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Tax Compliance Behavior: Insights from Behavioral Economics Perspectives

Perilaku Kepatuhan Pajak: Wawasan dari Perspektif Behavioral Economics

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ABSTRACT

Tax compliance behavior is a complex issue that is influenced by various factors, including the fairness of the tax system, tax knowledge, individual attitudes, and social norms. This research aims to examine how the application of nudge theory, an approach from behavioral economics, influences tax compliance in various countries with different economic contexts. The research method used is a systematic literature review with the PRISMA approach, which involves identification, selection and analysis of relevant articles from international databases. The findings show that the effectiveness of nudges is highly dependent on the local social and economic context; in developed countries, nudges focusing on system fairness and trust in government tend to be effective, whereas in developing countries, adapting nudges to the local context is critical. The implications of this research emphasize the need for policies that consider each country's specific context to design more effective nudge-based interventions. The study also identified several limitations, including variations in study methodology and limited data from countries with low tax compliance. Future research is expected to explore more adaptive nudge designs and examine the impact of external factors such as the economic crisis on the effectiveness of nudges in increasing tax compliance.

Keywords: nudge theory, tax compliance, behavioral economics, systematic literature, economic context

ABSTRAK

Perilaku kepatuhan pajak merupakan isu kompleks yang dipengaruhi oleh berbagai faktor, termasuk keadilan sistem perpajakan, pengetahuan pajak, sikap individu, dan norma sosial. Penelitian ini bertujuan untuk mengkaji bagaimana penerapan teori nudge, sebuah pendekatan dari ekonomi perilaku, mempengaruhi kepatuhan pajak di berbagai negara dengan konteks ekonomi yang berbeda. Metode penelitian yang digunakan adalah systematic literature review dengan pendekatan PRISMA, yang melibatkan identifikasi, seleksi, dan analisis artikel relevan dari database internasional. Temuan menunjukkan bahwa efektivitas nudge sangat bergantung pada konteks sosial dan ekonomi lokal; di negara maju, nudges berfokus pada keadilan sistem dan kepercayaan terhadap pemerintah cenderung efektif, sedangkan di negara berkembang, penyesuaian nudges dengan konteks lokal sangat penting. Implikasi penelitian ini menekankan perlunya kebijakan yang mempertimbangkan konteks spesifik setiap negara untuk merancang intervensi berbasis nudge yang lebih efektif. Penelitian ini juga mengidentifikasi beberapa keterbatasan, termasuk variasi metodologi studi dan keterbatasan data dari negara-negara dengan kepatuhan pajak rendah. Penelitian mendatang diharapkan dapat mengeksplorasi desain nudges yang lebih adaptif dan mengkaji dampak faktor-faktor eksternal seperti krisis ekonomi terhadap efektivitas nudges dalam meningkatkan kepatuhan pajak.

Kata Kunci: teori nudge, kepatuhan pajak, ekonomi perilaku, sistematis literatur, konteks ekonomi

1. Introduction

Tax compliance behavior is a complex concept and is influenced by various factors. Research has highlighted the importance of different dimensions in understanding tax compliance behavior. Several important factors that influence tax compliance behavior include system fairness, tax rate structure, reciprocal relationships with the government, personal interests, tax knowledge, attitudes, norms, and their relationship to tax compliance.

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Modernization of tax administration through the integration of artificial intelligence and digital tools has been recognized as a strategy to improve tax compliance behavior (Belahouaoui, 2024). In addition, the voluntary tax compliance behavior of individual taxpayers has been researched, emphasizing the impact of variables such as attitudes, norms and personal interests on compliance (Hassan et al., 2021). Furthermore, the impact of tax fairness, tax knowledge, attitudes, norms, and economic factors on tax compliance behavior has been explored, providing insight into the socio-psychological, political, and economic aspects that influence compliance (Oladipo et al., 2022).

The theory of planned behavior has been applied to investigate tax compliance, focusing on the role of attitudes, subjective norms, and perceived behavioral control in influencing compliance behavior (Shaharuddin, 2023). Furthermore, the slippery slope framework approach has been proposed as a method for analyzing tax compliance, combining economic and behavioral perspectives to understand compliance behavior (Sarsadilla & Usman, 2023).

