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RESEARCH ARTICLE

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How does transparency into global sustainability initiatives influence firm value? Insights from Anglo-American countries

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Abstract

Corporations use global sustainability reporting principles, certifications, guidelines, and indices to promote corporate transparency. However, the effectiveness of adopting these global transparency approaches, either separately or collectively, in increasing firm value is as yet unclear. Thus, we examine whether different global transparency approaches engender different outcomes related to firm value and whether adopting a comprehensive or integrated global transparency approach could better enhance firm value. We use a sample comprising 6978 firm-year observations of firms listed in the United States (S&P 500), Canada (S&P-TSX 221), and the United Kingdom (FTSE 350) from 2013 to 2019. A fixed-effects regression model is then used to examine the primary associations in this study. This technique was complemented by a two-step dynamic generalised method of moment (GMM) model to overcome the expected endogeneity concerns. Our findings indicate that adopting global sustainability reporting principles, certifications, and an integrated global transparency approach is positively attributable to the market value of firms. In contrast, firms' adoption of international guidelines and environmental, social, and governance (ESG) ratings cannot predict the firm value in the study context. Our evidence implies that firms' adoption of an integrated global transparency approach adds the most value to those firms when compared with adopting a standalone transparency approach across the three sampled countries. Our study provides practical implications for policymakers and corporate managers and suggests avenues for future studies to build upon our findings.

KEYWORDS

Anglo-America, corporate transparency, CSR, ESG ratings, firm value, global sustainability initiatives

1 | INTRODUCTION

In a study conducted by the Governance & Accountability (G&A) institute in 2018, it was found that 86% of S&P 500 Index companies reported information about their sustainability/CSR practices (Park et al., 2021), indicating a dramatic increase in corporate commitment

Abbreviations: AC, Existing External Audit; ACI, Audit committee independence; BD, Board Diversity; BZ, Board size; CC, Control of Corruption; CEOD, CEO-Chairman Separation (Duality); Cert, The Certificate Approach; CGC, Corporate Governance Committee; Com-App, The Comprehensive Approach; CSR, Corporate Social Responsibility; ESG, The ESG Disclosure Approach; FV, Firm Value; GDP, The logarithm of Gross domestic product; GL, The Guideline Approach; Principles, The Principle Approach; ROA, Return on Assets; ROE, Return on Equity; RQ, Regulatory Quality; TQ, Tobin-Q.

to transparency from 20% in 2011 to 86% in 2018. Furthermore, empirical studies also have firmly linked the long-term success of corporations with the levels of transparency demonstrated by them in relation to sustainability/CSR (Camilleri, 2022; Haque & Ntim, 2018). As such, the role of corporate transparency as a crucial determinant of a firm's long-term success seems to be firmly affirmed (Silvestre et al., 2020), with some attributing its substantial growth to the pressures exerted by powerful stakeholders, such as institutional investors, regulators, and the media, to comply with various international transparency approaches (Amaral et al., 2020; Camilleri, 2022; Nazir et al., 2021).

Nevertheless, engaging in global transparency initiatives is considered to be an instrumental decision for corporations, as it would confer them with two key advantages: First, the strategic disclosure of information, specifically nonfinancial information, will aid in corporate efforts to pursue positive legitimacy from salient stakeholders (Coombs & Holladay, 2013; Orij, 2010), and second, corporations will be able to demonstrate an upholding of their corporate moral conscience, enabling them to secure reputational capital (Albu & Flyverbom, 2016). Others have, however, questioned this unequivocal ability of corporate transparency to provide an unfettered depiction of sustainability (Moufty et al., 2022). For them, the very act of disclosure of sustainability information is depictive of deliberate preselected representations of organisational practice (Albu & Flyverbom, 2016). The aim of corporations is to 'selectively mask or reveal' particular organisational practices (Drucker & Gumpert, 2007) or make disclosures deliberately complex and incomprehensible (Fabrizio & Kim, 2019), thereby effecting a degree of 'opacity' in relation to corporate sustainability (Haack et al., 2021).

In order to negate criticisms of corporate transparency and to find an effective pathway through the complex morass of it, labelled by some as a concept that is 'volatile and imprecise' (Williams, 2005), both corporations and investors have turned towards global corporate transparency approaches (related to sustainability and CSR disclosure), ranging from cross-industry reporting initiatives, such as the Global Reporting Initiative (GRI), to global frameworks, such as the United Nations Principles for Responsible Investment (UN PRI), to certifications, such as ISO 14000, and transparency ratings, such as Environmental Social and Governance (ESG) scores (Ismail et al., 2021).

Thus, global transparency approaches can be identified as comprising 'frameworks', typically consisting of a set of principles acting as a heuristic device to guide corporations' sustainability efforts, to 'standards', a more formalised mechanism consisting of both implementation and monitoring documentation and associated systems aimed at expansive adoption of sustainability across corporations and 'ratings and indices', broadly consisting of third party evaluations of a corporation's sustainability or ESG performance (Siew, 2015). These global sustainability/CSR transparency initiatives have two main objectives: (i) to encourage firms' responsible behaviour and (ii) to enhance the comparability of sustainability practices of firms by supporting consistent sustainability reporting (Fortanier et al., 2011). Thus, firms implementing such global initiatives are more likely to disclose sustainability/CSR information than firms that do not adopt them, which is also associated with enhanced firm value according to a stream of existing literature (e.g., Buallay et al., 2022; Nguyen et al., 2021; Yu et al., 2018).

However, instead of questioning the *value relevance* of actual sustainability/CSR reporting/disclosure of firms, we follow a different approach in the current study by examining the *added value* of firms' adoption and the implementation of global sustainability/CSR transparency initiatives. Consequently, the first research question we examine in this study is the following: *Does the adoption of global sustainability initiatives stimulate the financial performance of firms?*

The adoption of global sustainability approaches inevitably raises a question about the *effectiveness* of implementing a particular transparency approach compared with other counterparts. As such, the second research question we ask in this study is the following: *Is firm value driven by adopting a certain global transparency approach or by adopting all relevant global transparency approaches in the context of sustainability and CSR?* In doing so, we seek answers to the question of whether different global corporate transparency approaches (i.e., sustainability reporting principles, guidelines, certifications, and ESG indices) engender different outcomes related to the firm-value of corporations across countries.

Prior corporate transparency literature has primarily focussed on examining how sustainability/CSR transparency leads to firm value (Buallay et al., 2022; Eccles et al., 2001; Gray, 2006; King & Lenox, 2000; Margolis & Walsh, 2003; Yu et al., 2018). Others have also focussed on examining the influence of ESG/CSR criteria upon decision-making for investments (Richardson, 2009), with some ascertaining that investors may tend to increase their investments in those firms associated with a better sustainability image, resulting in improved market value (De Bakker et al., 2005; Margolis & Walsh, 2003).

Collectively, the present body of literature suggests that sustainability/CSR disclosures (or corporate transparency) do increase the firm value of corporations (e.g., Alcaide González et al., 2020; Clarkson et al., 2019; Haque & Ntim, 2018, 2022; Kim et al., 2013; Nguyen et al., 2021; Oino, 2019; Sampong et al., 2018; Shahab et al., 2018; Tran et al., 2021; Ullah et al., 2022; Yu et al., 2018). However, what is as yet unclear is which of these global sustainability/CSR initiatives—that is, consisting of cross-industry reporting initiatives (GRI), global CSR frameworks (UN PRI), certifications (ISO 14000), and transparency ratings (ESG scores)—impact firm value. It is this gap in research which has motivated us to focus this paper on examining the *added value* of firms' adoption and the implementation of global sustainability/CSR transparency initiatives.

We acknowledge that there have been some recent studies which have attempted to examine the 'added value' perspective of corporate transparency. For example, Chakroun et al. (2019) examined the impact of adopting ISO 26000 on firms' financial performance, with an identification of a positive link between firms' adoption of global CSR standards and firm value. Similarly, Sampong et al. (2018) find that firms' engagement with CSR transparency in line with the GRI framework positively influences the financial performance of those firms.

However, these extant studies collectively have several shortcomings, which we aim to address in this paper. First, prior studies have mostly been confined to examining the added value of discrete standalone global sustainability/CSR transparency initiatives (see Alcaide

González et al., 2020; Chakroun et al., 2019; Nuskiya et al., 2021; Sampong et al., 2018). As such, these studies have not captured the nature of 'value addition', which could occur, across a range of global sustainability/CSR transparency initiatives implemented by corporations across multiple countries. This prevalent deficiency in extant research also leads to the second shortcoming, which is the lack of empirical studies examining the differences in value addition which could occur when one global sustainability/CSR transparency initiative is adopted over another by corporations. Thus, we still do not have a firm understanding of whether a firm value is driven by adopting a certain global transparency approach or by adopting all relevant global transparency criteria in the context of sustainability and CSR.

