
Integrating Reporting Bridge, the Gap Between CSR Performance and Tax Avoidance Relationship? Insights from South Africa

Submitted 05/01/24, 1st revision 22/01/24, 2nd revision 12/02/24, accepted 01/03/24

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Abstract:

Purpose: This research investigates the potential role of integrated reporting (IR) in bridging the relationship between Corporate Social Responsibility (CSR) performance and tax avoidance within the context of South African companies. This research contributes to the existing literature by exploring the role of integrated reporting in influencing the relationship between CSR performance and tax avoidance, particularly within the specific context of South Africa.

Design/Methodology/Approach: Using a quantitative research approach as delineated by Preacher and Hayes (2008), this study analyses data collected from 107 companies operating in South Africa over the period spanning from 2010 to 2022.

Findings: The analysis presents valuable insights into the relationship between CSR performance, tax avoidance, and the mediating effect of integrated reporting. Results shed light on the significant and potential connections among these variables, offering a nuanced understanding of their interplay.

Practical Implications: This research contributes to the existing literature by exploring the role of integrated reporting in influencing the relationship between CSR performance and tax avoidance, particularly within the specific context of South Africa.

Originality/Value: The study's findings provide valuable insights for academics, practitioners, and policymakers interested in understanding the interrelation among CSR initiatives, tax strategies, and integrated reporting practices.

Keywords: Corporate social responsibility (CSR), integrated reporting (IR), tax avoidance, South Africa, Preacher and Hayes model.

JEL Classification: M40, M48.

Paper Type: Research article.

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1. Introduction

In the realm of corporate behavior and financial strategies, the intricate relationship between Corporate Social Responsibility (CSR) performance and tax avoidance has been a subject of growing interest and investigations (Lanis and Richardson, 2015; Liu and Lee 2019; Du and Li, 2023; Sim *et al.*, 2023).

Contemporary discussions in academic and business circles have extensively focused on corporate tax avoidance. Researchers have devoted significant attention to unraveling its complexities and implications, as seen in the growing body of literature (Dyrenge *et al.*, 2016; Wilde and Wilson, 2018; Beer *et al.*, 2020; Ahmed *et al.*, 2021). The multifaceted nature of corporate tax avoidance has spurred extensive exploration, driven by a recognition of its far-reaching implications for financial practices, regulatory frameworks, and broader socio-economic contexts.

Thus, studies on this subject delve into its mechanisms, causes, effects, and the interaction between corporate strategies and regulations. This body of work acknowledges tax avoidance as a diverse phenomenon, crucial not only for academic discourse but also for policymakers, professionals, and society. Consequently, it stimulates further investigation into the intricate factors that influence and are influenced by corporate tax behavior.

On the other hand, Corporate Social Responsibility (CSR) serves as the ethical facet of business, often displaying positive impacts on a company's financial performance (Busch and Friede, 2018; Lajnef and Ellouz, 2022; Thalassinou *et al.*, 2017; 2022). However, when considering its connection to tax avoidance, the findings and investigations reveal a less conclusive relationship.

The ethical foundation of CSR significantly influences how a company is perceived and operates within society. It can bolster a company's reputation, customer loyalty, and stakeholder trust, factors that often have a direct correlation to enhanced financial performance. Nevertheless, the interplay between CSR and tax avoidance is a more intricate matter.

When examining the relationship between CSR initiatives and tax strategies, the results are still inconclusive. While CSR often aligns with ethical conduct and societal expectations, mitigating negative impacts and enhancing a company's image, the association with tax avoidance is less defined (Dyrenge *et al.*, 2008; Hanlon and Heitzman, 2010). Some companies may prioritize ethical practices, incorporating responsible tax strategies within their CSR framework (Hoi *et al.*, 2013; Preuss, 2010).

However, for others, the link between CSR and tax avoidance may not be simple, and there might exist a divergence between CSR commitments and tax planning strategies.

In its turn, Integrated Reporting (IR) assumes a pivotal role in disseminating accurate and comprehensive information aligned with Corporate Social Responsibility (CSR), potentially influencing the practices related to tax avoidance. When companies incorporate robust reporting mechanisms that transparently highlight their CSR initiatives and tax practices, it creates a framework for accountability and transparency.

Such reporting mechanisms often include sustainability reports, annual corporate social responsibility disclosures, and detailed tax reports. In line with stakeholders' theory, these reports provide stakeholders, including investors, regulators, and the public, with insights into a company's commitment to CSR and its approach to tax planning. By fostering a culture of transparency through integrated reporting, companies can align their CSR commitments with their tax strategies.

Transparent reporting allows stakeholders to assess whether a company's tax practices align with its professed CSR values. This can put pressure on companies to ensure that their tax strategies are not in conflict with their ethical and social responsibility commitments.

Moreover, integrated reporting can facilitate a more informed evaluation of a company's overall performance, beyond just financial metrics. Stakeholders can better understand how a company manages its tax obligations while upholding its CSR objectives. This can influence investment decisions, shareholder perceptions, and even regulatory scrutiny.

However, it is important to note that while integrated reporting can enhance transparency and alignment between CSR and tax practices, the relationship between the two remains complex. Companies might still face challenges in navigating the balance between ethical tax planning and societal expectations, especially in a landscape where tax laws and regulations might not fully align with CSR principles.

Therefore, this investigation aims to contribute to this expanding body of knowledge by shedding light on the effect of CSR on tax within the context of South African companies, while investigating the mediating role of Integrated Reporting (IR) in this relationship. In the context of corporate governance, the synergy between CSR initiatives, financial practices, and reporting frameworks has emerged as a focal point for scholarly investigation and practical application.

