

## Digital Tax Literature Mapping: A Top Bibliometric Analysis Global Publications 2010–2023

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### ABSTRACT

*Abstract* In this increasingly advanced era, digital transformation has triggered fundamental changes in the global tax system, including in Indonesia, which is now faced with the challenges of supervision, compliance, and fiscal justice in an economic ecosystem without physical borders. This study aims to conduct a bibliometric analysis of the scientific literature on digital taxes in Indonesia, focusing on publication trends, main themes, and mapping the direction of future research. Using the PRISMA approach and data from Scopus during the period 2010–2023, a total of 496 English-language articles were analyzed using RStudio and Biblioshiny devices. The results show a significant trend of publication growth with an average annual increase of 30.66%, as well as the dominance of topics such as digital storage, taxation, and fiscal policy. The findings also show that there is still limited exploration of data privacy, sustainability, and social perspectives in digital taxation studies. Therefore, this study underlines the importance of increasing the contribution of interdisciplinary and contextual national research as the basis for the formulation of responsive and inclusive digital fiscal policies in Indonesia.

**Keywords:** *big data; bibliometric analysis; digital taxation,*

### INTRODUCTION

The development of digital technology over the past two decades has revolutionized nearly every aspect of life, including the global economic system. This transformation has not only created new opportunities for growth but also presented complex fiscal challenges. The tax system, fundamentally designed to uphold the principles of justice and legal certainty, is now faced with the reality of a digital economy that crosses national borders without requiring a physical presence or fixed place of business. This phenomenon raises a fundamental question: how can countries fairly and effectively tax cross-border activities in the digital age? This challenge has led to the birth of the concept of digital tax, an effort to adapt fiscal policy to the dynamics of a technology-based economy.

Globally, various international organizations, such as the OECD, have sought to respond to these developments. Through its Tax Administration 3.0 initiative, the OECD is encouraging the adoption of cutting-edge technologies—from artificial intelligence (AI) and blockchain to big data—to improve oversight effectiveness, administrative efficiency, and taxpayer compliance. Several studies demonstrate the significant potential of digital technology in supporting fiscal functions, for example through machine learning algorithms that can predict Value Added Tax (VAT) reporting behavior. However, this optimism is not free from significant ethical and legal consequences, particularly regarding data privacy protection and guarantees of taxpayer rights. Thus, the digital transformation of taxation is a double-edged sword:

on the one hand, it promises greater effectiveness, but on the other, it presents new challenges in the realm of justice and legal protection.

In the Indonesian context, this urgency is even more evident. As a developing country, Indonesia faces structural barriers to digital tax adoption, ranging from limited infrastructure, low fiscal technology literacy, and limited institutional capacity. Furthermore, public and business awareness of digital tax obligations remains mixed, particularly in the MSME sector, the backbone of the national economy. This situation creates gaps that are not only regulatory but also practical and sociological. Amidst these conditions, a deep academic understanding of the direction of digital tax research in Indonesia is crucial, both for formulating appropriate policy strategies and ensuring fiscal fairness that aligns with current developments.

The primary motivation for this research is a clear literature gap. While previous studies have highlighted technology integration in tax administration, AI regulation, and MSME compliance challenges, empirical research using big data to evaluate the effectiveness of digital tax instruments, such as those related to VAT on cross-border services, is still rare. Furthermore, the institutional readiness of tax authorities to implement the principle of "significant economic presence" in Indonesia has not been comprehensively studied. The lack of research combining bibliometric analysis with a content approach also suggests room for a more integrative policy narrative mapping. In other words, this research stems from a real need to fill this knowledge gap while simultaneously providing a practical contribution to strengthening national tax policy.

Based on this background, this study aims to conduct a bibliometric analysis of scientific publications related to digital taxation in Indonesia. The research focuses on identifying publication trends, exploring emerging key themes, and mapping future research directions. The research questions are formulated as follows:

RQ<sub>1</sub> : What are the publishing trends in the digital taxation sector, especially in Indonesia?

RQ<sub>2</sub> : What are the future research directions based on the most popular themes related to digital tax in Indonesia?

By examining these questions, this research is expected to not only enrich the academic literature, but also provide a scientific basis that can be used as a basis for formulating responsive, adaptive, and equitable fiscal policies in the digital era.

