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Tax Transformation through Artificial Intelligence: A Systematic Review of Generational Preference Differences and their Impact on Tax Compliance

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Abstract

This study examines the impact of Artificial Intelligence (AI) adoption on tax compliance, focusing on generational differences within the Indonesian context. Unlike previous research that primarily addresses the technical implementation of AI in tax administration, this study explores how varying generational attitudes spanning Generation Z, Millennials, Generation X, and Baby Boomers influence taxpayer behavior toward AI-based systems. Employing the PRISMA framework, the study conducts a systematic review of peer-reviewed literature from the Scopus database (2010–2024), using thematic analysis to identify behavioral, technological, and policy-relevant patterns. The findings indicate that AI improves tax compliance by automating processes, enhancing data accuracy, and minimizing human error. Younger generations, particularly Generation Z and Millennials, adopt AI more readily due to their digital proficiency, openness to automation, and mobile-first preferences. In contrast, Generation X and Baby Boomers are more cautious, expressing concerns over data privacy, limited digital skills, and trust in AI technologies. These generational disparities pose implementation

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challenges, particularly in ensuring inclusive adoption. To address these issues, the study proposes tailored policy strategies. For younger cohorts, integrating AI with mobile platforms and offering usage incentives can boost engagement. For older generations, efforts should prioritize trust-building through transparent data governance, simplified user interfaces, and targeted digital literacy programs. Moreover, AI can be harnessed to improve compliance among underserved populations and detect non-compliance risks through predictive analytics. By offering generation-specific, context-sensitive policy recommendations, this study provides actionable insights to support equitable and effective AI integration in Indonesia's tax system.

Keywords Tax Compliance · Generational Preferences · Technology Adoption · Artificial intelligence

JEL Codes H25 · H26 · M38

1 INTRODUCTION

In today's digital age, technology plays a critical role in numerous fields, including taxation. Artificial intelligence (AI) represents a significant technological advancement transforming tax administration and policy. Globally and within Indonesia specifically, AI facilitates efficiency improvements such as automating tax processes, detecting tax evasion, and enhancing taxpayer compliance (Faúndez-Ugalde, Mellado-Silva, and Aldunate-Lizana 2020; Wadipalapa et al. 2024). For instance, Indonesia's Directorate General of Taxes has implemented technologies like e-filing platforms, Quick Response Indonesian Standard (QRIS) for simplified tax payments, and AI-based risk management tools to optimize tax collection and compliance.

Digital transformation has significantly reshaped Indonesia's tax system. AI is increasingly used not only to streamline administrative functions but also to influence taxpayer behavior and compliance strategies (Hakam et al. 2023; S. L. Hakam et al. 2024)). Consequently, AI enhances transparency and accountability within Indonesian tax policies (Rahayu 2024). While AI promises major improvements in efficiency and compliance, its effectiveness ultimately depends on user interaction particularly across different age cohorts. This highlights the need to understand how generational differences influence AI adoption in taxation. Younger generations, particularly Generation Z and Millennials

who are digital natives, tend to embrace AI technologies swiftly and effectively (Hail T et al. 2024). Conversely, Generation X and older demographics often face adaptation difficulties, especially regarding understanding and trusting AI-enabled tax services (Hakam et al. 2024) These generational differences directly impact tax compliance rates (Deloitte 2024).

A notable research gap exists concerning AI's impact on taxpayer behavior and generational attitudes within the Indonesian tax context. Prior research has primarily focused on technical and administrative efficiencies, often overlooking generational differences in AI adoption. Addressing this gap through a systematic review will enable the formulation of inclusive tax policies tailored to varying generational preferences and capabilities (Didimo et al. 2020; Gao et al. 2023)

This study systematically analyzes the influence of Artificial Intelligence (AI) adoption on tax compliance, emphasizing generational differences in technology usage within the diverse Indonesian context. It seeks to provide empirical evidence regarding AI's impact on tax compliance from the distinct perspectives of Generation X, Millennials, and Generation Z, highlighting specific challenges and opportunities related to their differing levels of digital literacy and technological accessibility. Recognizing Indonesia's diverse society, where digital infrastructure and technology adoption significantly vary across regions and demographics, the research identifies why generational differences critically influence AI-based tax compliance.

