Journal of International Accounting, Auditing and Taxation 60 (2026) 100753

Contents lists available at ScienceDirect

Journal of International Accounting, Auditing and Taxation

Chief executive officer incentives and integrated reporting practices: Evidence from the US market☆

Mohammad Abweny [a], Aamina Khurram [b], Rizwan Ahmed [c,*], Rasmi Meqbel [d]

[a] Department of Accounting, Faculty of Business, Yarmouk University, Irbid, Jordan
[b] Exeter Business School, University of Exeter, United Kingdom
[c] Department of Accounting and Finance, University of Vaasa, Finland
[d] Department of Accounting, Business School, The Hashemite University, Zarqa, Jordan

ARTICLE INFO

Keywords:
CEO incentives
Short-term incentives
Long-term incentives
Integrated reporting
and US market

ABSTRACT

This study examines whether the horizon structure (short-term vs. long-term) of incentives for a Chief Executive Officer (CEO) influences their tendency toward integrated reporting practices. Drawing from alignment incentive theory and using a sample from the United States, we find that providing CEOs with long-term incentives (stocks and options) significantly increases the integration of economic, social, and environmental sustainability considerations into their day-to-day decision-making. Conversely, our results show that short-term incentives (salary and bonuses) have a significantly negative effect. These findings remain consistent when we separately examine the influence of each component of CEO compensation on sustainability integration. Further analysis finds that firm value creation is enhanced when CEOs are incentivized with long-term rewards through their engagement in integrated reporting. However, when CEOs are incentivized with short-term rewards, value creation diminishes due to a focus on immediate results rather than strategic decision-making. The analysis also shows that CEOs with a long-term decision horizon tend to adopt integrated reporting, especially when incentivized with long-term rewards, while short-term incentives reduce this tendency.

1. Introduction

Integrated reporting (IR) has emerged as a vital framework in response to stakeholders' growing demands for transparency and accountability (Raimo et al., 2021). By merging financial information with environmental, social, and governance (ESG) data, IR provides a holistic image of an organization's performance and long-term strategic direction (Lee & Yeo, 2016; Obeng et al., 2021). This integrated approach supports informed decision-making, strengthens stakeholder trust, and demonstrates a firm's commitment to sustainable and responsible business practices (Obeng et al., 2021). These potential benefits reinforce the need for further research into the key determinants influencing the adoption of IR.

Existing literature has explored various determinants of IR, ranging from board composition to industry-level and country-level governance factors (Baboukardos et al., 2021; Esposito et al., 2023; Raimo et al., 2021; Vitolla et al., 2020). Although CEOs play a significant role in shaping organizational strategies (Zhou et al., 2021), the influence of their compensation structure on a firm's decision to adopt IR remains unclear. This highlights the need to further explore the factors that drive CEO engagement in IR. According to Luo et al. (2021) and Wang et al. (2016), major executive decisions, including those related to research and development and resource allocation, are influenced by their impact on executive compensation policies. Therefore, this study aims to examine whether the horizon structure (short-term vs. long-term) of CEO incentives influences their tendency toward IR practices.

In this regard, two theoretical perspectives are used to explain how the horizon structure of CEO incentives may influence the adoption of IR. Incentive alignment theory (Tosi et al., 1997) posits that long-term compensation mechanisms, including stocks and options, can align CEOs' interests with those of shareholders and other stakeholders. CEOs rewarded through long-term incentives are often more committed to sustainable value creation, strategic innovation, and non-financial objectives, which include broader ESG considerations (Mazouz & Zhao,

☆ This article is part of a special issue entitled: 'Digitized economy' published in Journal of International Accounting, Auditing and Taxation.

* Corresponding author at: Department of Accounting and Finance, University of Vaasa, Finland.
E-mail addresses: m.abweny@yu.edu.jo (M. Abweny), a.a.k.khurram@exeter.ac.uk (A. Khurram), rizwan.ahmed@uwasa.fi (R. Ahmed), rasmi.meqbel@hu.edu.jo (R. Meqbel).

https://doi.org/10.1016/j.intaccaudtax.2026.100753

Available online 21 January 2026

2019; Steinbach et al., 2017). The notion of managerial myopia, on the other hand, suggests that short-term incentives encourage executives to prioritize immediate earnings targets at the expense of long-term initiatives (Roychowdhury, 2006; Wu & Zhou, 2022). Empirical evidence links short-term compensation with earnings management and reduced spending on innovation (Dechow & Sloan, 1991), suggesting that such incentives can undermine forward-looking strategies, including IR. Consequently, distinguishing between short- and long-term CEO incentives is critical to understanding whether compensation structures drive or prevent the adoption of IR.

Accordingly, using a sample of 17,816 firm-year observations in the United States (US) market, we find that CEOs incentivized with long-term rewards (i.e., stocks and options) are significantly more likely to adopt IR, while short-term incentives (i.e., salary and bonus) negatively impact sustainability integration. These results not only deepen the discussion on the determinants of IR but also highlight the role of incentive structures in shaping corporate disclosure. Further analysis reveals that firm value is positively affected when CEOs are incentivized with long-term incentives but negatively affected when CEOs are incentivized with short-term incentives. The analysis also indicates that CEOs with a long-term decision horizon, measured by a longer expected tenure and relatively younger age, are more likely to engage in integrated reporting. This relationship becomes more pronounced when CEOs are rewarded with long-term incentives, while it weakens when they receive short-term incentives. Thus, our findings confirm that compensation structures focused on short-term rewards tend to encourage myopic decision-making, whereas long-term incentives foster strategic investments.

This study makes threefold contributions to the literature on CEO compensation and firm disclosures. First, it contributes theoretically by integrating incentive alignment theory with insights on CEO myopia, offering a novel framework that explains how different compensation structures influence managerial decision-making. In particular, it demonstrates how long-term incentives can redirect executive focus toward sustainable growth and the adoption of IR. Second, it provides an empirical contribution by shedding light on the role of CEO incentives in IR adoption. To the best of our knowledge, this study presents the first empirical evidence that the horizon structure of CEO compensation, particularly the distinction between long-term and short-term incentives, significantly influences the likelihood of adopting IR practices. Finally, it contributes to the literature on corporate governance and value creation by positioning IR as a strategic mechanism through which CEO incentive structures influence firm value. It extends prior research by establishing a link between executive compensation design and long-term value creation through the adoption of IR, offering deeper insights into how compensation policies can be structured to support sustainable corporate outcomes.

The remainder of the study is structured as follows. Section 2 provides a literature review and discusses the theoretical background. Section 3 focuses on hypothesis development, reviewing previous literature, and formulating testable hypotheses. Section 4 outlines the research design, including the sample description and empirical techniques used. Section 5 presents the empirical results and discusses these findings, and Section 6 draws conclusions.

2. Literature review

2.1. Integrated reporting

Firms are subject to increasing scrutiny from stakeholders, particularly customers, regulators, and environmentalists, regarding their ability to create societal value within their operating environments (Baboukardos et al., 2021). Such a situation has led to the conceptualization of a new reporting approach, which integrates financial and non-financial information into a single report, known as the integrated reporting approach (Maniora, 2017). This reporting approach is defined by the International Integrated Reporting Council (IIRC) as 'a concise communication about how an organization's strategy, governance, performance, and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long-term' (IIRC, 2013, p 7). The literature has evidenced that integrated reporting promotes better stakeholder engagement, enhances the understanding of the value-creation process, and improves overall performance (Lee & Yeo, 2016; Wahl et al., 2020). Thus, stakeholders are increasingly interested in seeing a single report integrating financial and non-financial information, such as ESG, in a meaningful manner (KPMG, 2017). As a result, they can make more informed decisions (Veltri & Silvestri, 2020).

Research in this area focuses on identifying factors that promote the adoption of integrated reporting systems within firms, with particular emphasis on exploring governance elements as a top priority. For instance, Nishitani et al. (2021) reveal that firms adopt integrated reporting when the benefits of disclosing environmental information outweigh the costs. De Villiers and Van Staden (2011) show that firms use different reporting methods based on their environmental performance. Lewis et al. (2014) find that CEO characteristics, including education type (Master of Business Administration (MBA) vs. law), tenure, and power, influence whether firms adopt traditional or integrated reporting for environmental disclosure. This is because CEOs have the power and ability to make decisions that impact organizational outcomes. The literature also highlights that both firm-specific and country-specific factors influence whether firms adopt integrated reporting. For example, Girella et al. (2019) show that firms located in countries with higher corruption perceptions, better risk ratings, and those with more collectivist, feminist, and long-term-oriented cultures are more likely to adopt integrated reporting. Among the firm-level variables, Girella et al. (2019) note that factors such as large size, profitability, market-to-book ratio, and board size are significant. Firm size is a particular important factor, as larger firms are more likely to disclose voluntary information compared to smaller firms (Reid & Toffel, 2009).

2.2. Executive compensation: Long-term vs short-term

Studies on CEO compensation have contrasted short-term and long-term incentives in terms of their impact on firms' overall performance, value creation, risk, and governance (Adu et al., 2022; Hoi et al., 2019; Murphy & Sandino, 2020; Phung et al., 2023). The use of long-term incentives for executive compensation increased in the 1990 s (Murphy, 1999) following the 1993 tax law designed to reduce excessive CEO pay. This policy aimed to discourage non-performance-based compensation and encourage stock options as a way to align executive incentives with shareholder interests (Nienhaus, 2022), thereby addressing the agency relationship (Haugen & Senbet, 1981; Jensen & Meckling, 1976). In contrast, Conyon and He (2012) find that short-term CEO compensation is more closely linked to current firm performance, emphasizing immediate results rather than long-term growth.

Studies show that long-term stocks and options are a more effective tool for enhancing shareholder value over the long run compared to short-term salary and bonuses (e.g., Conyon & Freeman, 2004; Sun et al., 2009). Hossain et al. (2023) further support this view, finding that firms offering higher equity incentives to CEOs managing significant climate change risks tend to benefit from a lower cost of equity capital and higher firm valuation in the long run. However, other studies highlight the potential downsides of stock option compensation, such as encouraging opportunistic managerial behavior (Nienhaus, 2022). Antia et al. (2010) provide evidence on the relationship between CEO compensation structure, market valuation, and information risk. They argue that excessive stock option rewards may shorten CEOs' decision horizons, ultimately leading to weaker firm performance. Additionally, research links executive equity incentives to accounting fraud and financial misreporting (e.g., Armstrong et al., 2013; Erickson et al., 2006; O'Connor Jr et al., 2006). Mazouz & Zhao (2019) argue that

Table 1
Sample selection process.

	Observations	%
CEO incentive data (2006–2022) from EXECUCOMP	34,296	100.00
Dropped after merging CEO incentive with integrated reporting data	14,158	41.28
Dropped after merging with other financial data	772	2.25
Dropped observations with incomplete data	1,550	4.52
Final sample	17,816	51.95

long-term CEO incentives have a stronger impact on innovation, particularly when coupled with the threat of takeovers. They also identify innovation as a key channel through which managerial incentives contribute to firm value.

Studies have also explored the relationship between CEO incentives and firm-level risk, with mixed results. Some research suggests a negative relationship between stock return volatility (a measure of risk) and idiosyncratic stock return volatility (a proxy for equity incentives) (Garvey & Milbourn, 2003; Jin, 2002). In contrast, other studies report a positive relationship between long-term compensation and firm-level risk (Coles et al., 2006; Oyer & Schaefer, 2005). In the governance context, studies have examined the role of board characteristics and ownership structure in shaping executive compensation. For instance, Bugeja et al. (2016) show that compensation committees with higher gender diversity are linked to lower CEO compensation levels and less excessive pay. Chen et al. (2010) find that CEO duality (where the CEO also chairs the Board of Directors) and CEO ownership have a significant impact on executive pay. Tosun (2020) reports that institutional ownership influences CEO compensation, as large shareholders reduce overall pay and short-term incentives, whereas smaller shareholders are more likely to lower long-term incentives. Davila and Penalva (2006) highlight that short-term CEO compensation tends to be higher when the CEO has greater influence over board appointments. Additionally, Guthrie et al. (2012) find that compensation committee independence increases total CEO pay, particularly when shareholder monitoring is strong. Building on this background, limited evidence exists on how CEO compensation horizon influences integrated reporting, which this study aims to investigate.

3. Hypothesis development

Our analysis is grounded in the theoretical frameworks of incentive alignment theory (Tosi et al., 1997) and myopic management behavior (Wu & Zhou, 2022), providing a robust basis for understanding the relationship between executive compensation and reporting approach. Tosi et al. (1997) emphasize the effectiveness of incentives over monitoring in motivating top management to act in the best interests of the organization and its stakeholders. In contrast, a CEO's short-term decision horizon is often associated with increased engagement in earnings management, leading to more opportunistic behavior (Wu & Zhou, 2022).