To address the above-mentioned shortcomings in extant research, we have first examined the added value of firms' commitment to adopting and implementing a range of global sustainability/CSR transparency approaches. In doing so, we examine the impact of adopting global sustainability/CSR transparency-related principles, guidelines, certifications, and indices (individually and collectively) on firms' financial performance. Second, we explore the extent to which the *comprehensiveness* of implementing these global sustainability/CSR transparency approaches can engender greater firm value. Crucially, since the effectiveness of implementing global sustainability/CSR transparency approaches in increasing firm value is still not clear (as noted above), the findings of this paper enable us to clearly articulate the most effective global sustainability/CSR transparency approach for adding value to firms. Based on the knowledge we have gathered from our findings, we also suggest policy-level recommendations which corporations should undertake to improve their sustainability/CSR disclosure in order to engender efficiencies required for greater corporate transparency.

Our dataset was gathered from the DataStream database and covered a 7-year period from 2013 to 2019 to ensure a consistent and adequate number of observations. We started the data collection from 2013 because the most comprehensive Extractive Industries Transparency Initiative (EITI) was implemented by European firms in 2013 (Linder & Marbuah, 2019). We also selected those firms listed at the top from across three Anglo-America countries, namely, the United States (as listed in the S&P 500), Canada (as listed in the S&P-TSX 221), and the United Kingdom (as listed in the FTSE 350). We selected these Anglo-American countries for several reasons: First, these countries are more likely to have introduced (or will introduce) more effective market mechanisms and compliance regimes to encourage effective corporate transparency practices than other countries in the world (Ooghe & De Langhe, 2002). Second, these countries have not only propagated voluntary adoption of sustainability/CSR disclosure practices but have also introduced certain mandatory regulations, for example, in relation to conflict mineral disclosures in the United States (Islam & Van Staden, 2018) and GHG emissions disclosure in the United Kingdom (Broadstock et al., 2018). This makes the Anglo-American context a unique setting to examine the impact of a range of global sustainability/CSR transparency initiatives on firm value.

Our empirical evidence suggests that although adopting various global sustainability/CSR transparency initiatives has heterogeneous effects on firm value across the sampled countries, implementing a comprehensive (i.e., all-encompassing) global transparency approach regarding sustainability/CSR adds more consistent value to firms listed on stock markets across Anglo-American countries. Our results imply that global sustainability/CSR transparency initiatives not only enhance the overall level of sustainability/CSR reporting (Ismail et al., 2021) but are also associated with a better firm value of corporations (Chakroun et al., 2019) across different Anglo-American countries, hence decreasing the role that indigenous institutions and institutional actors, such as societal stakeholders and legislation, play in influencing corporate sustainability/CSR transparency practices.

The remainder of this article is structured as follows: Section 2 introduces the contextual background of the study. Section 3 presents previous studies and the theoretical framing of research hypotheses. Section 4 explains the research design, while Section 5 discusses the empirical results. Section 6 discusses the main findings, and Section 7 concludes the main findings and provides policy and practitioner implications and avenues for future research.

2 | BACKGROUND

2.1 | The US context

Corporate transparency, in the form of sustainability/CSR disclosure, is driven by the markets in the United States. Corporations, thus, disclose their engagement in corporate sustainability/CSR to their stakeholders through their annual reports, proxy statements, and principally via sustainability/CSR reports (Lukomnik et al., 2018). In recent times, both shareholder activism (Ho, 2018) and private disclosure regulations (Ho, 2020) have resulted in increased uptakes of corporate sustainability/CSR disclosure, including ESG disclosure, in the United States.

However, initiatives to propagate government regulation for mandatory disclosure of sustainability/CSR information have so far been unsuccessful. For example, the Securities and Exchange Commission (SEC), in 2012, started assessing the efficiency of federal corporate disclosure rules with the intention of potential modification and simplification to improve the overall disclosure requirements for small firms. In 2016, as part of this assessment, the SEC even sought public opinions concerning the necessity for an enhanced corporate disclosure framework for ESG issues. Over 25,000 respondents participated in this survey, with 80% encouraging the SEC to implement new strategies to advance listed firms' implementation of ESG disclosure practices (Sustainability Accounting Standards Board [SASB], 2016). However, despite these efforts, ESG concerns remain disregarded by SEC in its disclosure regime (SEC, 2019), with private regulations in the form of reporting standards and guidelines for voluntary sustainability information disclosures, such as the Task Force on Climate-related Financial Disclosure (TCFD), the Global Reporting Initiative (GRI), and the Extractive Industries Transparency Initiative (EITI), acting as guiding mechanisms for Corporate Transparency in the United States (Huennekens & Smith, 2018).

2.2 | The UK context

The United Kingdom, an important Green House Gas (GHG) emitter (Haque, 2017), has taken more proactive measures, including enacting corporate compliance regimes to counter climate change (Alsaifi et al., 2020), thereby pressuring corporations to become more transparent about their environmental performance. For example, in 2009, the British government proposed a voluntary sustainability disclosure framework to evaluate corporate actions towards decreasing their carbon emissions, followed by mandated disclosure of GHGs in 2013 (Secretary of States, 2013). The results of these measures are indicated within the data provided by the Carbon Disclosure Project (CDP), where more than 97% of the UK publicly listed corporations disclose information relating to Scopes 1 and 2 of GHG emissions, making the United Kingdom the country with the highest percentage (96%) of board-level oversight of carbon emission risk worldwide (CDP, 2016).

2.3 | The Canadian context

The Canadian government has also supported several multistakeholder initiatives over time aimed at increasing corporate transparency in relation to sustainability disclosure. For example, the National Round Table was introduced in 1988, the Turning the Corner Plan in 2007, and most recently, the Federal Sustainable Development Strategy (2016–2019) (Cho et al., 2020). As a consequence, a significant advancement in corporate transparency can be seen in Canada, with improvements in environmental disclosures by the largest resource and chemical corporations and increases in ESG disclosure by most firms listed on the TSX Composite. The efforts undertaken by industrial associations, such as the Mining Association of Canada, have further contributed to establishing a corporate movement towards greater corporate transparency in the country. For instance, to be a member of the Mining Association of Canada, companies must adopt sustainability reporting standards and establish sustainability initiatives that support their framework, Toward Sustainable Mining (CPA Canada, 2015).

3 | THEORETICAL LITERATURE REVIEW

In evaluating the extant range of global sustainability/CSR approaches (as shown in Figure 1), we come across a fundamental deficiency: the lack of uniformity in relation to the criteria used to assess corporate sustainability/CSR and the methodologies used to compute composite scores to depict corporate transparency (Escrig-Olmedo et al., 2014). These fundamental deficiencies indicate two contradicting theoretical positionings of corporate transparency approaches: (a) verifiability—denoting *how* information is disclosed in order to enable stakeholders to ascertain the actual state of affairs related to the transparency of the corporation—and (b) performativity—focusing on the *operationalisation* of corporate transparency, in essence, ensuring that what is disclosed is reflective of what is in operation within the corporation (Albu & Flyverbom, 2016).

Verifiability-based transparency approaches will promote the disclosure of 'more' sustainability information, adopting international transparency initiatives for identifying and categorising such information under the expectation that more information would generate better corporate conduct. For instance, adopting global sustainability/CSR standards is attributed to enhancing both the quantity (Ismail et al., 2021) and quality of CSR reporting across different countries, leading to the harmonisation of firms' CSR performance (Fortanier et al., 2011).

In contrast, performativity-based transparency approaches emphasise the need to engender organisational change for corporate transparency, consisting of systemic operational changes related to 'how' the organisation engages in operationalising transparency

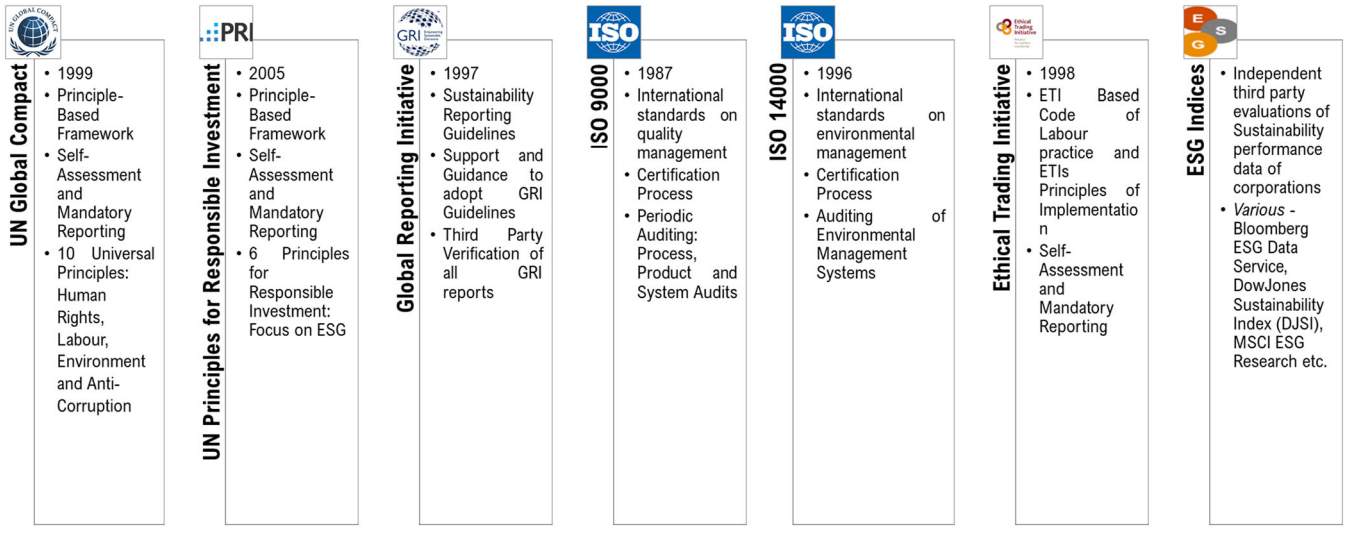

FIGURE 1 Corporate transparency approaches.

