

MENTAL TAX ACCOUNTING FRAMEWORK: EXPANDING THE BOUNDARIES OF MENTAL ACCOUNTING IN TAX DECISION-MAKING

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ABSTRACT

This study highlights the role of Mental Tax Accounting in shaping tax compliance in Indonesia, where national revenue largely depends on tax collection. The main issue addressed is the low level of tax compliance, which is not only caused by economic factors but also influenced by psychological aspects, such as how taxpayers mentally process tax-related information. This study aims to develop a Mental Tax Accounting framework by integrating the concepts of mental accounting, cognitive biases, and social factors within the taxation context. This study uses a systematic literature review of 25 selected studies from the Scopus, Web of Science, and Google Scholar databases. The findings identified eight key indicators: (1) mental tax categorisation, (2) cognitive biases, (3) fairness perception, (4) decision heuristics, (5) loss aversion, (6) mental framing, (7) emotional factors, and (8) social influence. The results indicate that behavioral economics-based interventions, such as tax communication redesign, system simplification, and the use of social norms, can serve as additional indicators for tax compliance compared to conventional approaches.

Keywords: *behavioral economics, tax policy, tax compliance, mental tax accounting, fiscal psychology*

INTRODUCTION

Taxes play a crucial role in financing public goods and services, making them a fundamental pillar of national revenue and development (Okoye, 2019). However, tax collection remains a persistent challenge in many countries, particularly in developing regions. OECD (2019) data indicate that ASEAN countries have lower tax-to-GDP ratios than the global average, reflecting a significant gap in fiscal capacity. This issue is further exacerbated by large-scale tax avoidance practices. The United Nations Conference on Trade and Development (UNCTAD, 2018) reports that developing countries lose approximately USD 100 billion annually because of tax avoidance by multinational corporations. In Indonesia, fiscal revenue is predominantly derived from taxation. Consequently, tax compliance not only embodies the civic responsibility of citizens in contributing to national development but also plays a critical role in maintaining the country's fiscal stability.

Tax compliance is defined as the fulfilment of tax obligations in accordance with prevailing legal and regulatory frameworks. Prior studies have indicated that individual behavior is influenced by a series of cognitive processes, whereby the perception of accounting principles, commonly referred to as mental accounting, significantly affects taxpayers' compliance behavior (Muehlbacher et al., 2017; Muehlbacher & Kirchler, 2013). Mental accounting is a concept in behavioral economics that explains how individuals categorize, evaluate, and manage their financial decisions based on specific cognitive principles, which often deviate from the assumptions of rationality found in traditional economic theory (Thaler, 1985). In the context of taxation, mental

accounting plays a pivotal role in shaping taxpayers' perceptions and management of their tax obligations (Muehlbacher & Kirchler, 2013). The way individuals mentally categorize taxes—whether as a loss, civic duty, or transactional cost—can significantly influence their compliance behavior. This cognitive framing affects not only how tax liabilities are prioritized relative to other financial commitments, but also how taxpayers respond to tax policies, enforcement strategies, and incentives. Therefore, understanding these mental processes is essential for designing more effective tax systems that align with actual taxpayer behavior.

Several studies have shown that taxpayers often treat tax obligations as distinct financial categories within their mental budgets. Muehlbacher and Kirchler (2013) found that individuals tend to exhibit biases when allocating funds for taxes compared to other types of expenditures. Their findings suggest that tax payments are often perceived and managed differently, reinforcing the notion of mental segregation in financial decision making. Meanwhile, (Fitriandi & Ahmar, 2022) demonstrate that mental accounting significantly influences tax compliance, wherein individuals are more likely to perceive tax payments as a "loss" rather than as a mandatory civic duty. This perception may contribute to a reduced willingness to comply, highlighting the psychological barriers embedded in taxpayers' decision-making processes.