By reviewing existing literature, this study aims to deliver actionable insights into how Indonesian tax authorities can effectively implement AI-driven strategies tailored to generational preferences and behaviors. The study further connects these objectives to policy implications, suggesting practical ways the Indonesian government can enhance tax compliance across generations. These include targeted educational initiatives, region-specific digital literacy programs, and customized incentives to ensure inclusive participation and maximize the effectiveness of AI applications within the country's tax administration system.

This research centers on three main questions. First, it examines how AI affects tax policy and compliance, including automation, transparency,

and efficiency in tax processes, and how these aspects influence taxpayer compliance. Second, it explores how generational differences shape AI adoption in the tax context, focusing on how Generation X, Millennials, and Generation Z respond to and use AI for tax obligations and identifying challenges older generations may face in adopting new technologies. Third, it considers the implications of AI for tax compliance across generations, exploring whether AI implementation can enhance compliance uniformly across age groups and how it can be optimized to achieve equitable compliance rates.

This article consists of several main sections. The Introduction outlines the role of AI in taxation and the research gap regarding generational responses to this technology. The Literature Review provides context on AI's impact and generational technology preferences. Next, the Methodology section details a PRISMA-based systematic review applied to studies from Scopus. The Results and Discussion present AI's efficiency, generational adaptability, and trust factors. Based on these findings, the Policy Implications section offers strategies to accommodate the needs of each age group. Finally, the Conclusion highlights AI's potential to improve tax compliance when policies account for generational differences.

2 LITERATURE REVIEW

2.1 Tax System Transformation through AI

Digitalization and technological development have led to a new era, the digital era. AI represents a paradigmatic shift, not merely enhancing productivity but also redistributing institutional control and reconfiguring taxpayer-state dynamics (Mökander and Schroeder 2024). Despite its promise, critical voices caution against overreliance on algorithmic systems without democratic oversight especially in fiscal governance. AI represents not only a technical tool but a transformative force in public finance, fundamentally altering how tax obligations are monitored, enforced, and experienced by taxpayers. In the Indonesian context, this includes reconfiguring taxpayer-authority interactions, streamlining enforcement hierarchies, and introducing new institutional dependencies on algorithmic decision-making. Furthermore, in this modern era, AI is defined as intelligence that can communicate and operate independently in families in a manner like humans (Du-Harpur et al. 2020). Including in the field of taxation, which has begun to use AI in its operations, it is

known to improve services for taxpayers and increase the ability to detect fraud. Furthermore, this transformation facilitates compliance and simplifies taxpayers to make tax payments (Rahayu 2024). However, most existing studies emphasize the technical efficiency of AI implementation in tax systems and fall short of addressing its behavioral and institutional implications particularly in developing country contexts like Indonesia. Thus, deeper exploration is needed to understand not only the functional potential of AI but also its impact on stakeholders within the tax ecosystem, especially across generational lines.

2.2 Inter-generational Preferences

The transformation of the AI-based tax system cannot be separated from the influence for taxpayers in understanding and using the new system. Generational differences manifest not only in the pace of technology adoption, but in underlying trust structures, perceived obligation toward the state, and risk tolerances all which shape compliance behavior. For instance, while Gen Z prioritizes usability and mobile convenience, Baby Boomers emphasize data control and human mediation (Kolnhofer-Derecskei, Reicher, and Szeghegyi 2017). Meanwhile, the transition generation, namely Millennials or generation Y, is more open to technology and more independent in understanding and using it (Choudhary et al. 2024). This is certainly different from generation Z who are very familiar with technology because they were born and grew up in the digital era (Berkup 2014). The existence of artificial intelligence is not an obstacle for them because basically the presence of technology has become part of their daily activities. While prior research has outlined generational differences in technology use more broadly, there is a lack of focus on how these differences specifically affect the adoption of AI-powered tax systems. This study addresses that gap by examining how generational attitudes, trust dynamics, and digital capabilities shape tax compliance in the context of AI adoption in Indonesia.