Incentive alignment theory highlights the role of compensation in aligning the interests of executives, shareholders, and stakeholders to drive organizational success in an interconnected society (Tosi et al., 1997). A well-structured compensation system should encourage executives to act in the best interests of both shareholders and broader stakeholders (Zhou et al., 2021). Supporting this view, the literature suggests that equity-based compensation encourages long-term investment and promotes sustainable firm growth (Phung et al., 2023). In addition, Hossain et al. (2023) contend that CEOs of firms facing higher climate change risk receive higher equity-based compensation, essentially ensuring mutually beneficial outcomes, working towards shared objectives, minimizing conflicts of interest, and maximizing efficiency. They also report that the above-mentioned incentive alignment outcomes are more prominent in socially responsible firms. It is also

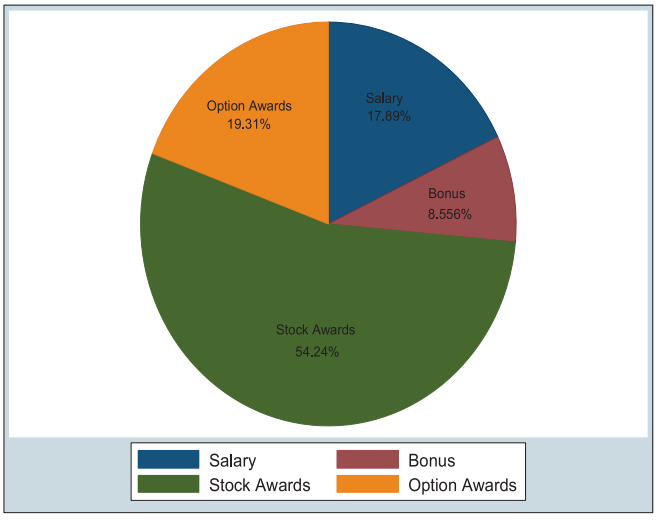

Fig. 1. CEO compensation structure. Notes: This figure presents the proportion breakdown of each component of the CEO compensation package.

Table 2
Descriptive statistics of main variables.

	Observations	Mean	SD	Minimum	P25	P50	P75	Maximum
IR score	17,816	28.881	33.615	0.000	0.000	10.050	57.840	99.980
ST incentives	17,816	0.217	0.196	0.000	0.103	0.152	0.247	1.000
LT incentives	17,816	0.597	0.355	0.000	0.447	0.606	0.725	2.799
TOT incentives	17,816	1.632	0.346	0.771	1.416	1.629	1.818	3.009
Firm size	17,816	8.625	1.586	3.714	7.544	8.541	9.646	12.528
Leverage	17,816	0.615	0.235	0.086	0.458	0.611	0.772	1.419
ROA	17,816	0.043	0.089	−0.580	0.012	0.042	0.083	0.276
Firm age	17,816	3.181	0.877	0.000	2.708	3.219	3.714	4.771
CEO age	17,816	4.157	0.118	3.871	4.078	4.159	4.234	4.511
CEO gender	17,816	0.951	0.215	0.000	1.000	1.000	1.000	1.000
CEO duality	17,816	0.629	0.483	0.000	0.000	1.000	1.000	1.000
CSR contracting	17,816	0.266	0.442	0.000	0.000	0.000	1.000	1.000
CSR committee	17,816	0.433	0.496	0.000	0.000	0.000	1.000	1.000
Tangible expenditure	17,816	0.243	0.243	0.000	0.053	0.150	0.370	0.886
Board diversity	17,816	0.196	0.114	0.000	0.111	0.200	0.273	0.500
Board size	17,816	2.271	0.247	0.000	2.079	2.303	2.398	4.927
Board independence	17,816	0.813	0.111	0.333	0.765	0.846	0.900	0.938
Board experience	17,816	0.090	0.037	0.013	0.065	0.087	0.110	0.209
Board re-election	17,816	0.604	0.489	0.000	0.000	1.000	1.000	1.000

Notes: All continuous variables are winsorized at the 1% and 99% to limit the outlier influence. The definitions of the variables are presented in Appendix A.

Table 3
Variable averages across industries and years.

Panel A: Industry	Obs.	IR score	ST incentives	LT incentives	TOT incentives
Consumer Nondurables	958	39.898	0.201	0.545	1.654
Consumer Durables	464	30.233	0.236	0.558	1.582
Manufacturing	2006	34.172	0.196	0.603	1.607
Energy	889	35.251	0.187	0.626	1.719
Chemicals and Allied Prod.	590	50.847	0.186	0.602	1.622
Business Equipment	2845	26.207	0.195	0.686	1.654
Telephone and Television.	433	15.930	0.228	0.535	1.689
Utilities	874	53.596	0.202	0.564	1.520
Wholesale and Retail	1897	21.792	0.218	0.572	1.580
Healthcare	1432	22.881	0.218	0.697	1.684
Finance	3318	20.857	0.262	0.523	1.628
Other	2110	28.813	0.226	0.586	1.644
Total	17,816	28.881	0.217	0.597	1.632
Panel B: Year	Obs.	IR score	ST incentives	LT incentives	TOT incentives
2006	52	13.648	0.220	0.701	1.547
2007	444	19.390	0.220	0.569	1.534
2008	604	19.617	0.235	0.587	1.524
2009	770	25.249	0.244	0.529	1.540
2010	821	27.051	0.217	0.544	1.597
2011	821	28.834	0.205	0.564	1.606
2012	814	30.002	0.207	0.571	1.585
2013	819	30.118	0.185	0.594	1.607
2014	810	30.221	0.178	0.597	1.622
2015	1211	22.281	0.211	0.599	1.610
2016	1541	18.633	0.233	0.571	1.613
2017	1590	20.157	0.233	0.584	1.627
2018	1599	22.989	0.230	0.603	1.651
2019	1597	29.281	0.229	0.608	1.650
2020	1578	36.388	0.227	0.613	1.665
2021	1533	44.547	0.191	0.628	1.727
2022	1212	47.448	0.210	0.691	1.721
Total	17,816	28.881	0.217	0.597	1.632

Note: The definitions of the variables are presented in Appendix A.

evidenced that firms offering higher equity incentives to their CEOs are usually better off in the long run through a lower cost of equity capital and higher firm valuation (Hossain et al., 2023).

Executives are more likely to make long-term investment decisions, such as funding innovation projects, when their incentives align with those of other stakeholders (Steinbach et al., 2017). Similarly, Zhou et al. (2021) argue that long-term executive compensation strengthens investment in corporate innovation. CEOs with long-term incentives are less likely to prioritize short-term gains that may boost quarterly earnings but harm the company's long-term prospects. Instead, they are more inclined to invest in areas such as innovation, R&D, employee development, and strategic growth, which may take time to yield results but contribute to sustainable success (Currim et al., 2012; Zhou et al., 2021). Moreover, long-term incentives alleviate the pressure on CEOs to deliver short-term results, such as meeting quarterly earnings targets. This enables them to take calculated risks and make decisions that may not yield immediate returns but are beneficial for the company's long-term growth and success (Jensen & Murphy, 1990). Long-term incentives also encourage CEOs to remain with the company for an extended period to fully benefit from their compensation package. This commitment fosters stability in leadership and ensures consistent long-term planning, as CEOs are more focused on the company's enduring success (Edmans et al., 2009). In sum, long-term incentives align the CEO's interests with the company's sustained success, driving decisions that foster lasting growth, stability, and value creation. Therefore, we argue that structuring executive compensation with a long-term focus can encourage greater engagement in integrated reporting, as it is a strategic reporting approach associated with long-term value creation and sustainability performance (IIRC, 2013; Reimsbach & Braam, 2023).

Conversely, short-term incentives drive myopic management behavior, leading executives to prioritize immediate financial gains over long-term sustainable growth (Brochet et al., 2015; Ladika & Sautner, 2020). This occurs because performance-based executive compensation motivates executives to boost short-term earnings, which directly impacts their compensation, improves their reputation, and entrenches them in their position within the organization (Peng & Röell, 2008). As a result, executives with short-term incentives may reduce strategic investments, such as research and development, to demonstrate stronger immediate financial performance, often at the expense of long-term growth and sustainability (Kwon et al., 2023; Ladika & Sautner, 2020). This practice compromises engagement in projects that contribute to long-term value creation (Cohn et al., 2020).

Literature supports the argument that structuring executive compensation based on salary and bonuses leads to opportunistic behavior and exacerbates the agency problem (Garvey et al., 1999). In this regard, incentivizing CEOs with short-term compensation is significantly associated with greater engagement in earnings management (Brochet et al., 2015; Hossain & Monroe, 2015), myopic investment activities, particularly when stock prices are misaligned, lower long-term investment (Agha, 2016; Ladika & Sautner, 2020), lower thresholds for project approval, leading to increased risk exposure, and exaggerated optimistic language in project announcements (Cohn et al., 2020). Furthermore, Edmans et al. (2022) document that short-term CEO incentives motivate opportunistic actions, such as share repurchases and mergers and acquisitions (M&A), which temporarily enhance stock prices but ultimately diminish long-term shareholder value. Concerning sustainability involvement, studies demonstrate that providing CEOs with short-term incentives discourages engagement in ESG activities (Deckop et al., 2006; Liu & Zhang, 2023). Thus, we argue that because integrated reporting engagement requires a firm's commitment to strategically incorporating economic, social, and environmental aspects into its day-to-day decision-making process (Baboukardos et al., 2021; Wu & Zhou, 2022), CEOs with short-term incentives may be less inclined to adopt such practices, as they prioritize immediate financial performance over long-term value creation.

Building on the above discussion, short-term CEO incentives encourage myopic management behavior, prioritizing immediate financial gains at the expense of long-term sustainability (Brochet et al., 2015; Ladika & Sautner, 2020). Conversely, long-term incentives align CEO interests with those of stakeholders, promoting investment in sustainable growth and long-term value creation (Phung et al., 2023; Tosi et al., 1997; Zhou et al., 2021). Thus, we develop the following hypotheses:

Hypothesis 1 (H1): *Short-term CEO incentives are expected to negatively impact a CEO's engagement with integrated reporting.*

Hypothesis 2 (H2): *Long-term CEO incentives are expected to positively impact a CEO's engagement with integrated reporting.*

4. Research design

4.1. Sample and data

Gathered from the EXECUCOMP database, our sample initially consists of 34,296 firm-year observations from US firms for CEO

Table 4
Pearson correlation matrix among independent variables.

No.	Variables	1	2	3	4	5	6	7	8	9	10
1	IR score	1.000									
2	ST incentives	−0.255*	1.000								
3	LT incentives	0.106*	−0.165*	1.000							
4	TOT incentives	0.093*	−0.229*	0.110*	1.000						
5	Firm size	0.478*	−0.259*	0.011	0.059*	1.000					
6	Leverage	0.124*	−0.047*	−0.037*	−0.034*	0.385*	1.000				
7	ROA	0.072*	−0.098*	−0.069*	0.077*	0.007	−0.162*	1.000			
8	Firm age	0.188*	−0.039*	−0.069*	−0.041*	0.150*	0.025*	0.072*	1.000		
9	CEO age	−0.079*	0.070*	−0.127*	−0.051*	0.124*	−0.002	0.042*	0.079*	1.000	
10	CEO gender	−0.063*	0.019*	−0.018*	−0.005	−0.005	−0.024*	−0.014	−0.023*	0.064*	1.000
11	CEO duality	0.028*	0.003	−0.055*	−0.014	0.133*	0.026*	0.072*	0.136*	0.203*	0.053*
12	CSR contracting	0.343*	−0.119*	0.037*	0.022*	0.254*	0.071*	0.006	0.070*	0.000	−0.027*
13	CSR committee	0.731*	−0.235*	0.086*	0.077*	0.382*	0.112*	0.052*	0.140*	−0.071*	−0.042*
14	Tangible expenditure	0.167*	−0.029*	−0.007	−0.068*	0.027*	−0.010	−0.057*	0.048*	0.052*	−0.039*
18	Board diversity	0.330*	−0.132*	0.078*	0.056*	0.166*	0.151*	0.047*	0.119*	−0.216*	−0.258*
16	Board size	0.320*	−0.156*	−0.001	−0.060*	0.559*	0.287*	0.011	0.185*	0.069*	−0.013
17	Board independence	0.256*	−0.189*	0.088*	0.027*	0.164*	0.089*	0.001	0.172*	−0.067*	−0.037*
18	Board experience	−0.116*	0.110*	−0.146*	0.007	−0.057*	−0.133*	0.112*	0.345*	0.233*	0.063*
19	Board re-election	0.211*	−0.053*	−0.021*	0.056*	0.267*	0.077*	0.036*	0.159*	−0.021*	−0.013

No.	Variables	11	12	13	14	15	16	17	18	19
11	CEO duality	1.000								
12	CSR contracting	0.035*	1.000							
13	CSR committee	0.005	0.305*	1.000						
14	Tangible expenditure	0.049*	0.204*	0.163*	1.000					
15	Board diversity	−0.052*	0.110*	0.292*	−0.017*	1.000				
16	Board size	0.086*	0.160*	0.271*	0.002	0.147*	1.000			
17	Board independence	−0.052*	0.147*	0.216*	0.024*	0.248*	0.140*	1.000		
18	Board experience	0.222*	−0.065*	−0.106*	−0.023*	−0.128*	−0.011	−0.131*	1.000	
19	Board re-election	−0.002	0.091*	0.173*	0.022*	0.112*	0.147*	0.060*	−0.002	1.000

Notes: All continuous variables are winsorized at the 1% and 99% to limit outlier influence. The definitions of the variables are presented in Appendix A. * represents significance at the 5% level.

incentive data during 2006–2022. Subsequently, we merged the CEO incentive data with integrated reporting scores provided by the LSEG database (formerly known as Refinitiv Eikon-ASSET4).[1] Additionally, we collected financial and corporate governance data from Worldscope and LSEG, respectively. Therefore, our final sample, after excluding observations with incomplete data, consists of 17,816 firm-year observations, representing 51.95% of the initial sample. We performed a Kolmogorov–Smirnov (K-S) test to ensure that our final sample is free from attrition issues. The results of the K-S test indicate no significant difference between the distribution of key variables in the initial and final samples, meaning that attrition is not a concern in our final sample. Table 1 presents the sample selection process.