Within the vibrant economic milieu of South Africa, this intersection assumes a unique significance, marked by a confluence of socio-economic dynamics, regulatory imperatives, and corporate behavior. South Africa stands as a compelling backdrop for this exploration. Its business context reflects a diverse spectrum of industries operating within a framework that has undergone transformative shifts, notably in the realms of corporate accountability and social consciousness.

The nation's history, marked by both adversity and resilience, has engendered a corporate environment where ethical responsibility, community engagement, and financial prudence coalesce into a dynamic tapestry of corporate behavior. Against this backdrop, understanding the interplay between CSR activities, tax strategies, and reporting mechanisms becomes not only pertinent but also imperative.

The empirical findings of this study have unveiled a compelling relationship between CSR performance and tax avoidance within South African corporate entities. Surprisingly, the results indicate a negative relationship between CSR initiatives and tax avoidance practices.

However, integrated reporting's dual role in aligning financial and non-financial data while facilitating stakeholder engagement contributes significantly to improving the comprehension of a company's comprehensive strategies, thereby alleviating the perceived tensions between CSR performance and tax avoidance. The complexity of this relationship finds resonance in established theories, shedding light on how the association between CSR and tax avoidance evolves concerning the presence of Integrated Reporting practices.

Through a quantitative research approach drawing from the theoretical framework established by existing literature and notably Preacher and Hayes (2008), this study analyzes data sourced from 107 South African companies spanning the years 2010 to 2022. The aim is not solely to delineate the relationship between CSR performance and tax avoidance but to unravel the pivotal role played by Integrated Reporting as a mediator in shaping this intricate interplay.

This study aims to make a significant contribution to the existing knowledge base by uncovering the complex relationships among CSR initiatives, tax strategies, and the role of Integrated Reporting specifically within the context of South Africa. This work is appropriated not only for academic enrichment but also for practical application by professionals and policymakers. This comprehensive exploration seeks to clarify how integrated reporting practices affects the complex relationship between CSR performance and tax avoidance strategies within corporate entities.

While numerous studies have explored the effects of CSR on tax avoidance, the investigation of how integrated reporting influences this relationship remains relatively unexplored. This gap in research presents an opportunity for pioneering investigation into how integrated reporting practices mediate the link between CSR performance and tax avoidance.

Integrated reporting, through the amalgamation of CSR-related information into financial reports, could serve as a mechanism to not only clarify a company's dedication to ethical practices but also provide stakeholders with valuable insights into the interconnectedness of CSR initiatives and tax strategies.

By focusing on the unique South African context, it seeks to expand the broader comprehension of how Integrated Reporting influences the intricate interplay between CSR initiatives and tax avoidance strategies in the corporate sphere. The findings from this study are poised to benefit not just academic circles but also practitioners looking to align ethical commitments, financial strategies, and reporting practices in line with the evolving landscape of corporate governance and societal expectations.

Ultimately, this research endeavors to serve as a guiding resource for academia, professionals, and policymakers, offering nuanced insights into the complex effect of corporate behavior and reporting practices within the South African context.

The rest of the paper is structured as follows: Section 1 presents the literature review and testable hypotheses. Section 2 delineates the research methodology. Section 3 details the statistical analyses conducted. Section 4 presents the findings, and finally, Section 5 concludes the paper.

2. Literature Review and Hypothesis Development

2.1 The Effect of CSR Performance on Tax Avoidance

Tax avoidance involves a variety of strategies employed by corporations to minimize their tax liabilities. Many studies elaborate on this issue, delineating legal tax planning from more aggressive practices (Hanlon and Heitzman, 2010; Dyreng *et al.*, 2008). On the other hand, CSR embodies a company's voluntary commitment to societal and environmental goals, extending beyond its economic obligations.

Definitions by Carroll (1979; 2016), and Adams (2002) underscore CSR's evolution from simple profit maximization to holistic engagement with stakeholders. This shift in corporate ethos emphasizes the importance of CSR in contemporary business practices.

Theoretical frameworks illuminate the relationship between CSR and tax avoidance. Stakeholder theory (Freeman, 1984) underscores how CSR's stakeholder-centric approach might contradict aggressive tax strategies (Balios *et al.*, 2021). Legitimacy theory (Deegan, 2002) posits CSR as a tool for maintaining legitimacy, potentially discouraging tax avoidance to preserve a firm's social standing. In its turn, agency theory (Jensen and Meckling, 1976) explores managerial discretion in CSR activities and its influence on tax strategies, balancing conflicting stakeholder interests.

A bulk of empirical evidence has investigated the relationship between CSR and tax avoidance (Preuss, 2010; Hoi *et al.*, 2013; Landry *et al.*, 2013; Laguir *et al.*, 2015; Liu and Lee 2019; Du and Li, 2023; Sim *et al.*, 2023). While some studies suggest a negative correlation between CSR and tax avoidance (Laguir *et al.*, 2015), others propose a positive relationship, indicating that more socially responsible firms might

engage in tax avoidance (Hoi *et al.*, 2013). Building upon the varied empirical evidence and theoretical foundations presented in the literature, we propose that CSR initiatives exert a positive influence on tax avoidance strategies.

This hypothesis contends that companies actively engaged in CSR practices are more inclined to explore and employ tax avoidance strategies, aligning with the perspectives of Hoi *et al.* (2013) and Du and Li (2023). The stakeholder-centric approach of CSR, as illuminated by Stakeholder theory, might lead corporations to strategically use tax-planning methods to accommodate the diverse interests of stakeholders (Baldacchino *et al.*, 2020).