## **METHODS, DATA, AND ANALYSIS**

This study uses a qualitative approach with bibliometric methods to explore the direction and development of studies related to digital taxation between 2010 and 2023. Bibliometric analysis was chosen because it provides a comprehensive overview of research trends, author contributions, scientific collaboration networks, journal distribution, and keyword mapping. With this approach, the study not only captures what has been written but also reveals dynamics, patterns, and research gaps in the literature relevant to the topic of digital taxation.

This research employs a bibliometric analysis to trace the direction and development of studies... The quantitative findings from bibliometrics are then supplemented with a qualitative interpretation to uncover deeper insights into research trends. The initial search yielded 1,746 documents. At the first filter, we excluded articles from subject areas outside business management, accounting, economics, and finance, resulting in 761 documents. The second phase filtered by publication type, specifically scientific

articles (journal articles), resulting in 543 documents. The third phase limited the selection to English-language articles, ultimately yielding 496 articles that met the analysis criteria. This process ensures that the literature used is relevant, credible (from reputable journals), and aligned with the focus of digital tax studies

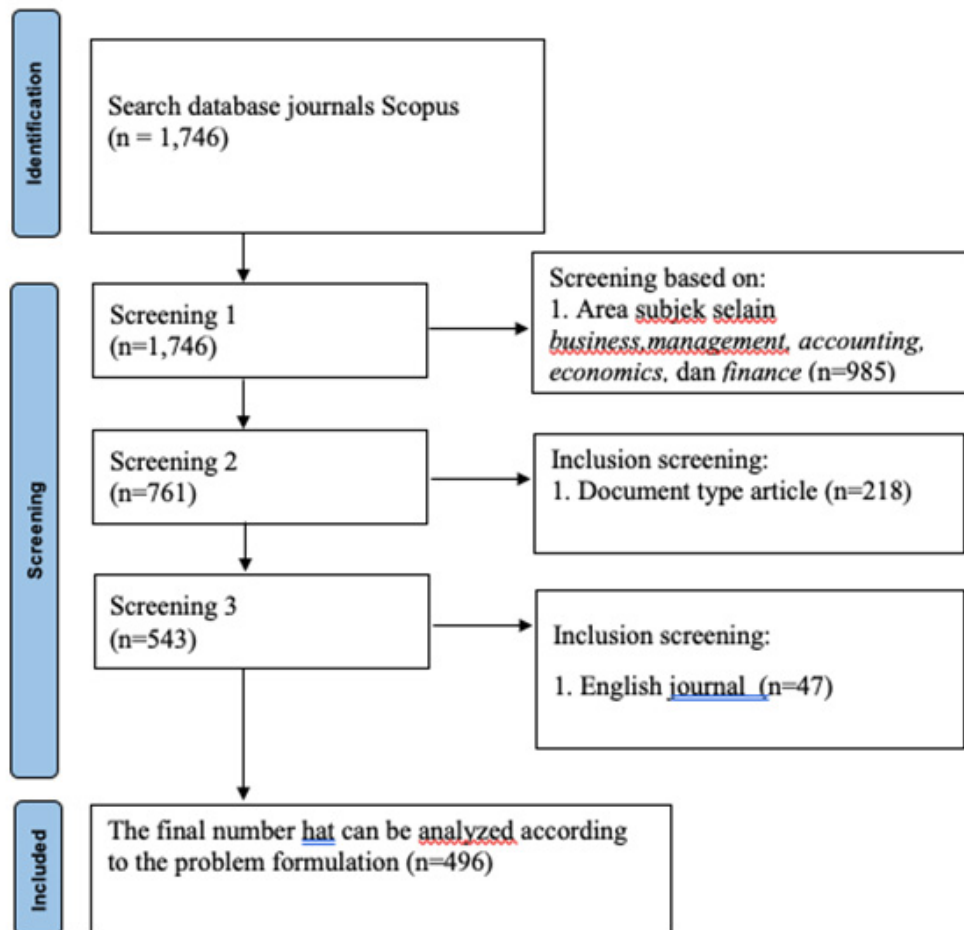


Figure 1 PRISMA Flow Diagram

To maintain transparency and systematic selection, this study adopted the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) approach. PRISMA was chosen because it provides a standardized framework for screening literature, allowing each screening stage to be clearly explained, transparent, and replicable by other researchers. This enhances the credibility of the research results while reducing the potential for bias in data selection.