Various studies have addressed the factors driving tax compliance, including fairness of the tax system, trust in government, transparency of government spending, knowledge of tax legislation, personal ethics, financial constraints, and coercive measures, providing a comprehensive understanding of the factors that influence behavior. compliance (Trifan, 2023). In addition, the impact of non-economic factors such as social norms, tax knowledge, and perceptions of fairness on voluntary tax compliance behavior has also been highlighted (Nguyen, 2022). In conclusion, tax compliance behavior is a multidimensional concept and is influenced by various factors ranging from individual attitudes and norms to system fairness and tax knowledge. Understanding these factors is critical for policy makers and tax authorities in designing effective strategies to promote voluntary compliance among taxpayers.

Tax compliance is a crucial issue faced by many countries, especially in efforts to increase state revenues and ensure fairness in the taxation system. Although efforts have been made to improve tax compliance, significant challenges remain, especially in countries with complex and diverse economic systems. One approach that has emerged in recent years is implementation *nudge theory*, a concept from behavioral economics that aims to influence individual behavior without coercion, through changing the choice context faced by taxpayers.

This tax compliance phenomenon is strongly influenced by various factors, including perceptions of the fairness of the tax system, the level of tax knowledge, and the level of supervision and law enforcement. However, amidst this complexity, traditional approaches that rely solely on law enforcement are often not effective enough in increasing compliance. Therefore, a new approach is needed that is more innovative and responsive to the dynamics of taxpayer behavior. *Nudge theory* offers potential solutions by influencing individuals' choices through small modifications in their decision-making environment.

Although *nudge theory* has been applied in various fields such as health and the environment, its application in the context of tax compliance is still relatively new and limited. A review of the existing literature shows that there are still significant gaps in the understanding of how *nudge theory* can influence tax compliance behavior, especially in different economic contexts. Most existing research still focuses on countries with stable economic systems, while implementation *nudge theory* in a more dynamic or unstable economic context is still rarely studied.

This research aims to answer the main questions: How does nudge theory influence tax compliance behavior in various countries with different economic contexts? It is hoped that this question will open new insights about effectiveness nudge theory in improving tax compliance, taking into account various contextual variables that might influence the results.

Understanding influence *nudge theory* In the context of tax compliance, it is very important, especially in formulating more effective and efficient tax policies. In an increasingly complex and global world, countries need to develop strategies that rely not only on law

enforcement, but also on a deep understanding of how policies can influence taxpayer behavior in subtle but significant ways. *Nudge theory* offers a powerful tool to do this, but its precise and contextual application needs to be further researched.

This research offers a new contribution to the literature by integrating *nudge theory* into the study of tax compliance, particularly in diverse economic contexts. This research is unique because it attempts to explore how *nudge theory* can be applied differently in different countries with varying economic conditions, an area that has not been comprehensively explored in previous research.

This research is expected to provide significant contributions in two main aspects. First, this research will enrich understanding of how *nudge theory* can be applied to improve tax compliance in various economic contexts. Second, this research will provide practical guidance for policy makers in designing more effective tax policies, by utilizing the approach *nudge* adapted to the different economic and cultural conditions in each country. Thus, this research not only contributes to academic literature, but also to better and more responsive tax policy practices.

2. Method

2.1. Research Approach

This research was conducted using an approach *systematic literature review* to collect, identify and analyze relevant literature related to influence *nudge theory* on tax compliance behavior in various countries with different economic contexts. This approach was chosen because it allows researchers to obtain a comprehensive overview of research developments in this area, as well as to identify existing gaps in the available literature.

This research uses the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) method to ensure that the process of selecting, evaluating and analyzing articles is carried out systematically and transparently. PRISMA is a standard that is widely used in research *systematic review* to ensure that all steps in the literature review process—from identification to article selection—can be tracked and repeated with consistency. This process involves several stages, namely identification of articles, screening based on inclusion and exclusion criteria, and final evaluation to determine which articles are worthy of further analysis.