Moreover, the Legitimacy theory suggests that CSR's role in preserving a firm's social standing could indirectly encourage tax avoidance practices as corporations aim to maintain their legitimacy through resource optimization. Additionally, Agency theory posits that managerial discretion in CSR activities may influence tax strategies, potentially leading to a symbiotic relationship between CSR and tax avoidance.

This work seeks to explore evidence that corporations actively approval CSR principles might be inclined to adopt tax avoidance, navigating the complexities of stakeholder expectations, legitimacy concerns, and managerial discretion. Therefore, our hypothesis is as follows:

H1: Ceteris paribus, CSR performance has a positive effect on tax avoidance.

2.1 The Mediator Effect of Integrating Reporting in CSR Performance – Tax Avoidance Relationship

Integrated reporting (IR) represents a comprehensive approach that consolidates financial and non-financial information, including CSR initiatives, within a unified reporting structure (Adams *et al.*, 2016; Eccles and Krzus, 2010). This practice aims to enhance transparency and coherence in corporate reporting, aligning financial performance with social and environmental responsibilities.

Previous studies have recognized the impact of integrated reporting on tax avoidance (Venter *et al.*, 2017; Geno *et al.*, 2022). These works have indicated that transparent and comprehensive reporting practices may influence a company's tax strategies by providing stakeholders with a clearer understanding of a firm's operations and ethical commitments.

However, the specific mediator effect of integrated reporting in the relationship between CSR performance and tax avoidance remains relatively unexplored. While a bulk of studies have delved into the effects of CSR on tax avoidance (Laguir *et al.*, 2015; Hoi *et al.*, 2013; Du and Li, 2023), the indirect examination of how integrated reporting mediates this relationship is limited.

This gap in the literature presents an opportunity for pioneering research to investigate how integrated reporting practices mediate the relationship between CSR performance and tax avoidance. By incorporating CSR-related information into financial reports, integrated reporting may serve as a mechanism to explain the company's commitment to ethical practices while offering stakeholders insights into the interrelation between CSR initiatives and tax strategies.

Theoretical evidence from legitimacy theory and stakeholder theory suggests that integrated reporting, by transparently highlighting CSR commitments, may support a firm's legitimacy and address stakeholder concerns. This, in turn, might influence tax strategies by aligning them with perceived ethical standards and societal expectations.

Hence, this research aims to be among the pioneering studies that explore the mediator effect of integrated reporting in the CSR performance and tax avoidance relationship. By empirically examining the influence of integrated reporting on how CSR initiatives are perceived about tax strategies, this study seeks to shed light on the intricate dynamics shaped by transparent reporting practices within corporations. Therefore, our hypothesis is as follows:

H2: Ceteris paribus, integrating reporting mediates the relationship between CSR performance and Tax avoidance.

3. Research Design and Methodology

3.1 Sample

The present research marks the first attempt to focus on the relationship between CSR and tax avoidance through the IR, specifically in the South African setting. Notably, including South African companies in this study was intentional for specific reasons.

Firstly, South Africa has become the first country with the largest stock exchange to apply integrated reporting using the “apply and explain” approach by implementing the Code of Corporate Governance King (King IV). Secondly, IR is important in this context due to legal obligations (Sierra-García *et al.*, 2015).

Companies listed on the Johannesburg Stock Exchange (JSE) must comply with the mandatory IR framework in practice (“comply or explain”) (Dumay *et al.*, 2016). In addition, South Africa's history as a pioneer in sustainability reporting and corporate governance, especially through King Reports (King I to IV), makes South Africa a natural choice for this study. Finally, the consequences of tax avoidance could be more severe for emerging economies (OECD, 2013b) in South Africa.

The study focuses on 128 companies listed on the JSE. However, after excluding certain criteria such as companies in the financial sector, entities without IR reports from 2010 to 2022, entities with no data or incomplete data and exceptions, the final sample includes 107 firms over 13 years (as shown in Table 1), for a total of 1,391 firm-year observations.

Data for variables is collected from DataStream and Assets4. The analysis used structural equation modeling (SEM) using Stata version 15 software, specifically chosen to test the study hypotheses, exploring both direct and indirect effects.

Table 1. *Selection of the total sample*

Panel A: Selection of the total sample		
<i>Sample</i>	Firms	Observations
Initial sample	128	1664
Banks and financial institutions	(16)	(208)
Eliminated firms	(5)	(65)
<i>Final sample</i>	107	1391

Source: Own study.

3.2 Variables Definitions

To evaluate our hypotheses, we construct models based on key variables.

Dependent variable: Tax avoidance

The ETR is a widely used measure in recent literature to assess tax avoidance, as demonstrated by various studies (Salhi *et al.*, 2019; Dakhli, 2021; Mouakhar *et al.*, 2020; Pertiwi and Prihandini, 2021). It is considered an appropriate measure to evaluate firms' tax avoidance behavior, as it captures both permanent and temporary tax avoidance strategies (Dyrenge *et al.*, 2017; Jarboui *et al.*, 2020). The ETR measures a company's ability to reduce its tax payments in relation to its pre-tax income and is defined as the ratio of total tax expense scaled by the pre-tax income (Lanis and Richardson, 2012).

$$\text{ETR}_{it} = \text{TaxExpense}_{it} / \text{PretaxIncome}_{it}$$

Independent variable: CSR performance

The CSR performance variable reflects the Environmental, Social, and Governance (ESG) performance of a company or investment (Achour and Boukattaya, 2021; Dakhli, 2021; Alareeni and Hamdan, 2020; Bacha *et al.*, 2020). It aggregates various environmental, social, and governance elements to evaluate how a company manages its activities and interactions with the environment, society, and governance structure.