(Christensen & Cheney, 2015). For example, critics of GRI point to it resulting in the confinement of sustainability evaluations to those criteria identified by GRI, thereby leading corporations to an evaluatory trap (Moneva et al., 2006) rather than engendering strategic changes within corporations geared towards improving corporate transparency (Dumay et al., 2010). Thus, performativity-based transparency approaches acknowledge the complexities and paradoxes associated with not just the provision of information on corporate transparency but also with its interpretations by stakeholders resulting in the production of *new* organisational realities for corporations (Albu & Flyverbom, 2016). For example, there have been many instances of 'greenwashing' where corporations have been professing and reporting on their sustainability initiatives without operationalising required internal changes for corporate transparency (Marquis et al., 2016).

Thus, a question remains as to the extent to which the present range of global corporate transparency approaches, some of which we highlighted previously (see Figure 1), emphasise the need for *performativity*, thereby providing more insights into not just 'what' corporations do (i.e., the provision and quality of information) but 'how' they do it—that is, the negotiated processes and practices which occur within corporations required to enact substantive changes for corporate sustainability in order for subsequent disclosures to be generated.

Extant research indicates that investors and other legitimate stakeholders highly value the *verifiability* of disclosed information resulting from adopting global sustainability/CSR reporting initiatives across countries, as it adds to the firm value (Berthelot et al., 2012; Broadstock et al., 2018; Chakroun et al., 2019). In that case, it is crucial to understand which specific global sustainability/CSR approach would contribute and add 'value' to the firm. More specifically, the adoption of different global sustainability/CSR approaches could lead to heterogeneous influences on the firm value of corporations across countries. As such, understanding whether corporations should adopt 'selected' global sustainability/CSR approaches or whether they should adopt all relevant global sustainability/CSR approaches will be a useful heuristic for investors.

4 | EMPIRICAL LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Although present research has examined the impact of corporate transparency in the context of sustainability/CSR on firm value, these research studies have several limitations. First, prior studies (e.g., Clarkson et al., 2013; Broadstock et al., 2018; Haque & Ntim, 2022; Fischer & Lindermoyer, 2020; Nguyen et al., 2021; Yu et al., 2018) have primarily concentrated on exploring the influence of ESG/CSR disclosure, as a part of corporate transparency, on firm value, with scant attention being paid to examining the added value of adopting global ESG/CSR approaches, ranging from cross-industry reporting initiatives, such as the GRI, to global frameworks, such as the UN PRI, to certifications, such as ISO 14000, and indices, such as ESG ratings. Second, only a few studies have examined the impact of standalone global corporate transparency approaches on firm value, such as the adoption of GRI in the case of Sampong et al. (2018) and ISO 26000 in the case of Chakroun et al. (2019). However, there is a lack of studies examining the impact of cross-national adoption of a selected standalone global transparency on generating firm value. In other words, what is less clear from extant research is which of the global transparency approaches (i.e., sustainability/CSR approaches) would be more effective in engendering firm value for corporations across different countries.

Our study, consequently, extends current research in various ways. First, by assessing the potential impact of implementing various global transparency approaches (i.e., GRI, UN PRI, ISO 14000, and ESG ratings) on firm value in a multicountry context, namely, Anglo-America, we explore whether the *verifiability* of disclosed information resulting from adopting these global sustainability/CSR reporting initiatives would help firms across countries in engendering a better firm value. Second, we explain which of these extant global transparency approaches would be more effective in creating firm value for corporations across different Anglo-American countries—that is, United States, United Kingdom, and Canada.

Although fewer studies have focussed on examining the influence of corporate transparency approaches (in the context of sustainability) on firm value, those studies which have examined it have reported the existence of a positive relationship. For example, Alcaide González et al. (2020) indicate that large global IT firms come over as being more transparent concerning sustainability, which is significantly associated with their financial performance. In another study, Oino (2019) also found that greater corporate transparency in the context of CSR is positively attributable to the financial performance of financial institutions.

Thus, researchers have attributed the dissemination of CSR/ESG information to increased firm value of companies, irrespective of the motives underpinning the utilisation of global transparency initiatives by the companies (Moses et al., 2018). It has emphasised the advantageous nature of adopting normative global corporate transparency approaches (Hughes et al., 2011), such as reporting frameworks, standards, and ratings and indices, for companies, and the need to move away from a compliance-oriented regime, with heavy promotion of investor-oriented disclosure, such as the SEC requirements for disclosure on the information on the materiality of environmental and social issues to investors (Ho, 2020), in order to engender better firm performance (Shi et al., 2012). Theoretically, we argue that investors would highly value the *verifiability* and comparability of disclosed CSR/ESG information resulting from adopting global sustainability reporting initiatives across countries. At the same time, they would also value adopting a specific global transparency approach that consistently adds value to firms across countries, assuming that it will institute substantive corporate sustainability changes to generate subsequent disclosures. Therefore, we posit the following hypotheses.

4.1 | Global transparency principles and firm value

Established in 1999, the UNGC adopts a soft governance approach to promoting corporate transparency and accountability (Garsten &

Jacobsson, 2011). In doing so, it promotes the adoption of 10 principles across areas such as human rights, labour, environment, and anticorruption, seeking the cooperation of its signatories, including corporations and non-governmental organisations, within their sphere of influence. As a corporate transparency approach, the UNGC provides corporations with a flexible, voluntary, and self-regulatory mechanism to disseminate and share their sustainability practices. Nevertheless, its inability to monitor and evaluate corporate disclosures, together with its lack of sanctioning capacity for its signatories, has been highlighted as key shortcomings (Baumann & Scherer, 2010).

Similarly, the Principles for Responsible Investment was initiated by the United Nations Secretary-General Kofi Annan, in 2005, together with institutional investors and experts consisting of investment specialists, intergovernmental organisations, and civil society actors (UNPRI, 2020). It was formally launched in April 2006 at the New York Stock Exchange, and the number of signatories has grown from 100 to over 3000 today. Today, PRI is the world's most extensive advocate of responsible investment, working to provide support for its signatories to incorporate ESG factors when making investment decisions. The six principles of UNPRI are aspirational but voluntary in nature and comprise a set of principles to guide corporate actions for integrating ESG issues into investment decisions and practice (UNPRI, 2020). By encouraging the adoption of the principles by its signatories (composing of some of the majority of the world's largest investment firms) and by encouraging good governance, transparency, and accountability, PRI aims to increase its signatories' contributions to engendering a more sustainable and transparent global financial system, leading to long-term value creation and benefiting both the environment and society as a whole (UNPRI, 2020).

Some studies indicate that corporations that adhere to principles-based global transparency initiatives are expected to engage with sustainability reporting (Haque & Ntim, 2022; Liesen et al., 2015), which is, in return, positively associated with a firm value (Broadstock et al., 2018; Brooks & Oikonomou, 2018; Clarkson et al., 2019; Gerged et al., 2021a; Li et al., 2018; Nguyen et al., 2021). From a *verifiability* transparency perspective, we argue that adopting a principle-based global transparency approach, including UNGC and PRI, would increase the degree of verifiability and comparability of sustainability/CSR information, a matter investors highly appreciate. Thus, we develop the first hypothesis as follows:

> **H1.** There is a positive relationship between the corporate application of global ESG/CSR transparency principles and firm value.

