



Investigating CSR Disclosures and Aggressive Financial Reporting in Relation to Tax Aggressiveness: Can Board Structure Change The Status Quo?

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ABSTRACT

In recent years, academic researchers and policymakers have increasingly discussed the role of Corporate Social Responsibility (CSR) disclosures and aggressive financial reporting in tax aggressiveness. Tax aggressiveness can be defined as a company's eagerness in using legal loopholes and other methods of tax reduction. Companies must evaluate how their tax practices affect their reputation and adhere to tax reporting and CSR standards. The objective of this research is to investigate in the relationship between CSR disclosures and aggressive financial reporting on tax aggressiveness moderated by board structures. The board's internal control function is expected to reduce tax aggressiveness-related risks. The study employed static panel data regression analyses on 665 firm-year data from the Indonesia Stock Exchange from 2016 to 2020. This study discovered that a larger board size could diminish the negative relationship between CSR disclosure and tax aggressiveness in particular industries while strengthening the positive relationship between aggressive financial reporting and tax aggressiveness. The current work suggests that companies with more independent boards of directors could increase the negative association between CSR disclosure and tax aggressiveness while reducing the positive association between aggressive financial reporting and tax aggressiveness. This study could reference future corporate policy regarding the most effective board structures to minimise tax aggressiveness.

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INTRODUCTION

Tax aggressiveness is a term that describes strategies employed to reduce the explicit tax burden obliged for payment (Jbir et al., 2021). Many companies and individuals exercise tax aggressiveness despite knowing that tax revenue is the main source of state revenue which are used to meet the society's needs (Issah and Rodrigues, 2021; Kassa, 2021; Ngelo et al., 2022). Prior studies have argued that tax aggressiveness can increase shareholders' wealth. As argued by Dharmapala and Desai (2011), by decreasing the tax burden that must be paid, shareholders can retain a greater portion of their profits. Furthermore, being tax aggressive has become a standard business strategy applied by policymakers all over the world. Despite its many merits, exercising tax aggressiveness may also lead to reputational damage, legal penalties, and a loss of public trust in a company. Companies that engage in tax aggressiveness endanger their good reputation, making it much more challenging to remain in business in the long run. To discourage tax aggressiveness, the company needs strong board structures that prioritise ethical behaviour, effective internal control, and adequate social responsibilities to promote compliance with tax regulations. Kim et al. (2017) stated that companies with a more robust internal control environment were less likely to participate in tax aggressiveness since effective internal controls can lower the risk of tax aggressiveness.

The board usually engages stakeholders, including shareholders, employees, consumers, governments, and communities, to comprehend their issues and viewpoints. The responsibility involves ensuring that the company's social and environmental practices meet stakeholders' expectations and that corporate reporting is transparent and informative (UN Global Compact, 2015). The board of directors should monitor the company's CSR performance and ensure it complies with its values and objectives. Moreover, the board ensures that the company's financial reporting is accurate, transparent, and compliant with relevant regulations. The board should analyse the company's financial statements, audit reports, and other financial disclosures to verify whether they have accurately depicted its tax policies. Additionally, the board of directors should verify that the company has strong internal controls in place to ensure the accuracy of its financial reporting.

Previous studies have demonstrated that board structures can influence the company's CSR disclosures (Chintrakarn et al., 2021; Pucheta-Martínez et al., 2019; Uyar et al., 2021), aggressive financial reporting (Al-Azeez et al., 2019; Rajeevan and Ajward, 2019; Saona et al., 2020), and tax aggressiveness (Eragbhe and Igbinoba, 2021; Menchaoui and Hssouna, 2022; Minnick and Noga, 2010; Onyali and Okafor, 2018). However, there has been limited empirical evidence regarding the influence of board arrangements on management decisions pertaining to CSR, aggressive financial reporting, and tax aggressiveness.

This study extends earlier research by investigating board structures' potential impact on elevating or eliminating the relationship between CSR disclosures, aggressive financial reporting, and tax aggressiveness. The board of directors' efficacy in advising the management on making better policy decisions should be enhanced by adopting appropriate board structures (Eragbhe and Igbinoba, 2021; Lazzi et al., 2022), including decisions related to CSR disclosures, aggressive financial reporting, and tax aggressiveness. Permandarani (2020) suggests that firms can divide board of directors' roles and responsibilities into two levels of control for tax risk management. First, Board Level Control relates to the Board of Directors' duty to establish policies, processes, and procedures for controlling tax risks inside the organisation. Second, Managerial Level Control relates to the task of the corporate tax department's management to implement policies and tax strategies determined by the Board of Directors. The board of directors is responsible for defining tax strategies, supervising the tax department in risk management, reviewing and approving tax risk registers, and performing periodic tests of the company's tax risk management. This study examines two mechanisms related to board structures; board size and independent board.

This study hypothesises that board size and independent board will assist management in making better decisions regarding an "aggressive" tax policy. Tax aggressiveness may decrease or increase depending on the CSR and financial reporting policies. Using a sample of 665 firm-year data from 2016 to 2020, it can be argued that board size and independent board membership may enhance the negative relationship between CSR disclosures and tax aggressiveness. Furthermore, board size strengthens the positive relationship between aggressive financial reporting and tax aggressiveness, while the independent board weakens it.

The current study contributes to the body of knowledge in the following ways: First, to our knowledge, this is the first study which empirically assess the effect of board size and independent boards on the

relationship between CSR disclosures, aggressive financial reporting, and tax aggressiveness. Second, the study elucidates the significance of the relationship between CSR disclosures, aggressive financial reporting, and tax aggressiveness. Lastly, the current work provides essential information for policymakers and regulators to identify the conditions under which the risk of tax aggressiveness is elevated.

The remaining parts of this article are divided into the following sections. The 'Literature Review' section reviews the research hypotheses and theories relevant to this paper. The methodology of our research is discussed in the next section. The findings and the analysis of the results are presented in the section under 'Results and Discussion.' The last part of the paper is the 'Conclusion.'

LITERATURE REVIEW

Tax Aggressiveness

Between 2016 and 2020, the Indonesian government launched many programmes to increase tax compliance among taxpayers. These policies include implementing tax amnesty programme, reducing tax rates for small and medium-sized enterprises (SMEs), improving taxpayer services, and increasing audit employees at the Directorate General of Taxation to enhance the quality of law enforcement. Nevertheless, according to data from the Financial Transaction Report and Analysis Center (PPATK), the number of suspicious financial reports involving possible tax violations has risen steadily over the past three years. There were 501 instances in 2018, increasing to 738 in 2019 and 793 in 2020. In addition, the Indonesian Directorate General of Taxation reported that corporate tax compliance in Indonesia from 2016 to 2020 comprised between 20% to 50% of all registered companies as taxpayers, contributing only 18% to 19% to total tax revenue. Salehi et al.'s (2017) research on suspicious executives in Iran highlights the intricate nature of tax aggressiveness, aligning with the findings of Balakrishnan et al. (2019) and Frank et al. (2009). These studies assert that tax aggressiveness is a specialized transaction activity aimed at minimizing income tax, encompassing both legitimate tax planning methods and fraudulent tax avoidance activities. In simpler terms, tax aggressiveness refers to activities and transactions primarily focused on minimizing income tax. Corporations engaging in aggressive tax planning may transfer tax savings to shareholders, resulting in an increase in their wealth (Arora and Gill, 2022; Campbell et al., 2020).

Board Structure, CSR Disclosures, Aggressive Financial Reporting, and Tax Aggressiveness

The existing literature on board structure within the realm of corporate governance provides valuable insights into its impact on various facets of organizational performance. Porter and Sherwood (2023) underscores the importance of increased board independence, achieved through a larger board size, in fostering higher financial reporting quality. Similarly, Vitolla et al.'s (2020) research reveals the positive influence of board size and the presence of an independent board on integrated reporting quality. In the context of market-based firm performance, Al-Farooque et al. (2020) establishes the significance of board structure variables such as board independence, size, meetings, dual roles, and audit committee meetings among Thai firms. Adous et al. (2021) contributes to this discourse by highlighting the impact of an independent board on the reduction of earnings management practices. Additionally, Puni and Anlesinya's (2020) findings indicate a generally positive impact of board size on financial performance. This collective body of research forms a comprehensive understanding of the intricate relationships between board structure and key indicators of corporate governance and performance.

In some areas of business and management study, tax aggressiveness is considered to be unethical and a socially irresponsible act. Companies that engage in aggressive tax activities may sustain reputational damage despite their CSR efforts. Companies are encouraged to contribute to society by paying their fair share of taxes, which aligns with the objective of corporate social responsibility (CSR). According to Chouaibi et al. (2022), Issah and Rodrigues (2021), and Mgbame et al. (2017), the reason that business taxes have such a significant influence on society is because taxes are paid for public services such as education, national security, law enforcement, and also healthcare. However, Hardeck et al. (2023) discovered that, on average, companies offer limited tax information and tend to use disclosures that portray tax payments as beneficial to society, rather than presenting strategies to ensure socially responsible tax behaviour.

