **Research Path 5 – Role of Tax for Sustainable Development**

In Indonesia, taxes play a significant role in financing long-term economic projects. Tax money is used by the government to fund infrastructure projects, social programs, and other efforts that promote economic growth and social welfare.

The Indonesian government has implemented a number of tax measures to encourage sustainable growth, including tax incentives for businesses that invest in renewable energy, green technology, and ecologically friendly practices. These policies encourage businesses to adopt sustainable practices and assist them to minimize their environmental effect.

Taxation helps to promote social development in addition to funding sustainable development programs. The government uses tax income to fund education, healthcare, and other social programs that help Indonesians better their level of living.

It is crucial to highlight, however, that tax policies must be devised in such a way that they encourage both economic growth and social welfare while reducing negative environmental repercussions. This necessitates thorough analysis of the environmental and social consequences of various tax policies, as well as ensuring that they are consistent with sustainable development goals.

#### **Research Path 6 – Tax Incentive for Oil & Gas Industry**

In the oil and gas industry, tax incentives may be designed to incentivize domestic resource exploration, development, and production. For instance, a government may offer tax credits to companies that invest in exploration or drilling activities, or it may offer reduced tax rates to oil and gas companies that operate in particular regions or employ particular technologies.

There may be specific tax incentives or policies in Indonesia designed to encourage domestic oil and gas production. These incentives may be provided by the federal government or regional authorities, and they may be subject to certain conditions or restrictions.

It is crucial to note that tax incentives alone may not be enough to encourage investment in the oil and gas industry, as numerous other factors influence companies' decisions to invest in a specific region or project. This may

include geological potential, infrastructure availability, the regulatory environment, and market conditions.

### Research Path 7 – Tax Incentives for Green Building

Governments offer tax incentives for green building to encourage the construction of environmentally responsible structures. These incentives are intended to encourage the use of eco-friendly building materials, designs, and practices that reduce energy consumption and negative environmental impacts.

Tax incentives can take a variety of forms, but typically entail tax liability reductions for individuals and businesses that invest in sustainable buildings. A government might, for instance, offer a tax credit to developers who use energy-efficient materials in their construction projects or who implement renewable energy systems, such as solar panels or wind turbines. Alternately, the government could offer tax breaks to individuals who purchase or renovate green buildings.

Governments may also provide grants, loans, and rebates in addition to tax incentives for ecological construction. Typically, these programs are intended to offset the higher costs associated with sustainable construction practices, such as the purchase of energy-efficient appliances or the installation of green roofs.

In general, tax incentives for green building are a crucial instrument for promoting sustainability and reducing carbon emissions. Governments can encourage the adoption of environmentally responsible building practices and contribute to the creation of a more sustainable future by providing financial incentives for such practices.

## DISCUSSION

In certain nations, tax incentives have dedicated eligibility conditions and design characteristics to support objectives connected to various SDG policy clusters. By identifying these requirements and design aspects, it is possible to conduct an analysis of the degree to which countries' targeting strategies for tax incentives expressly incorporate objectives that are relevant to the Sustainable Development Goals (SDGs). It will also make it easier to conduct follow-up research to investigate whether or not financial incentives are helpful in promoting sustainable development and the achievement of the Sustainable Development Goals.

The Sustainable Development Goals (SDGs) for 2030 aim to reduce, among other things: (1) low productivity and poor infrastructure; (2) low quality in the provision of education and health services; (3) gender and territorial inequalities in relation to minorities; and (4) the accelerated impact of climate change on the poorest segments of society. These goals were developed to help the world achieve a more equitable and sustainable future by the year 2030. The Sustainable Development Act (SDA) was created with an interdisciplinary understanding of sustainable development and contains 17 objectives and 169 targets in order to accomplish the aims listed above. We provide a summary of the objectives and supported SDG-related outcomes that each sustainable development sector seeks to achieve:

SDGs Cluster	Supported Outcomes
Employment and Job Quality	Create of jobs and promote effective participation of groups at a disadvantage in the workforce. Job quality is essential to ensure that employees can work productively
Skill Development	Promote human capital and skills, directly through in-house worker and manager training, and indirectly through knowledge transfers to supplier
Gender Equality	Support effective participation of women in the workforce and equal opportunities at all work levels
Promoting Exports	Enable productivity growth through participation and access to foreign markets
Fostering Local Linkages	Support the development of linkages with domestic firms, including SMEs, to enhance knowledge spillovers
Improving Environmental Outcomes	Promote low-carbon energy transition, protect environmental quality and improve environmental impact