4.2 | GRI guidelines and firm value

Founded in 1997, GRI is the world's leading organisation facilitating corporate sustainability disclosures by providing a set of standards for sustainability reporting, known as the GRI Standards (GRI, 2020a). The GRI Standards, aimed at engendering greater corporate transparency and accountability in relation to issues focusing on the social, economic, and environmental responsibilities of corporations as well as their governance, are updated regularly through a process involving multiple stakeholders (Dingwerth & Eichinger, 2010). The current G4 reporting framework, referring to the fourth generation of Sustainability Reporting Guidelines, comprises both Universal Standards and Topic Standards (GRI, 2020b). The GRI reporting guidelines are voluntary in nature and provide consistency in the corporate reporting of sustainability, enabling greater transparency (Adams & Narayanan, 2007) and enhancing the comparability of sustainability reports among corporations within specific sectors (GRI, 2020b). By enabling corporations to compile and disclose sustainability information focusing on 'material topics', that is, economic, environmental, or social, GRI ensures that a more inclusive picture of their internal management and related impacts is being provided through corporations' nonfinancial reports (GRI, 2020c).

Kolk (2003) states that standardisation of sustainability/CSR transparency appears to be positively associated with sustainability disclosure. Likewise, many studies present a positive association between compliance with the GRI guidelines and sustainability reporting (Chelli et al., 2018; Comyns, 2016). Relatedly, Nuskiya et al. (2021) state that firms' adherence to GRI guidelines in reporting their environmental information is positively attributed to the financial performance of these firms. The transparency guidelines-firm value nexus is theoretically underpinned by investors' appreciation of the verifiability and comparability of sustainability information resulting from adopting the GRI guidelines. Hence, the second hypothesis we test in this study is as follows:

> **H2.** There is a positive relationship between corporate adoption of GRI guidelines and firm value.

4.3 | Global sustainability certifications and firm value

ISO 9001 and ISO 14000 focus, respectively, on maintaining required standards related to the quality management of organisational processes and environmental management systems. ISO 9001 establishes the criteria required for maintaining a quality management system in relation to products and services, with over one million companies and organisations in over 170 countries certified to ISO 9001 at present (ISO, 2020a). ISO 14001 provides tools for corporations to manage their environmental responsibilities by setting out the required criteria for the certification and mapping out a framework to establish an effective environmental management system (ISO, 2020b).

The few studies which have explored the relationship between corporate adoption of certification-based global transparency approaches and firm value have identified a positive nexus (Chakroun et al., 2019; Fortanier et al., 2011). For example, Chakroun et al. (2019) indicate that corporate adoption of a global CSR certification is effective in enhancing the financial performance of French companies. Arguably, investors highly value firms that obtain certification-based global transparency approaches for verifiability reasons, which,

indeed, increase their market value. Accordingly, we test the following hypothesis:

> **H3.** There is a positive relationship between global sustainability certificates and firm value.

4.4 | ESG transparency indices and firm value

ESG indices comprise evaluations of corporations' environmental, social, and governance (ESG) performance conducted by independent third parties. The methodology used by these providers in reporting and ratings and their scope and coverage differs amongst them, with many engaging proactively with corporations to obtain robust data. Some of the main ESG indices are briefly reviewed below (Huber & Comstock, 2017).

a. Bloomberg ESG Data Service: Bloomberg collects ESG data for more than 11,700 companies across 102 countries, organised into 1300+ fields (BPS, 2020). Corporations are rated annually based on their disclosure of quantitative and policy-related ESG data, covering over 120 environmental, social, and governance indicators.
b. Dow Jones Sustainability Indices (DJSI): Launched in 1999, DJSI indices consist of a range of benchmark indexes tracking the stock performance of the world's leading companies in terms of economic, environmental, and social criteria (S&P Global, 2020). They provide guidance for investors wishing to incorporate sustainability considerations into their portfolios.
c. MSCI ESG Research: Launched in 2010, MSCI provides ESG ratings for over 8500 companies and more than 680,000 equity and fixed-income securities globally (as of October 2020). In doing so, MSCI identifies ESG risks which are of material value to a sector or a subsector (MSCI, 2020).

Prior ESG literature indicated that ESG ratings are positively linked with the firm value of corporations (Albitar et al., 2020; Buallay et al., 2022; Eccles et al., 2001; Gray, 2006; King & Lenox, 2000; Margolis & Walsh, 2003; Yu et al., 2018). Theoretically, investors value ESG indices as a means of improving the verifiability of transparency practices of firms across countries, resulting in enhanced firm value.

> **H4.** There is a positive relationship between corporate global ESG/CSR transparency indices (ESG disclosure ratings) and firm value.

4.5 | Cumulative transparency approach and firm value

Recently, the GRI has established official networks with the UNGC and the PRI. The GRI's alliance with these institutions aims to ensure the transparency and comparability of sustainability/CSR reporting between corporations across countries. Although there is a substantive lack of studies which have explored the collective influence of various global sustainability initiatives on firm value, Adams and Petrella (2010) indicate that adopting both UNCG principles and GRI guidelines together could positively impact sustainability reporting more than what they can do alone.

Investors may perceive such integrated adoption of various global transparency approaches by companies as a representation of the *verifiability* of sustainability information of firms from different countries. Arguably, investors would value adopting a certain global transparency approach that consistently adds value to firms across countries, assuming that it will institute substantive corporate sustainability changes to generate subsequent disclosures, which is ultimately expected to increase their firm value in the long run. Based on the *verifiability* transparency perspective and the results of Adams and Petrella (2010), it is argued that sustainability reporting provided by corporations as a response to implementing various (or comprehensive) global transparency initiatives seemed to be highly valued by investors. This argument leads to the development of the following hypothesis:

> **H5.** A positive relationship exists between corporate implementation of a comprehensive (adopting 'All' selected transparency initiatives together) transparency approach and firm value.

5 | RESEARCH DESIGN

5.1 | Sample and data

In order to find out the effectiveness of different global transparency approaches in increasing firm value, we used a sample of the top listed firms in the United States (S&P 500), Canada (S&P-TSX 221), and the United Kingdom (FTSE 350). We are driven to investigate corporate transparency in these three countries because (i) they are at a relatively advanced stage of developing corporate transparency, (ii) their economic growth has dramatically increased, which may have come at the expense of social and environmental development, emphasising the need to evaluate their firms' adoption of corporate transparency, (iii) they have the largest listed firms by market capitalisation, making it more likely that companies operating in these countries would incorporate environmental initiatives due to the availability of resources to undertake significant global transparency practices compared with medium or small firms (Gerged et al., 2021a; Giannarakis et al., 2017; Tan et al., 2022; Tran & Beddewela, 2020), and (iv) due to the extant convergence of global transparency approaches and their adoption by firms across Anglo-American countries (Shirwa & Onuk, 2020). We used the DataStream database to collect data related to the firms' use of corporate transparency approaches, covering a period from 2013 to 2019. We focussed on 2013 as the most comprehensive Extractive Industries Transparency Initiative (EITI) was implemented by European firms in 2013 (Linder & Marbuah, 2019). Thus, our dataset was selected based on the following criteria:

- inclusion in the list of the FTSE 350, S&P-TSX 221, and S&P 500 throughout the entirety of the examined time frame (2013–2019);
- availability of adequate information for the following corporate transparency approaches: ESG, UNPRI, GC, ISO9000, ISO14000, GRI, OECD, and ETI; and
- availability of complete data for the other independent and control variables.

Our initial sample included 7497 firm-year observations from the United Kingdom, United States, and Canada. However, the elimination of firms with missing and inadequate financial and nonfinancial data for corporate transparency approaches led to a final sample of 6978 firm-year observations that satisfied all of the aforementioned selection criteria. Appendix B shows the sample structure by country (Table B1). The S&P 500 made up the largest proportion of the sample observation, whereas FTSE 350 and S&P-TSX 221 made up the smallest proportions of 29% and 22%, respectively.

Appendix A defines the research variables operationally (Table A1). In order to measure corporate transparency (independent variable), we collated the different approaches into four specific categories and a composite category, 'The comprehensive approach,' as below:

a. *The Principle Approach* was measured by using a dummy variable that takes value 1 if firm *i* at year *t* disclosed and signed both agreements of the United Nations Principles for Responsible Investment (UNPRI) and Global Compact (GC) and 0 otherwise.
b. *The Certificate Approach* was measured as a dummy variable that takes value 1 if firm *i* at year *t* disclose and claims it has ISO 9000 and ISO 14000 industry-specific certifications and 0 otherwise.
c. *The ESG Disclosure Approach:* ESG disclosure comprises an equally weighted average of the three ESG pillar scores. ESG disclosure score ranges from 1 to 100. Based on DataStream, a low score is given to firms with little ESG disclosure, while a high score is given to firms with an extensive level of ESG disclosure (Brooks & Oikonomou, 2018). Consequently, we used the median value of ESG as a cut-off point to distinguish firms with higher ESG from those with a lower score, and the value of 1 is donated to those firms that exceed the median value and 0 otherwise (Filbeck et al., 2019).
d. *The Guideline Approach* is measured by using a dummy variable that takes value 1 if disclosed information of firm *i* at year *t* is in line with the framework of the Global Reporting Initiative (GRI), OECD guidelines, and a member of the Ethical Trading Initiative (ETI) and 0 otherwise.
e. *The Comprehensive Approach* is measured by using a dummy variable that takes a value of 1 if firm *i* at year *t* has adopted all the above four approaches and 0 otherwise.