Prior discussions in the area are mainly supported by empirical evidence from accounting research, demonstrating a considerable connection between CSR and tax aggressiveness. There is also ongoing discussions over the connection between CSR and aggressive tax planning. According to the findings of several studies, companies that are more forthcoming on their CSR activities are statistically less likely to engage in tax avoidance strategies (Chouaibi et al., 2022; Mgbame et al., 2017; Raithatha and Shaw, 2022; Zeng, 2016). In contrast, other studies found that when businesses consider CSR as a risk management technique, they are more likely to engage in aggressive tax avoidance actions (Abid and Dammak, 2021; Godfrey et al., 2009; Hoi et al., 2013; Mao, 2019; Rohyati and Suropto, 2021). According to Alsaadi (2020), corporations are progressively engaging in CSR as a strategic measure to safeguard their corporate value against potential adverse repercussions stemming from aggressive tax avoidance practices. Moreover, Hajawiyah et al. (2022) examined the probable bidirectional relationship between tax aggressiveness and CSR and found that there is a simultaneous relationship between the two. As opposed to these views, Mohanadas et al. (2020), Montenegro (2021), and Pranata et al. (2021) conclude that there is no connection between CSR and tax aggressiveness with which corporations approach their tax obligations.

Indeed, a company can avoid and reduce tax payments by employing an aggressive approach to financial reporting, such as earnings management. Managers engage in aggressive financial reporting to optimise shareholders' wealth. This activity is achieved by implementing accounting policies specifically designed to generate high-income reports. Nevertheless, management generally dismisses the adoption of accounting policies aimed at boosting company revenue due to the potential consequence of heightened income tax obligations. This scenario encourages managers to engage in aggressive tax practices to balance aggressive financial reporting. However, investigations into the relationship between aggressive financial reporting and tax aggressiveness could not draw firm conclusions on the issue. For instance, Sánchez-Ballesta and Yagüe (2021) determined that financial reporting and tax aggressiveness have two mutual trade-offs. If a company's income increases, so does the tax; if it decreases, so does the tax. Other research, however, discovered no trade-off between aggressive tax and financial reporting, indicating that companies can simultaneously increase reported income and decrease tax obligations (Firmansyah, 2019; Frank et al., 2009; Nugroho et al., 2020; Rachmawati et al., 2020).

Previous research indicates various evidence on board structures' influence on (board size and independent board) tax aggressiveness, CSR disclosures, and aggressive financial reporting. However, limited studies have examined whether board structures can strengthen or weaken the relationship between CSR disclosure, aggressive financial reporting, and tax aggressiveness. Thus, the present study aims to investigate the interaction of board structures with CSR disclosures and aggressive financial reporting that may impact tax aggressiveness. In doing so, the study also aims to determine whether the board members know the connection between CSR, tax policy, and the company's financial reporting.

Board Structures' Influence on CSR Disclosures, Aggressive Financial Reporting, and Tax Aggressiveness

This section provides a concise literature review on two crucial board structures: board size and the presence of independent directors. We explore their impact on decision-making, strategic oversight, and the overall dynamics of corporate governance.

Board Size

The pivotal role of board size within the context of board structure is underscored by its influence on decision-making, oversight, and organizational dynamics. A larger board size is often correlated with increased CSR disclosure and reduced management opportunism, aligning with agency theory. Conversely, smaller board sizes are associated with dynamic decision-making and efficiency. This study aims to unravel the complex impact of board size on corporate reporting practices and tax aggressiveness, contributing important insights to the application of corporate governance.

In their examination of the Nigerian banking industry, Nwude and Nwude (2021) established a connection between board size and CSR disclosure, noting that a larger board size correlates with higher CSR levels. A larger board size refers to a governing body within a company that comprises a higher number of directors or members, with more individuals involved in corporate decision-making and governance. This association often signifies diverse perspectives and expertise available for strategic decision-making

(Lazzi et al., 2022). Moreover, their findings align with agency theory, suggesting that a larger board size may mitigate management opportunism and risk-taking. This relationship between board size and governance extends to financial reporting practices. Large boards, as proposed by (Saona et al., 2020), may find benefits in constraining aggressive financial reporting. Conversely, small boards, characterized by a relatively lower number of directors, can make more dynamic, more efficient, more focused decision-making, and timely decisions, restricting opportunistic managerial behaviour on aggressive financial reporting.

Expanding the discourse on board size, studies by Vafeas (2005), Eragbhe and Igbino (2021), Khan et al. (2022), Lazzi et al. (2022), and Pertiwi et al. (2020) have uncovered connections between board size and tax aggressiveness. Organizations with smaller boards tend to outperform in coordination, communication, and decision-making, while larger boards introduce uncertainty in task allocation. However, the dynamics of tax planning differ, with Menchaoui and Hssouna (2022) and Minnick and Noga (2010) suggesting that boards with fewer members exhibit more aggressive in tax planning.

Independent Board

Independent directors play a crucial role in board structure by ensuring impartial decision-making and effective corporate oversight. Free from significant affiliations, they contribute an objective viewpoint, enhancing transparency and reducing conflicts of interest. Their presence is critical for fostering good governance practices and maintaining balance. This study investigates the nuanced impact of independent boards on CSR disclosures, financial reporting, tax aggressiveness, and broader corporate behavior, providing valuable insights into corporate governance dynamics.

According to Uyar et al. (2021), independent boards, which are defined as a regulatory body whose members are external and have no affiliation with the company (Ortas et al., 2017), can slightly influence CSR performance in the healthcare industry. They argued that independent board are influential in both the composite of CSR performance and the governance aspect of CSR, which is consistent with the findings from other industries, such as the energy sector (Shahbaz et al., 2020).

Al Azeez et al. (2019) indicated that the independent board significantly impacts the decrease in earnings management activity since the independent board protects the shareholder's interest while maintaining the reliability and transparency of financial reporting. In addition, Rajeevan and Ajward (2019) argue that it is essential to keep in mind the likelihood of aggressive financial reporting occurring is reduced when there is a greater number of independent board members on corporate governance elements. When there is a more significant number of independent directors in a company, that company can better supervise its managers, which limits the potentiality of the company's managers engaging in aggressive financial reporting (Saona et al., 2020).

Meanwhile, Kashanipour et al. (2019), Niu et al. (2021), and Onyali and Okafor (2018) stated that companies with a greater proportion of independent directors are less likely to participate in tax aggressiveness. Because the public views independent boards as professionals who could mitigate conflicts between internal managers about decision-making, a more significant number of them increases the effectiveness of the control function. In this regard, internal controls and management advice help limit agency losses. However, internal control becomes harder to share with a giant board, thus, increasing tax aggressiveness.

The first study to explore the impact of the independent board on tax aggressiveness was conducted by Minnick and Noga (2010). According to their findings, governance (including board independence) is not significantly connected with either book or cash taxes. However, they also showed that the firm's governance determines its tax management strategy, with independent boards focusing more on overseas tax management and larger boards focusing more on domestic tax management. Meanwhile, Pucheta-Martínez et al. (2019), who examined 152 Spanish non-financial companies, demonstrated that CSR disclosure improves as the number of independent board members increases.

HYPOTHESIS DEVELOPMENT

The current study uses agency, legitimacy, and stewardship theories to achieve its research objectives and address the research questions. Management and stakeholders have conflicting interests regarding CSR

Disclosure (Jensen and Meckling, 1976), aggressive financial reporting, and tax aggressiveness. According to the legitimacy hypothesis, a corporation will engage in and disclose socially responsible actions to preserve a good reputation and legitimacy (Deegan, 2002). Taxes help address community needs; therefore, companies that do not pay them could lose credibility. In addition, the stewardship theory assumption is necessary for developing effective corporate reporting and governance. Stewardship theory states that a management will cooperate and act in the principal's interests (Davis et al., 1997). Steward puts organisation before self.

Building on prior research findings, this study posits differing relationships between corporate reporting, serving as the independent variable, and tax aggressiveness, the dependent variable. Firstly, this study predicts a negative relationship between CSR disclosure and tax aggressiveness, grounded in the premise that companies prioritizing corporate social responsibility are likely to adopt transparent and ethical tax practices, aligning with their commitment to responsible business conduct. Similarly, this study expects a positive relationship between aggressive financial reporting and tax aggressiveness. This expectation is rooted in the idea that companies engaging in aggressive financial reporting practices may be more inclined to exploit legal loopholes and employ strategies to minimize their tax liabilities. Further, this research examines the moderating effect of board size and an independent board on these expected relationships, providing a comprehensive understanding of how corporate governance structures impact the dynamics between corporate reporting practices and tax behaviour.