4.2. Regression model

To examine the impact of CEO incentive structure (short-term vs. long-term) on integrated reporting, we estimate a regression model with a two-way clustering of standard errors at both the firm and year levels. The regression model is as follows:

$$IRscore_{it} = \alpha_0 + \beta_1 CEOincentive_{it} + \sum \beta_x control_{it} + \sum \beta_t YFF_t + \sum \beta_i IFF_i + \varepsilon_{it} \quad (1)$$

In the above equation, the variable *IR score* represents the integrated reporting score obtained from the LSEG database for a firm (i) in a year (t). *CEO incentive* take two values: CEO short-term incentives (*ST incentives*) and CEO long-term incentives (*LT incentives*). We include several control variables to account for the relationship between IR and CEO incentives. By reviewing the previous literature (Adu et al., 2022; Baboukardos et al., 2021; Martin et al., 2016; Phung et al., 2023; Reimsbach & Braam, 2023; Wu & Zhou, 2022), we incorporate three groups of control variables. The first group firm-related characteristics is *control*, including *Firm size, Leverage,* return on assets *(ROA), Firm age,* and *Tangible expenditure*. The second group is *YFF* and includes variables related to CEO characteristics: *CEO age, CEO gender,* and *CEO duality*. The last group is *IFF* and encompasses firm-related governance factors, including corporate social responsibility (CSR) contracting (*CSR contracting*), *CSR committee, Board diversity, Board size, Board independence, Board experience,* and *Board re-election*. Including these control factors ensures the mitigation of endogeneity problems caused by omitted variables and the well-specification of the parameters (Abweny et al., 2025; Martin et al., 2016; Phung et al., 2023). All continuous variables are winsorized at 1% and 99% to limit outlier influences. Additionally, we incorporate year and industry fixed-effect variables to account for time-variant and industry-related variations. Variable definitions and data sources are provided in Appendix A.

4.3. Measurement of variables

4.3.1. CEO incentives: Short-term vs. Long-term incentives

CEO incentives are our independent variables that are categorized into short-term incentives and long-term incentives. In line with previous studies (Adu et al., 2022; Custódio et al., 2013; Hossain et al., 2023; Murphy & Sandino, 2020; Yang et al., 2021), short-term incentives (*ST incentives*) consist of CEO salary (*Salary*) and bonus (*Bonus*), while long-term incentives (*LT incentives*) include the value of restricted stocks (*Stocks*) and the value of options (*Options*) granted to the CEO. To mitigate concerns regarding large firms paying higher incentives, we follow Custódio et al. (2013) and scale both *ST incentives* and *LT incentives* by the total incentives of the CEO. The total incentives (*TOT incentives*) is the logarithm of total salary, bonus, the value of restricted

[1] Asset4 was initially developed as an independent ESG data platform. It was later integrated into Refinitiv and made accessible through Refinitiv Eikon. Following the acquisition of Refinitiv by the London Stock Exchange Group (LSEG), the data is now available via the LSEG Workspace platform.

Table 5
Effect of CEO incentive structures on integrated reporting practices.

	IR score		
	Model 1	Model 2	Model 3
ST incentives	−3.355***		
	(−4.62)		
LT incentives		3.016***	
		(7.54)	
TOT incentives			2.033***
			(4.92)
Firm size	5.070***	5.145***	5.108***
	(35.62)	(36.85)	(36.42)
Leverage	−6.775***	−6.605***	−6.752***
	(−9.56)	(−9.32)	(−9.53)
ROA	12.756***	14.170***	12.817***
	(7.48)	(8.26)	(7.54)
Firm age	1.848***	1.896***	1.892***
	(8.76)	(8.97)	(8.93)
CEO age	−4.270***	−4.038***	−4.765***
	(−2.91)	(−2.76)	(−3.25)
CEO gender	−0.634	−0.607	−0.576
	(−0.84)	(−0.80)	(−0.76)
CEO duality	0.356	0.347	0.347
	(1.07)	(1.04)	(1.04)
CSR contracting	5.880***	5.885***	5.898***
	(13.62)	(13.64)	(13.67)
CSR committee	36.262***	36.271***	36.326***
	(80.01)	(80.39)	(80.30)
Tangible expenditure	3.039***	3.031***	3.219***
	(4.11)	(4.11)	(4.35)
Board diversity	19.383***	19.357***	19.740***
	(11.61)	(11.57)	(11.82)
Board size	3.678***	3.627***	4.014***
	(4.78)	(4.72)	(5.18)
Board independence	11.476***	11.596***	12.040***
	(8.19)	(8.31)	(8.65)
Board experience	−34.848***	−33.226***	−36.319***
	(−7.62)	(−7.25)	(−7.94)
Board re-election	2.107***	2.119***	2.009***
	(6.48)	(6.52)	(6.18)
Constant	−35.865***	−40.481***	−39.561***
	(−5.73)	(−6.47)	(−6.28)
Observations	17,816	17,816	17,816
Industry fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Adjusted R-squared	0.627	0.643	0.627
F-statistic (P-value)	0.000	0.000	0.000

Notes: All continuous variables are winsorized at the 1% and 99% to limit outlier influence. The definitions of the variables are presented in Appendix A. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

stocks granted, the value of options granted, long-term incentive payout, and other compensation, all divided by the number of executive directors. Additionally, as alternative measures we follow Adu et al. (2022) and calculate the natural logarithm of short-term and long-term CEO incentives scaled by the number of executive directors.

4.3.2. Integrated reporting practices

Integrated reporting practices (*IR score*) are measured using a score ranging from 0 to 100, provided by the LSEG database. This score reflects the firm's commitment to strategically integrating economic, social, and environmental aspects into its day-to-day decision-making process. A higher score represents a greater commitment by the firm to integrated reporting. The LSEG score is widely used in the literature as a proxy for integrated reporting (Baboukardos et al., 2021; Reimsbach & Braam, 2023; Wu & Zhou, 2022). Moreover, LSEG provides information on whether or not the firm "*explicitly integrates financial and extra-financial factors in its management discussion and analysis (MD&A) section in the annual report*". As an alternative measure of IR practices, we use an *IR dummy* variable coded as 1 if the firm's annual report includes a section that discusses and analyzes both financial and non-financial issues, and 0 otherwise.

Table 6
Effect of CEO incentive components on integrated reporting practices.

	IR score			
	Model 1	Model 2	Model 3	Model 4
Salary	−2.841***			
	(−3.27)			
Bonus		−5.119***		
		(−3.61)		
Stocks			2.779***	
			(5.70)	
Options				2.402***
				(3.20)
Firm size	5.087***	5.173***	5.142***	5.172***
	(35.46)	(37.01)	(36.83)	(36.99)
Leverage	−6.786***	−6.878***	−6.725***	−6.784***
	(−9.57)	(−9.71)	(−9.49)	(−9.58)
ROA	12.807***	13.449***	13.914***	13.393***
	(7.49)	(7.91)	(8.09)	(7.90)
Firm age	1.850***	1.830***	1.874***	1.847***
	(8.77)	(8.67)	(8.88)	(8.75)
CEO age	−4.451***	−4.500***	−4.399***	−4.477***
	(−3.03)	(−3.07)	(−3.01)	(−3.05)
CEO gender	−0.615	−0.620	−0.576	−0.631
	(−0.81)	(−0.82)	(−0.76)	(−0.83)
CEO duality	0.348	0.355	0.388	0.316
	(1.04)	(1.06)	(1.16)	(0.94)
CSR contracting	5.875***	5.905***	5.849***	5.922***
	(13.61)	(13.68)	(13.55)	(13.72)
CSR committee	36.316***	36.334***	36.295***	36.368***
	(80.26)	(80.26)	(80.40)	(80.52)
Tangible expenditure	3.043***	3.010***	2.842***	3.171***
	(4.12)	(4.07)	(3.84)	(4.29)
Board diversity	19.517***	19.449***	19.369***	19.600***
	(11.68)	(11.64)	(11.58)	(11.73)
Board size	3.718***	3.604***	3.597***	3.674***
	(4.83)	(4.68)	(4.68)	(4.77)
Board independence	11.787***	11.783***	11.775***	12.019***
	(8.44)	(8.42)	(8.44)	(8.63)
Board experience	−34.919***	−35.785***	−33.886***	−35.419***
	(−7.62)	(−7.83)	(−7.39)	(−7.75)
Board re-election	2.073***	2.103***	2.033***	2.125***
	(6.38)	(6.47)	(6.26)	(6.52)
Constant	−35.830***	−36.349***	−38.225***	−37.466***
	(−5.72)	(−5.81)	(−6.12)	(−5.98)
Observations	17,816	17,816	17,816	17,816
Industry fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adjusted R-squared	0.626	0.626	0.627	0.626
F-statistic (P-value)	0.000	0.000	0.000	0.000

Notes: All continuous variables are winsorized at the 1% and 99% to limit outlier influence. The definitions of the variables are presented in Appendix A. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

5. Research results

5.1. Univariate analysis

Table 2 presents the descriptive statistics of the variables used in our study. Specifically, the average value of the *IR score* is 28.881. This value ranges from 0 to nearly 100, with a standard deviation of 33.615 for our sample of 17,816 US firm-years. The table also provides detailed descriptive statistics of CEO compensation components. For instance, the average values of *ST incentives* (*Salary* and *Bonus*), *LT incentives* (*Stocks* and *Options*), and *TOT incentives* are 0.217, 0.597, and 1.632, respectively. The average proportions of salary, bonus, stocks, and options are 17.89%, 8.56%, 54.24%, and 19.31%, respectively. These values are depicted as percentages in Fig. 1, where *LT incentives* (*Stocks* and *Options*) represent the majority of CEO compensation at 73.55%, while *ST incentives* (*Salary* and *Bonus*) represent only 26.45%. These percentages are consistent with previous studies (Adu et al., 2022; Hossain et al., 2023). Additionally, Table 3 presents the averages of the main variables (*IR score*, *ST incentives, LT incentives,* and *TOT incentives*) across the Fama-French 12 industry classification (Panel A) and year

Table 7
Effects of CEO incentive and integrated reporting on firm value.

	Tobin Q Model 1	Model 2	Model 3
IR score	0.005***	0.006***	0.003***
	(9.09)	(8.66)	(4.03)
ST incentives		−0.294***	
		(−3.07)	
IR score * ST incentives		−0.007***	
		(−3.11)	
LT incentives			0.190***
			(3.63)
IR score * LT incentives			0.002*
			(1.69)
Firm size	−0.332***	−0.355***	−0.343***
	(−19.84)	(−21.50)	(−20.89)
Leverage	0.822***	0.829***	0.843***
	(8.11)	(8.20)	(8.33)
ROA	5.992***	5.932***	6.047***
	(24.78)	(24.59)	(24.74)
Firm age	−0.101***	−0.100***	−0.097***
	(−7.49)	(−7.41)	(−7.14)
CEO age	−0.654***	−0.577***	−0.580***
	(−5.67)	(−4.98)	(−5.00)
CEO gender	0.072	0.069	0.072
	(1.25)	(1.20)	(1.24)
CEO duality	0.073***	0.081***	0.083***
	(2.62)	(2.93)	(3.00)
CSR contracting	−0.042	−0.039	−0.038
	(−1.55)	(−1.47)	(−1.41)
CSR committee	−0.040	−0.044	−0.037
	(−1.31)	(−1.44)	(−1.22)
Tangible expenditure	−0.268***	−0.285***	−0.291***
	(−3.41)	(−3.68)	(−3.75)
Board diversity	0.306**	0.301**	0.305**
	(2.33)	(2.29)	(2.31)
Board size	0.111*	0.120*	0.121*
	(1.72)	(1.88)	(1.90)
Board independence	−0.082	−0.170	−0.124
	(−0.58)	(−1.21)	(−0.88)
Board experience	1.243***	1.237***	1.303***
	(3.23)	(3.21)	(3.36)
Board re-election	−0.031	−0.022	−0.020
	(−1.19)	(−0.85)	(−0.80)
Constant	6.679***	6.661***	6.320***
	(12.34)	(12.43)	(11.44)
Observations	17,816	17,816	17,816
Industry fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Adjusted R-squared	0.320	0.325	0.325
F-statistic (P-value)	0.000	0.000	0.000

Notes: All continuous variables are winsorized at the 1% and 99% to limit outlier influence. The definitions of the variables are presented in Appendix A. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

(Panel B).