Table 1. Comparison of Generation X, Y, and Z Towards the Use of Technology

	Generation X	**Generasi Y**	**Generation Z**
Year of Birth	**1965-1980**	**19981-2000**	**2001-2010**
Technology adaptation	The tendency to adopt technology is slower, skeptical, and conservative	The tendency to be faster and more open in adapting to new technologies (Kolnhofer-	The tendency to easily adapt to technology due to growing up in the

	(Kolnhofer-Derecskei et al. 2017).	Derecskei et al. 2017).	digital era (Berkup 2014).
Purpose of use	Use technology to save time and make work easier (Agárdi and Alt 2022).	Use technology more flexibly, such as work, entertainment and skill upgrades (Berkup 2014).	Using technology as part of their daily activities that are integrated with aspects of their lives (Berkup 2014).
Learning styles and preferences	Requires clear guidance and instructions in using the technology (Berkup 2014).	Can independently learn the use of technology (Choudhary et al. 2024).	Master technology quickly through trial-and-error and interactive learning (Naci Çoklar and Tatli 2021).
Understanding and expectations	A tendency to worry about the risks of use, such as social and ethical impacts (Choudhary et al. 2024).	Pragmatic tendencies and a focus on achieving goals when using technology (Kolnhofer-Derecskei et al. 2017).	Tendency to care about the convenience and benefits that technology provides. Desire technology that is inclusive and easy to use (Agárdi and Alt 2022).

Source: (Hakam et al., 2024)

2.3 Implementation of AI on Tax Compliance

Several countries have significantly transformed their tax systems by adopting AI, resulting in increased tax revenue and enhanced operational efficiency. While high-income countries such as the US and Australia have leveraged AI for audit optimization, their experiences cannot be uncritically transplanted to Indonesia, where infrastructure disparities and digital trust deficits persist (Setiawan and Winarna 2021). This raises questions about the scalability of such models in emerging economies. AI enables tax authorities to automatically analyze large datasets and swiftly identify potential cases of fraud with greater accuracy, thereby boosting overall tax compliance (Rahayu 2024). Developed countries, including the United States and Australia, utilize AI for service enhancement and effective tax compliance monitoring, leveraging advanced data analytics to detect suspicious patterns and optimize audit processes (Huang and Rust 2018; Lee 2020).

Indonesia has similarly begun adopting AI in its tax system, demonstrating

potential improvements in tax compliance and administrative efficiency (Basri et al. 2021). The Indonesian Directorate General of Taxes has integrated technologies like e-filing platforms, AI-driven risk management systems, and digital payment solutions such as the Quick Response Indonesian Standard (QRIS) (Hakim et al. 2022; Prasetyo and Rahayu 2024). These tools enhance the government's capacity to monitor compliance, streamline tax payments, and detect irregularities in taxpayer data more promptly and accurately. This contextual adaptation highlights the potential benefits of AI adoption specifically tailored to address Indonesia's unique taxation challenges and administrative needs.

Although AI implementation has shown promise in enhancing tax administration globally, few studies have examined its differential effects on taxpayer behavior across generations. This is a crucial oversight, as successful technology adoption is contingent not only on system capabilities but also on the acceptance and adaptability of users particularly in diverse societies like Indonesia. This study seeks to bridge that gap by investigating the intersection of AI technology and generational compliance behavior.

3 METHOD, DATA, AND ANALYSIS

This section outlines the methods employed for conducting a systematic review following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework, a widely recognized approach for ensuring methodological rigor and transparency in systematic reviews (Moher et al. 2010) PRISMA provides clear guidelines and a structured checklist for identifying, selecting, evaluating, and synthesizing research literature, ensuring clarity and comprehensiveness in reporting findings (Page et al. 2021; Rethlefsen et al. 2021).

The purpose of this review is to identify, analyze, and synthesize peer-reviewed journal articles from the Scopus database addressing the role of AI in taxation, particularly focusing on its impact on tax compliance and generational differences in the adoption of AI technologies. The selected timeframe spans from 2010 to 2024, chosen to capture the most recent advancements, emerging trends, and contemporary insights within this rapidly evolving area.

The process of systematic review using the PRISMA framework involves four key phases: identification, screening, eligibility assessment, and inclusion. Initial searches were conducted using specific keywords such as "Artificial Intelligence," "tax compliance," and "generational differences," and results were refined through title and abstract screening followed by a comprehensive full-text evaluation to determine eligibility.

3.1 Search strategy

The literature search was conducted exclusively in the Scopus database, one of the largest and most trusted databases for academic research. The choice of Scopus ensures that all selected articles meet the required quality standards and are peer-reviewed. The search was performed using a combination of keywords and Boolean operators to capture relevant studies that address the intersection of AI, tax compliance, and generational preferences in technology adoption.