This total CSR score is derived by equally weighing relevant data points, z-scoring them, and comparing them against other companies' data points, resulting in a

relative performance measure ranging from 0 to 100. This proxy is extracted from DataStream of Thomson Reuters-ASSET4 (Thomson Reuters, 2022).

Mediating variable: Integrated reporting (IR)

Integrated reporting serves as the independent variable in this study. The proxy utilized here is the integration/vision and strategy category (CGVS) sourced from the ASSET4 Database. CGVS measures a company's commitment and effectiveness in creating an overarching vision and strategy that integrates financial and extra-financial aspects.

It assesses a company's ability to convincingly demonstrate and communicate the integration of economic, social, and environmental dimensions into its day-to-day decision-making processes. This measure is a composite index, scoring from 0 to 100 (Thomson Reuters, 2022), encompassing four drivers and eight outcomes related to the vision and strategy of firms' boards (Dhifi and Zouari, 2022).

Control variables

The control variables, detailed in Table 2 with their definitions and sources, were also sourced from DataStream. These variables, distinct from the independent and dependent variables, serve as controlling factors in the analysis, providing a broader context and ensuring a more accurate assessment of the relationships studied in the research.

3.3 Empirical Model

In our research, we explore the direct and indirect relationship between IR and CSR performance. We specifically focus on examining the indirect effect using IR as a mediating variable (Figure1). By employing these models, we aim to confirm and validate the hypotheses formulated for our study.

$$TA_{it} = \alpha_0 + \alpha_1 CSR_{it} + \alpha_2 B-MEMBER_{it} + \alpha_3 CEO-COMP_{it} + \alpha_4 CEO-DUA_{it} + \alpha_5 Fsize_{it} + \alpha_6 LEV_{it} + \sum_{\gamma=20}^{29} \alpha_7 Year + \sum_{\alpha=20}^{29} \alpha_{29} Industry + \epsilon_i$$

(Regression 1)

$$TA_{it} = \alpha_0 + \alpha_1 CSR_{it} + \alpha_2 IRI + \alpha_3 B-MEMBER_{it} + \alpha_4 CEO-COMP_{it} + \alpha_5 CEO-DUA_{it} + \alpha_6 Fsize_{it} + \alpha_7 LEV_{it} + \sum_{\gamma=20}^{29} \alpha_7 Year + \sum_{\alpha=20}^{29} \alpha_{29} Industry + \epsilon_i$$

(Regression 2)

Where: IRI_{it}: Integrated reporting for firm i at year t; TA_{it} : tax avoidance for firm i at year t; ;CSR_{it}: corporate social responsibility for firm i at year t; FSIZE_{it} : firm size for firm i at year t; LEV_{it} : ratios for Financial leverage ratios for firm i at year t; B-MEMBER_{it}; CEO-DUA_{it} CEO duality for firm i at year t; CEO-COMP_{it}: CEO compensation for firm i at year t; ϵ_i : standard error.

Table 2. *Definitions and sources of variables*

Variables	Variables Measurement	Authors	Sources
Control Variables			
CEO-DUA	A binary variable indicating whether the CEO serves as chairman (1 for yes, 0 for no)	Lassoued et al. (2023)	Datastream
CEO-COMP	A binary variable representing if CEO compensation is linked to total shareholder return (1 for yes, 0 for no).	Chukwuma et al. (2021) Srichoke et al. (2021)	Datastream
B-MEMBER	A binary variable denoting CEO board membership (1 for yes, 0 for no).	Chouaibil et al. (2022)	Datastream
Fsize	Firm size is measured by taking the natural log of total assets	Jarboui et al. (2020) Mouakhar et al. (2020)	Datastream
Leverage	Firm leverage is assessed as total debt divided by total assets.	Harun et al. (2020) Zouari and Dhifi (2022)	Datastream
Invariant variables			
Year fixed effect	Year	Year1 takes the value 1 if the studied year is 2010 and 0 otherwise, Year2 takes the value 1 if the studied year is 2011 and 0 otherwise...Year13 takes the value 1 if the studied year is 2022, and 0 otherwise.	
Industries fixed effect	Industry	Industry1 take the value of 1if industries is Oil & Gas and oil, and 0 otherwise. Industry2 take the value of 1if industries is Basic Materials and 0 otherwise. Industry3, take the value of 1if industries is Industrials and 0 otherwise. Industry4, take the value of 1if industries is Consumer Goods and 0 otherwise. Industry5, take the value of 1if industries Health Care and 0 otherwise. Industry6, take the value of 1if industries Consumer Services, and 0 otherwise. Industry7, take the value of 1if industries Telecommunication and 0 otherwise. Industry8 take the value of 1if industries Utilities and 0 otherwise and Industry9, take the value of 1if industries Technology and 0 otherwise.	

Source: *Own study.*

4. Statistical Analysis and Results

4.1 Descriptive Analysis

Table 3 provides a summary descriptive statistic for the regression variables considered in the study models based on 8,992 firm-year observations. The CSR performance scores range from 0 to 100, with a mean of 40.11. Interestingly, integrated reporting (IR) demonstrates an average value of 44.55, suggesting that roughly 45% of South African companies disclose both financial and non-financial information through IR. Notably, corporate-integrated reporting is often associated with sustainable development and enhanced long-term performance (Ali *et al.*, 2015).

According to the dependent variable, the average ETR variable is 0.143 and the standard deviation is 0.085. The lowest effective tax rate is -0.03% while the highest effective tax rate is 42.00% . Among the control variables, approximately 80% represents the average percentage of board members within the board.

Meanwhile, CEO compensation within the board accounts for around 38% on average. The variable indicating the CEO's duality has a mean of 8.33%. Firm size, measured by the natural logarithm of total assets, displays a mean value of 15.40%. Lastly, the mean company leverage stands at 64.16%. These statistics provide an overview of the central tendencies and variability within the variables under study, offering insights into the characteristics of the dataset used in the model.