The Moderating Effect of Board Structures on CSR Disclosures and Tax Aggressiveness Relationships

The effect of board structure on CSR disclosures and tax aggressiveness remains uncertain. The lack of a conclusive outcome in the case can be attributed to the various significant costs and benefits associated with CSR disclosures and tax aggressiveness, affecting companies, shareholders, and society. Ideally, the corporation maintains the ideal and optimal balance between minimising tax payments and maintaining its reputation and social standing. However, Chouaibi et al. (2022) stated that one of the company's key goals is to avoid or prevent aggressive tax practices that could damage its reputation. They conclude that companies with more CSR activities are less likely to engage in tax aggressiveness.

Nwude and Nwude (2021) stated that good CSR management could improve a company's long-term viability through the attraction of increasing sales via media presentation, buyer appeal, low labour turnover and retention of talented employees, good community relations, easy access to capital, reduced operational costs, and large-scale transactions with enhanced financial performance and business expansion. In contrast, corporate governance (CG) is the system of rules, policies, and processes by which firms are governed or through which the rights and obligations of a company's stakeholders are assigned. The number of directors on the board (board size) is an essential consideration in analysing the board's efficiency, as we call good corporate governance (Jensen, 1993). In this regard, large board increases the likelihood of ineffective communication and decision-making when it comes to monitoring the activities of executives. Khan et al. (2022) and Lazzi et al. (2022) share the same perspective, arguing that organisations with smaller boards of directors perform better in coordination, communication, and decision-making, while a larger board size causes uncertainty in allocating tasks.

It is also widely accepted that the independent board is an essential component of effective corporate governance, notably to impose discipline on management and guard the rights of minority shareholders (Al-Gamrh et al., 2020). According to Muniandy (2022), maintaining an independent board is essential to entice overseas investments. In addition, a review of the relevant research shows that having an independent board of directors improves the company's financial (Al-Farooque et al., 2020; Alodat et al., 2021) and social performance (Endrikat et al., 2021; Rouf and Hossan, 2021; Shahbaz et al., 2020).

Wan Mohammad and Wasiuzzaman (2020) acknowledge that CEOs may appoint independent boards that provide superior guidance and assistance while sharing valuable experience and knowledge with the board. In a similar vein, Nguyen et al. (2021) find that CEOs from other companies are in high demand as board members due to their capacity to provide professional counsel on all stakeholder-related matters. Additionally, Hoitash and Mkrtyan (2022) assert that independent boards give the organisation the resources necessary for its survival and long-term development. In essence, business management may benefit from the advice of the board, particularly external directors, about the trade-off between CSR performance and tax aggressiveness.

Apart from the merits of appointing an independent board, Godfrey et al. (2009) stated that maintaining CSR can also be beneficial for cooperation. CSR creates goodwill among stakeholders, who therefore soften their negative judgements and fines against a corporation. Lanis and Richardson (2013) suggest that tax aggressiveness raises public anxiety and is inconsistent with societal expectations, forcing corporations to disclose their CSR activities. They also said corporations do this to mitigate public concerns about tax aggressiveness's negative social impact and demonstrate that they are achieving community expectations in other ways. Therefore, if board structures believe in managing risk and reputation using CSR to mitigate the negative consequences of tax aggressiveness, their presence should reduce the link between CSR and tax aggressiveness. As CSR disclosure improves, larger board sizes should better understand the trade-offs between the costs and benefits of tax aggressiveness policy in light of an overall strategy to improve a firm's reputation and CSR disclosure or to manage risk and maximise shareholder wealth by reducing tax payments. In this regard, we predict that there is a relationship between the interaction effect of board structures and CSR disclosure with tax aggressiveness. To address this question, the following hypotheses were developed:

H₁: Board size has a moderating effect on the relationship between CSR disclosure and tax aggressiveness

H₂: Independent board has a moderating effect on the relationship between CSR disclosure and tax aggressiveness

The Moderating Effect of Board Structures on Aggressive Financial Reporting and Tax Aggressiveness Relationships

Corporate governance protects shareholders' interests via its monitoring mechanisms and advising functions (Alodat et al., 2021). Governance methods can reduce conflicts of interest between controlling shareholders or executives and non-controlling shareholders and the asymmetric information problem (Chen et al., 2010). In other words, good corporate governance improves firm performance by lowering agency expenses (Uyar et al., 2021). Long-term research into the relationship between corporate governance and financial performance has confirmed the effectiveness of corporate governance in preserving shareholder wealth. Previous research has also demonstrated that the empirical findings on the relationship between corporate governance and firm performance are inconsistent, varying from positive to negative to no association (Ciftci et al., 2019; Mertzanis et al., 2019).

Aggressive financial reporting is one of the methods that companies use to report a more excellent financial performance on their financial statements (Hamilton et al., 2019; Sánchez-Ballesta and Yagüe, 2021). Apart from this method, companies are also attempting to reduce the amount of reported taxable income. Aggressive financial and tax reporting generates imbalanced information and reduces the reliability of financial information, resulting in poor decision-making. There has been a convergence of thoughts between those who are aggressive with their taxes and those who are aggressive with their financial reporting. Due to ruling's conflicts (non-conformity) between accrual accounting and taxation requirements, there exist many corporate tax loopholes. To maximise corporate value and the opportunity afforded by the various loopholes in accounting standards and tax rules, companies may raise their aggressive financial reporting efforts while simultaneously developing their aggressive tax activities.

Members of the board of directors, particularly independent board members, can encourage the supervision of the financial reporting and tax reporting processes objectively. As a result of aggressive financial and tax reporting, it is anticipated that the monitoring and evaluation roles performed by board members will minimise the possible risks of corporate tax aggressiveness. Thus, this study develops the following hypotheses:

H₃: Board size has a moderating effect on the relationship between aggressive financial reporting and tax aggressiveness

H₄: Independent board has a moderating effect on the relationship between aggressive financial reporting and tax aggressiveness

METHODOLOGY

Sample Selection

This study comprises 665 firm-year observations based on the population of the stock exchange for public-listed non-financial companies in Indonesia from 2016 to 2020. During the 5-year period, the Indonesian government was aggressively implementing various policies to promote tax compliance among taxpayers; thus, this period is supposed to reflect the years of tax enforcement in Indonesia. Four of the eight different industry groups were chosen because their tax aggressiveness was the highest, as measured by the value of the permanent discretionary differences. The four industries sampled in this study were Infrastructure, Utility, & Transportation/IUTR (19 companies); Basic Industry & Chemicals/BCHE (44 companies); Consumer Goods Industry/CONS (26 companies); and Property, Real Estate, & Building Construction/PROP (44 companies). The data analysis in this study was segmented according to industry classification because different characteristics and business cycles will likely impact tax aggressiveness decisions.

Content analysis was done to extract information from the company's annual and sustainability reports. Sample selection involved multiple steps which began with the collection of all non-financial companies registered on the Indonesia Stock Exchange between 2016 and 2020. Companies that were not fully listed between 2016 and 2020, companies that did not declare CSR activities, and companies that did not pay taxes were eliminated from the study. In addition, this study excluded companies with insufficient data about the study's variables. In addition, we determined the four industries with the highest value by calculating the average number of permanent discretionary differences in each industry. We collect the final data from 133 non-financial companies in four industries.

Variable Measurements

Dependent variable

In this study, the dependent variable which is tax aggressiveness, was measured by permanent discretionary differences (Frank et al., 2009) and calculated using the following equation:

$$PERMDIFF_{it} = \alpha_0 + \alpha_1 INTANG_{it} + \alpha_2 \Delta NOL_{it} + \alpha_3 LAGPERM_{it} + \varepsilon_{it} \quad (1)$$

where i is the companies 1-133; t is the period 2016-2020; $PERMDIFF_{it}$ is total book-tax differences less temporary book-tax differences; $INTANG_{it}$ is goodwill and other intangible assets; ΔNOL_{it} is the changes in net operating loss carryforwards; $LAGPERM_{it}$ is one-year lagged $PERMDIFF_{it}$; ε_{it} is permanent discretionary differences as the proxy of tax aggressiveness.

Independent variable

1. CSR Disclosures

This study assessed CSR disclosure using a checklist that compared 154 disclosure items from the GRI G.4 index to those disclosed by companies. We assigned 1 point for each CSR disclosure corresponding to its index and 0 points if the item is not disclosed.

2. Aggressive Financial Reporting

This study employed performance-matched discretionary accruals from Kothari et al. (2005) as an indicator or proxy of aggressive financial reporting. The calculation is derived from Jones model (Dechow et al., 1995). The equations are as follows:

$$TACC_{it} = \alpha_0 + \alpha_1 (\Delta REV_{it} - \Delta AR_{it}) + \alpha_2 PPE_{it} + \eta_{it} \quad (2)$$

where $TACC_{it}$ is total accruals (Pre-tax Book Income – (Cash flow from operations + Income taxes paid)); ΔREV_{it} is the changes in company earnings; ΔAR_{it} is the changes in accounts receivables; PPE_{it} is fixed assets; η_{it} is performance-matched discretionary accruals as the proxy of aggressive financial reporting.