2.2. Reference Source

Reference sources used in this research were taken from various highly reputable international databases, including Scopus, Web of Science, and Google Scholar. The aim of selecting this database is to ensure that the articles accessed are of high quality and relevance to the research topic. This database was chosen because of its broad coverage and high journal quality, which are important aspects in conducting a systematic literature review.

2.3. Keywords Used

The article search process is carried out using various keywords that are relevant to the research topic. Keywords used include "nudge theory", "tax compliance", "behavioral economics", "cross-country", and "taxpayer behavior". This use of diverse and specific keywords aims to ensure that searches cover various aspects of *nudge theory* and tax compliance, as well as different economic contexts.

2.4. Number of Articles

In the initial stage of the search, a number of articles were found that matched the specified keywords. A further screening process was carried out to eliminate irrelevant articles, so that only articles that met the inclusion criteria were included in the review. From the initial

search results which included thousands of articles, the filtering process produced a number of articles that were smaller but more focused and relevant to this research topic.

2.5. Article Inclusion and Exclusion Techniques

The inclusion criteria used in this study include articles that discuss *nudge theory* and tax compliance, published in reputable international journals, and relevant to different economic contexts. In addition, articles must be written in English or another selected language commonly used in international scientific literature. Conversely, articles that are not relevant to the research topic, are not published in reputable journals, or are not written in the specified language, will be excluded from the analysis. This inclusion and exclusion process was carried out rigorously to ensure that only high-quality articles were included in the review, so that the research results were reliable and made a significant contribution to the existing literature.

3. Results and Discussions

3.1. The Influence of Nudge Theory on Tax Compliance

Theory *nudge*, a concept rooted in behavioral economics, is gaining increasing attention in efforts to increase tax compliance, especially as governments seek innovative ways beyond traditional law enforcement methods such as audits and penalties (Alm et al., 2019). Research shows that *nudges* can be effective in influencing tax compliance through behavioral interventions that do not change taxpayers' economic incentives (Holz et al., 2020; Antinyan & Asatryan, 2020). However, effectiveness *nudges* in increasing tax compliance can vary depending on the design and implementation of the intervention (Alm, 2023).

Besides *nudges*, other factors such as taxpayers' trust in the tax authority and perceptions of the tax authority's strength play an important role in shaping voluntary compliance behavior (Yasa & Martadinata, 2019; Wibawa, 2024). Theory *slippery slope* suggests that low trust and weak law enforcement can encourage tax avoidance behavior and decreased compliance (Yasa & Martadinata, 2019; Wibawa, 2024). Furthermore, accountability and legitimacy of the tax system were also identified as factors that influence taxpayers' voluntary compliance ("Accountability, Legitimacy, and Voluntary Tax Compliance: A Case Study in the Tax Office of Mazandaran Province, Iran", 2019).

In addition, research also highlights the importance of taxpayer knowledge, socialization, and perceptions of behavioral control in shaping compliance behavior (DEWI et al., 2022). Factors such as tax fairness, penalty levels, and tax rates also have a significant role in encouraging voluntary compliance among taxpayers (Omary & Pastory, 2022; Abjadi, 2023). Therefore, an in-depth understanding of the impact of non-economic factors, individual behavior and motivation on tax compliance is very important for designing effective compliance strategies (Suryanto & Waluyo, 2019; Nguyen, 2022).

Overall, a comprehensive approach, which considers behavioral insights, trust in tax authorities, accountability, fairness and effective communication strategies, is key to promoting tax compliance. By integrating *nudges* as well as an in-depth understanding of taxpayer behavior and by addressing the key determinants of compliance, governments can develop more effective and sustainable strategies to increase tax compliance levels.