As Appendix A also shows, we measured firm value (dependent variable) by using return on assets (ROA) and return on equity (ROE) (Al-Matari et al., 2014) as proxies for accounting-based measurements of firm value and Tobin Q as a proxy for marketing-based measurement of firm value (Plumlee et al., 2015). We used several control variables identified in previous literature as influencing factors to both transparency and firm value, such as the existence of an audit committee (AC), audit committee independence (ACI), auditor independence rotation (AIR), board diversity (BD), board size (BZ), CEO duality, the existence of corporate governance committee (CGC), which reflects the quality of auditing and government effectiveness in different institutions (Chan & Li, 2008; Ezeani et al., 2022; Felmania, 2014; Gallén & Peraita, 2018; Komal et al., 2022; Usman et al., 2022). These variables allow for several valid cross-country and over-time comparisons, as nations with more effective systems of government efficacy have greater restrictions against corruption or a high level of legal respect and transparency (Ezeani et al., 2021; Gerged et al., 2021b; Gerged, Matthews, et al., 2021; Kaufmann et al., 2011; Salem et al., 2022).

We also control for country effect by adding log_GDP that evaluates and controls the degree of economic openness (Gallén & Peraita, 2018). Additionally, control of corruption (CC) and regulatory quality (RQ) were utilised to address the issues of causation, the possibility of omitted variable bias, endogeneity, and simultaneity of transparency in our models (Dudley & Wegrich, 2016; Halter et al., 2009).

5.2 | Model specification

To evaluate whether our study variables satisfy the homogeneity and the relevance conditions, panel regression is used due to the significance of *F*-statistics by the Chow test (Fatemi et al., 2018). Additionally, the fixed effect is employed because of the significance of the *p*-value of the Hausman specification test (Rezaee & Tuo, 2019). Our empirical model is specified below:

$$F\_V_{it} = f(\text{Transparency}_{it}; \text{Control Variables}_{it} + \text{Country Effects}_{it}),$$

where *F_V* is the firm value (i.e., the dependent variable), which is proxied by three measures in our study: Tobin's Q (TQ), return on assets (ROA), and return on equity (ROE). Transparency is the independent variable that is measured by the principles approach (Principles), the guideline approach (GL), the certificate approach (Cert), the ESG disclosure approach (H-ESG), and the comprehensive approach (Com-App). Control variables are divided into two groups: (1) firm-level controls, including existing of eternal audit (AC), audit committee independence (ACI), board diversity (BD), board size (BZ), CEO duality (CEOD), and corporate governance committee (CGC), and (2) country-level controls, such as GDP, control of corruption (CC), and regulatory quality (RQ). See Appendix A for further clarifications.

6 | EMPIRICAL RESULTS AND DISCUSSION

6.1 | Descriptive results

The descriptive data from our sample, shown in Panels A and B of Table 1, indicate that the firm value (i.e., the mean and median values of TQ, ROA, and ROE) is higher in corporations operating in the

TABLE 1 Descriptive analysis.

Panel A											
		Full sample					UK				
Variable		Mean	Median	*SD*	Min	Max	Mean	Median	*SD*	Min	Max
Dependent variable	TQ	1.6945	1.0069	3.2137	−0.0005	90.35	1.6282	0.9057	4.8542	0	90.3533
	ROA	7.4974	6.1100	13.3485	−126.81	269.11	8.2125	6.5100	17.9646	−53.22	269.11
	ROE	18.9438	13.185	46.8249	−550	887.92	19.4935	13.825	45.6924	−389.02	887.92
Independent variable	Principles	0.0300	0	0.1705	0	1	0.0127	0	0.1119	0	1
	GL	0.4153	0	0.4928	0	1	0.0639	0	0.2446	0	1
	Cert	0.2150	0	0.4108	0	1	0.2137	0	0.4100	0	1
	H-ESG	0.5054	1	0.5000	0	1	0.5044	1	0.5001	0	1
	Com-App	0.0182	0	0.1337	0	1	0.0078	0	0.0880	0	1
Control variables	AC	0.9835	1	0.1273	0	1	0.9771	1	0.1497	0	1
	ACI	96.8247	100	10.8945	0	100	93.2804	100	13.7058	0	100
	AIR	11.8398	12	7.5976	1	36	6.5429	5	5.8963	1	27
	BD	21.2657	20	10.5343	0	62.5	22.5741	22.22	11.4017	0	57.14
	BZ	10.0447	10	2.7665	3	30	8.8190	9	2.7324	3	22
	CEOD	0.4316	0	0.4953	0	1	0.0712	0	0.2573	0	1
	CGC	0.7356	1	0.4410	0	1	0.1790	0	0.3835	0	1
Country control variables	log_GDP	29.4933	28.7507	1.0759	28.0551	30.6932	28.6712	28.67024	0.0445	28.6116	28.7507
	CC	1.5926	1.6991	0.2566	1.2153	1.9899	1.8083	1.826838	0.0680	1.699135	1.8990
	RQ	1.5909	1.6281	0.2100	1.2562	1.8865	1.7602	1.77062	0.0678	1.625853	1.8457

(Continues)

TABLE 1 (Continued)

Panel B											
		Canada					USA				
Variables		Mean	Median	*SD*	Min	Max	Mean	Median	*SD*	Min	Max
Dependent variable	TQ	1.2519	0.7492	1.823267	−0.0005	21.01	1.9275	1.2777	2.3109	0	23.0518
	ROA	4.4796	4.53	15.55332	−126.81	134.92	8.7903	6.59	7.6335	−61.35	55.03
	ROE	11.3387	9.35	41.00833	−132.55	557.88	21.9367	14.595	49.4478	−550	864.52
Independent variable	Principles	0.0895	0	0.285491	0	1	0.0143	0	0.1187	0	1
	GL	0.6923	1	0.461714	0	1	0.5044	1	0.5001	0	1
	Cert	0.2570	0	0.437131	0	1	0.1974	0	0.3981	0	1
	H-ESG	0.5140	1	0.49997	0	1	0.5023	1	0.5001	0	1
	Com-App	0.0547	0	0.227547	0	1	0.0085	0	0.0916	0	1
Control variables	AC	0.9773	1	0.148985	0	1	0.9901	1	0.0991	0	1
	ACI	96.7041	100	14.42559	0	100	98.9956	100	5.1157	33.33	100
	AIR	10.2056	8	7.045357	1	26	15.7192	17	6.4816	1	36
	BD	19.9968	20	11.511	0	60	21.0378	20	9.4067	0	62.5
	BZ	9.7757	9	3.013955	3	22	10.8948	11	2.3438	4	30
	CEOD	0.3044	0	0.460309	0	1	0.7026	1	0.4572	0	1
	CGC	0.9506	1	0.216772	0	1	0.9743	1	0.1581	0	1
Country control variables	log_GDP	28.1542	28.1712	0.066146	28.0551	28.2447	30.5695	30.5599	0.0794	30.4515	30.6932
	CC	1.8741	1.8866	0.066854	1.7670	1.9899	1.3407	1.3735	0.0583	1.2153	1.3969
	RQ	1.7643	1.7388	0.066064	1.7068	1.8865	1.4139	1.3454	0.1532	1.2562	1.6281

Note: TQ is measured as the ratio of the market capitalisation plus total debt divided by the total asset. ROA is measured as profit before tax deferred by total issued capital. ROE is measured as profit before tax deferred by total equity shares. Principles are measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* disclosed and signed both agreements of the United Nations Principles for Responsible Investment (UNPRI) and Global Compact (GC) and 0 otherwise. GL is measured by using a dummy variable that takes the value of 1 if disclosed information of firm *i* at year *t* is in line with the framework of the Global Reporting Initiative (GRI), OECD guidelines, and a member of the Ethical Trading Initiative (ETI) and 0 otherwise. Cert is measured as a dummy variable that takes the value of 1 if firm *i* at year *t* discloses and claims it has ISO 9000 and ISO 14000 industry-specific certifications and 0 otherwise. For H-ESG, we used the median value of ESG as a cut-off point to distinguish firms with higher environmental, social, and governance from those with a lower score, and the value of 1 is given to those firms that exceed the median value and 0 otherwise. Com-App is measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* has obtained 1 in all the above four approaches and 0 otherwise. AC is measured as a dummy variable that takes the value of 1 if the firm has an external auditor of its CSR/H&S/sustainability report and 0 otherwise. ACI is measured as the percentage of independent board members on the audit committee. BD is measured as the percentage of females on the board, and BZ is measured as the total number of members on the board at the end of the fiscal year. CEOD is measured as a dummy variable that takes the value of 1 if the CEO simultaneously chairs the board. CGC is measured as a dummy variable that takes the value of 1 if the firm has a corporate governance board. GDP is the logarithm of gross domestic product. CC reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the 'capture' of the state by elites and private interests. RQ reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

United States than those of the United Kingdom and Canada, indicating that a variance exists between US, Canadian, and UK firms in terms of their financial performance. This finding is in line with those of Hassanein and Hussainey (2015) and Manita et al. (2018), who indicated that the mean values of ROA as an indicator of accounting-based financial performance are 9.39 and 21.36 in the United Kingdom and the United States, respectively. However, the UK firms appear to have the highest levels of financial performance (max value of TQ, ROA, and ROE) compared with United States and Canada, indicating that the largest UK firms are more efficient in managing their asset portfolios and capital compared with their Anglo-American competitors.