Table 3. Descriptive statistics

Variables	Observations	Minimum	Maximum	Mean	Stand dev.
IR	1391	0	99.49	44.55651	32.85045
CSR	1391	0	89.27	40.11879	24.60435
TA	1391	-0.03	42.00	20.90	12.31
B-MEMBER	1391	0	1	0.8076923	0.3942566
CEO-COMP	1391	0	1	0.3810208	0.4858123
CEO-DUA	1391	0	1	0.0833932	0.2765751
Fsize	1391	11.34179	20.72327	15.40851	1.688411
LEV	1391	0.261	0.965	0.641621	0.1522541

Source: Own study.

5. Multivariate Analysis

5.1 Correlation Matrix

Table 4 highlights the Pearson correlation coefficients among the independent variables. The absence of correlation coefficients surpassing the threshold value of 0.70 suggests no evidence or indication of significant multicollinearity among the explanatory variables (Landau *et al.*, 2020). This observation holds true based on the

correlation matrix, which indicates the absence of multicollinearity issues among the variables under scrutiny.

Table 4. *Pairwise correlations*

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) IR	1.000						
(2) CSR	0.2954	1.000					
(3) CEO-DUA	0.5484	0.1544	1.000				
(4) CEO-MEMBER	0.3593	0.0994	0.3905	1.000			
(5) CEO-COMP	0.1052	0.0043	0.1360	-0.0858	1.000		
(6) Fsize	0.4797	0.0415	0.2780	0.1625	0.1923	1.000	
(7) Levredge	0.0226	-0.0434	-0.0207	-0.0229	-0.0131	-0.0489	1.000

Source: Own study.

5.2 Test Panel Data

The Hausman (1978) test was utilized in this study to determine the most appropriate estimation model, either fixed or random effects, to explain our empirical findings. The results of the Hausman specification test indicate that the fixed effects model is superior to the random-effects model. The Fisher test, as shown in Table 5, is significant at the 1% threshold for both models, confirming the individual fixed effects.

To assess heteroscedasticity in our empirical models, we conducted the Breusch-Pagan test. The Breusch-Pagan results indicate a probability lower than 1% for the two models, indicating that the models are heteroscedastic. Additionally, the Wooldridge test is commonly used to detect autocorrelation in the residuals of a regression model.

The results suggest the presence of autocorrelation in the residuals. Given this error structure, we will estimate our regressions using the generalized least squares method, which is more appropriate for panel data and has more advantages (Wooldridge, 2003). With the most important statistical tests completed, we will now interpret the results obtained from the estimation of our empirical models.

Table 5. *Test of panel data*

Husman-test		
F-value	P-value	Effect test
42.27	0.000	Presence of specific individual effect
Heteroscedasticity test		
x 2(k)	Prob > chi2	Heteroscedasticity
126.17	0.000	Presence
Autocorrelation test		
F-value	P-value	Effect test
146.303	0.000	Presence of autocorrelation

Source: Own study.

6. Regression Results and Discussion

According to direct effect, the panel regression results in Table 6 indicate that CSR performance has a positive and significant effect at a 1% level of significance (coefficient = 0.294, p-value = 0.000). This result validates Hypothesis 1. Deeper, empirical studies suggest that CSR performance has a positive impact on firms' tax avoidance levels. This study discovered that firms with better CSR performance tend to engage in higher levels of tax avoidance. This could be because firms view CSR as a risk management strategy, which can help them avoid penalties and losses resulting from tax noncompliance.

The findings of this study are in line with previous research conducted by Hoi *et al.* (2013), Davis *et al.* (2016), Lv *et al.* (2015), and Tang and Li (2019), which also found that CSR performance leads to increased tax avoidance by firms. Addition, Huseynov and Klamm (2012) found that more socially responsible firms are more likely to be tax aggressive.

The relationship between CSR performance and tax avoidance can be examined through various theoretical frameworks. The concept of stakeholder theory proposes that companies should consider the interests and expectations of different stakeholders.

However, in an alternative scenario, a company may choose to prioritize CSR to maintain positive relationships with certain stakeholders, such as customers or employees, while engaging in tax avoidance practices to maximize shareholder wealth. This approach requires a strategic balancing act, where CSR is utilized to manage stakeholder perceptions while tax avoidance is pursued for financial gains.

On the other hand, agency theory focuses on the relationship between shareholders and managers. In this context, managers may prioritize CSR to improve the company's image and their personal reputations. At the same time, they may engage in tax avoidance to boost short-term financial performance, which could lead to a misalignment between shareholder interests and managerial actions. This theory suggests that managers may use CSR to conceal potentially controversial tax practices.

Concerning the indirect effect, this study also shows a positive and significant relationship (coefficient = 0.288, p-value = 0.000) from which we obtained a complementary mediation. The integrated reporting mediates the negative relation between CSR performance and tax avoidance, this result validates Hypothesis 2.

This mediation indicates that integrated reporting harmonizes financial and non-financial data within a unified and coherent structure. By incorporating CSR-related information into financial statements, organizations demonstrate their dedication to openness and acknowledge the interdependence between financial and non-financial

elements of their activities. This alignment has the potential to alleviate the perceived adverse effects of tax avoidance by situating it within the wider framework of the company's overall achievements (Donkor *et al.*, 2022).

Deeper, integrated reporting plays a crucial role in fostering stakeholder engagement, serving as a medium for companies to effectively communicate with their stakeholders. This engagement enables companies to actively tackle concerns pertaining to tax practices and highlight the harmonious relationship between CSR initiatives and tax planning. The interactive nature of stakeholder engagement, facilitated by integrated reporting, can significantly enhance the comprehension of a company's financial and non-financial strategies.