3.2 Search string

The following search string was used to retrieve relevant literature from Scopus:

("Artificial Intelligence" OR "AI" OR "machine learning" OR "automation") AND ("generation X" OR "millennial" OR "generation Z" OR "baby boomer" OR "generational differences" OR "age differences") AND ("tax" OR "tax policy" OR "taxation" OR "tax enforcement" OR "tax law") AND ("behavior" OR "compliance behavior" OR "adoption behavior" OR "digital behavior" OR "compliance rates") AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (PUBSTAGE , "final")) AND (LIMIT-TO (SRCTYPE , "j")) AND (LIMIT-TO (LANGUAGE , "English"))

3.3 Explanation of the Search String

This search query is structured to comprehensively retrieve peer-reviewed journal articles that focus on the intersection of Artificial Intelligence (AI), generational differences, taxation, and taxpayer behavior. The terms "Artificial Intelligence," "AI," "machine learning," and "automation" capture studies related to AI technologies, including automation systems and machine learning, which are often implemented in tax systems to improve efficiency and compliance monitoring. The inclusion of generational terms like "Generation X," "Millennial," "Generation Z," "Baby Boomer," along with broader terms such as "generational differences" and "age differences," ensures that the search targets studies exploring how different generations adopt and interact with AI technologies in the context of taxation.

The query further narrows the focus to articles on "taxation," "tax policy," "tax enforcement," and "tax law" to capture the role of AI in various aspects of tax systems, including policy and legal frameworks. By incorporating behavioral terms such as "compliance behavior," "adoption behavior," and "digital behavior," the search seeks to identify how taxpayers from different generations behave regarding AI adoption and compliance with tax regulations.

Additional filters refine the search results to ensure high-quality and relevant research. The search is limited to journal articles (DOI type: "ar"), ensuring that only peer-reviewed academic studies are included. The publication stage filter ensures that only final publications (not preprints or early access versions) are retrieved, while the source type filter (SRCTYPE: "j") restricts results to journals, excluding other publication types like trade magazines or conference proceedings. Finally, the search is limited to articles written in English, ensuring consistency and accessibility for a broader audience. This structured search query effectively gathers comprehensive, high-quality literature for examining AI's impact on tax compliance across different generational cohorts.

3.4 Databases Used

The search was conducted exclusively within the Scopus database, which is recognized for its comprehensive coverage of peer-reviewed literature across various disciplines. The choice of Scopus ensures the inclusion of high-quality studies that are critical for the reliability and validity of the review findings.

3.5 Inclusion and Exclusion Criteria

To ensure the relevance, quality, and focus of the studies included in this review, a strict set of inclusion and exclusion criteria was applied.

Inclusion Criteria:

1. Journal Articles: Only peer-reviewed journal publications from Scopus were considered. To maintain academic rigor, other sources were omitted, including conference papers, book chapters, and non-peer-reviewed sources.
2. Focus on AI in Taxation: Articles must discuss the use of AI in taxation and its possible influence on tax compliance. Studies that

discussed AI but in distinct fields (for example, healthcare and marketing) were removed.
3. Generational Differences: The study must look into how different generations adopt and apply artificial intelligence in tax compliance. This guarantees that the review considers the junction of AI, taxation, and generational preferences.
4. Timeframe: Articles published between 2010 and 2024 were included to reflect the most recent and important advances in artificial intelligence and its applications in taxation.
5. Language: To ensure the review's accessibility and homogeneity, only English-language articles were considered.