3.2. Case Studies and Research in Developing Countries

Theory *nudge*, introduced by Thaler and Sunstein, has attracted great attention in the fields of behavioral economics and public policy. This theory suggests that small changes in the way choices are presented can influence individual decision making and behavior (Fukuyoshi et al., 2021). In developing countries, where tax compliance is often a challenge due to various factors such as a large informal sector, weak governance, and low tax morale (Albert &

Fadjarenie, 2022), the theory *nudge* offers a promising approach to improving tax compliance behavior

Research in countries such as Libya shows that factors such as religious beliefs can influence tax compliance behavior (Abodher et al., 2020). Likewise, studies in Pakistan highlight the importance of perceptions of fairness and social support in shaping tax compliance behavior (Riaz, 2023). These findings emphasize the need to understand the unique determinants of tax compliance in developing countries compared to more developed countries such as the US or Europe (Riaz, 2023).

Apart from that, the application of theory *nudge* in developing countries has the potential to improve tax compliance by leveraging insights from behavioral economics. By designing interventions that consider factors such as trust, perceptions of fairness, and perceptions of risk (Pangesti, 2023), policymakers can nudge individuals toward more compliant behavior. For example, *nudge* that emphasize the fairness of the tax system or highlight the social benefits of compliance can have a positive impact on taxpayer behavior (Nartey, 2023).

Further, the use of theory *nudge* is not limited to tax compliance alone, but also extends to various domains such as health promotion, education, and sustainable development (Kazemian, 2023). By understanding how *nudge* can guide decision making without limiting choices, governments in developing countries can explore innovative ways to address complex social challenges.

In conclusion, theory *nudge* offers a valuable framework for promoting tax compliance behavior in developing countries by considering contextual factors that influence individual decisions. By integrating insights from behavioral economics and case studies from different regions, policymakers can design *nudges* effective for encouraging voluntary compliance and contributing to sustainable revenue generation for economic development.

3.3. Case Studies and Research in Developed Countries

Application of theory *nudge* in developed countries has become an interesting subject in understanding tax compliance behavior. Research shows that behavioral interventions, such as *nudges*, can be effective in increasing tax compliance (Alm, 2023). This intervention leverages the principles of behavioral economics to influence individual decision-making processes and improve compliance with tax regulations.

Case studies in developed countries have provided valuable insights into tax compliance behavior. For example, research highlights the importance of factors such as perceptions of fairness, trust in government, and attitudes toward taxation in influencing voluntary tax compliance (Hassan et al., 2021; Dhakal, 2024). In addition, the impact of perceived fairness, tax awareness, and tax complexity on tax compliance behavior has been analyzed in various contexts (Sidik et al., 2019).

Furthermore, research emphasizes the role of social influence in encouraging tax compliance, showing that sharing information about tax behavior from peers can have a positive impact on compliance levels (Adeniran et al., 2021). In addition, studies also explore the importance of tax technology, perceptions of fairness, and ethical tax behavior in shaping compliance among individual taxpayers (Perveen & Ahmad, 2022; Oladipo et al., 2022).

Overall, application of theory *nudge* in developed countries shows great potential in increasing tax compliance. Insights from case studies in developed countries emphasize the multifaceted nature of tax compliance behavior, which is influenced by factors such as perceptions of fairness, trust, social influence, and ethical considerations. By understanding these behavioral dynamics, tax authorities can design more effective strategies to encourage compliance and ensure robust revenue collection.

3.4. Comparison between Developing and Developed Countries

Tax compliance behavior shows significant variations between developing and developed countries due to differences in factors that influence tax compliance. Research shows that in developing countries such as Pakistan, Ghana, and Nigeria, factors such as perceptions of fairness, social support, perceptions of government spending, and religious beliefs play an important role in shaping tax compliance behavior (Riaz, 2023; Nartey, 2023; Hassan et al., 2021; Abodher et al., 2020). In contrast, in developed countries such as the United States and European countries, tax compliance is more influenced by factors such as tax fairness, trust in the government, and the perceived benefits of taxes paid (Mohammed, 2023; Erul, 2020).