Moderating variable

The study evaluates the board structure contained in the corporate governance mechanism using two proxies: board size and independent board. First, a company's board size is determined by the number of directors and commissioners (Menchaoui and Hssouna, 2022). Next, the board size is divided by the number of independent board members to determine the independent board membership percentage (Lazzi et al., 2022).

Control variable

This study employs the control variables from a regression model constructed from several prior studies to evaluate the impact of additional variables on tax aggressiveness, namely Return on Assets (ROA), Leverage (LEV), and company size (SIZE). A company's net income is determined by dividing ROA by the average total assets. It measures the effectiveness of a company's management in generating a profit from its economic resources or balance sheet assets. (Frank et al., 2009; Gupta and Newberry, 1997). LEV is calculated by dividing long-term debt by lagging total assets and is a proxy for the tax planning effect of debt on business incentives (Lanis and Richardson, 2018). Finally, SIZE controls the company size effect and is calculated using the natural logarithm of the enterprise's total annual assets (Dang et al., 2018).

Data Analysis

Because the data used in this study combines time series and cross-sectional data, panel data analysis is used. This study conducted Panel Unit Root Test or Stationarity Test to ensure that the data is stationary. The Breusch Pagan Lagrange Multiplier (BP LM) test was applied to determine the poolability of the panel data. The Hausman test was then conducted to determine the most appropriate model to be used: whether it is the random effect model or the fixed effect model. We also perform diagnostic checking before testing the proposed hypothesis.

Empirical Model

This study applies two multiple regression equations. The first equation (3) examines the moderating effect of board structures (board size and independent board) on CSR disclosures and tax aggressiveness relationships (Model 1). The second equation (4) examines the moderating effect of board structures (board size and independent board) on aggressive financial reporting and tax aggressiveness relationships (Model 2). The equations are as follows:

Model 1:

$$TAG_{it} = \alpha + \beta_1 B_SIZE_{it} * CSR_{it} + \beta_2 B_IND_{it} * CSR_{it} + \beta_3 CSR_{it} + \beta_4 B_SIZE_{it} + \beta_5 B_IND_{it} + \beta_6 ROA_{it} + \beta_7 LEV_{it} + \beta_8 SIZE_{it} + \varepsilon_{it} \quad (3)$$

Model 2:

$$TAG_{it} = \alpha + \beta_1 B_SIZE_{it} * AFR_{it} + \beta_2 B_IND_{it} * AFR_{it} + \beta_3 AFR_{it} + \beta_4 B_SIZE_{it} + \beta_5 B_IND_{it} + \beta_6 ROA_{it} + \beta_7 LEV_{it} + \beta_8 SIZE_{it} + \varepsilon_{it} \quad (4)$$

where TAG_{it} is tax aggressiveness; CSR_{it} is Corporate Social Responsibility disclosures; AFR_{it} is aggressive financial reporting; B_SIZE_{it} is Board Size; B_IND_{it} is the Independent Board; ROA_{it} is Return on Assets; LEV_{it} is Leverage Ratio, $SIZE_{it}$ is Company Size; $B_SIZE_{it} * CSR_{it}$ is the interaction between board size and CSR disclosures; $B_IND_{it} * CSR_{it}$ is the interaction between an independent board and CSR disclosures; $B_SIZE_{it} * AFR_{it}$ is the interaction between board size and aggressive financial reporting; and $B_IND_{it} * AFR_{it}$ is the interaction between the independent board and aggressive financial reporting.

RESULTS AND DISCUSSION

The findings of the descriptive statistics and regression analyses will be discussed in this section.

Descriptive Statistics

Tables 1, 2, 3, and 4 present the descriptive statistics for each industry. The IUTR industry has the highest Tax Aggressiveness (TA) value among the four industries, with a mean value of 0.1313 and a maximum value of

1.0227 (Table 1). Meanwhile, the PROP industry has the lowest TA value, with a mean of 0.0705 and a minimum of -0.9268 (Table 4). The TA's positive mean value demonstrates that most companies operating in these four industries engaged in aggressive tax practices from 2016 to 2020. Regarding CSR disclosures, the PROP industry has disclosed the highest number of CSR activities, as evidenced by the mean value of CSR disclosure of 0.4534 and the maximum value of 0.6688 (Table 4). Based on the GRI G4 index, this maximum number indicates that companies in the PROP industry publish 66.88% of all disclosure items.

Table 1 Descriptive Statistics of Infrastructure, Utility, and Transportation (95 obs.)

Variables	Mean	Minimum	Maximum	SD	Variance	Skewness	Kurtosis
TAG_{it}	0.1313	-0.7342	1.0227	0.3301	0.1089	-0.1075	1.8475
CSR_{it}	0.4297	0.1948	0.6623	0.0989	0.0098	-0.1967	0.3695
AFR_{it}	-0.0639	-0.9994	0.6003	0.2691	0.0724	-1.2369	3.9768
B_SIZE_{it}	8.7263	4.0000	15.0000	2.8301	8.0094	0.6329	-0.1741
B_IND_{it}	0.2472	0.0014	0.5000	0.1280	0.0164	0.0925	-0.6394
ROA_{it}	0.0989	0.0002	0.8515	0.1867	0.0348	3.0509	8.5575
LEV_{it}	0.5181	0.0451	0.9750	0.2391	0.0572	-0.5027	-0.6645
$SIZE_{it}$	25.7429	9.4090	32.4231	7.8324	61.3472	-1.3290	-0.0242

Moreover, companies in the CONS industry had the highest value for the aggressive financial reporting (AFR) variable, at 0.8963 (Table 3). However, the mean AFR values in the three industries, IUTR, BCHE, and CONS, are negative, indicating that most sampled companies did not engage in aggressive financial reporting.

Table 2 Descriptive Statistics of Basic Industry & Chemicals (220 observations)

Variables	Mean	Minimum	Maximum	SD	Variance	Skewness	Kurtosis
TAG_{it}	0.0737	-1.2505	0.9956	0.3914	0.1532	0.0287	0.9581
CSR_{it}	0.4496	0.1948	0.8377	0.1041	0.0108	1.2768	2.4499
AFR_{it}	-0.0061	-4.9244	0.8463	0.3876	0.1502	-9.3948	119.2505
B_SIZE_{it}	8.9318	4.0000	17.0000	2.9931	8.9588	0.4603	-0.6363
B_IND_{it}	0.2120	0.1111	0.5000	0.0723	0.0052	1.0821	0.9036
ROA_{it}	0.0427	0.0001	0.1910	0.0381	0.0015	1.4270	1.9474
LEV_{it}	0.1553	0.1147	0.8179	0.1490	0.0222	1.4649	2.8791
$SIZE_{it}$	25.2096	10.6305	32.0106	5.1668	26.6962	-1.2692	0.8735

Overall, the board size in all industries ranges from 3 to 21 members, with an average of 9 members. In addition, the independent board varies from 0.14% to 50%, with a mean of 23%, indicating that there are still companies that do not meet the minimum requirement of having 30% of independent board members from Peraturan Otoritas Jasa Keuangan number 33/POJK.04/2014 (Table 1, 2, 3, and 4).

Table 3 Descriptive Statistics of the Consumer Goods Industry (130 observations)

Variables	Mean	Minimum	Maximum	SD	Variance	Skewness	Kurtosis
TAG_{it}	0.0716	-0.8797	0.9977	0.3438	0.1182	-0.3884	0.5994
CSR_{it}	0.4295	0.1948	1.0000	0.1338	0.0179	2.9131	10.6682
AFR_{it}	-0.1229	-0.8826	0.8963	0.3148	0.0991	-0.1207	1.4271
B_SIZE_{it}	9.1000	3.0000	21.0000	3.7289	13.9047	0.9315	0.9463
B_IND_{it}	0.2472	0.0714	0.5000	0.1132	0.0128	0.9515	0.3041
ROA_{it}	0.1506	0.0001	0.8730	0.2066	0.0427	2.1693	4.0786
LEV_{it}	0.1345	0.0013	0.3085	0.2953	0.0872	9.7933	105.4196
$SIZE_{it}$	22.8068	11.2029	32.7256	8.4060	70.6611	-0.4130	-1.7463

Table 4 Descriptive Statistics of Property, Real Estate, & Building Construction (220 obs.)