Table 2. Inclusion and Exclusion Criteria

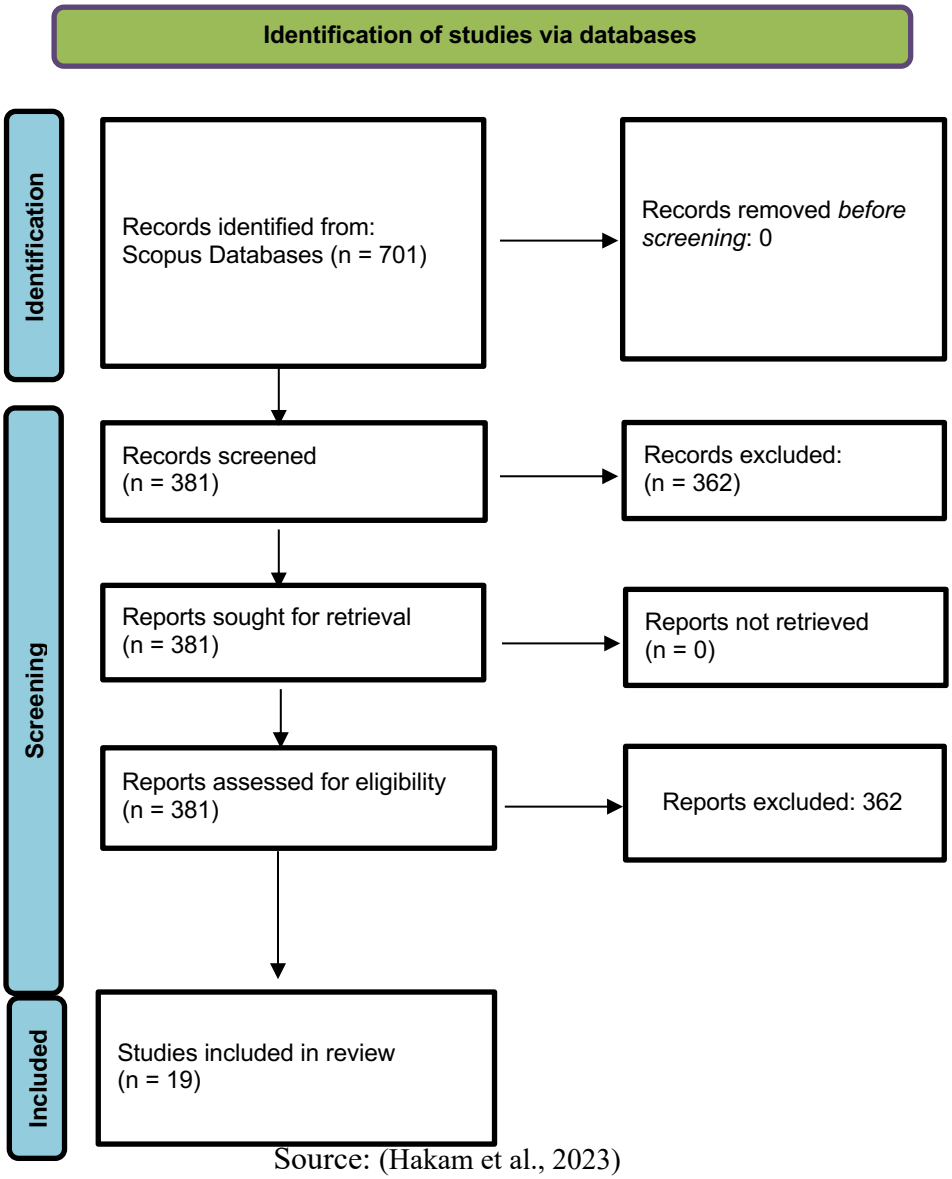
No.	Criteria	Inclusion	Exclusion
1	Source	Peer-reviewed journal articles from Scopus	Non-peer-reviewed sources (e.g., blogs, editorials)
2	Focus	Studies on AI in taxation and tax compliance	AI studies not related to taxation or taxpayer behavior
3	Generational Scope	Explores generational differences in technology adoption	No focus on generational differences
4	Publication Date	Published between 2010-2024	Published before 2010
5	Language	English	Non-English articles

Exclusion Criteria:
1. Non-Peer-Reviewed Sources: To maintain academic quality, articles from non-peer-reviewed sources (such as blogs, periodicals, and editorials) were eliminated.
2. Technical Focus Only: Studies that concentrate simply on the technical advancement of AI without mentioning its applicability in tax compliance or generational adoption were eliminated.
3. Lack of Generational Focus: Articles that do not address generational differences or limit their analysis to a single generation without cross-generational comparisons were excluded.
4. Non-English Articles: Studies published in languages other than English were omitted to prevent any translation biases and guarantee uniformity in interpretation.

3.6 Study Selection Process

The study selection process was conducted in four stages following the PRISMA guidelines: identification, screening, eligibility, and inclusion. This process ensured transparency and reproducibility (Page et al. 2021). A PRISMA flow in Figure 1 will illustrate this selection process, showing the progression from the initial identification of studies to the final selection.

Figure 1. Stages of Systematic Literature Review



Source: (Hakam et al., 2023)

1. Identification:

An initial Scopus search using the provided search query generated 701 articles. These articles were transferred to a reference management platform for additional processing.

2. Screening:

The exclusion criteria limited results to final-stage, English-language journal articles, removing conference papers, book chapters, non-academic reports, and trade publications. Applying these criteria reduced the documents from 701 to 381.