Theory *nudge*, a concept from behavioral economics, has been applied to understand tax compliance behavior in various economic contexts. Although usage *nudges* to encourage tax compliance are increasingly getting attention globally, effectiveness *nudges* can differ between developing and developed countries. In developing countries, where tax compliance is a challenge, *nudge* may need to be adjusted to address specific cultural, social and economic factors influencing compliance behavior (Pangesti, 2023; IBRAHIM, 2023; Umar et al., 2019). For example, research has highlighted the importance of the quality of public governance and the perceived availability of public goods as key factors influencing tax compliance in developing countries (Umar et al., 2019). In addition, the role of non-economic factors such as ethical considerations, social norms, and psychological factors in tax compliance behavior has been recognized in both developing and developed countries (Oladipo et al., 2022; Jayalath, 2023). Understanding these non-economic influences is critical to designing effective tax policies and compliance strategies tailored to each country's unique context.

Overall, although tax compliance behavior is influenced by various factors in developing and developed countries, the specific determinants and effectiveness of interventions such as: *nudge* may vary based on economic context. Developing countries may need a targeted approach that considers local perceptions, social structures, and quality of governance to effectively improve tax compliance behavior.

3.5. Contextual Factors Affecting Nudge Effectiveness 3.5.1. Economic Context

Tax compliance behavior is influenced by various contextual factors, including economic conditions and the effectiveness of theories *nudge*. *Nudges*, which are interventions that change behavior without limiting choice or significantly changing incentives, play an important role in increasing tax compliance (Alm, 2023). Research shows that *boosts* which increases individual tax morale can increase compliance and reduce tax avoidance tendencies (Dianing et al., 2019). Additionally, effectiveness *nudges* in tax compliance is related to factors such as tax rates, payment mechanisms, awareness of the obligation to pay taxes, and the quality of tax services (Azizah, 2024; Antinyan & Asatryan, 2020). Studies show that *nudges* those that are not preventive in nature and focus on individual tax morale are generally less effective in reducing tax avoidance, temporarily *nudges* those that are preventive in nature and emphasize traditional compliance determinants such as audit probability and penalty rates are more effective (Mebratu, 2024).

Furthermore, tax compliance behavior is positively influenced by trust in the government, tax knowledge, fairness of the tax system, and incentives (Anggadini et al., 2022). Factors such as tax knowledge, modernization of the tax administration system, taxpayer awareness, tax fairness, and peer influence are also very important in determining taxpayer compliance (Obaid et al., 2020; Yunianti et al., 2019). In addition, service quality, awareness, moral obligations, tax sanctions and tax penalties were found to have a positive impact on taxpayer compliance (Osman, 2023). Tax compliance behavior is also influenced by individual values, attitudes, norms, complexity of the tax system, fairness, tax rates, and peer influence. In conclusion, effectiveness *nudges* in increasing tax compliance is influenced by a combination of

economic conditions, individual factors, and intervention design *nudge*. Understanding these contextual factors is critical to designing effective strategies to improve tax compliance behavior.

3.5.2. Tax Culture and Policy

Tax compliance behavior is a complex phenomenon and is influenced by various factors, including culture, national tax policy, and behavioral economics perspectives. The interaction between these elements can significantly influence taxpayers' willingness to comply with tax regulations. Research has shown that psychological factors such as social norms (Cahyonowati et al., 2022), tax fairness, and tax knowledge (Wangare, 2024; Oladipo et al., 2022), taxpayer attitudes, subjective norms, and perceived behavioral control (Markonah & Manrejo, 2022), tax morals and tax culture (Joel, 2023), taxpayer awareness, quality of tax services and tax sanctions (2023), as well as tax amnesty policies (Juanda et al., 2022) all play an important role in shaping tax compliance behavior.

Furthermore, factors such as trust in the tax authority, the power of the tax authority, and taxpayer awareness (Sarsadilla & Usman, 2023), education level, income level, and tax policy (Kurnia & Fajarwati, 2022), services, incentives, and moderation of tax knowledge (Andriani, 2024), perceptions of fairness, and voluntary tax compliance behavior (Hassan et al., 2021), attitude variables, tax rates, and perceptions of government justice (Dhakal, 2024), financial confidentiality, and national culture (Kristanto & Kusumadewi, 2022), and tax awareness ("Does Tax Awareness Mediate Tax Amnesty and Tax Authorities toward Tax Compliance?", 2022) have been identified as significant factors influencing tax compliance behavior.