Variables	Mean	Minimum	Maximum	SD	Variance	Skewness	Kurtosis
TAG_{it}	0.0705	-0.9268	0.9872	0.3733	0.1394	-0.2872	0.7975
CSR_{it}	0.4534	0.3117	0.6688	0.0722	0.0052	0.5684	0.1154
AFR_{it}	0.1235	-0.9970	0.8929	0.3179	0.1011	-0.6783	1.7759
B_SIZE_{it}	9.8591	4.0000	24.0000	3.5337	12.4869	1.2141	2.3593
B_IND_{it}	0.2186	0.0035	0.5000	0.0906	0.0082	1.0503	1.0390
ROA_{it}	0.0634	0.0000	0.7045	0.0825	0.0068	3.7623	20.0387
LEV_{it}	0.4367	0.0415	1.5217	0.2187	0.0478	0.8810	3.2998
$SIZE_{it}$	28.5029	11.0190	32.4545	4.0654	16.5275	-3.3164	11.3956

Stationarity Test Results

We performed the panel unit root test to ensure that the data are stationary and reliable, as this model is based on panel data analysis. Three-panel unit root tests were done, namely the Harris-Tzavalis test, the Breitung

test, and the Hadri LM test. The results of the Harris-Tzavalis test and the Hadri LM test demonstrated that there is no unit root in any of the variables and that the data are stationary at level.

Regression Results

The Moderating Effect of Board Structures on CSR Disclosures and Tax Aggressiveness Relationships (Model 1)

This study employed a random-effect panel data regression model to assess model 1 using data from the IUTR, CONS, and PROP industries. The preference for the random-effects model over the pooled OLS and fixed-effects models was due to the estimations of the F-test and Breusch-Pagan Lagrange Multiplier (BP-LM) test for the panel data regression model being significant ($p\text{-value} < 0.05$), and the estimations of the Hausman specification test for the panel data regression models is not significant ($p\text{-value} > 0.05$), as shown in Table 5. Meanwhile, data in the BCHE industry uses a fixed-effect model since the p-value result of the Hausman specification test is 0.0030 ($p\text{-value} < 0.05$).

In addition, Table 5 demonstrates that the Modified Wald test estimates from the panel data regression model are statistically significant, indicating that heteroskedasticity is a problem for all industry data in Model 1. To estimate regression models with robust standard errors and unbiased parameter estimates, it is necessary to apply robust standard error for the Random/Fixed effect model. The results of the Wooldridge test, which can be seen in Table 5, indicate that the p-values for IUTR, BCHE, and PROP industries are greater than 0.05, indicating that model 1 for these industries appears to be free of the serial correlation problem. Therefore, no further action is required to address the serial correlation problems. In contrast to the CONS industry, which has a p-value of the Wooldridge test that is less than 0.05, this industry also has a serial correlation issue. To address this issue, the study employed a cluster-by-code command.

Table 5 Static Panel Data Analysis Results of The Moderating Effect of Board Structures on CSR Disclosures and Tax Aggressiveness Relationships (Model 1)

<i>Dependent Variable:</i> <i>Tax Aggressiveness</i>	IUTR Corrected Hetero	BCHE Corrected Hetero	CONS Corrected Hetero and Serial Correlation	PROP Corrected Hetero
Constant	0.238** (1.879)	0.931 (6.103)	-1.629 (1.181)	-1.286 (2.251)
$B_SIZE_{it} * CSR_{it}$	-0.015 (0.177)	-0.055** (0.118)	-0.110*** (0.368)	-0.329 (0.431)
$B_IND_{it} * CSR_{it}$	0.011** (0.044)	1.748 (4.172)	0.048** (0.156)	0.140* (0.174)
CSR_{it}	-0.284 (0.701)	-2.282** (2.181)	-1.035 (0.786)	-0.395** (0.921)
B_SIZE_{it}	0.374 (0.770)	0.484 (0.595)	-0.526* (0.093)	0.062 (0.028)
B_IND_{it}	-1.640 (1.884)	0.022* (0.406)	-0.383 (0.506)	-0.030** (0.117)
ROA_{it}	0.001** (0.063)	-0.060 (0.051)	0.010 (0.039)	0.096 (0.055)
LEV_{it}	0.090 (0.137)	0.259 (0.411)	-0.013* (0.040)	0.203 (0.192)
$SIZE_{it}$	-0.317 (0.624)	-0.176 (1.839)	0.289** (0.308)	0.331** (0.638)
R ²	0.2634	0.2427	0.2627	0.1677
BP-LM test	76.28 [0.0000]***	52.12 [0.0000]***	63.36 [0.0000]***	116.77 [0.0000]***
Hausman Test	10.62 [0.3028]	26.57 [0.0030]***	6.15 [0.630]	3.85 0.9211
Multicollinearity (VIF test)	2.88	1.20	1.93	2.13
Heteroscedasticity (M. Wald test)	808.16 [0.0000]***	11374.29 [0.0000]***	2290.22 [0.0000]***	30189.45 [0.0000]***
Serial Correlation (Wooldridge test)	0.329 0.5734	2.329 [0.1343]	16.952 [0.0004]***	1.268 [0.2664]
Observation	95	220	130	220

Note: Values in parentheses are standard errors, whereas values in brackets are p-values, then ***, **, and * indicate significance at 1%, 5%, and 10% significance levels, respectively.

Table 5 presents the static panel data analysis results of the moderating effect of board size on CSR disclosures and tax aggressiveness relationships. As can be seen, The results varied among the four industries. The regression coefficient for the interaction term between board size and CSR disclosure ($B_SIZE_{it} * CSR_{it}$)

is negatively and significantly associated with tax aggressiveness in the BCHE industry ($p\text{-value} < 0.05$) and CONS industry ($p\text{-value} < 0.01$), while no significant result is found between the IUTR and PROP industries. Thus, our empirical result in the BCHE and CONS industries supports H₁. This finding suggests that the negative association between CSR disclosures and tax aggressiveness is reduced for firms with larger members of board directors. The result also shows that a one-unit increase in the interaction term $B_SIZE_{it} * CSR_{it}$ should decrease tax aggressiveness by 5.5% in the BCHE industry and 11% in the CONS industry. Our findings are consistent with Khan et al. (2022) and Lazzi et al. (2022), who argue that smaller boards of directors perform better because they can communicate and share decision-making responsibilities more effectively.

Table 5 also indicates mixed evidence regarding the moderating effect of independent boards on CSR disclosures and tax aggressiveness relationships. It shows that the regression coefficient for the interaction term between the independent board and CSR disclosure ($B_IND_{it} * CSR_{it}$) is positively and significantly associated with tax aggressiveness in the IUTR industry ($p\text{-value} < 0.05$), the CONS industry ($p\text{-value} < 0.05$), and the PROP industry ($p\text{-value} < 0.10$). Thus, the results provide support for H₂ in those three industries. Meanwhile, there is no significant relationship in the BCHE industry. The results also reveal that increasing the interaction term $B_IND_{it} * CSR_{it}$ by 1% resulted in 1.1% tax aggressiveness in the IUTR industry, 4.8% in the CONS industry, and 14% in the PROP industry. These results support previous research (Al-Farooque et al., 2020; Endrikat et al., 2021; Lanis and Richardson, 2018; Rouf and Hossan, 2021) who argued that a greater proportion of independent boards would improve the company's reputation and place in the community. A more independent board could better assist management in making CSR policies and tax reporting decisions. However, board structures might not affect the relationship between CSR disclosure and tax aggressiveness because management priorities and the company's overall strategic goals heavily influence the decision to disclose CSR information. In addition, it can be caused by the disclosure of CSR activities that are not in line with the company's business activities.

The Moderating Effect of Board Structures on Aggressive Financial Reporting and Tax Aggressiveness Relationships (Model 2)

Table 6 presents the static panel data analysis results of the moderating effect of board structures on aggressive financial reporting and tax aggressiveness relationships (Model 2). As presented, BP-LM test results have a p-value lower than 0.05, and the Hausman test results have a p-value greater than 0.05 in each industry. This suggests that the random-effects model is considered to be more appropriate. With regard to a significant value ($p\text{-value} < 0.05$), results of the Wooldridge and Modified Wald Statistics tests indicate that the data set for the CONS industry has autocorrelation and heteroskedasticity issues. Meanwhile, data for the IUTR, the BCHE, and the PROP industries have heteroskedasticity issues. The robust standard error for random effect models must be determined to address the heteroskedasticity issue, and the cluster-by-code command must be executed to address the serial correlation issue.

Table 6 further presents mixed results for the association between the interaction term between board size and aggressive financial reporting ($B_SIZE_{it} * AFR_{it}$) with tax aggressiveness. In line with H₃, the moderating effect of board size is significantly positive on aggressive financial reporting and tax aggressiveness relationships in the IUTR ($p\text{-value} < 0.10$), BCHE ($p\text{-value} < 0.01$), and PROP ($p\text{-value} < 0.05$) industries. However, there is no significant result in the CONS industry. The results also show that a larger board size will strengthen the positive relationship between aggressive financial reporting and tax aggressiveness, revealing that increasing the interaction term $B_SIZE_{it} * AFR_{it}$ by 1% resulted in 9.7% tax aggressiveness in the IUTR industry, 13.5% in the BCHE industry, and 3.1% in the PROP industry. According to Uyar et al. (2021), good corporate governance increases a company's performance by reducing agency costs. If too many board members exist, agency costs will increase, and the company's performance will decline. The larger the board, the more biased the information and the less reliable the financial information, leading to poor decision-making.