3. Eligibility:

The titles and abstracts of the 381 unique publications were examined to determine their relevance to the study issues. Articles that did not specifically address AI in taxation, tax compliance, or generational disparities were excluded. Following this screening, 19 papers were deemed appropriate for full-text evaluation.

4. Inclusion:

After an eligibility evaluation, 19 studies were chosen for final inclusion in the systematic review. This research provided direct insights into AI's function in taxation and compliance, with a focus on generational disparities in technology adoption.

3.7 Data Extraction

A standardized data extraction form was developed to systematically gather key information from each study. The following data points were extracted for each selected article:

1. Title: Full title of the article.
2. Authors: Names of the authors and their affiliations.
3. Year of Publication: The year the article was published to ensure it falls within the selected timeframe.
4. Objectives: The research objectives of the study, particularly concerning AI, taxation, and generational differences.
5. Methodology: Description of the research design, including whether it used qualitative, quantitative, or mixed methods, and the sample size, if applicable.
6. Key Findings: The main findings of the study focusing on how AI affects tax compliance and how generational preferences influence the adoption of AI technologies.
7. Limitations: Any limitations identified by the authors, such as small sample sizes, geographic limitations, or methodological challenges.

8. Conclusions and Recommendations: The conclusions drawn by the authors and any policy recommendations or future research directions suggested by the study.

The extracted data were compiled into a data extraction table, which facilitated comparison across studies and ensured consistency in data synthesis and analysis.

3.8 Data Synthesis and Analysis

Thematic synthesis revealed both convergence and divergence across studies. While younger generations consistently show higher adoption rates, some studies contradict this trend in lower-income contexts, suggesting socioeconomic rather than generational determinants may dominate. Additionally, methodological variations (e.g., experimental vs. observational studies) affect comparability of findings. This method involved identifying recurring themes and patterns across the studies, particularly focusing on:

1. AI's Operational Impact on Tax Compliance:
   Most studies (e.g., (S. Cao et al. 2021) consistently reported positive outcomes of AI adoption in tax administration such as fraud detection and accuracy. However, the strength of this conclusion is constrained by the dominance of studies from high-income countries with strong digital infrastructures. In contrast, (Setiawan and Winarna 2021) and (Rahayu 2024) highlight infrastructural and trust-related limitations in Indonesia, raising concerns about context-dependent effectiveness.
2. Generational Behavior and Technology Trust Gaps:
   There is convergence across studies Dawood et al. (2022) and Belanche et al. (2019) that Millennials and Gen Z demonstrate higher digital adoption tendencies. However, findings from Rahman et al. (2023) and Avižonienė et al. (2023) suggest that socioeconomic status and education may play a more prominent role than age cohort per se. This suggests that "generational preference" may conflate multiple latent variables, such as income, digital exposure, or institutional trust.
3. Policy Implications and Evidence Weight:
   While many studies advocate differentiated strategies for each generation, only a few (e.g., Bonsu et al. (2023); Andronie et al. (2023) empirically tested policy instruments. This underscores a limited evidence base for actual intervention efficacy. Future studies should prioritize experimental designs (e.g., A/B testing of AI features or digital literacy campaigns) to substantiate policy claims.

Studies were classified based on their major topic (AI in taxes, tax compliance, or generational disparities), followed by area, research design (quantitative or qualitative), and specific AI applications. This theme synthesis provided a comprehensive grasp of how AI is impacting tax compliance, as well as how generational preferences influence the success or difficulty of AI integration in tax systems.

4 RESULT AND DISCUSSION

4.1 Study Characteristics

This study draws on a set of empirical and conceptual studies that examine the intersection of artificial intelligence (AI), tax systems, and generational behavior. The studies included were selected based on their relevance to the research questions, focusing on how AI is adopted across generations, its effect on tax compliance, and the technological and psychological barriers involved. These studies employ diverse methodologies, including cross-sectional surveys, experimental designs, and qualitative interviews, conducted in various economic and cultural settings ranging from developed countries to emerging markets. This diversity provides a multidimensional view of the topic while also introducing some limits in terms of generalizability.

Table 3 summarizes selected key studies that illustrate dominant patterns of AI adoption in tax compliance behavior across generations. These studies were chosen based on their empirical robustness, focus on generational differences, and policy relevance. The table offers a comparative overview, including generational impacts, the role of AI in tax compliance, and policy implications derived from the findings. This summary provides a basis for identifying common themes and divergences among age cohorts in relation to AI usage in taxation.