Although mental accounting has been extensively studied in the context of financial and investment decision-making (Thaler, 1999), a significant research gap remains in applying this theory to taxation (Kirchler et al., 2008). In practice, taxpayers do not solely rely on rational considerations when making tax-related decisions; psychological factors such as framing effects, heuristics, and emotional responses play a critical role (Kahneman & Tversky, 2013). These non-rational elements may influence how individuals interpret tax policies, assess their obligations, and ultimately decide whether to comply.

Taxpayers often categorize their income into mental accounts and treat earned and capital income differently. This separation leads to a higher tendency for tax avoidance on earned income, especially when it is subject to higher tax rates, as individuals tend to feel a stronger sense of entitlement to the income they have actively worked for (Javareshk et al., 2024). Other studies suggest that self-employed individuals may benefit from maintaining separate mental accounts for taxes apart from their net income, as this practice improves compliance levels (Muehlbacher et al., 2017).

Mental accounting simplifies decision-making and supports self-control, enabling individuals to manage their finances effectively throughout their life cycles (Antonides & Ranyard, 2017). The hedonic function of mental accounting, such as mitigating the psychological pain associated with payments, also plays a role in how taxpayers perceive their tax obligations (Antonides & Ranyard, 2017). Specific elements of mental accounting, including transaction utility, categorization processes, and choice bracketing, have been shown to influence perceptions of tax compliance, avoidance, and evasion (Muehlbacher et al., 2017; Muehlbacher & Kirchler, 2013). Although mental accounting reflects an expanded understanding of how individuals mentally manage and perceive their tax obligations—and, more broadly, how they categorize and control money—there remains a need for more focused attention on tax-specific applications, referred to as tax accounting or, more precisely, mental tax accounting.

Taxpayers exhibit greater loss aversion toward income to which they feel a strong sense of entitlement, resulting in an increased reluctance to pay taxes on such

sources. This dynamic influences the moral cost associated with tax avoidance (Dhami & Hajimoladarvish, 2020). Conversely, while mental accounting may enhance compliance, it can also lead to irrational financial behavior, as individuals might prioritize certain mental accounts over others—potentially undermining their overall financial well-being.

Empirical evidence suggests that many taxpayers mentally separate their tax obligations from their income, particularly gross revenue, and do not consider taxes as part of their available or "real" income. Consequently, they may perceive tax payments as a distinct loss detached from their earned income rather than as a contribution derived from their overall earnings. This mental separation can diminish the sense of responsibility toward tax payments and ultimately affect overall tax compliance (Olsen et al., 2019). Burt et al. (2023) investigated how cognitive interpretations of reference points and tax deductions influence tendencies toward aggressive tax reporting. Their findings indicate that such behavior is more likely when taxpayers anticipate a loss, such as owing additional taxes, rather than when they expect to possess assets. Aggressive reporting was also more prevalent among individuals who did not mentally distinguish between owed taxes and their personal resources.

Therefore, this study aims to develop a Mental Tax Accounting (MTA) Framework that integrates the concept of mental accounting within the domain of taxation. By understanding how taxpayers mentally categorize and process tax-related information, this study offers new insights for governments and policymakers to enhance tax compliance through behaviorally informed approaches.

RESEARCH METHOD

This study employs a literature review method using a systematic review approach to analyze previous research related to mental accounting and taxation. The purpose of this approach is to identify patterns, research gaps, and potential new indicators that can be integrated into the concept of Mental Tax Accounting. The data for this study were sourced from peer-reviewed academic journals indexed in Google Scholar, Scopus, and Web of Science. The selected articles focused on studies of mental accounting, tax behavior, tax compliance, and behavioral economics.