Regarding other control variables, Table 2 provides a comprehensive overview of firm-related variables, CEO characteristics, and corporate governance. For instance, the average *Firm size*, measured by the natural logarithm of total assets, is 8.625, with an average *Firm age* of 3.181. The average profitability (*ROA*) ratio is 0.043, with a standard deviation of 0.089. Approximately 95% of firms in our sample are led by male CEOs, with an average of 62.9% of CEOs also simultaneously serving as board chair. For the board of directors, the average *Board size*, measured by the natural logarithm of the number of directors, is 2.21. For *Board diversity*, the percentage of female directors is 19.6% For *Board independence*, 81.3% are independent directors.

Table 4 presents the bivariate Pearson correlation coefficients among the independent variables. All coefficient values are below the threshold of concern (i.e., 0.6), as suggested by Gujarati (2021). Therefore, these correlation results provide confidence that our results are not affected by multicollinearity problems.

5.2. Multivariate analysis

5.2.1. CEO incentives and IR practices

Table 5 presents the results obtained from estimating equation (1). Model 1 of Table 5 indicates that *ST incentives* have a significant negative relationship with the *IR score* (β = -3.355, $p < 0.01$). With respect to economic significance, a one standard deviation increase in *ST incentives* leads to a 2.277%[2] reduction in the *IR score*. This result supports H1 and highlights the myopic theoretical perspective: when CEOs are rewarded based on immediate performance, they prioritize short-term financial outcomes over long-term strategic investments. This reasoning is consistent with Wu and Zhou (2022), who find that CEOs' short-term incentives show more engagement in earnings management, leading to more opportunistic behavior.

However, Model 2 reveals a positive relationship between *LT incentives* and the *IR score*, with a coefficient of 3.016 at the 1% significance level. In relation to economic significance, a one standard deviation increase in *LT incentives* results in a 3.707% rise in the *IR score*. This result confirms H2, suggesting that CEOs with *LT incentives* tend to think strategically and engage in fewer myopic behaviors because their interests are aligned with the firm's interests. This finding aligns with the incentive alignment theory, which states that executives who receive long-term incentives, such as stocks and options, show a long-term stake in the firms. These incentives are designed to align the CEO's interests with those of the shareholders and the firm's long-term success. This is mainly because CEOs with significant long-term incentives are more likely to think about the company's future, since their financial rewards are linked with its long-term performance (Antia et al., 2010). These CEOs are less likely to focus on short-term gains that might boost quarterly earnings but harm the company's future prospects. Empirically, this direction is consistent with (Luo et al., 2021), who find that firms with executive incentive plans aligned with stakeholders' interests induce greater transparency in carbon emission disclosure. Furthermore, Adu et al. (2022) note that the key approach to achieving sustainable business practices is incentivizing executives to adopt and implement these practices. Thus, to encourage executives to adopt integrated reporting practices, focusing on their incentives and compensation is essential.

Likewise, Model 3 indicates a positively significant relationship between *TOT incentives* and the *IR score* (β = 2.033, $p < 0.01$). The economic significance is represented by a 2.436% increase in the *IR score* for every standard deviation increase in *TOT incentives*.

5.2.2. CEO compensation components

We separately examine the influence of each CEO compensation component (*Salary, Bonus, Stocks,* and *Options*) on integrated reporting. As mentioned earlier, *ST incentives* consist of both salary and bonus, while *LT incentives* encompass stocks and options. Following Custódio et al. (2013), each component is scaled by total incentives to mitigate concerns that larger firms may pay higher incentives. Table 6 shows that *salary* (β = -2.841, $p < 0.01$) and *bonus* (β = -5.119, $p < 0.01$) negatively influence IR, as reported in Models 1 and 2, respectively. These findings confirm that short-term incentives reduce engagement in integrated reporting. However, Models 3 and 4 reveal that *stocks* (β = 2.779, $p < 0.01$) and *options* (β = 2.402, $p < 0.01$) positively affect IR. The results in Table 6 robustly support our primary conclusions, demonstrating that the findings remain consistent even when the components are considered separately.

[2] The economic significance is determined by multiplying the standard deviation of the independent variable (X) by its corresponding coefficient (β), and then dividing the result by the mean of the dependent variable (Y). Thus, (0.196 * − 3.355) / 28.881= 2.277%.

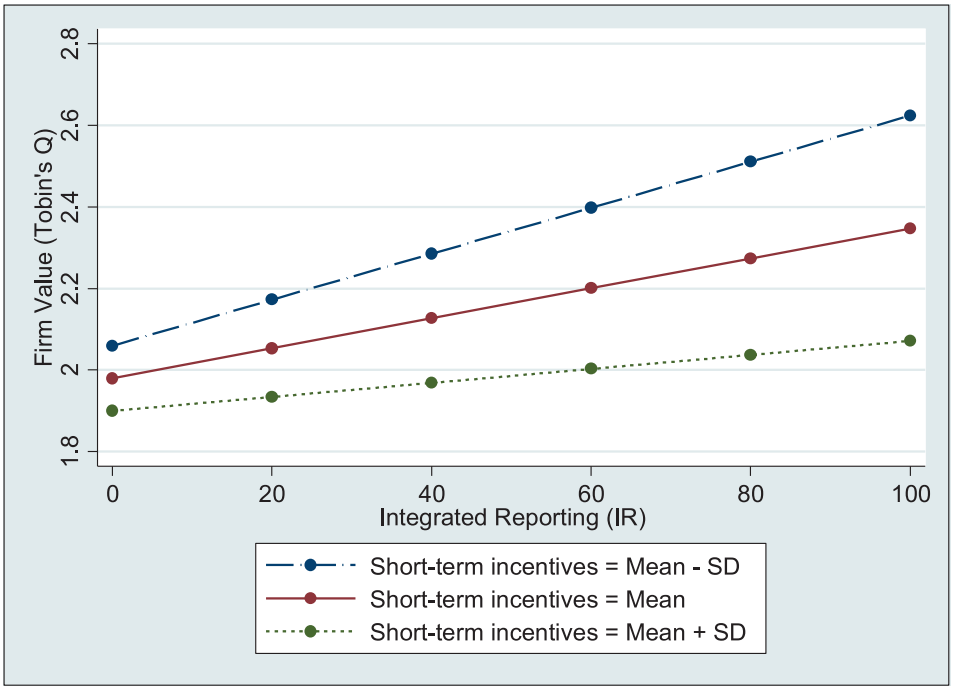

Fig. 2. Interaction between IR score and ST incentives.

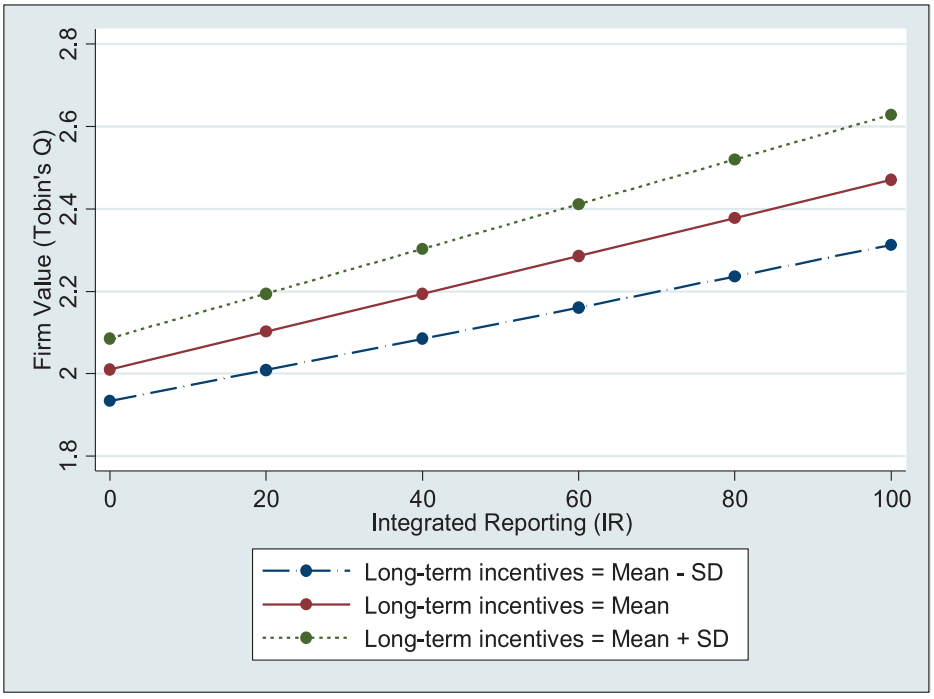

Fig. 3. Interaction between IR score and LT incentives.

5.3. Further analysis

5.3.1. Firm valuation

It has been established that integrated reporting leads to the creation of value over time (IIRC, 2013). Integrated reporting promotes better stakeholder engagement and a better understanding of the value-creation process and performance (Lee & Yeo, 2016). As previously mentioned, CEOs with short-term incentives are less motivated to engage in integrated reporting due to their myopic behavior and focus on current results. However, CEOs with long-term incentives are more inclined to engage in integrated reporting because their interests are aligned with the interests of the firms. As a result, in this section, we hypothesize that providing CEOs with short-term incentives negatively impacts firm value by reducing engagement in integrated reporting. On the other hand, providing CEOs with long-term incentives is expected to positively impact firm value by increasing engagement in integrated reporting. To investigate our hypotheses, we estimate the following equation:

Table 8
Effect of CEO decision horizon and CEO incentives on integrated reporting.

	IR score		
	Model 1	Model 2	Model 3
CEO decision horizon	0.057**	0.079***	0.046**
	(2.48)	(2.75)	(1.97)
ST incentives		−4.011***	
		(−4.98)	
ST incentives * CEO decision horizon		−0.124**	
		(−2.42)	
LT incentives			3.739***
			(4.86)
LT incentives * CEO decision horizon			0.119**
			(2.45)
Firm size	5.149***	5.057***	5.059***
	(36.41)	(34.96)	(34.98)
Leverage	−6.854***	−6.727***	−6.735***
	(−9.49)	(−9.29)	(−9.30)
ROA	13.134***	12.630***	12.640***
	(7.63)	(7.30)	(7.30)
Firm age	1.778***	1.804***	1.798***
	(8.27)	(8.39)	(8.36)
CEO age	0.374	−0.213	0.707
	(0.14)	(−0.08)	(0.27)
CEO gender	−0.473	−0.499	−0.489
	(−0.62)	(−0.66)	(−0.64)
CEO duality	0.395	0.383	0.388
	(1.16)	(1.12)	(1.14)
CSR contracting	5.956***	5.923***	5.921***
	(13.61)	(13.53)	(13.53)
CSR committee	36.326***	36.162***	36.156***
	(79.69)	(79.04)	(79.04)
Tangible expenditure	3.099***	3.118***	3.111***
	(4.14)	(4.16)	(4.15)
Board diversity	19.425***	19.187***	19.181***
	(11.49)	(11.29)	(11.29)
Board size	3.617***	3.648***	3.617***
	(4.54)	(4.57)	(4.53)
Board independence	12.703***	12.108***	12.085***
	(8.96)	(8.43)	(8.42)
Board experience	−32.038***	−32.584***	−31.756***
	(−6.53)	(−6.65)	(−6.46)
Board re-election	2.131***	2.191***	2.177***
	(6.46)	(6.62)	(6.57)
Constant	−57.462***	−52.972***	−58.198***
	(−5.29)	(−4.77)	(−5.31)
Observations	17,816	17,816	17,816
Industry fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Adjusted R-squared	0.626	0.626	0.626
F-statistic (P-value)	0.000	0.000	0.000

Notes: All continuous variables are winsorized at the 1% and 99% to limit outlier influence. The definitions of the variables are presented in Appendix A. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

$$TobinQ_{it} = \alpha_0 + \beta_1 IRscore_{it} + \beta_2 CEOincentives_{it} + \beta_3 IRscore_{it} * CEOincentive_{it} + \sum \beta_x control_{it} + \sum \beta_t YFF_t + \sum \beta_i IFF_i + \varepsilon_{it} \quad (2)$$

In Equation (2), Tobin's Q (*Tobin Q*) is used as a proxy to measure firm value. It is calculated as the market value of equity plus total assets minus the book value of equity, divided by total assets. Our interest in this equation is the interaction term between the IR score and CEO incentives (which take either *ST incetives or LT incentives*). The results reported in Table 7 show a positive relationship between *IR score* and *Tobin Q* at the 1% significance level. This result aligns with previous studies that demonstrate the value-creation benefits of IR engagement (Lee & Yeo, 2016; Reimsbach & Braam, 2023). In Model 2, the coefficient on the interaction term between the *IR score* and *ST incentives* is significantly negative (β = -0.007, $p < 0.01$). This result confirms our expectation that focusing on short-term rewards negatively affects firm value because it leads to reduced engagement in integrated reporting, which in turn diminishes long-term value creation. This result is also illustrated in Fig. 2, indicating that the positive slope of the relationship between IR and Tobin's Q is weaker when short-term incentives are 1 standard deviation above the mean compared to when they are 1 standard deviation below the mean.