Table 6. *Mediating effect of IR between CSR and Tax avoidance*

Variables	Direct Effet C	Indirect Effet C'
CSRP	0.3091*** (0.000)	-0.0407*** (0.000)
B-MEMBER	-9.2163*** (0.000)	1.2015*** (0.001)
CEO-COMP	3.7368*** (0.000)	0.2683* (0.309)
CEO-DUA	2.8104*** (0.000)	0.8979*** (0.002)
FSIZE	-0.5449*** (0.000)	-0.1255* (0.072)
LEV	-0.00005*** (0.000)	-0.00004 (0.104)
IR	*****	0.0875*** (0.000)
Industry fixed effect	Y	Y
Year fixed effect	Y	Y

Source: Own study.

6.1 Robustness Tests

To verify the robustness of our main results, we chose to employ a structural equation model (SEM), the procedure outlined by Preach and Hayes (2008) is followed, instead of a regression panel analysis to investigate the potential mediation role of integrated reporting in the correlation between CSR performance and tax avoidance. This analytical approach enables a more intricate exploration of the complex interplay among variables and provides a comprehensive evaluation of the mediating pathways.

The results, as presented in Table 7, confirm the consistency and dependability of our primary findings. The structural equation model reinforces the patterns observed in our previous analyses, further supporting the argument that integrated reporting serves as a mediator in the relationship between CSR performance and tax avoidance. The use of SEM strengthens the credibility of our conclusions by providing a more advanced statistical method to scrutinize the intricate connections between these crucial variables.

Furthermore, the application of SEM offers additional insights into the specific mechanisms through which integrated reporting may mediate the CSR-tax avoidance

relationship. By capturing latent variables and their interdependencies, SEM allows for a more nuanced comprehension of the underlying dynamics. These insights are essential for both academics and practitioners seeking a comprehensive understanding of how CSR initiatives, integrated reporting, and tax avoidance interact within the corporate context.

Table 7. Mediating effect of IR between CSR and Tax avoidance (Robustness test)

Variables	Direct Effect C	Indirect Effect C'
CSRP	0.0324*** (0.000)	-0.03006*** (0.001)
B-MEMBER	-0.3000 (0.541)	0.4522 (0.322)
CEO-COMP	0.3177 (0.348)	0.3699 (0.238)
CEO-DUA	2.3062*** (0.000)	1.3328*** (0.005)
FSIZE	.0821ns (0.344)	-.0730ns (0.367)
LEV	-0.00003** (0.158)	-0.00003 (0.188)
IR	****	0.07129*** (0.000)
Industry fixed effect	Y	Y
Year fixed effect	Y	Y

Source: Own study.

7. Conclusion

The study delves into the intricate relationship between CSR performance, IR, and corporate tax avoidance, utilizing a panel of 107 Japan-listed firms spanning the period from 2010 to 2022. Notably, the positive impact of CSR performance on tax avoidance is highlighted, attributing this to the positive perception created among stakeholders, including the government and the public. Firms investing in CSR initiatives may receive tax benefits or considerations, potentially reducing tax scrutiny or gaining access to specific tax incentives, as indicated by Davis *et al.* (2016).

However, the study takes a nuanced turn when investigating the mediation effect of integrated reporting on the CSR-tax avoidance relationship, revealing a negative impact. This suggests that, as companies adopt integrated reporting practices, there is a diminishing inclination to engage in tax avoidance. The increased scrutiny and transparency provided by integrated reporting create an environment where aggressive tax strategies become more challenging to conceal. This negative effect underscores that companies prioritizing CSR also tend to exhibit more responsible tax behaviors, aligning with the growing demand for ethical corporate conduct.

These findings hold implications for various stakeholders. For academic researchers, the study offers insights into the dynamic interplay between CSR performance, integrated reporting, and tax avoidance. Investors can glean valuable information, understanding that the presence of integrated reporting is associated with reduced corporate tax avoidance.

The results also carry significance for regulators, advocating for the recognition of integrated reporting in policymaking to foster engagement in CSR performance and curtail tax avoidance.

The study opens avenues for future research. International extensions could explore comparative samples from different regulatory systems, providing a broader understanding of the dynamics between CSR, integrated reporting, and tax avoidance. Overall, this research not only enriches our understanding of these intricate relationships but also underscores the potential role of integrated reporting as a mechanism to discourage tax avoidance in socially responsible organizations.

References:

- Achour, Z., Boukattaya, S. 2021. The moderating effect of firm visibility on the corporate social responsibility-firm financial performance relationship: evidence from France. *Corporate Social Responsibility*, 24, 437-454.
- Adams, C.A. 2002. Internal organizational factors influencing corporate social and ethical reporting: Beyond current theorizing. *Accounting, Auditing & Accountability Journal*, 15(2), 223-250.
- Adams, M.T., Inger, K.K., Meckfessel, M.D., Maher, J.J. 2022. Tax-Related Restatements and Tax Avoidance Behavior. *Journal of Accounting, Auditing & Finance*, 0148558X221115482.
- Ahmed, S., Majeed, M.E., Thalassinou, E.I., Thalassinou, Y.E. 2021. The impact of bank specific and macro-economic factors on non-performing loans in the banking sector: evidence from an emerging economy. *Journal of Risk and Financial Management*, 14(5), 217. <https://doi.org/10.3390/JRFM14050217>.
- Alareeni, B.A., Hamdan, A. 2020. ESG impact on performance of US S&P 500-listed firms. *Corporate Governance: The International Journal of Business in Society*, 20(7), 1409-1428.
- Ali, I., Jiménez-Zarco, A.I., Bicho, M. 2015. Using social media for CSR communication and engaging stakeholders. In: *Corporate social responsibility in the digital age* (Vol. 7, pp. 165-185). Emerald Group Publishing Limited.
- Bache, I., Bulmer, S., George, S., Parker, O., Burns, C. 2020. *Politics in the European union*. Oxford University Press, USA.
- Baldacchino, P.J., Camilleri, A., Schembri, B., Grima, S., Thalassinou, Y.E. 2020. Performance evaluation of the board of directors in listed companies: a small state perspective. *International Journal of Finance, Insurance and Risk Management*, 10(1), 99-119. <https://doi.org/10.35808/ijfirm/208>.
- Balios, D., Basiakos, I., Eriotis, N., Kotsilaras, P., Thalassinou, E.I. 2021. Factors Affecting the Quality of Financial Reporting after the Adoption of the New Greek Accounting Standards. *International Journal of Finance, Insurance and Risk Management*, 11(3), 3-26. <https://doi.org/10.35808/ijfirm/260>.
- Beer, S., De Mooij, R., Liu, L. 2020. International corporate tax avoidance: A review of the channels, magnitudes, and blind spots. *Journal of economic surveys*, 34(3), 660-688.
- Belnap, A., Hoopes, J.L., Wilde, J.H. 2023. Who really matters in corporate tax? *Journal of Accounting and Economics*, 101609.

- Busch, T., Friede, G. 2018. The robustness of the corporate social and financial performance relation: A second-order meta-analysis. *Corporate Social Responsibility and Environmental Management*, 25(4), 583-608
- Carroll, A.B. 1979. A three-dimensional conceptual model of corporate performance. *Academy of management review*, 4(4), 497-505.
- Carroll, A.B. 2016. Carroll's pyramid of CSR: taking another look. *International journal of corporate social responsibility*, 1(1), 1-8.
- Chouaibil, J., Miladi, E., Elouni, N. 2022. Exploring the relationship between board characteristics and environmental disclosure: Empirical evidence for European firms. *Accounting and Management Information Systems*, 21(1), 51-76.
- Chukwuma, N.J., Famba, T., Sun, H., Mensah, I.A., Kurauone, O., Li, L., Chituku-Dzimiro, G. 2020. The effect of firm performance on CEO compensation: the moderation role of SOE reform. *SN Business & Economics*, 1, 1-32.
- Dakhli, A. 2021. Does financial performance moderate the relationship between board attributes and corporate social responsibility in French firms? *Journal of Global Responsibility*, 12(4), 373-399.
- Dakhli, A. 2022. The impact of ownership structure on corporate tax avoidance with corporate social responsibility as mediating variable. *Journal of Financial Crime*, 29(3), 836-852.
- Davis, R., Weisbeck, C. 2016. Creating a supportive environment using cues for wayfinding in dementia. *Journal of gerontological nursing*, 42(3), 36-44.
- Deegan, C. 2002. Introduction: The legitimizing effect of social and environmental disclosures—a theoretical foundation. *Accounting, auditing & accountability journal*, 15(3), 282-311.
- Dhifi, K., Zouari, G. 2022. CEO's characteristics, integrated reporting and performance in UK. *Global Knowledge, Memory, and Communication*.
- Donkor, A., Djajadikerta, H.G., Mat Roni, S., Trireskani, T. 2022. Integrated reporting quality and corporate tax avoidance practices in South Africa's listed companies. *Sustainability Accounting, Management and Policy Journal*, 13(4), 899-928.
- Du, M., Li, Y. 2023. Tax avoidance, CSR performance and financial impacts: evidence from BRICS economies. *International Journal of Emerging Markets*.
- Dumay, J., Bernardi, C., Guthrie, J., Demartini, P. 2016. Integrated reporting: A structured literature review. *Accounting forum* (Vol. 40, No. 3, pp. 166-185).
- Dyreng, S.D., Hanlon, M., Maydew, E.L. 2008. Long-run corporate tax avoidance. *The accounting review*, 83(1), 61-82.
- Dyreng, S.D., Hanlon, M., Maydew, E.L. 2019. When does tax avoidance result in tax uncertainty? *The Accounting Review*, 94(2), 179-203.
- Eccles, R.G., Krzus, M.P. 2010. *One report: Integrated reporting for a sustainable strategy*. John Wiley & Sons.
- Freeman, R.E., Phillips, R.A. 2002. Stakeholder theory: A libertarian defense. *Business ethics quarterly*, 12(3), 331-349.
- Frei-Landau, R., Tuval-Mashiach, R., Silberg, T., Hasson-Ohayon, I. 2020. Attachment to God as a mediator of the relationship between religious affiliation and adjustment to child loss. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(2), 165.
- Geno, M.R.P., Firmansyah, A., Prakosa, D.K. 2022. The Role of Integrated Reporting in Income Smoothing, Tax Avoidance, Idiosyncratic Risk—Case of Manufacturing Sector. *Accounting Analysis Journal*, 11(2), 104-118.