In the analysis phase, this study used RStudio with the Bibliometrix package and the Biblioshiny interface. This tool was chosen because of its high computational power, flexibility, and support for interactive and easy-to-understand data visualization. RStudio enables more in-depth analysis, from counting citations and mapping author collaboration networks to identifying emerging keyword trends throughout the research period. Biblioshiny's advantage lies in its user-friendly interface, making it easier to interpret data even with large datasets.

However, the use of bibliometrics through RStudio and Biblioshiny is not without limitations. First, the analysis results are highly dependent on the quality and completeness of the data from the

Scopus database, thus excluding literature outside the index. Second, bibliometrics emphasizes the quantification of publications, so it does not always reflect the substantive quality of the article content. These limitations are addressed by complementing quantitative bibliometric analysis with qualitative interpretation, so that the research results are not only descriptive but also analytical.

By combining the PRISMA approach and the RStudio–Biblioshiny analysis tools, this research is expected to be able to present transparent, comprehensive, and humanistic results, so that it can become an academic reference as well as a basis for consideration in developing digital tax policies in Indonesia.

## **RESULT AND DISCUSSION**

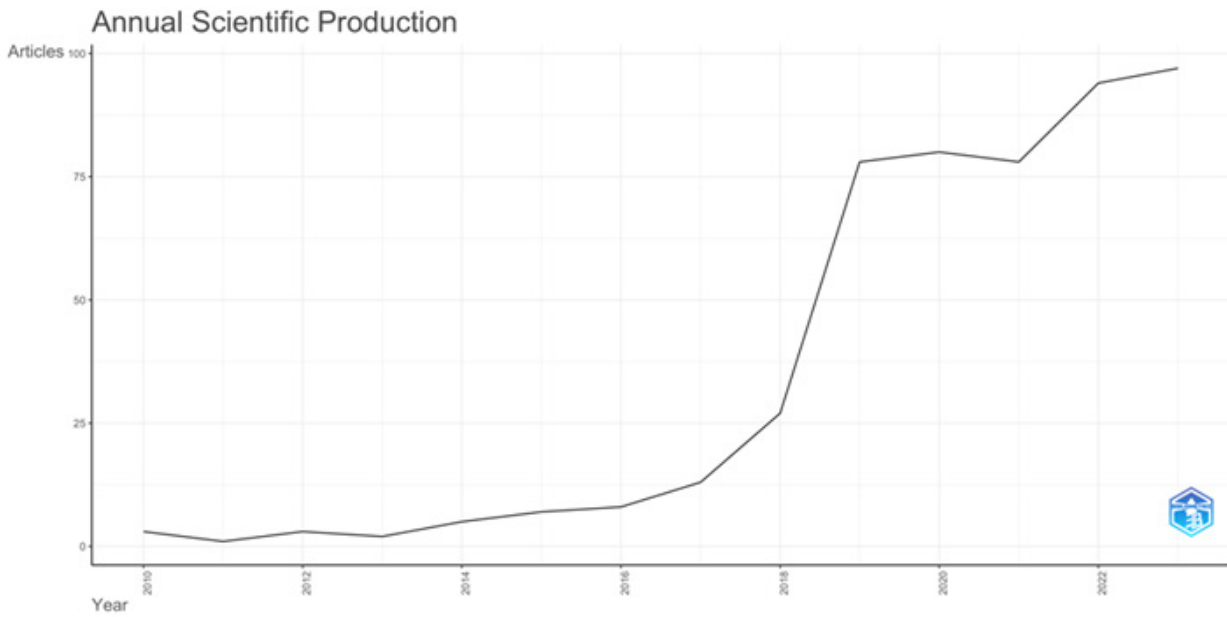
### **Result**

**Table 1** Main Information

Description	Results
<b>MAIN INFORMATION ABOUT DATA</b>	
Timespan	2010:2023
Sources (Journals, Books, etc)	238
Documents	496
Annual Growth Rate %	30,66
Document Average Age	4,57
Average citations per doc	12,25
References	0
<b>DOCUMENT CONTENTS</b>	
Keywords Plus (ID)	768
Author's Keywords (DE)	1481
<b>AUTHORS</b>	
Authors	1082
Authors of single-authored docs	176
<b>AUTHORS COLLABORATION</b>	
Single-authored docs	192
Co-Authors for Doc	2,39
International co-authorships %	14,31
<b>DOCUMENT TYPES</b>	
article	496