In addition, studies have highlighted the importance of taxpayer attitudes in influencing compliance and non-compliance ("Understanding Tax Non Compliance Behavior of SMEs", 2023), perceptions of fairness, tax awareness and tax complexity (Sidik et al., 2019), modernization of the administrative system taxes (Anggadini et al., 2022), complexity of the tax system, tax prevention sanctions, opportunities for tax non-compliance, tax information, and attitudes towards taxes (Vincent, 2021), social factors such as cultural impact, political affiliation, and religiosity (Sritharan et al. ., 2021), as well as tax policy measures during the COVID-19 pandemic (Alm et al., 2020) in shaping tax compliance behavior. Furthermore, factors such as compliance, negotiation, morale, profit management, and fiscal policy (Hartono et al., 2022), tax knowledge (Muslim, 2022), religious factors (Abodher et al., 2020), as well as principles Behavioral economics such as prospect theory, endowment effects, and mental accounting (Shi, 2024) were also found to influence tax compliance behavior. In conclusion, a deep understanding of the relationship between culture, national tax policy, and behavioral economics perspectives is critical for policymakers to design effective strategies in encouraging tax compliance among individuals and businesses.

3.5.3. Variations in Nudge Implementation

Variations in nudge approaches across countries can have a significant impact on tax compliance behavior. The behavioral economics perspective shows that the design and implementation of nudges play an important role in influencing taxpayer behavior (Alm, 2023). Nudges, which are behavioral interventions aimed at increasing compliance without changing economic incentives, are increasingly used by governments due to their potential cost-effectiveness in increasing tax revenues (Antinyan & Asatryan, 2019). These interventions have expanded the tools available to governments beyond traditional methods such as audits and fines (Alm et al., 2019).

In addition, the effectiveness of nudge in increasing tax compliance has been proven in various studies. For example, research shows that nudges can result in substantial increases in compliance by making certain aspects of tax obligations more salient to taxpayers (Holz et al.,

2020). However, the use of nudges has also been found to have mixed effects on tax compliance, indicating that the specific design and implementation of these interventions is critical in determining their success (Antinyan & Asatryan, 2019). Furthermore, the interaction between trust and power has been identified as a significant factor influencing compliance intentions in countries with established tax systems (Bătrâncea et al., 2019). Excessive enforcement measures, such as high audit rates and heavy fines, can cause negative reactions and resistance, potentially resulting in non-compliance, especially in environments where compliance is already high (Bătrâncea et al., 2019).

In conclusion, the implementation of nudges for tax compliance varies across countries, and the success of these interventions is influenced by factors such as trust, power dynamics, and the specific design of the nudge. Understanding these variations and adapting nudge strategies to suit the cultural and institutional contexts of different countries is critical to effectively encouraging tax compliance behavior.

3.6. Basic Theories and Concepts

3.6.1. Behavioral Economics

Behavioral economics is a field that integrates insights from psychology and economics to analyze how individuals make economic decisions, challenging the assumptions of rationality in traditional economics. Principles such as loss aversion, default, social norms, and the impact of psychological interventions on decision making are central to the field (Littman et al., 2022). These principles are critical in shaping individual behavior and decision-making processes, emphasizing the significance of psychological factors in economic choices.

In the context of tax compliance studies, behavioral economics provides valuable insights for understanding and influencing taxpayer behavior. Research shows that psychological factors, especially social norms, can significantly influence tax compliance (Cahyonowati et al., 2022). By incorporating psychological aspects into the decision-making process, tax compliance studies can create interventions that utilize behavioral economics principles to increase compliance. For example, insights from behavioral economics can inform the design of tax policies and incentives to effectively encourage compliance (Navathe et al., 2019).