Table 6 Static Panel Data Analysis Results of The Interaction Effect of Aggressive Financial Reporting and Board Structures on Tax Aggressiveness (Model 2)

<i>Dependent Variable:</i>	IUTR	BCHE	CONS	PROP
<i>Tax Aggressiveness</i>	Corrected Hetero	Corrected Hetero	Corrected Hetero and Serial Correlation	Corrected Hetero
Constant	-0.915 (1.767)	-0.338 (1.504)	-1.140 (1.088)	-0.733 (2.041)
$B_SIZE_{it} * AFR_{it}$	0.097* (0.088)	0.135*** (0.081)	0.057 (0.045)	0.031** (0.023)
$B_IND_{it} * AFR_{it}$	-0.230** (1.201)	-0.065** (0.146)	1.579 (1.514)	-1.187 (0.941)
AFR_{it}	2.308** (0.922)	0.126* (0.152)	-0.985 (0.187)	0.059** (0.085)
B_SIZE_{it}	0.278* (0.151)	0.161** (0.277)	0.013 (0.347)	0.034** (0.015)
B_IND_{it}	-0.002* (0.041)	-0.070** (0.238)	0.099 (0.161)	0.190 (0.153)
ROA_{it}	-0.004 (0.059)	-0.029 (0.035)	-0.011 (0.041)	0.090* (0.054)
LEV_{it}	0.075 (0.142)	0.082 (0.261)	-0.008* (0.050)	0.129 (0.189)
$SIZE_{it}$	-0.031** (0.531)	-0.099 (0.426)	0.401 (0.313)	0.166** (0.611)
R ²	0.1907	0.1917	0.1726	0.1734
BP-LM test	83.95 [0.0000]***	69.22 [0.0000]***	52.13 [0.0000]***	104.95 [0.0000]***
Hausman Test	16.01 [0.0994]	14.55 [0.1493]	7.75 0.6537	12.54 0.2505
Multicollinearity (VIF test)	1.95	1.75	2.50	1.63
Heteroscedasticity (M. Wald test)	768.82 [0.0000]***	7731.98 [0.0000]***	21501.55 [0.0000]***	63161.71 [0.0000]***
Serial Correlation (Wooldridge test)	0.068 [0.7979]	2.471 [0.1233]	6.493 [0.0174]***	1.173 [0.2849]
Observation	95	220	130	220

Note: Values in parentheses are standard errors, whereas values in brackets are p-values, then ***, **, and * indicate significance at 1%, 5%, and 10% significance levels, respectively.

Table 6 also presents inconclusive results on how tax aggressiveness is associated with the interaction between the independent board and aggressive financial reporting. As shown in the table, the coefficient of the interaction term ($B_IND_{it} * AFR_{it}$) is negative and statistically significant ($p\text{-value} < 0.05$) in the IUTR and BCHE industries, indicating that the moderating effect of independent boards on aggressive financial reporting and tax aggressiveness relationships is significantly negative. Meanwhile, there are no significant results in the CONS and PROP industries. In addition, a 1% increase in the interaction term ($B_IND_{it} * AFR_{it}$) result in decreasing tax aggressiveness at 23% in the IUTR industry and 6.5% in the BCHE industry. Thus, H₄ is supported in the IUTR and BCHE industries. This finding is consistent with Al-Gamrh et al.'s (2020) assertion that an independent board of directors enhances a corporation's financial performance. Lanis and Richardson (2018) stated that independent boards could offer skills and knowledge to the decision-making process because they are often comprised of experienced people (e.g., prominent CEOs and executives, successful entrepreneurs, and academics) with competence in multiple fields (e.g., business strategy, finance, taxes, CSR, and operations). However, because management is responsible for preparing financial reports and may be incentivised to engage in aggressive reporting practices to meet performance targets, board structures may have a limited influence on the relationship between aggressive financial reporting and tax aggressiveness.

CONCLUSION

The current study examines the moderating effect of board structures in the relationship between CSR disclosures and aggressive financial reporting toward tax aggressiveness in Indonesia. Using a sample of 665 firm-year observations from 2016 to 2020, segregated into different industry classifications, we found that, in some industries, a larger board size could weaken the negative relationship between CSR disclosure and tax aggressiveness. Contrastively, a larger board size could strengthen the positive relationship between aggressive financial reporting and tax aggressiveness. These results support the view that a higher number of boards of directors could decrease the effectiveness of the decision-making process. This view contends that a

large board cannot exceed a smaller board in regards to better coordination, communication, and decision-making because the larger board size results in an unclear allocation of tasks and duties within the board.

Apart from that, we also found that having more independent boards in a company could strengthen the negative relationship between CSR disclosure and tax aggressiveness. Additionally, a higher independent board composition will weaken the positive relationship between aggressive financial reporting and tax aggressiveness. Due to the trade-off between CSR disclosures and tax aggressiveness, companies should appoint more independent board members to support the company's survival and long-term growth. An adequate proportion of board structures can enhance an objective financial and tax reporting system oversight. Due to the high risks associated with aggressive financial and tax reporting, board members' monitoring and evaluation responsibilities are intended to reduce the possibility of companies engaging in aggressive reporting.

This study has significant managerial and practical implications. Managers can strategically leverage board composition, including size and independence, to mitigate tax-related risks. Aligning CSR practices with tax strategies is crucial for companies, impacting reputation and stakeholder perceptions. Recognizing industry-specific variations in the relationship between board structures and tax aggressiveness is essential for tailored approaches. Policymakers can shape governance policies, emphasizing board structures in minimizing tax aggressiveness. Investors can use our insights for decision-making, while educational initiatives can educate future leaders on the importance of board structures in managing tax aggressiveness and promoting responsible corporate practices. This study also has practical implications for policymakers and regulators who wish to identify instances in which the risks of tax aggressiveness may increase. The findings will also help determine the application of proper board structure to minimise such risk.

The current study has several limitations, which make the findings less generalisable. First, the samples in this study only involved Indonesian companies from the four non-financial industries with the highest level of tax aggressiveness. Future research can extend the work to other Asian countries for international comparisons. Second, the current model is restricted to the internal perspective, which includes financial reporting, CSR activities, and firm-specific control variables. Future work may consider investigating other variables as it is also crucial to determine whether external factors, such as macroeconomic variables and megatrends, changes in urbanisation, technology, and the environment, can influence corporate tax aggressiveness. Third, this study only examined the role of board structures as a moderating variable. Future research may include management implications from the perspective of investment opportunities and reputational costs, which can influence tax aggressiveness. From a theoretical perspective, future research could consider other influencing factors such as the institution, hegemony, and classical economic theories to understand tax aggressiveness clearly. Finally, future research could be expanded by undertaking other analyses, such as Dynamic Panel Data or Panel ARDL, to obtain more information regarding tax aggressiveness determinants.

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REFERENCES

- Abid, S. and Dammak, S., 2021. Corporate social responsibility and tax avoidance: the case of French companies. *Journal of Financial Reporting and Accounting*, 20(3/4), pp. 618–638.
- Al-Azeez, H. A., Sukoharsono, E. G., Roekhudin, & Andayani, W., 2019. The Impact of Board Characteristics on Earnings Management in the International Oil and Gas Corporations. *Academy of Accounting and Financial Studies Journal*, 23(1). <https://www.researchgate.net/publication/331994145>