Table 9
Sustainability sensitive vs. non-sensitive industries.

	IR score			
	Sensitive industries		Non-sensitive industries	
	Model 1	Model 2	Model 3	Model 4
ST incentives	−3.592		−3.353***	
	(−1.48)		(−4.46)	
LT incentives		2.672**		2.866***
		(2.54)		(6.71)
Firm size	8.638***	8.663***	4.744***	4.831***
	(23.01)	(23.37)	(30.27)	(31.48)
Leverage	4.238**	4.603**	−7.076***	−6.953***
	(1.99)	(2.16)	(−9.37)	(−9.21)
ROA	5.819*	6.528*	12.700***	14.274***
	(1.72)	(1.93)	(6.38)	(7.12)
Firm age	2.649***	2.685***	1.561***	1.613***
	(5.67)	(5.75)	(6.62)	(6.82)
CEO age	−2.976	−2.496	−3.893**	−3.742**
	(−0.71)	(−0.60)	(−2.52)	(−2.43)
CEO gender	−2.072	−2.116	0.183	0.222
	(−1.35)	(−1.38)	(0.21)	(0.26)
CEO duality	−3.642***	−3.542***	0.696*	0.667*
	(−4.32)	(−4.20)	(1.93)	(1.85)
CSR contracting	3.028***	3.085***	5.925***	5.917***
	(3.26)	(3.32)	(12.22)	(12.21)
CSR committee	31.927***	32.093***	36.373***	36.355***
	(30.04)	(30.30)	(72.62)	(72.81)
Tangible expenditure	−14.368***	−14.344***	5.147***	5.148***
	(−8.08)	(−8.10)	(5.73)	(5.74)
Board diversity	17.606***	17.260***	17.169***	17.243***
	(4.21)	(4.12)	(9.54)	(9.57)
Board size	12.828***	12.816***	1.402*	1.354
	(6.33)	(6.34)	(1.70)	(1.64)
Board independence	11.169***	11.397***	11.283***	11.400***
	(3.02)	(3.09)	(7.52)	(7.62)
Board experience	−26.066**	−26.305**	−34.589***	−32.908***
	(−2.16)	(−2.20)	(−7.06)	(−6.71)
Board re-election	0.575	0.595	2.438***	2.444***
	(0.67)	(0.70)	(7.03)	(7.07)
Constant	−80.720***	−85.889***	−30.488***	−34.786***
	(−4.50)	(−4.79)	(−4.61)	(−5.26)
Observations	3056	3056	14,760	14,760
Industry fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adjusted R-squared	0.671	0.671	0.607	0.607
F-statistic (P-value)	0.000	0.000	0.000	0.000

Notes: This table presents the comparison of the effect of CEO incentives structure on integrated reporting practices in sustainability-sensitive and non-sensitive industries. All continuous variables are winsorized at the 1% and 99% to limit outlier influence. The definitions of the variables are presented in Appendix A. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

However, Model 3 shows a positive coefficient on the interaction term between the *IR score* and *LT incentives* with Tobin's Q ($\beta = 0.002$, $p < 0.10$). This result is illustrated in Fig. 3, which displays a slightly steeper positive slope between IR and Tobin's Q when long-term incentives are 1 standard deviation above the mean. These results support our argument that providing CEOs with more long-term incentives positively impacts firm value.

5.3.2. CEO decision horizon

The variation in firms' strategic decisions can be explained by understanding the characteristics of their top management (Hambrick & Mason, 1984). In line with this argument, previous studies demonstrate

Table 10
Alternative measures of CEO incentives (Ln IR score) and integrated reporting practices (IR dummy).

	Ln IR score		IR dummy	
	Model 1	Model 2	Model 3	Model 4
ST incentives	−0.200***		−0.149**	
	(−3.71)		(−2.02)	
LT incentives		0.070***		0.532***
		(2.75)		(5.02)
Firm size	0.168***	0.171***	0.131***	0.125***
	(23.73)	(24.37)	(8.29)	(7.94)
Leverage	−0.168***	−0.166***	−0.297***	−0.331***
	(−3.79)	(−3.74)	(−3.00)	(−3.31)
ROA	0.618***	0.664***	0.596***	0.559**
	(5.81)	(6.22)	(2.63)	(2.44)
Firm age	0.040***	0.040***	0.085***	0.078***
	(4.32)	(4.27)	(3.72)	(3.43)
CEO age	−0.099	−0.101	0.022	−0.047
	(−1.23)	(−1.25)	(0.13)	(−0.27)
CEO gender	−0.027	−0.026	−0.195***	−0.212***
	(−0.96)	(−0.92)	(−2.74)	(−2.97)
CEO duality	−0.008	−0.006	−0.028	−0.040
	(−0.46)	(−0.37)	(−0.75)	(−1.05)
CSR contracting	0.156***	0.156***	0.221***	0.221***
	(9.75)	(9.78)	(5.87)	(5.85)
CSR committee	0.184***	0.187***	0.235***	0.235***
	(9.68)	(9.91)	(5.63)	(5.62)
Tangible expenditure	0.090***	0.089***	0.677***	0.660***
	(2.76)	(2.72)	(9.76)	(9.44)
Board diversity	0.603***	0.607***	−0.532***	−0.593***
	(6.97)	(6.99)	(−2.82)	(−3.14)
Board size	0.196***	0.196***	0.510***	0.504***
	(4.51)	(4.50)	(5.14)	(5.17)
Board independence	0.522***	0.540***	0.105	0.070
	(5.97)	(6.16)	(0.54)	(0.36)
Board experience	−0.766***	−0.764***	−1.519**	−1.731***
	(−2.97)	(−2.95)	(−2.42)	(−2.78)
Board re-election	0.017	0.018	−0.058	−0.065
	(0.93)	(1.00)	(−1.44)	(−1.62)
Constant	1.397***	1.274***	−3.314***	−3.591***
	(4.10)	(3.76)	(−3.32)	(−3.46)
Observations	9773	9771	17,031	17,149
Industry fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adjusted R-squared	0.207	0.206		
Pseudo R-squared			0.213	0.216
F-statistic (P-value)	0.000	0.000	0.000	0.000

Notes: This table presents the effect of CEO incentives structure on integrated reporting practices using alternative measures of CEO incentives and integrated reporting practices. All continuous variables are winsorized at the 1% and 99% to limit outlier influence. The definitions of the variables are presented in Appendix A. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

that younger CEOs with an expected long-term tenure are more likely to make strategic decisions that prioritize long-term value creation (Antia et al., 2010). However, CEOs approaching retirement tend to prioritize investments that yield quick paybacks to preserve their reputation and secure reemployment opportunities (Antia et al., 2010; Wang, 2024). This behavior is associated with an agency problem, where CEOs advance their own interests rather than maximize shareholder value by engaging in long-term value-added investments (Jensen, 2004). Since the shift toward an integrated reporting approach is a strategic decision linked with the value-creation process over time (IIRC, 2013), we hypothesize that CEOs with a long-term decision horizon are more likely to support and engage in adopting integrated reporting. However, the structure of CEO compensation may interfere with this relationship, as our main results document that *ST incentives* discourage CEOs from focusing on strategic decisions and encourage a focus on immediate financial profit, while *LT incentives* promote the adoption of strategic decisions and long-term value creation. To examine our hypothesis, we first measure the CEO decision horizon (*CEO decision horizon*) using a proxy developed by Antia et al. (2010), which is as follows:

$$CEOdecisionhorizon_{it} = \left(IndCEOTenure_{\mathrm{ind,t}} - CEOTenure_{\mathrm{i,t}}\right) + \left(IndCEOAge_{\mathrm{ind,t}} - CEOAge_{\mathrm{i,t}}\right) \quad (3)$$

Where *CEO Tenure* is defined as the number of years the CEO has been in the position, *CEO Age* refers to the CEO's age in years, *IndCEO Tenure* is the industry median of CEO tenure, and *IndCEO Age* is the industry median of CEO age. A positive value of the proxy indicates that CEOs have a longer expected tenure and are younger compared to other CEOs working within the same industry, suggesting a long-term decision horizon. Conversely, a negative value indicates a shorter expected tenure and older age, suggesting a short-term decision horizon.

In Model 1 of Table 8, *CEO decision horizon* shows a significantly positive association with IR ($\beta = 0.057$, $p < 0.05$). This result supports our argument that a long-term CEO decision horizon is more likely to lead to engagement in value-creation decisions, which is consistent with previous studies finding that firms benefit from CEOs with an expected long tenure and longevity (Bhagat & Bolton, 2008). Furthermore, Models 2 and 3 show that the positive relationship between *CEO decision horizon* and *IR score* is negatively (positively) moderated by *ST incentives* (*LT incentives*), respectively. These results provide additional confirmation that *ST incentives* encourage myopic behavior, leading to less focus on strategic decisions that drive value creation, while *LT incentives* promote a focus on long-term value creation and strategic decision-making.

5.3.3. Industry variations

The practice of sustainability varies across different industries due to variations in regulatory strictness, public pressure, political presence, and industry membership (Carvajal et al., 2022; Frost & Wilmshurst, 2000). Previous studies have established that the focus on sustainability performance is significant in industries classified as sustainability-sensitive (Cadez et al., 2019; Frost & Wilmshurst, 2000). Firms operating in sustainability-sensitive industries are found to allocate resources to improve their sustainability performance (Gull et al., 2024). Therefore, we examine whether the relationship between CEO compensation and integrated reporting holds the same across different industries. Specifically, we divided our sample into two industry groups: sustainability-sensitive and sustainability-nonsensitive industries. In line with previous studies (Cho & Patten, 2007; Gull et al., 2024), the sustainability-sensitive industries are Mining and Minerals, Oil and Petroleum Products, Chemicals, Drugs, Soap, Perfume, Tobacco, Fabricated Products, and Utilities.

Table 9 presents the results for sustainability-sensitive industries (Models 1 and 2) versus sustainability-nonsensitive industries (Models 3 and 4). In Model 1, the coefficient on *ST incentives* is negative but not significant. However, for nonsensitive industries, Model 3 shows a significant negative relationship between *ST incentives* and integrated reporting. These results support the previous expectation that managers of firms in sustainability-sensitive industries are concerned about integrating sustainability activities, even when they are incentivized with short-term incentives. With regard to long-term incentives, both Models 2 and 4 show a significant positive relationship between long-term incentives and integrated reporting, regardless of whether the industries are sustainability-sensitive or not.

5.4. Robustness analysis

5.4.1. An alternative IR measure

As mentioned earlier, integrated reporting is measured as a score ranging from 0 to 100, as provided by LSEG. The descriptive statistics reveal that the *IR score* is skewed toward 0, with a skewness value of 0.7. Although we winsorize all continuous variables at the 1% and 99% levels to limit the influence of outliers, we also transform the *IR score* using the natural logarithm as an alternative procedure to ensure that the results are not biased due to data distribution. The results of this

Table 11
Alternative regression: Propensity score matching (PSM method).