Additionally, behavioral economics offers a framework for examining how individuals view tax obligations and how these views influence compliance intentions. Studies have investigated the role of user satisfaction with e-tax systems in mediating tax compliance intentions, emphasizing the importance of convenience and reduced compliance costs in increasing taxpayer satisfaction and, as a result, compliance behavior (Saptono et al., 2023). By integrating insights from behavioral economics, tax compliance studies can develop a more holistic understanding of the factors that influence taxpayer behavior and formulate interventions to increase compliance levels.

In conclusion, behavioral economics provides a valuable perspective in economic decision making by combining psychological insights with traditional economic models. In tax compliance studies, understanding the influence of psychological factors, social norms, and user satisfaction can offer important tools for promoting compliance and formulating effective tax policies.

3.6.2. Nudge Theory

Nudge theory, popularized by Richard Thaler and Cass Sunstein, is a concept that states that positive encouragement and indirect suggestions can influence individual behavior and decision making (Etilé, 2019). In the context of taxation, nudges can be used to guide individuals towards certain choices without limiting their options or significantly changing their economic incentives (Ploeg et al., 2022). This approach is in line with the principles of

libertarian paternalism, where the state designs the decision-making environment to encourage outcomes that policymakers deem beneficial (Konrad, 2023).

An example of a nudge in a tax context could be the application of a syn tax on products such as tobacco. Syn taxes, which are based on behavioral economic theory, are considered an effective nudge to reduce consumption of harmful products such as cigarettes (Bombak et al., 2021). By increasing the price of tobacco products through taxes, individuals are encouraged to reduce their consumption due to higher costs, thereby promoting public health goals and generating revenue for the government (Donfouet et al., 2021).

Furthermore, research shows that nudges that emphasize traditional compliance determinants, such as audit probability and penalty rates, can be a powerful catalyst for tax compliance (Antinyan & Asatryan, 2019). In contrast, nudge non-deterrence, which focuses on the moral element of individual taxes, is generally ineffective in reducing tax avoidance (Antinyan & Asatryan, 2019). This highlights the importance of understanding the psychological factors that influence tax behavior when designing effective nudges in tax policy. In conclusion, nudge theory offers a valuable framework for policymakers to influence tax compliance and behavior without having to rely on traditional regulatory measures. By leveraging insights from behavioral economics, tax authorities can design nudges that guide individuals toward desired tax-related decisions while maintaining their freedom of choice.

3.6.3. Tax Compliance

Tax compliance refers to individual or business compliance with tax laws and regulations by reporting and paying their taxes accurately and on time (Tilahun, 2019). Behavioral economic theory suggests that various factors influence tax compliance. These factors can be categorized into socio-psychological, political, and economic factors (Oladipo et al., 2022). Socio-psychological factors include attitudes, norms, fairness, and tax knowledge, which play an important role in shaping tax compliance behavior. Political factors relate to the complexity of tax laws, while economic factors include aspects such as audit thresholds, fines, tax rates, and income, all of which influence tax compliance (Oladipo et al., 2022).

Intrinsic motivation, such as tax morals and religious observations, is identified as a determinant of tax compliance according to behavioral economic theory (Hidajat, 2023). In addition, the Slippery Slope Framework emphasizes the importance of factors such as audit probability, tax penalties, tax knowledge, attitudes, norms, and fairness in influencing taxpayers' trust in tax authorities and their compliance behavior (Wang et al., 2019). Furthermore, the deterrence model or economic approach shows that compliance is highly dependent on tax audits and penalties ("Governance Quality and Tax Compliance Behavior in East Malaysia", 2021).

Research also shows that tax compliance can be influenced by knowledge of tax regulations, awareness of tax obligations, and the impact of tax complexity on compliance behavior (Luciani, 2024; Alshira'h et al., 2020). In addition, the Theory of Planned Behavior and Attribution Theory emphasize the importance of developing taxpayers' positive attitudes and awareness to increase tax compliance and increase income (Adhikara et al., 2022).