- Al-Farooque, O., Buachoom, W. and Sun, L., 2020. Board, audit committee, ownership, and financial performance – emerging trends from Thailand. *Pacific Accounting Review*, 32(1), pp. 54–81. <https://doi.org/10.1108/PAR-10-2018-0079>
- Al-Gamrh, B., Al-Dhamari, R., Jalan, A. and Afshar Jahanshahi, A., 2020. The Impact of Board Independence and Foreign Ownership on Financial and Social Performance of Firms: Evidence from the UAE. *Journal of Applied Accounting Research*, 21(2), pp. 201–229. <https://doi.org/10.1108/JAAR-09-2018-0147>
- Alodat, A. Y., Salleh, Z., Hashim, H. A. and Sulong, F., 2021. Corporate governance and firm performance: empirical evidence from Jordan. *Journal of Financial Reporting and Accounting*. <https://doi.org/10.1108/JFRA-12-2020-0361>
- Alsaadi, A., 2020. Financial-tax reporting conformity, tax avoidance and corporate social responsibility. *Journal of Financial Reporting and Accounting*, 18(3), pp. 639–659. <https://doi.org/10.1108/JFRA-10-2019-0133>
- Arora, T. S. and Gill, S., 2022. Impact of corporate tax aggressiveness on firm value: evidence from India. *Managerial Finance*, 48(2), pp. 313–333. <https://doi.org/10.1108/MF-01-2021-0033>
- Balakrishnan, K., Blouin, J. L. and Guay, W. R., 2019. Tax aggressiveness and corporate transparency. *The Accounting Review*, 94(1), pp. 45–69.
- Campbell, J. L., Guan, J. X., Li, O. Z. and Zheng, Z., 2020. CEO Severance Pay and Corporate Tax Planning. *Journal of the American Taxation Association*, 42(2), pp. 1–27.
- Chen, S., Chen, X., Cheng, Q. and Shevlin, T., 2010. Are family firms more tax aggressive than non-family firms? *Journal of Financial Economics*, 95(1), pp. 41–61. <https://doi.org/10.1016/j.jfineco.2009.02.003>
- Chintrakarn, P., Jiraporn, P. and Treepongkaruna, S., 2021. How do independent directors view corporate social responsibility (CSR) during a stressful time? Evidence from the financial crisis. *International Review of Economics and Finance*, 71, pp. 143–160. <https://doi.org/10.1016/j.iref.2020.08.007>
- Chouaibi, J., Rossi, M. and Abdessamed, N., 2022. The effect of corporate social responsibility practices on tax avoidance: an empirical study in the French context. *Competitiveness Review*, 32(3), pp. 326–349. <https://doi.org/10.1108/CR-04-2021-0062>
- Ciftci, I., Tatoglu, E., Wood, G., Demirbag, M. and Zaim, S., 2019. Corporate governance and firm performance in emerging markets: Evidence from Turkey. *International Business Review*, 28(1), pp. 90–103. <https://doi.org/10.1016/j.ibusrev.2018.08.004>
- Dang, C., (Frank) Li, Z. and Yang, C., 2018. Measuring firm size in empirical corporate finance. *Journal of Banking and Finance*, 86, pp. 159–176. <https://doi.org/10.1016/j.jbankfin.2017.09.006>
- Davis, J. H., Schoorman, F. D. and Donaldson, L., 1997. Toward a stewardship theory of management. *Academy of Management Review*, 22(1), pp. 20–47. <https://doi.org/10.4324/9781315261102-29>
- Dechow, P., Sloan, R. and Sweeney, A., 1995. Detecting Earnings Management. *The Accounting Review*, 70(2), pp. 193–225.
- Deegan, C., 2002. Introduction: The legitimising effect of social and environmental disclosures – a theoretical foundation. *Accounting, Auditing & Accountability Journal*, 15(3), pp. 282–311. <https://doi.org/10.1108/09513570210435852>
- Dharmapala, D. and Desai, M. A., 2011. Corporate Tax Avoidance and Firm Value. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.912289>
- Endrikat, J., de Villiers, C., Guenther, T. W. and Guenther, E. M., 2021. Board Characteristics and Corporate Social Responsibility: A Meta-Analytic Investigation. *Business and Society*, 60(8), pp. 2099–2135. <https://doi.org/10.1177/0007650320930638>
- Eragbhe, E. and Igbino, O., 2021. Corporate Governance and Corporate Tax Aggressiveness: A Comparative Analysis. *Journal of Social and Administrative Sciences Studies*, 5(1), pp. 12–31. <https://www.researchgate.net/publication/360103062>
- Firmansyah, A., 2019. Financial Constraints, Investment Opportunity Set, Financial Reporting Aggressiveness, Tax Aggressiveness: Evidence from Indonesia Manufacturing Companies. *Academy of Accounting and Financial Studies Journal*, 23(5).
- Frank, M., Lynch, L. J. and Rego, S. O., 2009. Tax Reporting Aggressiveness and Its Relation Financial Reporting University of Virginia. *Accounting Review*, 84(2), pp. 467–496.
- Godfrey, P., Merrill, C. and Hansen, J., 2009. The Relationship Between CSR and Shareholder Value: An Empirical Test of The Risk Management Hypothesis. *Strategic Management Journal*, 30(2), pp. 425–445.

- Gupta, S. and Newberry, K., 1997. Determinants of the Variability in Corporate Effective Tax Rates: Evidence from Longitudinal Data. *Journal of Accounting and Public Policy*, 16, pp. 1–34.
- Hajawiyah, A., Kiswanto, K., Suryarini, T., Yanto, H. and Harjanto, A. P., 2022. The bidirectional relationship of tax aggressiveness and CSR: Evidence from Indonesia. *Cogent Business and Management*, 9(1). <https://doi.org/10.1080/23311975.2022.2090207>
- Hamilton, E. L., Hirsch, R. M., Rasso, J. T. and Murthy, U. S., 2019. The effects of a public Indicator of accounting aggressiveness on managers' financial reporting decisions. *Managerial Auditing Journal*, 34(8), pp. 986–1007. <https://doi.org/10.1108/MAJ-07-2018-1955>
- Hardeck, I., Inger, K. K., Moore, R. D. and Schneider, J., 2023. The Impact of Tax Avoidance and Environmental Performance on Tax Disclosure in CSR Reports. *Journal of the American Taxation Association*, pp. 1–30.
- Hoi, C. K., Wu, Q. and Zhang, H., 2013. Is corporate social responsibility (CSR) associated with tax avoidance? Evidence from irresponsible CSR activities. *The Accounting Review*, 88(6), pp. 2025–2059.
- Hoitash, U. and Mkrtychyan, A., 2022. Internal governance and outside directors' connections to non-director executives. *Journal of Accounting and Economics*, 73(1). <https://doi.org/10.1016/j.jacceco.2021.101436>
- Issah, O. and Rodrigues, L. L., 2021. Corporate social responsibility and corporate tax aggressiveness: A scientometric analysis of the existing literature to map the future. *Sustainability (Switzerland)*, 13(11). <https://doi.org/10.3390/su13116225>
- Jbir, S., Neifar, S. and Makni Fourati, Y., 2021. CEO compensation, CEO attributes and tax aggressiveness: evidence from French firms listed on the CAC 40. *Journal of Financial Crime*, 28(4), pp. 1141–1160. <https://doi.org/10.1108/JFC-10-2020-0202>
- Jensen, M. C., 1993. The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems. *The Journal of Finance*, 48(3), pp. 831–880. <https://doi.org/10.1111/j.1540-6261.1993.tb04022.x>
- Jensen, M. C. and Meckling, W. H., 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Kashanipour, M., Faraji, O. and Borji, P., 2019. Political Connection, Corporate Governance, and Tax Aggressiveness. *Journal of Accounting Knowledge*, 10(4), pp. 143–175. <https://doi.org/10.22103/jak.2019.13068.2851>
- Kassa, E. T., 2021. Factors influencing taxpayers to engage in tax evasion: evidence from Woldia City administration micro, small, and large enterprise taxpayers. *Journal of Innovation and Entrepreneurship*, 10(1). <https://doi.org/10.1186/s13731-020-00142-4>
- Khan, M. T., Nawaz, F., Mahmood, Z. and Zeeshan Saeed, M., 2022. The Association between Corporate Governance and Tax Aggressiveness: Empirical Evidence from Pakistan. *Journal of ISOSS*, 8(1), pp. 15–32.
- Kim, J. B., Li, Y. and Zhang., 2017. Internal Control Quality and Tax Avoidance. *Contemporary Accounting Research*, 34(2), pp. 1132–1162.
- Kothari, S. P., Leone, A. J. and Wasley, C. E., 2005. Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, 39(1), pp. 163–197. <https://doi.org/10.1016/j.jacceco.2004.11.002>
- Lanis, R. and Richardson, G., 2013. Corporate social responsibility and tax aggressiveness: A test of legitimacy theory. *Accounting, Auditing and Accountability Journal*, 26(1), pp. 75–100. <https://doi.org/10.1108/09513571311285621>
- Lanis, R. and Richardson, G., 2018. Outside directors, corporate social responsibility performance, and corporate tax aggressiveness: An empirical analysis. *Journal of Accounting, Auditing and Finance*, 33(2), pp. 228–251. <https://doi.org/10.1177/0148558X16654834>
- Lazzi, A., Vacca, A., Maizza, A. and Schiavone, F., 2022. The role of corporate board and auditors in tax planning: evidence from Italy. *Management Research Review*. <https://doi.org/10.1108/MRR-07-2021-0518>
- Mao, C. W., 2019. Effect of corporate social responsibility on corporate tax avoidance: evidence from a matching approach. *Quality and Quantity*, 53(1), pp. 49–67. <https://doi.org/10.1007/s11135-018-0722-9>
- Menchaoui, I. and Hssouna, C., 2022. Impact of internal governance mechanisms on tax aggressiveness: evidence from French firms listed on the CAC 40. *EuroMed Journal of Business*. <https://doi.org/10.1108/EMJB-03-2022-0047>
- Mertzanis, C., Basuony, M. A. K. and Mohamed, E. K. A., 2019. Social institutions, corporate governance and firm-performance in the MENA region. *Research in International Business and Finance*, 48, pp. 75–96. <https://doi.org/10.1016/j.ribaf.2018.12.005>