	ST incentives dummy	IR score	LT incentives dummy	IR score
	Model 1	Model 2	Model 3	Model 4
ST incentives		−4.136***		
		(−4.39)		
LT incentives				2.399***
				(5.18)
Firm size	0.056***	4.903***	0.169***	4.822***
	(6.48)	(26.20)	(18.91)	(27.61)
Leverage	0.033	−5.626***	−0.309***	−3.944***
	(0.72)	(−5.94)	(−6.50)	(−4.27)
ROA	0.496***	12.541***	0.582***	13.626***
	(4.44)	(5.34)	(5.05)	(6.43)
Firm age	−0.059***	1.906***	−0.112***	1.900***
	(−4.76)	(6.85)	(−8.79)	(6.91)
CEO age	0.381***	−2.243	0.202**	−1.490
	(4.00)	(−1.16)	(2.08)	(−0.79)
CEO gender	−0.021	−1.114	0.018	−1.978**
	(−0.44)	(−1.11)	(0.38)	(−2.07)
CEO duality	−0.040*	0.171	0.033	−0.187
	(−1.91)	(0.39)	(1.55)	(−0.43)
CSR contracting	−0.007	5.390***	0.010	5.704***
	(−0.29)	(9.38)	(0.41)	(10.36)
CSR committee	−0.055**	36.999***	0.061**	37.223***
	(−2.34)	(61.47)	(2.56)	(64.03)
Tangible expenditure	−0.172***	3.293***	−0.270***	2.518**
	(−3.79)	(3.38)	(−5.89)	(2.56)
Board diversity	−0.150	18.610***	0.019	19.686***
	(−1.44)	(8.59)	(0.18)	(9.16)
Board size	−0.350***	2.920***	−0.520***	4.378***
	(−6.91)	(2.93)	(−10.05)	(4.38)
Board independence	0.348***	11.564***	0.266***	13.918***
	(3.75)	(6.32)	(2.81)	(7.59)
Board experience	2.249***	−38.113***	0.295	−32.004***
	(7.41)	(−6.45)	(0.96)	(−5.35)
Board re-election	0.023	2.067***	0.059***	2.326***
	(1.11)	(4.76)	(2.84)	(5.34)
Constant	−1.690***	−41.138***	−0.794*	−51.269***
	(−3.78)	(−4.96)	(−1.74)	(−6.35)
Observations	17,816	9936	17,816	10,768
Industry fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Pseudo R-squared	0.016		0.045	
Adjusted R-squared		0.634		0.636
F-statistic (P-value)	0.000	0.000	0.000	0.000

Notes: This table presents the effect of CEO incentives structure on integrated reporting practices using the alternative regression method of Propensity Score Matching (PSM method). All continuous variables are winsorized at the 1% and 99% levels to limit outlier influence. The definitions of the variables are presented in Appendix A. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

procedure, reported in Models 1 and 2 of Table 10, are consistent with our main findings in Table 5.

In addition, we use an *IR dummy* as an alternative measure of integrated reporting, also sourced from LSEG. This ensures that our results are not driven by a specific measurement approach. To perform this test, we employed a probit regression model using the *IR dummy* as the dependent variable. The results are reported in Models 3 and 4 of Table 10. In Model 3 of Table 10, there is a negative relationship between *ST incentives* and integrated reporting at the 5% significance level, while Model 4 shows a positive relationship between *LT incentives* and integrated reporting at the 1% significance level. These results are consistent with our main findings reported in Table 5, which strengthens the robustness of our results, indicating they are not influenced by particular measures.

5.4.2. Alternative regression models

The relationship between CEO incentives and integrated reporting might be influenced by endogeneity issues resulting from sample self-selection bias, omitted correlation factors, and reverse causality. To control for these potential issues, we employed alternative regression models: Propensity score matching (PSM), two-stage least squares (2SLS), and two-step system generalized method of moments (GMM). These methods are commonly used in the literature to address such endogeneity issues (Abweny et al., 2025; Ahmed et al., 2024; Gull et al., 2024; Wu & Zhou, 2022).

In line with previous literature (Gull et al., 2024; Li et al., 2023), the PSM method is used to address the sample self-selection bias that may be present in choosing our sample. To apply this method, we first ran a probit regression, where the dependent variable is a dummy (ST or LT incentives dummy) coded as 1 if the CEO incentive (either ST or LT incentive) is above the overall mean of CEO incentives, and 0 otherwise, to construct a matched sample. The created matched sample is identical with a maximum propensity score difference of 1% regarding control variables (firm-related, CEO-related, and governance-related variables); however, it differs in terms of CEO incentives. Secondly, we re-estimated the relationship between CEO incentives and integrated reporting using the created sample, which consists of 9,936 year-firm observations for short-term incentives and 10,768 year-firm observations for long-term incentives, as reported in Table 11.

The results of the PSM method are reported in Table 11, where Models 1 and 3 show the results of the probit regression, while the effects of short-term incentives and long-term incentives on integrated reporting, using the created sample, are reported in Models 2 and 4, respectively. The results reported in Model 2 show that *ST incentives* still

Table 12
Alternative regression: Two-stage least squares (2SLS method).

	ST incentive (1st stage)	IR score (2nd stage)	LT incentive (1st stage)	IR score (2nd stage)
	Model 1	Model 2	Model 3	Model 4
Instrumental ST incentives	0.833***			
	(21.39)			
Fitted ST incentives		−74.453***		
		(−13.78)		
Instrumental LT incentives			0.965***	
			(23.56)	
Fitted LT incentives				43.472***
				(16.91)
Firm size	−0.029***	2.743***	0.011***	4.552***
	(−21.19)	(13.63)	(4.63)	(33.36)
Leverage	0.022***	−4.841***	−0.042***	−2.725***
	(2.96)	(−6.59)	(−2.90)	(−3.63)
ROA	−0.192***	−0.808	−0.257***	25.948***
	(−9.75)	(−0.41)	(−5.84)	(14.26)
Firm age	0.000	2.388***	−0.017***	3.056***
	(0.09)	(11.33)	(−4.44)	(14.15)
CEO age	0.131***	5.251***	−0.208***	5.327***
	(8.15)	(3.21)	(−7.25)	(3.40)
CEO gender	−0.008	−1.648**	−0.003	−1.214
	(−1.43)	(−2.14)	(−0.26)	(−1.60)
CEO duality	0.002	0.769**	−0.000	0.646*
	(0.63)	(2.30)	(−0.06)	(1.94)
CSR contracting	−0.001	6.019***	−0.002	6.141***
	(−0.29)	(13.93)	(−0.42)	(14.24)
CSR committee	−0.035***	33.941***	0.023***	35.440***
	(−11.08)	(64.33)	(4.09)	(75.40)
Tangible expenditure	0.007	6.818***	−0.047***	8.571***
	(1.27)	(10.29)	(−4.39)	(12.91)
Board diversity	−0.081***	12.534***	0.103***	14.306***
	(−5.05)	(7.38)	(3.08)	(8.58)
Board size	−0.010	3.994***	0.034**	3.831***
	(−1.19)	(5.21)	(2.32)	(5.02)
Board independence	−0.206***	−0.787	0.172***	5.756***
	(−12.63)	(−0.45)	(5.84)	(3.96)
Board experience	0.267***	−21.900***	−0.769***	−6.183
	(5.30)	(−4.44)	(−8.79)	(−1.18)
Board re-election	0.014***	2.719***	−0.020***	2.573***
	(4.76)	(8.10)	(−3.55)	(7.81)
Constant	−0.172**	−32.415***	0.784***	−103.127***
	(−2.52)	(−5.26)	(6.04)	(−13.84)
Observations	17,816	17,816	17,816	17,816
Industry fixed effects	No	No	No	No
Year fixed effects	Yes	Yes	Yes	Yes
Adjusted R-squared	0.154	0.624	0.081	0.626
F-statistic (P-value)	0.000	0.000	0.000	0.000
Underidentification (P-value)		0.000		0.000
Weak identification (K-Paap Wald F-statistic)		457.593		555.286

Notes: This table presents the effect of CEO incentives structure on integrated reporting practices using the alternative regression method of two-stage least squares (2SLS method). All continuous variables are winsorized at the 1% and 99% levels to limit outlier influence. The definitions of the variables are presented in Appendix A. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

have a negative relationship with the integrated reporting score at the 1% significance level. Model 4 also shows results consistent with the main findings, indicating that *LT incentives* are positively related to integrated reporting at the 1% significance level. These results provide additional confidence that our sample is not influenced by self-selection bias.

Our results may be influenced by omitted correlation factor bias, as CEO incentives are likely affected by other factors, such as CEO attributes and firm strategy, which could drive the findings. To address the potential impact of omitted correlation factors, we follow previous studies (Ahmed et al., 2024; Gull et al., 2024; Meqbel et al., 2025) and employed the 2SLS method. In the first stage reported in Table 12, we ran ordinary least squares (OLS) regressions to estimate the fitted value of *ST incentives* (Model 1) and *LT incentives* (Model 3) using an instrumental variable, which is the industry average of *ST incentives* and *LT incentives* based on the Fama-French 12 industry classification. The rationale for using the industry-average of CEO compensation as an instrumental variable is that a firm's CEO compensation is influenced by the average compensation of other CEOs within the same industry. However, the industry average of CEO compensation does not directly impact a firm's integrated reporting practices. In the second stage, reported in Table 12, we used the fitted values of *ST incentives* (Model 2) and *LT incentives* (Model 4) to estimate integrated reporting, including the other control variables as specified in Equation (1).

The first stage results show that the coefficients on the instrumental variables for *ST incentives* (Model 1) and *LT incentives* (Model 3) are positive and significant at the 1% level. These results confirm that compensation levels positively influence CEO compensation in peer firms. The results of the second stage show that the fitted value of *ST incentives* (Model 2) is negatively related to integrated reporting, while the fitted value of *LT incentives* (Model 4) is positively related to integrated reporting at the 1% significance level. These findings ensure that our results are not affected by endogeneity issues arising from omitted correlation factors, reinforcing our main results' robustness. Table 12

Table 13
Alternative regression: Two-step system generalized method of moments (GMM method).

	IR score		
	Model 1	Model 2	Model 3
ST incentives	−4.287***		
	(−2.88)		
LT incentives		1.696**	
		(2.33)	
TOT incentives			9.261**
			(2.18)
Firm size	1.120**	1.221***	1.157**
	(2.36)	(2.63)	(2.34)
Leverage	−3.945***	−3.747***	−3.427**
	(−2.83)	(−2.64)	(−2.25)
ROA	2.985	3.690	0.571
	(1.06)	(1.32)	(0.18)
Firm age	−2.598	−2.369	−3.984**
	(−1.44)	(−1.27)	(−2.16)
CEO age	25.581	16.450	4.120
	(1.32)	(0.91)	(0.24)
CEO gender	−0.580	3.982	4.423
	(−0.05)	(0.34)	(0.33)
CEO duality	15.015***	14.326***	14.343***
	(3.18)	(3.10)	(2.89)
CSR contracting	0.651	0.648	0.638
	(1.16)	(1.12)	(1.08)
CSR committee	18.869***	18.690***	18.841***
	(12.30)	(12.12)	(12.31)
Tangible expenditure	1.072	0.927	2.550
	(0.65)	(0.56)	(1.35)
Board diversity	10.291	11.878	13.354
	(1.45)	(1.57)	(1.62)
Board size	2.321	2.032	3.924**
	(1.43)	(1.32)	(2.09)
Board independence	10.099***	9.912***	11.200***
	(2.78)	(2.79)	(3.03)
Board experience	−54.687**	−49.610**	−34.149
	(−2.39)	(−2.04)	(−1.47)
Board re-election	1.759**	1.669**	1.764**
	(2.36)	(2.18)	(2.21)
IR score (t-1)	0.366***	0.368***	0.351***
	(4.18)	(4.11)	(3.91)
IR score (t-2)	0.259***	0.265***	0.271***
	(4.39)	(4.43)	(4.48)
Constant	−112.828	−85.036	−48.846
	(−1.47)	(−1.16)	(−0.70)
Observations	17,320	17,320	17,320
Industry fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
AR1 statistic (P-value)	0.000	0.000	0.000
AR2 statistic (P-value)	0.233	0.209	0.188
Hansen test of overid. restrictions (P-value)	0.167	0.159	0.290
F-statistic (P-value)	0.000	0.000	0.000

Notes: This table presents the effect of CEO incentives structure on integrated reporting practices using the alternative regression method of two-step system generalized method of moments (GMM method). All continuous variables are winsorized at the 1% and 99% levels to limit outlier influence. The definitions of the variables are presented in Appendix A. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

also presents the validity tests of the 2SLS method. Specifically, the weak identification test (K-Paap Wald F-statistic) shows values significantly above 10, which is the critical threshold suggested by Stock et al. (2002) for assessing the validity of instrumental variables used in the 2SLS method.

Although we documented that CEO incentives directly affect integrated reporting practices, the possibility of reverse causality in this relationship may exist. Indeed, Core (2020) contends that firms may alter CEO incentive packages according to their reporting behavior. Therefore, we employed the GMM method to address the possibility of reverse causality in our relationship. This method is commonly used in the literature as it effectively addresses reverse causality issues (Abweny et al., 2025; Gull et al., 2023). We use the approach of Wintoki et al. (2012) to identify the appropriate number of dependent variable lags to be included in our estimation of the GMM method. The untabulated results reveal that the first and second lags of the dependent variables are significant, and these lags are included as regressors when estimating the GMM method.

The results of the GMM method reported in Table 13 are consistent with our main results shown in Table 5, indicating that our findings are not driven by reverse causality. In addition, Table 13 presents the validation test of the GMM method. Particularly, the p-value of the first serial correlation (AR1) is significant, while the second serial correlation (AR2) and the Hansen test of overidentification restrictions are not significant in models 1–3. As Wintoki et al. (2012) suggested, these results indicate that the models are valid and incorporate appropriate and exogenous instrumental variables.