**Table 2:** SDGs Cluster

Certain tax incentives with outcome conditions may support the achievement of the Sustainable Development Goals (SDGs) because they make the tax incentive contingent on attaining various policy outcomes, thereby strengthening the link between the policy and its intended policy objective. Associating multiple conditions and policy objectives under one instrument, on the other hand, results in insensitive targeting, particularly if thresholds for receiving an incentive are set low in one dimension. The combination of outcome conditions and tax exemptions occurs more frequently than with other tax incentive instruments: half of the incentives with an outcome condition were tax exemptions, whereas tax exemptions represent only one-third of the total incentives in the database. This may be a sign that countries intend to strengthen the design of otherwise broadly applicable income-based incentives, given that they frequently condition incentives indirectly on certain expenditures and activities.

This investigation arrived at a variety of results. Initially, the government must provide 'renewable' and 'sustainable' tax advantages to essential companies and economic sectors (Daiyabu et al., 2023; Karimi et al., 2018; Roth et al., 2020). The government implements tax incentives for the clean energy industry in order to stimulate investment and development in the clean energy sector. This incentive is intended to promote the reduction of greenhouse gas emissions, the enhancement of energy efficiency, and the use of renewable energy sources. Tax credits such as the investment tax credit (ITC), the production tax credit (PTC), and other incentives are frequently utilized in the renewable energy industry. In contrast, regulations should include provisions for disincentives in the form of hefty taxation for companies that are environmentally destructive, disrupt the natural order, etc.

Second, tax incentives should also be given to the MSMEs industry because this industry has the largest market as a support for the economy in Indonesia (Ehsan, 2021; Romli et al., 2017; Belitz et al., 2017). The government often provides special tax incentives for Small and Medium Enterprises (SMEs) to encourage the growth and development of this sector. Tax incentives for SMEs can help reduce the tax burden and provide a financial boost for business owners. Some countries impose lower tax rates for SMEs compared to large companies. This helps reduce the tax burden and allows SMEs to have more resources available for business growth.

Last but not least, Indonesia also needs to benchmark good countries (best practices) along with the fiscal policy strategies they are implementing. On the other hand, Indonesia also needs to 'learn' from the worst practice countries in its fiscal management (Kacem et al., 2022; Sidelnykova et al., 2022).

## CONCLUSION AND RECOMMENDATION

This research can be used as a basic reference to see how the visualization of graphics development of research trends with the theme of Tax Incentive in published scientific research so that it can be further developed by experts. While we observe a substantial increase of research in this field, literature about the tax incentive in Indonesia as a developing country still limited. Recommendations for further research can refer to the most popular keywords that can be discussed further.

Given the growing importance and attention in the last decade for taxation research, we would also expect an increased stream of research about the potential adoption of tax incentives in Indonesia. With a focus on the Tax Incentives and Investment Climate, Research Path 1 addresses an important, yet only limited subset of potential research in the Tax Incentive policy design and implementation. Research Path 2 discusses about the Fiscal Law in Indonesia, while Research Path 3 and 4 reveal the results of research on the Tax Incentives for Renewable Energy and Electric Adoption, research on the environmental and climate change issue on the design of tax incentive policy may still be considered as a white spot in literature. Furthermore, Research Path 5, 6, 7 support the achievement of the Sustainable Development Goals (SDGs) because they make the tax incentive contingent on attaining various policy outcomes, thereby strengthening the link between the policy and its intended policy objective.

The implications of these findings are If designed and implemented correctly, tax incentives can contribute to the social and economic development of a nation. In addition to design considerations, it is important to bear in mind the primary purpose of the tax incentive when it is being created. Existing studies that seek to assess the extent to which tax incentives attract foreign direct investment refer to diverse conceptual frameworks and employ diverse assessment methodologies. The general consensus is that an attractive investment climate will have a greater effect on investor decisions than tax incentives alone. The persuasiveness of

the tax incentive will depend on its design and implementation, as well as the country's general tax system and other factors, such as political and fiscal stability and a well-developed infrastructure.

### Competing Interests

The authors declare that they have no conflict of interests.

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