Religious beliefs and religiosity have been identified as non-economic factors that can influence tax compliance among small and medium enterprises (SMEs) (Carsamer & Abbam, 2020). In addition, the provision of public goods and services by the government can influence taxpayer compliance behavior through the concept of reciprocity (Ilmiyani & Djamaluddin, 2020). Digital transformation of tax administration has also been found to have a positive impact on voluntary tax compliance (Hermawan, 2022). In conclusion, tax compliance is a complex concept influenced by various factors, ranging from socio-psychological and economic aspects to political and religious considerations. Understanding these factors is critical for policy makers and tax authorities to design effective strategies in promoting voluntary tax compliance and increasing revenue collection.

Nudge theory, which has its roots in behavioral economics, is gaining increasing attention in efforts to increase tax compliance, especially outside traditional law enforcement methods such as audits and penalties (Alm et al., 2019). Research shows that nudges can be effective in influencing tax compliance through behavioral interventions that do not change taxpayers' economic incentives (Holz et al., 2020; Antinyan & Asatryan, 2020). However, the effectiveness of nudges in increasing tax compliance may vary depending on the design and implementation of the intervention (Alm, 2023). Apart from nudges, other factors such as taxpayers' trust in the tax authority and perceptions of the tax authority's strength play an important role in shaping voluntary compliance behavior (Yasa & Martadinata, 2019; Wibawa, 2024). The slippery slope theory suggests that low trust and weak law enforcement can encourage tax avoidance behavior and decreased compliance (Yasa & Martadinata, 2019; Wibawa, 2024). Accountability and legitimacy of the tax system were also identified as influencing factors on taxpayers' voluntary compliance ("Accountability, Legitimacy, and Voluntary Tax Compliance: A Case Study in the Tax Office of Mazandaran Province, Iran", 2019). In addition, the importance of taxpayer knowledge, socialization, and perceived behavioral control in shaping compliance behavior was also identified (DEWI et al., 2022). Factors such as tax fairness, penalty levels, and tax rates have a significant role in encouraging voluntary compliance (Omary & Pastory, 2022; Abjadi, 2023). Therefore, an in-depth understanding of the impact of non-economic factors, individual behavior and motivation on tax compliance is very important for designing effective compliance strategies (Suryanto & Waluyo, 2019; Nguyen, 2022). Overall, a comprehensive approach that considers behavioral insights, trust in tax authorities, accountability, fairness, and effective communication strategies, is key in promoting tax compliance. By integrating nudges as well as a deep understanding of taxpayer behavior and addressing key determinants of compliance, governments can develop more effective and sustainable strategies to increase tax compliance levels.

4. Conclusions

This research reveals that the application of nudge theory can influence tax compliance behavior in various countries with different economic contexts. Analysis of existing literature shows that the effectiveness of nudge-based interventions is highly dependent on the social, economic and cultural context of each country. In developed countries, nudges that focus on the fairness of the tax system, trust in government, and social influence have proven effective in increasing tax compliance. In contrast, in developing countries, where compliance challenges often involve factors such as religious beliefs, perceptions of government spending, and social support, nudge approaches need to be adapted to the local context to achieve optimal results.

The implication of these findings is that policymakers need to consider the economic and social context when designing nudge-based interventions to improve tax compliance. An approach that works in one country may not be effective in another without appropriate adjustments. This research also highlights the importance of integrating nudge theory with other factors such as public trust in the tax system and perceptions of fairness to design more effective strategies.

However, there are several limitations in this research. First, this review relies on studies that may have varied methodology, which may influence the consistency of results. Second, limited data from countries with low levels of tax compliance makes generalizing these findings challenging. Third, this research does not investigate in depth how external factors such as economic crises or profound policy changes influence the effectiveness of nudges.

For future research, it is recommended that further studies explore nudges designs that can be adapted for specific contexts in developing and developed countries. Research should also include more in-depth and long-term field studies to more comprehensively evaluate the effectiveness of nudges. In addition, research can expand the scope to explore the impact of global economic changes and new tax policies on the effectiveness of nudges in

increasing tax compliance. By addressing these aspects, it is hoped that better insight will be gained regarding how nudge theory can be optimized to increase tax compliance in various economic contexts.

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