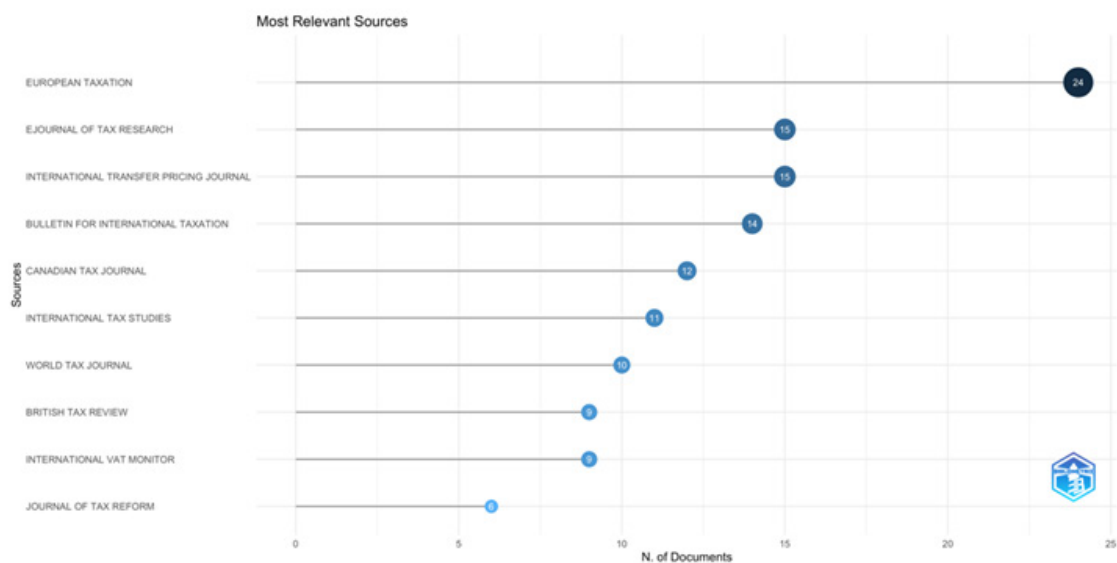
Source: R-Packages and Biblioshiny Web Interface

Based on the table above in the period 2010-2023, there are a total of 496 documents from 238 publication sources which include journals, books, and other relevant sources. Based on the sources obtained, it gives an idea that the topic being researched has received attention from various scientific communities so that it does not only come from one source, but has spread widely in various scientific contexts. with the number of publications growing at a compound annual growth rate (CAGR) of 30.66%. proves that research on this topic has undergone significant development during the research year.



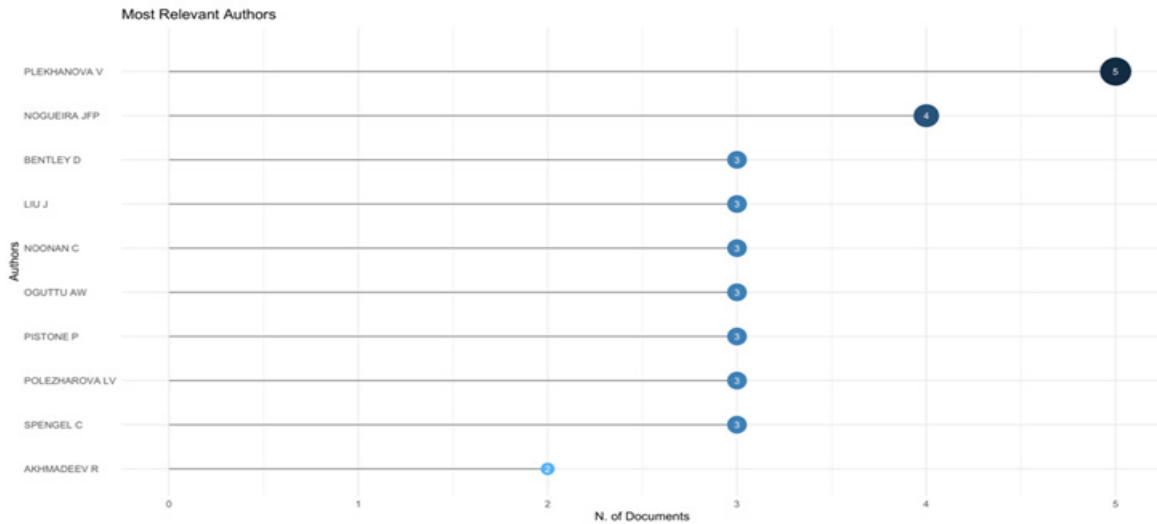
**Figure 2.** Annual Scientific Production  
 Source: R-Packages and Biblioshiny Web Interface