4.2 Interpretation of Findings

The analysis reveals that generational affiliation plays a significant role in AI adoption for tax-related activities, driven by factors such as technological familiarity, perceived security risks, and trust in digital systems. Younger generations, such as Millennials and Gen Z, consistently demonstrate a higher propensity to adopt AI-powered tax technologies. Studies by Dawood et al. (2022) and Belanche et al. (2019) emphasize that these cohorts, having grown up in digital environments, are more comfortable with mobile tax platforms, robo-advisors, and automated filing systems. The convenience and time efficiency offered by AI systems resonate strongly with their behavioral patterns, thereby

enhancing tax compliance rates.

Conversely, older generations, such as Gen X and Baby Boomers, exhibit more resistance toward AI in tax systems. Research by Rahman et al. (2023), and Hu et al. (2019) identifies data security concerns, low trust in AI processes, and limited digital literacy as critical barriers. For these groups, perceived risks outweigh perceived benefits, leading to lower adoption rates and potentially lower voluntary compliance levels. However, studies such as Andronie et al. (2023) and Avižonienė et al. (2023) also show that these barriers can be partially mitigated through trust-building strategies and user-centric system design. AI can act as a generational bridge by offering personalized services: intuitive and mobile-friendly platforms for younger users, and secure, transparent interfaces with educational support for older users.

Synthesis across studies indicates three recurring themes: (1) trust and perceived security are pivotal for older cohorts, (2) accessibility and usability drive adoption among younger cohorts, and (3) AI's ability to automate complex tax processes universally enhances compliance when tailored to user-specific needs. This implies that although generational divides exist, AI has the potential to function as an adaptive tool to increase overall efficiency and equity in tax administration.

Table 3. Summary of The Included Studies

Study	Generational Impact	AI's Role in Tax Compliance	Policy Implications
Dawood et al. (2022)	Millennials and Gen Z are more likely to adopt AI and mobile technologies due to familiarity and lower risk aversion.	AI integration in mobile tax platforms increases compliance by simplifying processes and providing convenience.	Policies should target tech-savvy groups with incentives for early adoption and enhanced mobile accessibility.
Rahman et al. (2023)	Baby Boomers and Gen X show slower adoption rates due to concerns over data security and lack of trust.	AI reduces fraud risk and improves tax accuracy but requires trust-building among older generations.	Policies need to focus on trust-building measures, such as ensuring privacy protections and offering educational programs.

Cao et al. (2021)	Older generations are skeptical of electronic tax filing systems, affecting their adoption.	E-filing systems powered by AI improve accuracy and efficiency but require perceived credibility.	Ensure transparency in AI systems and provide tax credits or assistance to encourage older users.
Belanche et al. (2019)	Younger generations have positive attitudes toward AI due to their familiarity with digital systems.	Robo-advisors powered by AI help younger users manage taxes more effectively by automating processes.	Provide incentives for younger generations to adopt AI-driven tax solutions through seamless mobile integration.
Andronie et al. (2023)	Generational gaps in technology adoption persist, but AI helps close them by automating complex tasks like tax filings.	AI-driven automation reduces errors and time required for tax processes, benefiting all age groups.	Universal policy to encourage AI adoption across generations, with personalized support for older generations.
Issa et al. (2023)	Millennials are faster in adopting AI for financial decisions, including tax-related tasks.	AI enables real-time decision-making and reduces manual work in tax management.	Encourage AI-based financial services and tax automation through regulatory support and tax incentives.
Bonsu et al. (2023)	Adoption of AI is dependent on perceived value, with younger generations more likely to see benefits.	AI simplifies accounting and tax reporting, providing a clear benefit for younger, tech-savvy users.	Increase digital literacy programs and promote AI solutions through targeted campaigns at tech-savvy groups.
Hu et al. (2019)	Older generations remain hesitant due to fears of technology, whereas younger generations embrace AI.	AI integration in tax systems improves accuracy and compliance but requires addressing the concerns of older users.	Policies should include trust-building measures and focus on secure AI frameworks to attract older generations.
Setiawan et al. (2021)	Younger users adopt FinTech and AI solutions faster, particularly in	AI helps simplify financial processes and tax management,	Promote regional incentives for AI adoption in taxation, targeting

	regions like Indonesia.	boosting compliance among younger generations.	specific age groups and regions.
Avižonienė et al. (2023)	Older generations face uncertainty in adopting new technologies due to limited knowledge and experience.	AI reduces uncertainty in tax compliance by automating reporting, making processes more reliable.	Policies should aim to reduce uncertainty for older users by providing AI education and training support.