In the literature selection process, articles were filtered based on specific criteria: publications in reputable journals within the fields of economics, financial psychology, and taxation; studies directly related to the concept of mental accounting and its application in tax contexts; articles discussing cognitive factors influencing tax decision-making; and research utilizing either empirical or theoretical approaches to analyze tax behavior. The literature selection process was conducted through a screening procedure based on specific criteria, including (1) publication in reputable journals within the fields of economics, financial psychology, and taxation; (2) studies that directly address mental accounting in the context of taxation; (3) articles that examine cognitive factors in tax decision-making; and (4) research employing either empirical or theoretical approaches to analyze taxpayer behavior. The analytical technique applied was content analysis, consisting of three main stages: identification (collecting and categorizing relevant articles), synthesis (comparing findings to identify recurring patterns and research gaps), and evaluation (grouping key factors that influence Mental Tax Accounting).

The analytical technique employed in this study was content analysis, which

consists of several stages. The first stage is identification, which involves collecting and categorizing articles relevant to the research topics. This was followed by synthesis, where findings from previous studies were compared to identify recurring patterns and existing research gaps. The next stage is evaluation, in which the key factors influencing Mental Tax Accounting are grouped and analyzed.

This study aims to contribute to the literature by identifying the key indicators that constitute Mental Tax Accounting and developing a conceptual model that can serve as a foundation for future empirical research. Moreover, the findings offer recommendations for academics and policymakers on how insights from Mental Tax Accounting can be applied to tax policy design. Through the use of a literature review method, this study is expected to make a significant theoretical contribution to the fields of behavioral economics and taxation.

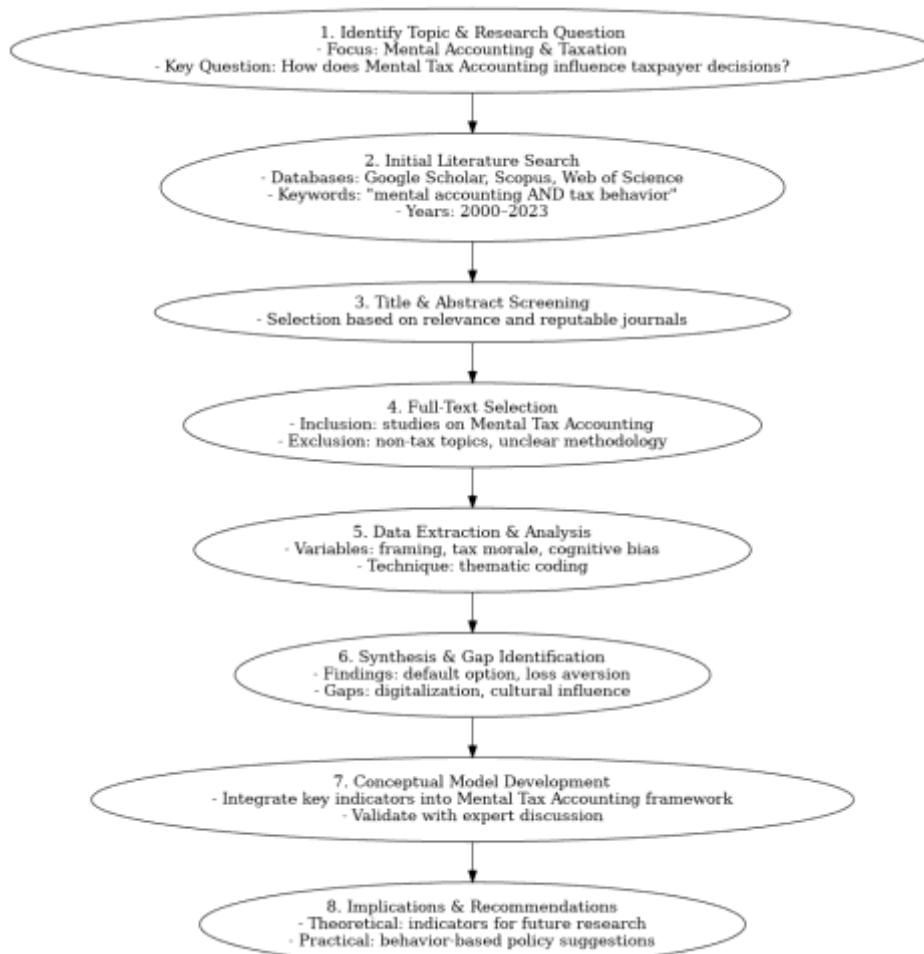


Figure 1. Research Methodology Stages

RESEARCH FINDINGS AND DISCUSSION

This study finds that Mental Tax Accounting (MTA) comprises various factors that contribute to individual tax decision-making. The discussion of each indicator in the model is based on prior research. Therefore, these indicators are elaborated as follows:

- 1. Tax Grouping in Mental Accounting** – The concept of tax mental grouping suggests that taxpayers do not perceive all forms of taxation neutrally but rather categorize them based on subjective perceptions of income sources or expenditures (Kirchler et al., 2008; Thaler, 1985). A recent study by Javareshk et al. (2024) revealed that taxpayers not only classify taxes by type but also create separate "mental accounts" that psychologically separate income from tax obligations. This mechanism fosters the perception of taxes as external deductions rather than integral components of income. For instance, income taxes are often perceived as more "painful" because they directly reduce earnings, unlike indirect taxes such as the VAT, which are perceived less intensely due to their gradual nature. This difference in perception can influence compliance behavior, as taxpayers tend to show greater resistance to taxes that are perceived to directly diminish their wealth. The policy implication is the need for a segmented approach to tax communication. For income taxes, the government could emphasize direct benefits, such as pension security or healthcare, whereas for consumption taxes, the framing could highlight contributions to infrastructure development. Thus, taxpayers may perceive tax payments as investments rather than mere burdens. Mental accounting, classified into transaction utility, categorization process, and choice bracketing, has been shown to specifically influence perceptions of tax compliance, avoidance, and evasion.
- 2. Cognitive Biases in Taxation** – Cognitive biases, such as the endowment effect (the tendency to overvalue what one owns) and the sunk cost fallacy (continuing suboptimal decisions due to prior investments), often lead taxpayers to resist changing their tax strategies, even when they are no longer efficient (Muehlbacher & Kirchler, 2013). For example, a business owner may persist in using a complex tax calculation method simply because it is familiar, despite the availability of more efficient alternatives. To address this, tax authorities should promote rational behavioral changes through educational initiatives, such as comparative simulations that demonstrate the benefits of newer approaches. Additionally, default options in e-filing systems can help mitigate these biases by automatically recommending more advantageous choices for taxpayers. Dhami and Hajimoladarvish (2020) further deepened the understanding of loss aversion, finding that resistance to taxation increases exponentially when rates exceed 15% of income.
- 3. Perceptions of Tax Fairness** – Perceived injustice within the tax system is one of the main contributors to reduced tax compliance (Alm, 2019; Bobek et al., 2007). Taxpayers who believe that the system disproportionately burdens certain groups or that tax revenues are not used transparently tend to be more reluctant to fulfill their obligations. For example, in contexts where public sector corruption is high (Hartanto, 2023; Hartanto et al., 2025; Rahayu, 2023, 2024; Rahayu et al., 2024), individuals may perceive tax payment as wasteful. To address this, governments must improve transparency through regular public reporting on budget allocations

and ensure that tax policies are progressive (i.e., higher income entails greater contribution). Additionally, easily accessible grievance mechanisms can help taxpayers feel more valued in the tax system. Fitriandi and Ahmar (2022) expanded Kirchler et al. (2008) slippery slope model by showing that in developing countries, trust in the tax system is not solely derived from central government performance but also from local actors, such as community leaders. Another key finding is that perceptions of horizontal fairness (fairness among taxpayers) exert a greater influence than vertical fairness (fairness between taxpayers and the state) on tax compliance. The policy implications include (1) multilevel transparency from central to regional governments, (2) involving trusted community figures in tax outreach programs, and (3) developing integrated complaint systems capable of responding to specific concerns across various demographic groups.