- Mgbame, C. O., Chijoke-Mgbame, M. A., Yekini, S. and Yekini, C. K., 2017. Corporate social responsibility performance and tax aggressiveness. *Journal of Accounting and Taxation*, 9(8), pp. 101–108.
- Minnick, K. and Noga, T., 2010. Do corporate governance characteristics influence tax management? *Journal of Corporate Finance*, 16(5), pp. 703–718. <https://doi.org/10.1016/j.jcorpfin.2010.08.005>
- Adous, S. M., Al-Abdallah, S. H. and Wedyan, L. M., 2021. The Impact of Board of Directors Characteristics on Reducing Earnings Management. *Academy of Accounting and Financial Studies Journal*, 25(3).
- Mohanadas, N. D., Abdullah Salim, A. S. and Pheng, L. K., 2020. CSR and tax aggressiveness of Malaysian listed companies: evidence from an emerging economy. *Social Responsibility Journal*, 16(5), pp. 597–612. <https://doi.org/10.1108/SRJ-01-2019-0021>
- Montenegro, T. M., 2021. Tax evasion, corporate social responsibility and national governance: a country-level study. *Sustainability (Switzerland)*, 13(20). <https://doi.org/10.3390/su132011166>
- Muniandy, B., 2022. Audit fees, board ethnicity and board independence: evidence from South Africa. *Managerial Auditing Journal*, 37(4), pp. 409–437. <https://doi.org/10.1108/MAJ-06-2020-2697>
- Ngelo, A. A., Permatasari, Y., Harymawan, I., Anridho, N. and Kamarudin, K. A., 2022. Corporate Tax Avoidance and Investment Efficiency: Evidence from the Enforcement of Tax Amnesty in Indonesia. *Economies*, 10(10). <https://doi.org/10.3390/economies10100251>
- Nguyen, L., Doan, A. and Frömmel, M., 2021. Boards of directors and corporate sustainability performance: evidence from the emerging East Asian markets. *International Journal of Disclosure and Governance*, 18, pp. 95–105.
- Niu, S., Fan, H., Chen, L. and Liu, Q., 2021. The Association between Tax Aggressiveness and Environmental Protection in Chinese Public Firms. *Accounting & Taxation*, 13(1), pp. 31–43.
- Nugroho, R. P., Sutrisno, S. T. and Mardiyati, E., 2020. The effect of financial distress and earnings management on tax aggressiveness with corporate governance as the moderating variable. *International Journal of Research in Business and Social Science (2147- 4478)*, 9(7), pp. 167–176. <https://doi.org/10.20525/ijrbs.v9i7.965>
- Nwude, E. C. and Nwude, C. A., 2021. Board Structure and Corporate Social Responsibility: Evidence From Developing Economy. *SAGE Open*, 11(1). <https://doi.org/10.1177/2158244020988543>
- Onyali, C. I. and Okafor, T. G., 2018. Effect of Corporate Governance Mechanisms on Tax Aggressiveness of Quoted Manufacturing Firms on the Nigerian Stock Exchange. *Asian Journal of Economics, Business and Accounting*, 8(1), pp. 1–20. <https://doi.org/10.9734/ajeba/2018/38594>
- Ortas, E., Álvarez, I. and Zubeltzu, E., 2017. Firms' board independence and corporate social performance: A meta-analysis. *Sustainability*, 9(6). <https://doi.org/10.3390/su9061006>
- Permandarani, N. A., 2020. Pembagian Peran dan Tanggung Jawab dalam Pengelolaan Pajak Perusahaan. *DDTC News*. <https://news.ddtc.co.id/pembagian-peran-dan-tanggung-jawab-dalam-pengelolaan-pajak-perusahaan-21065>
- Pertiwi, D., Anggraeni, W. and Kurnianto, S., 2020. The Effect of Board Size and Female Directors on Tax Avoidance. *International Journal of Innovation, Creativity and Change*. *Www.Ijicc.Net*, 13(8), pp. 1127–1141. www.ijicc.net
- Porter, C. and Sherwood, M., 2023. The effect of increases in board independence on financial reporting quality. *Accounting Research Journal*, 36(2–3), pp. 109–128. <https://doi.org/10.1108/ARJ-12-2021-0344>
- Pranata, I. P. A. A., Adhitanaya, K., Rizaldi, M. F., Winanda, G. B. E., Lestari, N. M. I. D. and Astuti, P. D., 2021. The effect of corporate social responsibility, firm size, and leverage on tax aggressiveness: An empirical evidence. *Universal Journal of Accounting and Finance*, 9(6), pp. 1478–1486. <https://doi.org/10.13189/ujaf.2021.090624>
- Pucheta-Martínez, M. C., Bel-Oms, I. and Olcina-Sempere, G., 2019. Commitment of Independent and Institutional Women Directors to Corporate Social Responsibility Reporting. *Business Ethics*, 28(3), pp. 290–304. <https://doi.org/10.1111/beer.12218>
- Puni, A. and Anlesinya, A., 2020. Corporate governance mechanisms and firm performance in a developing country. *International Journal of Law and Management*, 62(2), pp. 147–169. <https://doi.org/10.1108/IJLMA-03-2019-0076>
- Rachmawati, N. A., Utama, S., Martani, D. and Wardhani, R., 2020. Do country characteristics affect the complementary level of financial and tax aggressiveness? *Asian Academy of Management Journal of Accounting and Finance*, 16(1), pp. 45–62. <https://doi.org/10.21315/aamjaf2020.16.1.3>

- Raithatha, M. and Shaw, T. S., 2022. Firm's tax aggressiveness under mandatory CSR regime: Evidence after mandatory CSR regulation of India. *International Review of Finance*, 22(1), pp. 286–294. <https://doi.org/10.1111/irfi.12348>
- Rajeevan, S. and Ajward, R., 2019. Board characteristics and earnings management in Sri Lanka. *Journal of Asian Business and Economic Studies*, 27(1), pp. 2–18. <https://doi.org/10.1108/jabes-03-2019-0027>
- Rohyati, Y. and Suropto, S., 2021. Corporate Social Responsibility, Good Corporate Governance, and Management Compensation against Tax Avoidance. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 4(2), pp. 2612–2625. <https://doi.org/10.33258/birci.v4i2.1968>
- Rouf, M. A. and Hossan, M. A., 2021. The effects of board size and board composition on CSR disclosure: a study of banking sectors in Bangladesh. *International Journal of Ethics and Systems*, 37(1), pp. 105–121. <https://doi.org/10.1108/IJOES-06-2020-0079>
- Salehi, M., Moradi, M. and Paiydarmanesh, N., 2017. The effect of corporate governance and audit quality on disclosure quality: Evidence from Tehran stock exchange. *Periodica Polytechnica Social and Management Sciences*, 25(1), pp. 32–48. <https://doi.org/10.3311/PPso.8354>
- Sánchez-Ballesta, J. P. and Yagüe, J., 2021. Financial reporting incentives, earnings management, and tax avoidance in SMEs. *Journal of Business Finance and Accounting*, 48(7–8), pp. 1404–1433. <https://doi.org/10.1111/jbfa.12519>
- Saona, P., Muro, L. and Alvarado, M., 2020. How Do the Ownership Structure and Board of Directors' Features Impact Earnings Management? The Spanish case. *Journal of International Financial Management and Accounting*, 31(1), pp. 98–133. <https://doi.org/10.1111/jifm.12114>
- Shahbaz, M., Karaman, A. S., Kilic, M. and Uyar, A., 2020. Board Attributes, CSR Engagement, and Corporate Performance: What is the Nexus in the Energy Sector? *Energy Policy*, 143. <https://doi.org/10.1016/j.enpol.2020.111582>
- UN Global Compact., 2015. www.unglobalcompact.org.
- Uyar, A., Kuzey, C., Kilic, M. and Karaman, A. S., 2021. Board structure, financial performance, corporate social responsibility performance, CSR committee, and CEO duality: Disentangling the connection in healthcare. *Corporate Social Responsibility and Environmental Management*, 28(6), pp. 1730–1748. <https://doi.org/10.1002/csr.2141>
- Vafeas, N., 2005. Audit Committees, Boards, and the Quality of Reported Earnings. *Contemporary Accounting Research*, 22(4), pp. 1093–1122. <https://doi.org/10.1506/1qyn-2rfq-fkyx-xp84>
- Vitolla, F., Raimo, N. and Rubino, M., 2020. Board characteristics and integrated reporting quality: an agency theory perspective. *Corporate Social Responsibility and Environmental Management*, 27(2), pp. 1152–1163. <https://doi.org/10.1002/csr.1879>
- Wan Mohammad, W. M. and Wasiuzzaman, S., 2020. Effect of audit committee independence, board ethnicity and family ownership on earnings management in Malaysia. *Journal of Accounting in Emerging Economies*, 10(1), pp. 74–99. <https://doi.org/10.1108/JAEE-01-2019-0001>
- Zeng, T., 2016. Corporate Social Responsibility, Tax Aggressiveness, and Firm Market Value. *Accounting Perspectives*, 15(1), pp. 7–30. <https://doi.org/10.1111/1911-3838.12090>