Topic-related scientific production digital taxation shows a significant upward trend in recent years. At the beginning of the year observed the number of publications per year was relatively stable and low, hovering below 10 articles per year. However, starting around 2014, there was a gradual increase. The most significant increase occurs around the year 2019 to 2020, where the number of publications jumped sharply from around 20 to more than 70 articles per year. This trend continues into 2023, with scientific production reaching its peak, approaching or exceeding 90 articles per year. This surge is likely triggered by the increasing global urgency in regulating the digital economy, including initiatives from OECD on digital taxes, as well as the increasing role of digital companies in the world economy.



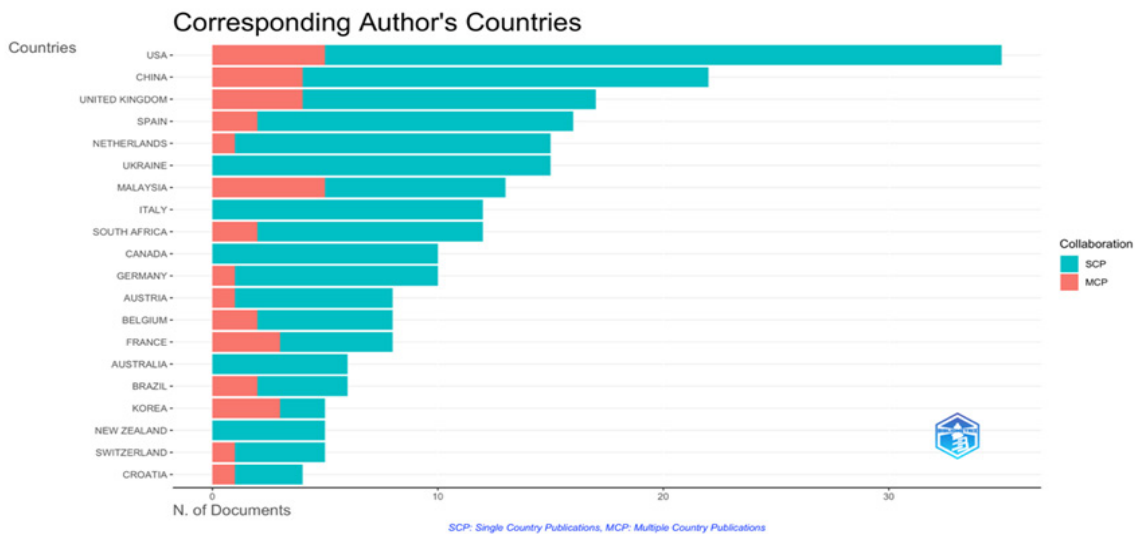
**Figure 3.** Most Relevant Sources  
 Source: R-Packages and Biblioshiny Web Interface

Based on the results of bibliometric analysis, the most relevant source of publication in the digital tax study is European Taxation with a total of 24 documents. It was followed by the Canadian Tax Journal and the International Transfer Pricing Journal, each with 11 documents. Other sources such as the Bulletin for International Taxation (10 documents), the Canadian Tax Foundation (9 documents), and the International Tax Journal (7 documents) have also made significant contributions to the development of digital tax-related literature.



**Figure 4** Most Relevant Authors  
 Source: R-Packages and Biblioshiny Web Interface

The results of the analysis show that Klimovsky D. is the most prolific writer on the topic of digital taxation with the contribution of 5 documents. Followed by several other authors such as Hoekman J.P., Borselli F., and Li J. who each contributed 2 documents. Meanwhile, other authors, such as Genschel P. and Pogge T., are recorded as contributing 1 document. These findings indicate that research on digital taxation is still scattered and has not been concentrated in a small number of researchers.