6. Conclusion

Existing literature on factors influencing integrated reporting has primarily focused on boardroom structure and other external and internal corporate governance mechanisms, overlooking the critical role of the CEO in overall business strategies and decisions (Baboukardos et al., 2021; Esposito et al., 2023; Raimo et al., 2021; Vitolla et al., 2020). Therefore, our study examines how CEO short-term and long-term incentives could influence management's tendency toward IR practices for a sample of US firms from 2006 to 2022.

Our findings highlight the significant impact of CEO incentives on integrated reporting practices. Particularly, short-term incentives are associated with lower IR scores, reflecting a tendency towards short-termism and less strategic focus. This result aligns with the myopic perspective, which suggests that when CEOs are rewarded based on immediate performance, they are more likely to prioritize short-term gains. In contrast, we find that long-term incentives are positively associated with higher integrated reporting (IR) scores. Drawing on incentive alignment theory, this finding suggests that aligning CEO interests with the company's long-term goals fosters more comprehensive and responsible reporting practices. These outcomes underscore the importance of well-structured CEO compensation packages that prioritize long-term sustainability and strategic thinking within corporate governance. Our additional tests further reveal that firm value improves when CEOs are incentivized with long-term rewards, whereas short-term incentives are associated with a negative impact on firm value.

The findings of this study have important implications for corporate governance and public policy. From a governance perspective, the results offer practical guidance to corporate boards by highlighting the importance of designing CEO compensation packages that prioritize long-term incentives, such as stocks and options. Aligning executive rewards with long-term performance encourages managerial behavior that supports sustainable growth and fosters the adoption of integrated reporting practices. By enhancing transparency and long-term accountability, integrated reporting can help build greater trust among investors, regulators, and other stakeholders. For policymakers, these findings provide empirical support for shaping regulatory frameworks and industry standards that discourage short-termism and promote responsible corporate behavior. Encouraging organizations to adopt compensation structures aligned with long-term value creation can contribute to more sustainable and resilient business practices.

This study presents two limitations that future research could address. First, while the analysis is based on a large sample of US firms, the exclusive focus on a single country may limit the generalizability of the findings to other institutional and regulatory environments. Future research could address this limitation by extending the sample to include firms from other countries, allowing for cross-country comparisons of integrated reporting practices. Second, although this study contributes to the literature by focusing on the underexplored role of CEO incentives in shaping integrated reporting, there remains scope to

investigate additional factors that may influence IR adoption. For instance, future research could explore how the presence and characteristics of dedicated sustainability committees, including their composition, expertise, and oversight responsibilities, affect the extent and quality of integrated reporting, given their role in overseeing ESG matters and aligning sustainability with corporate strategy.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgment

We sincerely appreciate Stergios Leventis (Editor-in-Chief), the Guest Editors, and the two anonymous referees for their constructive feedback, valuable suggestions, and guidance throughout the review process.

Appendix A

Variables, their measurement, and data source

Variable	Measure	Data source
IR score	Integrated reporting score measured using a score ranging from 0 to 100.	LSEG
ST incentives	Sum of salary and bonus divided by total incentives.	EXECUCOMP
LT incentives	Sum of stocks and options divided by total incentives.	EXECUCOMP
TOT incentives	Natural logarithm of total incentive (salary, bonus, value of restricted stocks granted, value of options granted, long-term incentive payout, other compensation), divided by number of executive directors.	EXECUCOMP
Salary	Salary divided by total incentives.	EXECUCOMP
Bonus	Bonus divided by total incentives.	EXECUCOMP
Stocks	Value of restricted stocks granted divided by total incentives.	EXECUCOMP
Options	value of options granted divided by total incentives.	EXECUCOMP
Tobin Q	Market value of equity plus total assets minus book value of equity divided by total assets.	Worldscope
Firm size	Natural logarithm of total assets.	Worldscope
Leverage	Total liabilities divided by total assets.	Worldscope
ROA	Return on Assets calculated at income before extraordinary items divided by total assets.	Worldscope
Firm age	Natural logarithm of years since firm has been incorporated.	Worldscope
CEO decision horizon	Difference between the industry-average CEO tenure and the CEO's tenure, plus the difference between the industry-average CEO age and the CEO's age.	EXECUCOMP
CEO age	Natural logarithm of CEO age.	EXECUCOMP
CEO gender	Dummy variable coded 1 if CEO is male, and 0 if CEO is female.	EXECUCOMP
CEO duality	Dummy variable coded if CEO also serves as board chair, 0 otherwise.	LSEG
CSR contracting	Dummy variable coded 1 if CEO's incentive is linked to a corporate social responsibility (sustainability) target, 0 otherwise.	LSEG
CSR committee	Dummy variable coded 1 if a firm has a corporate social responsibility (CSR) committee, 0 otherwise.	LSEG
Tangible expenditure	Total property, plant, and equipment, divided by total assets.	Worldscope
Board diversity	Percentage of female directors on board.	LSEG
Board size	Natural logarithm of the number of directors on board.	LSEG
Board independence	Percentage of independent directors on board.	LSEG
Board experience	Average number of years' directors have remained on the board.	LSEG
Board re-election	Dummy variable coded 1 if all directors are subject to re-election individually, 0 otherwise.	LSEG
Ln IR score	Natural logarithm of the integrated reporting score	LSEG
IR dummy	Dummy variable coded 1 if the firm's annual report includes a section that discusses and analyzes both financial and non-financial issues, and 0 otherwise.	LSEG
Instrumental ST incentives	Industry average of CEO short-term (ST) incentives, calculated based on the Fama-French 12 industry classification.	EXECUCOMP
Instrumental LT incentives	Industry average of CEO long-term (LT) incentives, calculated based on the Fama-French 12 industry classification.	EXECUCOMP
ST incentives dummy	Dummy variable coded 1 if CEO's short-term (ST) incentives are above the sample mean of ST incentives, 0 otherwise.	EXECUCOMP
LT incentives dummy	Dummy variable coded 1 if CEO's long-term (LT) incentives are above the sample mean of LT incentives, 0 otherwise.	EXECUCOMP

Data availability

Data will be made available on request.

References

Abweny, M., Afrifa, G. A., & Iqbal, A. (2025). The complementarity and substitution effects of CSR-focused governance mechanisms on CSR decoupling. *Corporate Governance: An International Review, 33*(1), 153–175. https://doi.org/10.1111/corg.12591

Adu, D. A., Flynn, A., & Grey, C. (2022). Executive compensation and sustainable business practices: The moderating role of sustainability-based compensation. *Business Strategy and the Environment, 31*(3), 698–736. https://doi.org/10.1002/bse.2913

Agha, M. (2016). Agency costs, executive incentives and corporate financial decisions. *Australian Journal of Management, 41*(3), 425–458. https://doi.org/10.1177/0312896214550531

Ahmed, R., Abweny, M., Benjasak, C., & Nguyen, D. T. (2024). Financial sanctions and environmental, social, and governance (ESG) performance: A comparative study of ownership responses in the chinese context. *Journal of Environmental Management, 351*, Article 119718. https://doi.org/10.1016/j.jenvman.2023.119718

Antia, M., Pantzalis, C., & Park, J. C. (2010). CEO decision horizon and firm performance: An empirical investigation. *Journal of Corporate Finance, 16*(3), 288–301. https://doi.org/10.1016/j.jcorpfin.2010.01.005

Armstrong, C. S., Larcker, D. F., Ormazabal, G., & Taylor, D. J. (2013). The relation between equity incentives and misreporting: The role of risk-taking incentives. *Journal of Financial Economics, 109*(2), 327–350. https://doi.org/10.1016/j.jfineco.2013.02.019

Baboukardos, D., Mangena, M., & Ishola, A. (2021). Integrated thinking and sustainability reporting assurance: International evidence. *Business Strategy and the Environment, 30*(4), 1580–1597. https://doi.org/10.1002/bse.2695

Bhagat, S., & Bolton, B. (2008). Corporate governance and firm performance. *Journal of Corporate Finance, 14*(3), 257–273. https://doi.org/10.1016/j.jcorpfin.2008.03.006

Brochet, F., Loumioti, M., & Serafeim, G. (2015). Speaking of the short-term: Disclosure horizon and managerial myopia. *Review of Accounting Studies, 20*, 1122–1163. https://doi.org/10.1007/s11142-015-9329-8

Bugeja, M., Matolcsy, Z., & Spiropoulos, H. (2016). The association between gender-diverse compensation committees and CEO compensation. *Journal of Business Ethics, 139*, 375–390. https://doi.org/10.1007/s10551-015-2660-y

Cadez, S., Czerny, A., & Letmathe, P. (2019). Stakeholder pressures and corporate climate change mitigation strategies. *Business Strategy and the Environment, 28*(1), 1–14. https://doi.org/10.1002/bse.2070

Carvajal, M., Nadeem, M., & Zaman, R. (2022). Biodiversity disclosure, sustainable development and environmental initiatives: Does board gender diversity matter? *Business Strategy and the Environment, 31*(3), 969–987. https://doi.org/10.1002/bse.2929

Chen, J. J., Liu, X., & Li, W. (2010). The effect of insider control and global benchmarks on chinese executive compensation. *Corporate Governance: An International Review, 18*(2), 107–123. https://doi.org/10.1111/j.1467-8683.2010.00788.x

Cho, C. H., & Patten, D. M. (2007). The role of environmental disclosures as tools of legitimacy: A research note. *Accounting, Organizations and Society, 32*(7–8), 639–647. https://doi.org/10.1016/j.aos.2006.09.009

Cohn, J. B., Gurun, U. G., & Moussawi, R. (2020). A project-level analysis of value creation in firms. *Financial Management, 49*(2), 423–446. https://doi.org/10.1111/fima.12249

Coles, J. L., Daniel, N. D., & Naveen, L. (2006). Managerial incentives and risk-taking. *Journal of Financial Economics, 79*(2), 431–468. https://doi.org/10.1016/j.jfineco.2004.09.004

Conyon, M., & Freeman, R. B. (2004). Shared modes of compensation and firm performance UK evidence. In D. Card, R. Blundell, & R. B. Freeman (Eds.), *Seeking a premier economy: The economic effects of British economic reforms* (pp. 109–146). University of Chicago Press, 1980–2000. https://doi.org/10.3386/w8448.

Conyon, M. J., & He, L. (2012). CEO compensation and corporate governance in China. *Corporate Governance: An International Review, 20*(6), 575–592. https://doi.org/10.1111/j.1467-8683.2012.00935.x

Core, J. E. (2020). The real effects of financial reporting on pay and incentives. *Accounting and Business Research, 50*(5), 448–469. https://doi.org/10.1080/00014788.2020.1770931

Currim, I. S., Lim, J., & Kim, J. W. (2012). You get what you pay for: The effect of top executives' compensation on advertising and R&D spending decisions and stock market return. *Journal of Marketing, 76*(5), 33–48. https://doi.org/10.1509/jm.11.0225

Custódio, C., Ferreira, M. A., & Matos, P. (2013). Generalists versus specialists: Lifetime work experience and chief executive officer pay. *Journal of Financial Economics, 108*(2), 471–492. https://doi.org/10.1016/j.jfineco.2013.01.001

Davila, A., & Penalva, F. (2006). Governance structure and the weighting of performance measures in CEO compensation. *Review of Accounting Studies, 11*, 463–493. https://doi.org/10.1007/s11142-006-9018-8

De Villiers, C., & Van Staden, C. J. (2011). Where firms choose to disclose voluntary environmental information. *Journal of Accounting and Public Policy, 30*(6), 504–525. https://doi.org/10.1016/j.jaccpubpol.2011.03.005

Dechow, P. M., & Sloan, R. G. (1991). Executive incentives and the horizon problem: An empirical investigation. *Journal of Accounting and Economics, 14*(1), 51–89. https://doi.org/10.1016/0167-7187(91)90058-S

Deckop, J. R., Merriman, K. K., & Gupta, S. (2006). The effects of CEO pay structure on corporate social performance. *Journal of Management, 32*(3), 329–342. https://doi.org/10.1177/0149206305280113

Edmans, A., Fang, V. W., & Huang, A. H. (2022). The long-term consequences of short-term incentives. *Journal of Accounting Research, 60*(3), 1007–1046. https://doi.org/10.1111/1475-679X.12410

Edmans, A., Gabaix, X., & Landier, A. (2009). A multiplicative model of optimal CEO incentives in market equilibrium. *The Review of Financial Studies, 22*(12), 4881–4917. https://doi.org/10.1093/rfs/hhn117

Erickson, M., Hanlon, M., & Maydew, E. L. (2006). Is there a link between executive equity incentives and accounting fraud? *Journal of Accounting Research, 44*(1), 113–143. https://doi.org/10.1111/j.1475-679X.2006.00194.x

Esposito, B., Raimo, N., Malandrino, O., & Vitolla, F. (2023). Circular economy disclosure and integrated reporting: The role of corporate governance mechanisms. *Business Strategy and the Environment, 32*(8), 5403–5419. https://doi.org/10.1002/bse.3427

Frost, G. R., & Wilmshurst, T. D. (2000). The Adoption of Environment-related management accounting: An analysis of corporate environmental sensitivity. *Accounting Forum, 24*(4), 344–365. https://doi.org/10.1111/1467-6303.00045

Garvey, G., & Milbourn, T. (2003). Incentive compensation when executives can hedge the market: Evidence of relative performance evaluation in the cross section. *The Journal of Finance, 58*(4), 1557–1582. https://doi.org/10.1111/1540-6261.00577

Garvey, G. T., Grant, S., & King, S. P. (1999). Myopic corporate behaviour with optimal management incentives. *The Journal of Industrial Economics, 47*(2), 231–250. https://doi.org/10.1111/1467-6451.00099

Girella, L., Rossi, P., & Zambon, S. (2019). Exploring the firm and country determinants of the voluntary adoption of integrated reporting. *Business Strategy and the Environment, 28*(7), 1323–1340. https://doi.org/10.1002/bse.2318

Gujarati, D. N. (2021). *Essentials of econometrics*. *Sage Publications*.