4.3 Policy Implications

Based on the evidence synthesized above, differentiated policy approaches are necessary to address the unique characteristics of each generation. For Millennials and Gen Z, policies should focus on enhancing system convenience and integration. This includes embedding AI features within mobile applications already familiar to them, such as digital banking or e-wallets, automating deadline reminders, and offering incentives like tax deductions for early AI adopters. These steps directly align with findings from Dawood et al. (2022) and Setiawan and Winarna (2021), which emphasize that seamless integration and functional relevance are key motivators for younger users.

For older generations, policy measures must prioritize trust enhancement and digital empowerment. Strategies could include national campaigns to demonstrate the transparency and security protocols of AI systems, the development of user-friendly platforms with clear privacy protections, and personal assistance services both online and offline. These recommendations stem from findings in Rahman et al. (2023), Hu et al. (2019), and Avižonienė et al. (2023), which highlight that skepticism can be reduced through credible information, hands-on guidance, and responsive digital governance.

Universal policy strategies should complement these generation-specific actions. Governments might offer tax credits or administrative incentives for adopting AI-based systems, particularly in rural or underserved regions with low digital literacy. Moreover, AI itself can be leveraged to identify and support high-risk or non-compliant taxpayers through predictive analytics, allowing for targeted audits or education campaigns. In this way, AI moves from being a passive tool to an active agent in

compliance monitoring and taxpayer engagement.

4.4 Limitations and Future Research

While the findings provide a solid foundation for understanding generational patterns in AI adoption, several limitations must be acknowledged. Most included studies are conducted in developed countries with advanced digital infrastructure, which may limit their applicability to developing contexts where internet access, digital trust, and institutional frameworks differ substantially. Future research should investigate how cultural, infrastructural, and socioeconomic variables mediate AI adoption and tax compliance, particularly in low- and middle-income countries.

Additionally, there is a need for more targeted studies focusing on specific taxpayer segments such as self-employed individuals, high-risk non-filers, and SMEs. Exploring the role of AI in detecting evasion, managing dynamic compliance behaviors, and improving equity in enforcement would provide valuable insights for future tax system design.

5 CONCLUSION

This study demonstrates that generational differences significantly influence the adoption of Artificial Intelligence (AI) in tax systems, with clear implications for policy design and administrative strategy. Younger generations, namely Generation Z and Millennials, exhibit greater receptiveness to AI-driven tax technologies due to their digital fluency and positive perceptions of automation. In contrast, Generation X and Baby Boomers tend to adopt these technologies more cautiously, primarily due to concerns around data privacy, security, and a general lack of digital confidence. These trust-related concerns directly highlight the need for targeted interventions such as transparent data governance protocols and sustained digital literacy programs.

Tailored policy measures are essential to bridge this adoption gap. For tech-savvy cohorts, mobile integration and incentive schemes can accelerate adoption, while for older generations, trust-enhancing strategies including personalized assistance and user education can mitigate perceived risks. These generational strategies must also consider

intra-generational diversity: preferences and adoption behaviors may vary significantly based on socioeconomic status, education level, and geographic location, especially in a diverse context like Indonesia. Therefore, equitable AI integration requires policies that are not only age-sensitive but also socio-demographically inclusive.

Despite the insights offered, this study has several limitations. Methodologically, the synthesis draws on secondary data from diverse sources with varying designs, making direct comparisons challenging. Contextually, the dominance of studies from high-income countries limits the generalizability of findings to developing economies, where digital infrastructure and institutional trust may differ. Future research should address these gaps through primary empirical studies in underrepresented regions, particularly Southeast Asia.

Concrete future research directions include investigating how cultural attitudes toward technology influence AI adoption in taxation, or how AI-based tax systems can be adapted for populations with limited digital literacy. Further studies might also explore the effectiveness of specific policy instruments such as gamified learning tools or AI-assisted helpdesks in improving compliance outcomes across demographic groups.

In conclusion, AI holds a significant promise to improve tax compliance and administrative efficiency. However, its success depends on the development of generationally and contextually responsive strategies that address behavioral, technological, and structural disparities within the taxpayer population.

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