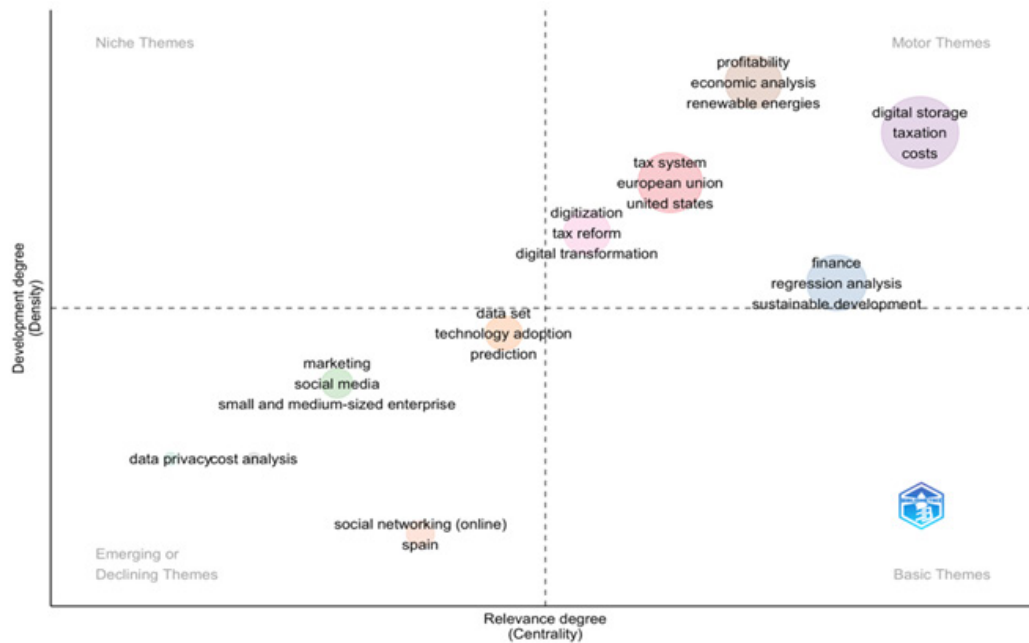


**Figure 5.** Corresponding Author's Countries  
 Source: R-Packages and Biblioshiny Web Interface





lower left quadrant as *emerging or declining themes*, indicates the potential to be explored further or begin to lose relevance. Overall, the map shows that the digital taxation literature is developing strongly on core economic and technological issues, but still leaves room for the development of new themes that are more specific and applicable.



**Figure 9.** Thematic Map  
 Source: R-Packages and Biblioshiny Web Interface

## Conclusion

A bibliometric analysis of 496 publications from 2010–2023 shows that digital tax research has experienced rapid growth, with a significant surge since 2019 as the global urgency of regulating the digital economy has increased. Studies have not only addressed technical aspects such as data storage and costs, but have also expanded into multidisciplinary areas, including environmental issues such as carbon taxes. This confirms that digital tax is inseparable from issues of sustainability and global governance, with international publications – particularly from the United States, China, and Europe – playing a dominant role, while Indonesia’s contribution remains very limited. Furthermore, the literature reveals two main poles of development: first, technical aspects related to digital infrastructure and data management; second, policy aspects that touch on fiscal regulation and international cooperation. Thematic mapping also uncovers new research opportunities in the areas of data privacy, social media, and cross-border fiscal policy, which remain rarely explored. Therefore, future digital tax research needs not only to delve deeper into core issues but also to open up opportunities for cross-disciplinary and cross-border collaboration, to enrich the discourse and address evolving global challenges.

Based on research findings, several strategic steps can be taken. Indonesia needs to contribute more actively to global literature, both through independent research and international collaboration, so that local experiences and challenges can inform global discourse and strengthen Indonesia’s position in international policy formulation. Furthermore, future research should place greater emphasis on big data-based empirical studies to assess the effectiveness of digital tax instruments, ensuring that policies are truly evidence-based and more adaptive to cross-border digital economic developments.

Furthermore, studies on the institutional readiness of tax authorities – particularly regarding the principle of “significant economic presence” – need to be strengthened with a focus on regulation, infrastructure, and human resource capacity. A multidisciplinary approach linking digital taxation with environmental issues, sustainability, and data protection is also crucial. With these steps, digital tax discourse and practice will not only advance academically but also have a tangible impact on achieving fiscal justice, sustainability, and Indonesia’s economic sovereignty in the digital era.

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