4. **Tax Decision Heuristics** – Most taxpayers do not engage in in-depth analyses when making tax-related decisions; instead, they rely on heuristics or rule-of-thumb reasoning (Kahneman & Tversky, 2013). For instance, an employee may choose not to report additional income under the assumption that "the taxes will be too complicated," without actually checking the regulations. This can lead to underreporting or miscalculation. To mitigate this, tax authorities should simplify tax-related information using interactive infographics or online tax calculators. Moreover, AI-based chatbots can assist in answering basic inquiries, thereby reducing the reliance on inaccurate heuristics.
5. **Loss Aversion in Taxation** – The concept of loss aversion posits that taxpayers are more sensitive to losses (e.g., paying taxes) than to equivalent gains (Sheffrin & Triest, 1991). For example, a person may feel more upset about losing IDR 1 million to taxes than happy about receiving a tax deduction of the same amount. Therefore, tax policies should be framed to reduce such negative perceptions. One effective strategy is to emphasize the benefits of taxation, such as "Every IDR 100,000 you pay funds one meter of new road." Additionally, automatic payroll deductions (e.g., withholding taxes such as PPh 21 in Indonesia) are more effective because taxpayers do not "feel" the loss as acutely as they do with manual payments.
6. **Mental Framing in Taxation:** The way tax information is presented significantly influences compliance (Fochmann & Wolf, 2019). For example, research indicates that framing tax obligations as "contributions to children's education" is more effective than presenting them merely as "mandatory payments."
7. **Emotions and Tax Compliance** – Emotions play a pivotal role in tax compliance, including both fear (of penalties) and pride (in being responsible citizens) (Gangl et al., 2015). Successful tax campaigns often combine emotional appeals, such as:
 - a) **Fear appeal:** Demonstrating the real consequences of tax evasion (e.g., fines or legal action).
 - b) **Pride appeal:** Providing symbolic recognition (certificates or public acknowledgment) to compliant taxpayers.
 - c) **Empathy:** Highlighting real-life stories of how taxes benefit underprivileged communities.

Gangi et al. (2019) and Fitriandi and Ahmar (2022) reveal that (1) negative emotions, such as fear, are more effective in individualistic societies but may be counterproductive in collectivist cultures; (2) shame has three times the impact in

East Asian societies compared to Europe; and (3) positive emotions, such as pride and gratitude, consistently enhance moral obligations to comply with taxes.

8. **Social Factors in Taxation** – Social norms and group pressure can be strong drivers of tax compliance (Wenzel, 2004). When the social environment views tax payments as a moral obligation, individuals are more likely to comply. Conversely, if tax evasion is considered "normal," compliance rates tend to decline.

CONCLUSION

This study reveals that tax compliance is a complex phenomenon that is not solely determined by rational-economic considerations but is significantly influenced by psychological and social factors encapsulated within the concept of Mental Tax Accounting. The main findings indicate that taxpayers tend to process tax-related information through mental accounting mechanisms that psychologically separate income from tax obligations, are influenced by cognitive biases such as loss aversion and sunk cost fallacy, and are highly sensitive to perceptions of fairness and social norms.

This study reinforces the evidence that behavioral economics approaches can make a significant contribution to understanding and improving tax compliance. Interventions that consider psychological aspects, such as tax communication redesign based on positive framing, simplification of reporting systems, and the utilisation of social norms, have been shown to be more effective than conventional approaches that rely solely on punitive measures. Specific findings in the Indonesian context highlight the importance of culturally sensitive approaches that leverage community structure and local values.

The policy implications underscore the need for tax system designs that are more adaptive to actual human behavior, rather than relying solely on assumptions of economic rationality. Further research is needed to test the effectiveness of various behavioral interventions across different settings, as well as to explore the interactions between psychological, social, and digital technological factors in shaping tax compliance. Overall, these findings offer a new and holistic perspective for formulating effective and sustainable tax policies.

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