- Hanlon, M., Heitzman, S. 2010. A review of tax research. *Journal of accounting and Economics*, 50(2-3), 127-178.
- Hanlon, M., Heitzman, S. 2010. A review of tax research. *Journal of accounting and Economics*, 50(2-3), 127-178.
- Harun, M.S., Hussainey, K., Mohd Kharuddin, K.A., Farooque, O.A. 2020. CSR disclosure, corporate governance, and firm value: a study on GCC Islamic banks. *International Journal of Accounting & Information Management*, 28(4), 607-638.
- Hoi, C.K., Wu, Q., Zhang, H. 2013. Is corporate social responsibility (CSR) associated with tax avoidance? Evidence from irresponsible CSR activities. *The accounting review*, 88(6), 2025-2059.
- Huseynov, F., Klammm, B.K. 2012. Tax avoidance, tax management and corporate social responsibility. *Journal of Corporate Finance*, 18(4), 804-827.
- Jarboui, A., Kachouri Ben Saad, M., Riguen, R. 2020. Tax avoidance: do board gender diversity and sustainability performance make a difference? *Journal of Financial Crime*, 27(4), 1389-1408.
- Jensen, M.C., Meckling, W.H. 1979. Rights and production functions: An application to labor-managed firms and codetermination. *Journal of business*, 469-506.
- Laguir, I., Staglianò, R., Elbaz, J. 2015. Does corporate social responsibility affect corporate tax aggressiveness? *Journal of cleaner production*, 107, 662-675.
- Lajnef, K., Ellouz, S. 2022. Nonlinear causality between CSR and firm performance using NARX model: evidence from France. *Journal of Sustainable Finance & Investment*, 1-24.
- Landry, S., Deslandes, M., Fortin, A. 2013. Tax aggressiveness, corporate social responsibility, and ownership structure. *Journal of Accounting, Ethics & Public Policy*, 14(3), 611-645.
- Lanis, R., Richardson, G. 2012. Corporate social responsibility and tax aggressiveness: An empirical analysis. *Journal of Accounting and Public policy*, 31(1), 86-108.
- Lanis, R., Richardson, G. 2015. Is corporate social responsibility performance associated with tax avoidance? *Journal of Business Ethics*, 127, 439-457.
- Lassoued, N., Khanchel, I., Fakhfakh, I. 2023. Bank efficiency in Middle East and North African countries: Does political connection type matter? *Financial Innovation*, 9(1), 115.
- Liu, H., Lee, H.A. 2019. The effect of corporate social responsibility on earnings management and tax avoidance in Chinese listed companies. *International Journal of Accounting & Information Management*, 27(4), 632-652.
- Lv, B.Q., Weng, H.M., Fu, B.B., Wang, X.P., Miao, H., Ma, J., ... Ding, H. 2015. Experimental discovery of Weyl semimetal TaAs. *Physical Review X*, 5(3), 031013.
- Mouakhar, K., Kachouri, M., Riguen, R., Jarboui, A. 2020. The effect of sustainability performance and CSR on corporate tax avoidance with board gender diversity as mediating variable. *Recherches en Sciences de Gestion*, (3), 303-339.
- Pertiwi, S.R., Prihandini, W. 2021. Gender diversity as the moderating effect on tax avoidance, economic value added, and firm value: a study of companies listed on Indonesia stock exchange 2015-2019. *International Journal of Economics, Business and Accounting Research (IJEBAAR)*, 5(1), 435-449.
- Preacher, K.J., Hayes, A.F. 2008. Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior research methods*, 40(3), 879-891.

- Preuss, L. 2010. Tax avoidance and corporate social responsibility: you can't do both, or can you? *Corporate Governance: The international journal of business in society*, 10(4), 365-374.
- Salhi, B., Al Jabr, J., Jarboui, A. 2020. A comparison of corporate governance and tax avoidance of UK and Japanese firms. *Comparative Economic Research. Central and Eastern Europe*, 23(3), 111-132.
- Sierra-García, L., Zorio-Grima, A., García-Benau, M.A. 2015. Stakeholder engagement, corporate social responsibility, and integrated reporting: An exploratory study. *Corporate Social Responsibility and Environmental Management*, 22(5), 286-304.
- Sim, J.Y., Cho, J., Hong, J.Y. 2023. The association between corporate social responsibility activity and tax avoidance: a classical economic perspective. *Applied Economics Letters*, 1-10.
- Srichoke, P., Georgakopoulos, G., Sikolidis, A., Sotiropoulou, A. 2021. Corporate Governance, CEO Compensation, and accounting conservatism. *International Journal of Business and Economic Sciences Applied Research*.
- Tang, Y., Liu, Y., Liu, J., Li, W. 2019. Does more managerial power impede or promote corporate tax avoidance? Evidence from listed Chinese companies. *Sustainability*, 11(7), 1914.
- Thalassinos, E.I., Suryanto, T., Thalassinos, J.E. 2017. Board characteristics, audit committee and audit quality: the case of Indonesia. *International Journal of Economics and Business Administration*, 5(3), 44-57. <https://doi.org/10.35808/IJEBA/134>.
- Thalassinos, E.I., Hoang Thi, L.P., Pham, X.D., Le, A.H. 2022. The Impact of Corporate Governance Mechanism, Company Characteristics on the Timeliness of Financial Statements: Evidence from Listed Companies in Vietnam. *Academic Journal of Interdisciplinary Studies*, 11(2), 248-263. <https://doi.org/10.36941/ajis-2022-0049>.
- Venter, E.R., Stiglingh, M., Smit, A.R. 2017. Integrated thinking and the transparency of tax disclosures in the corporate reports of firms. *Journal of International Financial Management & Accounting*, 28(3), 394-427.
- Wilde, J.H., Wilson, R.J. 2018. Perspectives on corporate tax planning: Observations from the past decade. *The Journal of the American Taxation Association*, 40(2), 63-81.
- Wooldridge, J.M. 2003. Cluster-sample methods in applied econometrics. *American Economic Review*, 93(2), 133-138.
- Zouari, G., Dhifi, K. 2022. The impact of ownership structure on integrated reporting in European firms. *Corporate Communications: An International Journal*, 27(3), 527-542.