On the other hand, the mean values of the Principle Approach, Guideline Approach, Certificate Approach, ESG Disclosure Approach, and Comprehensive Approach are 3%, 41.5%, 21.5%, 50.5%, and 1.8%, respectively, in the full sample (Anglo-America), 1.27%, 6.39%, 21.37%, 50.44%, and 0.78%, respectively, in the UK firms, 1.43%, 50.44%, 19.74%, 50.23%, and 0.85%, respectively, in the US firms, and 8%, 69%, 25%, 51%, and 6%, respectively, across Canadian firms. This suggests that Canadian firms demonstrated the highest compliance with international CSR transparency initiatives than their US and UK counterparts.

6.2 | Correlation matrix

Table 2 shows the correlation matrix analysis of the primary research variables for the entire sample. As shown in Table 2, the highest documented multicollinearity value is 71% for the comprehensive approach with principle approach variables. Consequently, our correlation matrix analysis fails to detect a correlation value higher than or equivalent to 80%, suggesting that there is no major influence of the multicollinearity problem on the accuracy and reliability of the results of regression analysis (Brooks & Oikonomou, 2018).

6.3 | Multivariate regression results

The results derived from our regression analysis, using fixed effect regression, for our entire sample are shown in Table 3. The results show that of the five transparency approaches (i.e., Principle [Principle], Guideline [GL], Certification [Cert], ESG Disclosure [ESG], and Comprehensive Approaches [Com-App]), the Principle and Cert approaches influence the firm value of the corporations (i.e., market value - TQ) across the three countries ($p < .01$), but no such influence is seen in relation to the GL and ESG approaches. The Com-App also influenced firm market value in a positive and significant manner ($p < .01$) across the sample. This implies that H1, H3, and H5 have been statistically accepted, whereas H2 and H4 were not empirically approved. The outcome is consistent with our argument that companies should adopt a comprehensive approach to international sustainability initiatives to assist stakeholder parties in understanding the impact of transparency on the firm's value and towards the direction of making disclosure comparable (Moses et al., 2018; Truong et al., 2022; Yu et al., 2018). These findings align with those reported by Gietl et al. (2012), who found that implementing some guidelines, such as GRI alone, is unlikely to affect firm value.

For accounting-based firm value (i.e., ROA and ROE), although the associations between accounting value proxies and Principles, GL, Cert, and Com-App are positively significant at the 10% level, ESG disclosure is insignificantly associated with accounting-based firm value measures (see Table 3). This result is consistent with the findings of Derrien et al. (2021), who demonstrated that ESG disclosure has no discernible impact on a firm's value. Compared with previous reporting methods, the comprehensive approach provides sustained value since investors explicitly highly value sustainability reporting based on the increased financial value of adopting global sustainability measures (Berthelot et al., 2012; Eccles & Krzus, 2010). Consequently, policymakers and regulatory bodies who are interested in fostering greater corporate participation in global sustainability initiatives should evaluate the 'value' of engaging in a variety of disclosure approaches and adopting a consistent, neutral, and composite approach to the disclosure of sustainability information regardless of the nature of the information, thereby fostering a level of trust with stakeholders (Haack et al., 2021).

As an additional analysis, we examined the possible influences of corporate transparency approaches on firm value at a single-country level among the three selected Anglo-American countries. Crucially, the ability of each of the four corporate transparency approaches to affect firm value differed amongst the three countries as well. For example, in the United Kingdom and United States, the Principle and Certification Approaches indicated a positive influence in effecting firm value ($p < .01$) (see Tables 4 and 5), whereas, in Canada, the Principle and the ESG Disclosure Approaches showed such as a positive influence ($p < .01$) (see Table 6). In other words, these results also indicate that the ESG Disclosure Approach (ESG) and the Guideline Approach (GL) in the United Kingdom and United States and the Certification and the Guideline Approaches in Canada do not result in the creation of firm value. As such, the ability of each of the four specific approaches to create firm value remains dynamic.

However, our findings showed a significant influence on firm value for corporations adopting a composite approach—that is, the Comprehensive Approach (Com-App)—to sustainability disclosure. This empirical evidence supports the main findings presented in Table 3, suggesting that policymakers should design a suitable 'comprehensive' transparency approach for global use to support the sustainable development of the firm's value, which, in turn, increases the level of stakeholder confidence (Haack et al., 2021). In summary, corporations which adopt PRI, UNGC, GRI, ISO standards, ETI, and ESG ratings are more likely to provide a more comprehensive and verifiable 'picture' of their sustainability practices, and that firm value would be impacted more significantly over time.

6.4 | Robustness analysis

In this study, we use a dynamic GMM to overcome the potential existence of endogeneity (Blundell & Bond, 1998). We apply the GMM

TABLE 2 Correlation matrix analysis for the full sample.

		Principles	GL	Cert	H-ESG	All-Appro	AC	ACI	AIR	BD	BZ	CEOD	CGC	log_GDP	CC	RQ
Independent variable	Principles	1.0000														
	GL	.1437*	1.0000													
	Cert	.1823*	.1204*	1.0000												
	H-ESG	.0931*	.5562*	.1848*	1.0000											
	Com-App	.7119*	.1159*	.2263*	.0703*	1.0000										
Control variables	AC	.0095*	−.0714*	.0047*	.0678*	.0176*	1.0000									
	ACI	−.0105*	.1039*	−.0072*	.1256*	−.0075*	.3434*	1.0000								
	AIR	−.0173*	.2187*	.0236*	.0938*	−.0038*	.0554*	.1260*	1.0000							
	BD	.0387*	.1058*	−.0127*	.2806*	.0178*	.0900*	.0339*	.0852*	1.0000						
	BZ	.0892*	.2060*	.0231*	.2808*	.0769*	.1848*	.1999*	.2568*	.1463*	1.0000					
	CEOD	−.0394*	.1574*	−.0229*	−.0101*	−.0277*	.0560*	.1483*	.3577*	−.0352*	.2034*	1.0000				
	CGC	.0596*	.3925*	−.0027*	.0653*	.0549*	.0985*	.2754*	.3653*	−.0425*	.3537*	.3880*	1.0000			
Country control variables	log_GDP	−.1153*	.1058*	−.0460*	−.0019*	−.0910*	.0500*	.1743*	.4717*	.0014*	.2785*	.5003*	.4191*	1.0000		
	CC	.1019*	−.1545*	.0402*	.0007*	.0800*	−.0402*	−.1864*	−.4826*	−.0020*	−.2821*	−.5034*	−.4585*	−.621*	1.0000	
	RQ	.0813*	−.1089*	.0434*	.0409*	.0577*	−.0356*	−.1666*	−.3728*	.0440*	−.2368*	−.4476*	−.4365*	−.6987*	.6173*	1.0000

Note: TQ is measured as the ratio of the market capitalisation plus total debt divided by the total asset. ROA is measured as profit before tax deferred by total issued capital. ROE is measured as profit before tax deferred by total equity shares. Principles are measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* disclosed and signed both agreements of the United Nations Principles for Responsible Investment (UNPRI) and Global Compact (GC) and 0 otherwise. GL is measured by using a dummy variable that takes the value of 1 if disclosed information of firm *i* at year *t* is in line with the framework of the Global Reporting Initiative (GRI), OECD guidelines, and a member of the Ethical Trading Initiative (ETI) and 0 otherwise. Cert is measured as a dummy variable that takes the value of 1 if firm *i* at year *t* discloses and claims it has ISO 9000 and ISO 14000 industry-specific certifications and 0 otherwise. For H-ESG, we used the median value of ESG as a cut-off point to distinguish firms with higher environmental, social, and governance from those with a lower score, and the value of 1 is given to those firms that exceed the median value and 0 otherwise. Com-App is measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* has obtained 1 in all the above four approaches and 0 otherwise. AC is measured as a dummy variable that takes the value of 1 if the firm has an external auditor of its CSR/H&S/sustainability report and 0 otherwise. ACI is measured as the percentage of independent board members on the audit committee. BD is measured as the percentage of females on the board, and BZ is measured as the total number of members on the board at the end of the fiscal year. CEOD is measured as a dummy variable that takes the value of 1 if the CEO simultaneously chairs the board. CGC is measured as a dummy variable that takes the value of 1 if the firm has a corporate governance board. GDP is the logarithm of gross domestic product. CC reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the 'capture' of the state by elites and private interests. RQ reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

*Significance at the .05 level.