Gull, A. A., Hussain, N., Khan, S. A., Khan, Z., & Saeed, A. (2023). Governing corporate social responsibility decoupling: The effect of the governance committee on corporate social responsibility decoupling. *Journal of Business Ethics, 185*(2), 349–374. https://doi.org/10.1007/s10551-022-05181-3

Gull, A. A., Luong, H., & Nadeem, M. (2024). Board co-option and corporate environmental orientation: New insights from the waste management perspective. *Corporate Governance: An International Review, 32*(5), 758–785. https://doi.org/10.1111/corg.12567

Guthrie, K., Sokolowsky, J., & Wan, K. M. (2012). CEO compensation and board structure revisited. *The Journal of Finance, 67*(3), 1149–1168. https://doi.org/10.1111/j.1540-6261.2012.01744.x

Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review, 9*(2), 193–206. https://doi.org/10.2307/258434

Haugen, R. A., & Senbet, L. W. (1981). Resolving the agency problems of external capital through options. *The Journal of Finance, 36*(3), 629–647. https://doi.org/10.2307/2327523

Hoi, C. K. S., Wu, Q., & Zhang, H. (2019). Does social capital mitigate agency problems? evidence from Chief Executive Officer (CEO) compensation. *Journal of Financial Economics, 133*(2), 498–519. https://doi.org/10.1016/j.jfineco.2019.02.009

Hossain, A., Masum, A. A., Saadi, S., Benkraiem, R., & Das, N. (2023). Firm-level climate change risk and CEO equity incentives. *British Journal of Management, 34*(3), 1387–1419. https://doi.org/10.1111/1467-8551.12652

Hossain, S., & Monroe, G. S. (2015). Chief financial officers' short-and long-term incentive-based compensation and earnings management. *Australian Accounting Review, 25*(3), 279–291. https://doi.org/10.1111/auar.12059

Iirc. (2013). *International <IR> framework*. http://integratedreporting.org/resource/international-ir-framework.

Jensen, M. C. (2004). The agency costs of overvalued equity and the current state of corporate finance. *European Financial Management, 10*(4), 549–565. https://doi.org/10.1111/j.1354-7798.2004.00265.x

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Jensen, M. C., & Murphy, K. J. (1990). Performance pay and top-management incentives. *Journal of Political Economy, 98*(2), 225–264. https://doi.org/10.1086/261677

Jin, L. (2002). CEO compensation, diversification, and incentives. *Journal of Financial Economics, 66*(1), 29–63. https://doi.org/10.1016/S0304-405X(02)00150-2

KPMG. (2017). *The road ahead. The KPMG Survey of Corporate Responsibility Reporting 2017*. Retrieved from https://assets.kpmg/content/.

Kwon, S. H., Kim, J., & Yim, H. S. (2023). Looking far or close: The explanatory role of myopic management in the relationship between CEO-TMT power disparity and corporate social responsibility. *Journal of Business Research, 167*, Article 114090. https://doi.org/10.1016/j.jbusres.2023.114090

Ladika, T., & Sautner, Z. (2020). Managerial short-termism and investment: Evidence from accelerated option vesting. *Review of Finance, 24*(2), 305–344. https://doi.org/10.1093/rof/rfz012

Lee, K.-W., & Yeo, G.-H.-H. (2016). The association between integrated reporting and firm valuation. *Review of Quantitative Finance and Accounting, 47*, 1221–1250. https://doi.org/10.1007/s11156-015-0536-y

Lewis, B. W., Walls, J. L., & Dowell, G. W. (2014). Difference in degrees: CEO characteristics and firm environmental disclosure. *Strategic Management Journal, 35*(5), 712–722. https://doi.org/10.1002/smj.2127

Li, T., Trinh, V. Q., & Elnahass, M. (2023). Drivers of global banking stability in times of crisis: The role of corporate social responsibility. *British Journal of Management, 34*(2), 595–622. https://doi.org/10.1111/1467-8551.12631

Liu, H., & Zhang, Z. (2023). The impact of managerial myopia on environmental, social and governance (ESG) engagement: Evidence from chinese firms. *Energy Economics, 122*, Article 106705. https://doi.org/10.1016/j.eneco.2023.106705

Luo, L., Wu, H., & Zhang, C. (2021). CEO compensation, incentive alignment, and carbon transparency. *Journal of International Accounting Research, 20*(2), 111–132. https://doi.org/10.2308/JIAR-2020-032

Maniora, J. (2017). Is integrated reporting really the superior mechanism for the integration of ethics into the core business model? an empirical analysis. *Journal of Business Ethics, 140*, 755–786. https://doi.org/10.1007/s10551-015-2874-z

Martin, G. P., Wiseman, R. M., & Gomez-Mejia, L. R. (2016). Going short-term or long-term? CEO stock options and temporal orientation in the presence of slack. *Strategic Management Journal, 37*(12), 2463–2480. https://doi.org/10.1002/smj.2445

Mazouz, K., & Zhao, Y. (2019). CEO incentives, takeover protection and corporate innovation. *British Journal of Management, 30*(2), 494–515. https://doi.org/10.1111/1467-8551.12330

Meqbel, R., Alta'any, M., Abweny, M., & Al-Shaer, H. (2025). CSR governance committee and carbon emission performance: Does committee composition matter? *International Journal of Finance & Economics. Forthcoming.*. https://doi.org/10.1002/ijfe.3164

Murphy, K. J. (1999). Executive compensation. *Handbook of Labor. Economics, 3*(Part B), 2485–2563. https://doi.org/10.1016/S1573-4463(99)30024-9

Murphy, K. J., & Sandino, T. (2020). Compensation consultants and the level, composition, and complexity of CEO pay. *The Accounting Review, 95*(1), 311–341. https://doi.org/10.2308/accr-52439

Nienhaus, M. (2022). Executive equity incentives and opportunistic manager behavior: new evidence from a quasi-natural experiment. *Review of Accounting Studies, 27*(4), 1276–1318. https://doi.org/10.1007/s11142-021-09633-5

Nishitani, K., Unerman, J., & Kokubu, K. (2021). Motivations for voluntary corporate adoption of integrated reporting: A novel context for comparing voluntary disclosure and legitimacy theory. *Journal of Cleaner Production, 322*, Article 129027. https://doi.org/10.1016/j.jclepro.2021.129027

O'Connor, J. P., Jr, Priem, R. L., Coombs, J. E., & Gilley, K. M. (2006). Do CEO stock options prevent or promote fraudulent financial reporting? *Academy of Management Journal, 49*(3), 483–500. https://doi.org/10.5465/AMJ.2006.21794666

Obeng, V. A., Ahmed, K., & Cahan, S. F. (2021). Integrated reporting and agency costs: International evidence from voluntary adopters. *European Accounting Review, 30*(4), 645–674. https://doi.org/10.1080/09638180.2020.1805342

Oyer, P., & Schaefer, S. (2005). Why do some firms give stock options to all employees?: An empirical examination of alternative theories. *Journal of Financial Economics, 76* (1), 99–133. https://doi.org/10.1016/j.jfineco.2004.03.004

Peng, L., & Röell, A. (2008). Executive pay and shareholder litigation. *Review of Finance, 12*(1), 141–184. https://doi.org/10.1093/rof/rfl003

Phung, G., Trinh, H. H., Nguyen, T. H., & Trinh, V. Q. (2023). Top-management compensation and environmental innovation strategy. *Business Strategy and the Environment, 32*(4), 1634–1649. https://doi.org/10.1002/bse.3209

Raimo, N., Vitolla, F., Marrone, A., & Rubino, M. (2021). Do audit committee attributes influence integrated reporting quality? an agency theory viewpoint. *Business Strategy and the Environment, 30*(1), 522–534. https://doi.org/10.1002/bse.2635

Reid, E. M., & Toffel, M. W. (2009). Responding to public and private politics: Corporate disclosure of climate change strategies. *Strategic Management Journal, 30*(11), 1157–1178. https://doi.org/10.1002/smj.796

Reimsbach, D., & Braam, G. (2023). Creating social and environmental value through integrated thinking: International evidence. *Business Strategy and the Environment, 32* (1), 304–320. https://doi.org/10.1002/bse.3131

Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of Accounting and Economics, 42*(3), 335–370. https://doi.org/10.1016/j.jacceco.2006.01.002

Steinbach, A. L., Holcomb, T. R., Holmes, R. M., Jr, Devers, C. E., & Cannella, A. A., Jr (2017). Top management team incentive heterogeneity, strategic investment behavior, and performance: A contingency theory of incentive alignment. *Strategic Management Journal, 38*(8), 1701–1720. https://doi.org/10.1002/smj.2628

Stock, J. H., Wright, J. H., & Yogo, M. (2002). A survey of weak instruments and weak identification in generalized method of moments. *Journal of Business & Economic Statistics, 20*(4), 518–529. https://doi.org/10.1198/073500102288618658

Sun, J., Cahan, S. F., & Emanuel, D. (2009). Compensation committee governance quality, chief executive officer stock option grants, and future firm performance. *Journal of Banking & Finance, 33*(8), 1507–1519. https://doi.org/10.1016/j.jbankfin.2009.02.015

Tosi, H. L., Katz, J. P., & Gomez-Mejia, L. R. (1997). Disaggregating the agency contract: The effects of monitoring, incentive alignment, and term in office on agent decision making. *Academy of Management Journal, 40*(3), 584–602. https://doi.org/10.5465/257054

Tosun, O. K. (2020). Differences in CEO compensation under large and small institutional ownership. *European Financial Management, 26*(4), 1031–1058. https://doi.org/10.1111/eufm.12252

Veltri, S., & Silvestri, A. (2020). The value relevance of corporate financial and nonfinancial information provided by the integrated report: A systematic review. *Business Strategy and the Environment, 29*(8), 3038–3054. https://doi.org/10.1002/bse.2556

Vitolla, F., Raimo, N., & Rubino, M. (2020). Board characteristics and integrated reporting quality: An agency theory perspective. *Corporate Social Responsibility and Environmental Management, 27*(2), 1152–1163. https://doi.org/10.1002/csr.1879

Wahl, A., Charifzadeh, M., & Diefenbach, F. (2020). Voluntary adopters of integrated reporting–evidence on forecast accuracy and firm value. *Business Strategy and the Environment, 29*(6), 2542–2556. https://doi.org/10.1002/bse.2519

Wang, G., Holmes, R. M., Jr, Oh, I. S., & Zhu, W. (2016). Do CEOs matter to firm strategic actions and firm performance? a meta-analytic investigation based on upper echelons theory. *Personnel Psychology, 69*(4), 775–862. https://doi.org/10.1111/peps.12140

Wang, X. (2024). Does CEO temporal myopia always lead to firm short-termism? the critical role of CEO optimism and perceived opportunity costs. *Journal of Business Research, 180*, Article 114739. https://doi.org/10.1016/j.jbusres.2024.114739

Wintoki, M. B., Linck, J. S., & Netter, J. M. (2012). Endogeneity and the dynamics of internal corporate governance. *Journal of Financial Economics, 105*(3), 581–606. https://doi.org/10.1016/j.jfineco.2012.03.005

Wu, Y., & Zhou, S. (2022). Do firms practicing integrated reporting engage in less myopic behavior? International evidence on opportunistic earnings management. *Corporate Governance: An International Review, 30*(3), 290–310. https://doi.org/10.1111/corg.12401

Yang, J., Yu, Y., & Zheng, L. (2021). The impact of shareholder litigation risk on equity incentives: Evidence from a quasi-natural experiment. *The Accounting Review, 96*(6), 427–449. https://doi.org/10.2308/TAR-2017-0697

Zhou, B., Li, Y.-M., Sun, F.-C., & Zhou, Z.-G. (2021). Executive compensation incentives, risk level and corporate innovation. *Emerging Markets Review, 47*, Article 100798. https://doi.org/10.1016/j.ememar.2021.100798