TABLE 3 Regression analysis for the full sample.

Variables		Principles			GL		
		TQ	ROA	ROE	TQ	ROA	ROE
Control variables		5.673 (32.56***)	16.151 (18.72***)	82.903 (21.96***)	0.049 (0.57)	2.357 (5.78***)	8.827 (4.89***)
	AC	0.680 (3.05***)	5.621 (5.08***)	9.655 (2.01**)	0.633 (2.59***)	6.387 (5.57***)	12.251 (2.41***)
	ACI	0.015 (4.68***)	0.051 (3.43***)	0.166 (2.28**)	0.015 (4.12***)	0.055 (3.25***)	0.157 (2.09**)
	AIR	0.021 (2.79***)	0.061 (−1.66*)	0.141 (0.86)	0.017 (2.15**)	−0.062 (−1.63)	0.154 (0.91)
	BD	0.008 (2.66***)	0.002 (0.16)	−0.026 (−0.39)	−0.006 (1.81*)	−0.001 (−0.11)	−0.033 (−0.47)
	BZ	0.049 (2.77***)	0.384 (4.3***)	−0.019 (−0.05)	0.114 (5.91***)	0.559 (6.14***)	0.894 (2.22**)
	CEOD	0.044 (0.686)	0.035 (0.06)	3.349 (1.4)	−0.081 (−0.68)	−0.196 (−0.35)	1.975 (0.8)
	CGC	0.122 (0.37)	1.24 (−0.77)	−20.553 (−2.91***)	−0.059 (−0.17)	−1.806 (−1.09)	23.388 (3.19***)
Country control variables	log_GDP	0.826 (1.89*)	2.126 (0.98)	3.142 (0.33)	0.676 (1.42)	1.162 (0.52)	−1.011 (−0.1)
	CC	−0.633 (−1.55)	4.91 (−2.43**)	−18.247 (−2.07**)	−0.601 (−1.35)	−3.588 (−1.72*)	−13.282 (−1.44)
	RQ	0.165 (0.75)	0.922 (0.85)	7.381 (1.56)	0.208 (0.87)	0.622 (0.56)	6.463 (1.31)
	_cons	−24.48 (−1.87)	−62.67 (−0.97)	−71.736 (−0.25)	−20.471 (−1.44)	−38.114 (−0.57)	34.903 (0.12)
		R-sq: .1655	*R*-sq: .0753	*R*-sq: .0807	*R*-sq: .0173	*R*-sq: .0265	*R*-sq: .0110
		Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001

Note: *t* statistics in parentheses. TQ is measured as the ratio of the market capitalisation plus total debt divided by the total asset. ROA is measured as profit before tax deferred by total issued capital. ROE is measured as profit before tax deferred by total equity shares. Principles are measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* disclosed and signed both agreements of the United Nations Principles for Responsible Investment (UNPRI) and Global Compact (GC) and 0 otherwise. GL is measured by using a dummy variable that takes the value of 1 if disclosed information of firm *i* at year *t* is in line with the framework of the Global Reporting Initiative (GRI), OECD guidelines, and a member of the Ethical Trading Initiative (ETI) and 0 otherwise. Cert is measured as a dummy variable that takes the value of 1 if firm *i* at year *t* discloses and claims it has ISO 9000 and ISO 14000 industry-specific certifications and 0 otherwise. For H-ESG, we used the median value of ESG as a cut-off point to distinguish firms with higher environmental, social, and governance from those with a lower score, and the value of 1 is given to those firms that exceed the median value and 0 otherwise. Com-App is measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* has obtained 1 in all the above four approaches and 0 otherwise. AC is measured as a dummy variable that takes the value of 1 if the firm has an external auditor of its CSR/H&S/sustainability report and 0 otherwise. ACI is measured as the percentage of independent board members on the audit committee. BD is measured as the percentage of females on the board, and BZ is measured as the total number of members on the board at the end of the fiscal year. CEOD is measured as a dummy variable that takes the value of 1 if the CEO simultaneously chairs the board. CGC is measured as a dummy variable that takes the value of 1 if the firm has a corporate governance board. GDP is the logarithm of gross domestic product. CC reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the 'capture' of the state by elites and private interests. RQ reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

*$p < .10$. **$p < .05$. ***$p < .01$.

TABLE 3 (Continued)

Variables	Cert			ESG			Com-App		
	TQ	ROA	ROE	TQ	ROA	ROE	TQ	ROA	ROE
Control variables	1.557 (12.09***)	6.554 (10.8***)	23.979 (8.92***)	−0.015 (−0.07)	1.102 (1.41)	0.620 (0.18)	6.309 (29.08***)	26.020 (25.12***)	110.987 (24.16***)
	0.684 (2.86***)	5.731 (5.08***)	9.769 (1.95**)	1.370 (2.6***)	4.364 (2.33**)	−4.569 (−0.55)	0.578 (2.55***)	5.287 (4.88***)	8.057 (1.68*)
	0.014 (4.04***)	0.053 (3.13***)	0.148 (1.97**)	0.015 (2.08**)	0.014 (0.54)	0.219 (1.86*)	0.013 (4.06***)	0.050 (3.08***)	0.135 (1.87*)
	0.020 (2.53***)	0.065 (1.7*)	0.147 (0.87)	−0.025 (−1.5)	−0.095 (−1.61)	0.159 (0.61)	0.018 (2.46***)	−0.057 (−1.57)	0.170 (1.04)
	0.006 (1.82*)	0.008 (0.54)	0.005 (0.08)	−0.007 (−0.79)	0.016 (0.5)	−0.063 (−0.44)	0.009 (2.88***)	−0.004 (−0.26)	−0.048 (−0.72)
	0.089 (4.62***)	0.460 (5.06***)	0.535 (1.33)	−0.080 (−1.47)	−0.068 (−0.35)	−0.185 (−0.22)	0.057 (3.16***)	0.333 (3.82***)	0.072 (0.19)
	−0.088 (−0.75)	−0.349 (−0.63)	1.404 (0.57)	0.047 (0.11)	1.040 (0.67)	10.059 (1.45)	0.084 (0.76)	0.365 (0.68)	4.442 (1.88*)
	0.046 (0.13)	−1.313 (−0.8)	21.579 (2.95***)	−0.202 (−0.26)	4.018 (1.48)	41.829 (3.47***)	0.027 (0.08)	1.402 (0.89)	21.690 (3.09***)
Country control variables	0.530 (1.13)	1.067 (0.48)	−1.307 (−0.13)	−2.747 (−1.53)	−14.627 (−2.3**)	−45.848 (−1.62)	0.644 (1.45)	1.551 (0.73)	0.351 (0.04)
	−0.590 (−1.35)	−4.737 (−2.3**)	−17.596 (−1.93**)	−2.622 (−2.49***)	−8.913 (−2.39**)	−26.451 (−1.59)	−0.721 (−1.74*)	−5.278 (−2.67***)	−19.804 (−2.26**)
	0.206 (0.88)	1.027 (0.93)	7.984 (1.63)	2.059 (1.67)	11.556 (2.64***)	18.072 (0.93)	0.323 (1.45)	1.509 (1.42)	10.015 (2.13**)
	−16.278 (−1.16)	−33.196 (−0.5)	51.712 (0.18)	79.786 (1.56)	49.729 (2.32)	42.562 (1.66)	−18.929 (−1.42)	−44.504 (−0.7)	14.926 (0.05)
	R-sq: .0407	*R*-sq: .0398	*R*-sq: .0195	*R*-sq: .0164	*R*-sq: .0178	*R*-sq: .0142	*R*-sq: .1392	*R*-sq: .1147	*R*-sq: .0949
	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001

Note: *t* statistics in parentheses. TQ is measured as the ratio of the market capitalisation plus total debt divided by the total asset. ROA is measured as profit before tax deferred by total issued capital. ROE is measured as profit before tax deferred by total equity shares. Principles are measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* disclosed and signed both agreements of the United Nations Principles for Responsible Investment (UNPRI) and Global Compact (GC) and 0 otherwise. GL is measured by using a dummy variable that takes the value of 1 if disclosed information of firm *i* at year *t* is in line with the framework of the Global Reporting Initiative (GRI), OECD guidelines, and a member of the Ethical Trading Initiative (ETI) and 0 otherwise. Cert is measured as a dummy variable that takes the value of 1 if firm *i* at year *t* discloses and claims it has ISO 9000 and ISO 14000 industry-specific certifications and 0 otherwise. For H-ESG, we used the median value of ESG as a cut-off point to distinguish firms with higher environmental, social, and governance from those with a lower score, and the value of 1 is given to those firms that exceed the median value and 0 otherwise. Com-App is measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* has obtained 1 in all the above four approaches and 0 otherwise. AC is measured as a dummy variable that takes the value of 1 if the firm has an external auditor of its CSR/H&S/sustainability report and 0 otherwise. ACI is measured as the percentage of independent board members on the audit committee. BD is measured as the percentage of females on the board, and BZ is measured as the total number of members on the board at the end of the fiscal year. CEOD is measured as a dummy variable that takes the value of 1 if the CEO simultaneously chairs the board. CGC is measured as a dummy variable that takes the value of 1 if the firm has a corporate governance board. GDP is the logarithm of gross domestic product. CC reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the 'capture' of the state by elites and private interests. RQ reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

*$p < .10$. **$p < .05$. ***$p < .01$.

TABLE 4 Regression analysis for the United Kingdom.

Variables		Principles			GL		
		TQ	ROA	ROE	TQ	ROA	ROE
		12.549 (20.02***)	33.409 (14.31***)	21.379 (11.46***)	0.561 (1.4)	0.217 (0.15)	6.943 (1.09)
Control variables	AC	1.040 (2.23**)	2.951 (1.7*)	−8.119 (−1.03)	1.757 (3.01***)	3.995 (1.93)	−0.158 (−0.02)
	ACI	0.015 (2.37***)	0.018 (0.73)	0.224 (1.99**)	0.015 (2.07**)	0.017 (0.65)	0.220 (1.88*)
	AIR	−0.019 (−1.3)	−0.083 (−1.5)	0.210 (0.83)	−0.025 (−1.5)	0.098 (1.67*)	0.157 (0.6)
	BD	−0.011 (−1.47)	0.009 (0.32)	−0.103 (−0.77)	−0.008 (−0.87)	0.022 (0.69)	−0.067 (−0.48)
	BZ	−0.048 (−0.98)	0.020 (0.11)	0.124 (0.15)	−0.084 (−1.55)	−0.066 (−0.34)	−0.233 (−0.27)
	CEOD	0.089 (0.22)	1.148 (0.78)	10.463 (1.56)	0.066 (0.15)	1.044 (0.67)	10.289 (1.48)
	CGC	0.374 (0.54)	−2.480 (−0.97)	−36.258 (−3.12***)	−0.182 (−0.24)	4.005 (1.48)	41.579 (3.45***)
Country control variables	log_GDP	−0.826 (−0.51)	−9.095 (−1.51)	−26.996 (−0.99)	−2.614 (−1.46)	−14.168 (−2.22**)	−43.903 (−1.55)
	CC	−2.566 (−2.72***)	−8.182 (−2.33**)	−25.518 (−1.6)	−2.569 (−2.46***)	−8.328 (−2.24**)	−25.375 (−1.54)
	RQ	1.301 (1.18)	8.816 (2.14**)	10.257 (0.55)	1.985 (1.62)	10.828 (2.49***)	16.648 (0.86)
	_cons	25.776 (0.56)	64.784 (1.54)	82.683 (1.04)	75.635 (1.48)	40.302 (2.25)	13.272 (1.59)
		R-sq: .5323	*R*-sq: .6033	*R*-sq: .1109	*R*-sq: .0160	*R*-sq: .0263	*R*-sq: .0149
		Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001

Note: *t* statistics in parentheses. TQ is measured as the ratio of the market capitalisation plus total debt divided by the total asset. ROA is measured as profit before tax deferred by total issued capital. ROE is measured as profit before tax deferred by total equity shares. Principles are measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* disclosed and signed both agreements of the United Nations Principles for Responsible Investment (UNPRI) and Global Compact (GC) and 0 otherwise. GL is measured by using a dummy variable that takes the value of 1 if disclosed information of firm *i* at year *t* is in line with the framework of the Global Reporting Initiative (GRI), OECD guidelines, and a member of the Ethical Trading Initiative (ETI) and 0 otherwise. Cert is measured as a dummy variable that takes the value of 1 if firm *i* at year *t* discloses and claims it has ISO 9000 and ISO 14000 industry-specific certifications and 0 otherwise. For H-ESG, we used the median value of ESG as a cut-off point to distinguish firms with higher environmental, social, and governance from those with a lower score, and the value of 1 is given to those firms that exceed the median value and 0 otherwise. Com-App is measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* has obtained 1 in all the above four approaches and 0 otherwise. AC is measured as a dummy variable that takes the value of 1 if the firm has an external auditor of its CSR/H&S/sustainability report and 0 otherwise. ACI is measured as the percentage of independent board members on the audit committee. BD is measured as the percentage of females on the board, and BZ is measured as the total number of members on the board at the end of the fiscal year. CEOD is measured as a dummy variable that takes the value of 1 if the CEO simultaneously chairs the board. CGC is measured as a dummy variable that takes the value of 1 if the firm has a corporate governance board. GDP is the logarithm of gross domestic product. CC reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the 'capture' of the state by elites and private interests. RQ reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

*$p < .10$. **$p < .05$. ***$p < .01$.

TABLE 4 (Continued)

Variables	Cert			ESG			Com-App		
	TQ	ROA	ROE	TQ	ROA	ROE	TQ	ROA	ROE
	0.926 (2.61***)	4.398 (3.49***)	23.891 (4.27***)	−0.015 (−0.07)	1.102 (1.41)	0.620 (0.18)	2.993 (3.99***)	19.033 (7.22***)	10.648 (8.91***)
Control variables	1.352 (2.62***)	3.730 (2.04**)	−5.503 (−0.68)	1.329 (2.58***)	3.690 (2.02**)	−5.130 (−0.63)	1.326 (2.57***)	3.525 (1.95**)	−6.620 (−0.83)
	0.015 (2.06**)	0.016 (0.62)	0.215 (1.85*)	0.012 (1.73*)	0.008 (0.32)	0.205 (1.75*)	0.015 (2.15**)	0.020 (0.78)	0.237 (2.07**)
	0.027 (1.64)	0.108 (1.85*)	0.101 (0.39)	−0.022 (−1.37)	−0.090 (−1.54)	0.170 (0.65)	−0.024 (−1.47)	−0.094 (−1.63)	0.177 (0.69)
	−0.006 (−0.77)	0.023 (0.74)	−0.052 (−0.38)	−0.012 (−1.4)	0.004 (0.14)	−0.089 (−0.63)	−0.008 (−0.95)	0.014 (0.45)	−0.102 (−0.75)
	−0.078 (−1.45)	−0.056 (−0.29)	−0.139 (−0.16)	−0.072 (−1.35)	−0.040 (−0.21)	−0.142 (−0.17)	−0.075 (−1.39)	−0.035 (−0.19)	−0.023 (−0.03)
	0.117 (0.27)	1.369 (0.88)	11.864 (1.71)	0.051 (0.12)	1.052 (0.68)	10.084 (1.45)	0.052 (0.12)	1.072 (0.7)	10.252 (1.51)
	−0.204 (−0.27)	−4.027 (−1.49)	41.906 (3.5***)	−0.216 (−0.29)	−4.062 (−1.51)	41.910 (3.48***)	−0.064 (−0.08)	3.141 (1.18)	37.080 (3.14***)
Country control variables	−2.721 (−1.52)	−14.073 (2.22**)	−44.811 (−1.59)	−3.127 (−1.75*)	−15.458 (−2.44***)	−47.742 (−1.69*)	−2.379 (−1.33)	−11.852 (1.89*)	−32.718 (−1.18)
	−2.625 (2.52***)	−8.330 (2.25**)	−26.018 (−1.58)	−3.137 (−3.01***)	−10.025 (−2.7***)	−29.008 (−1.75*)	−2.734 (−2.63***)	−9.016 (−2.47***)	−29.754 (−1.84*)
	2.100 (1.72*)	11.012 (2.54***)	18.506 (0.96)	2.700 (2.2**)	12.943 (2.97***)	21.257 (1.09)	1.953 (1.6)	10.124 (2.36***)	13.673 (0.72)
	78.801 (1.55)	40.593 (2.24)	37.328 (1.63)	90.334 (1.78)	43.279 (2.46)	35.413 (1.73)	69.579 (1.37)	43.146 (1.92)	78.085 (1.24)
	R-sq: .0230	*R*-sq: .0307	*R*-sq: .0244	*R*-sq: .0249	*R*-sq: .0192	*R*-sq: .0155	*R*-sq: .0235	*R*-sq: .0390	*R*-sq: .0571
	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001

Note: *t* statistics in parentheses. TQ is measured as the ratio of the market capitalisation plus total debt divided by the total asset. ROA is measured as profit before tax deferred by total issued capital. ROE is measured as profit before tax deferred by total equity shares. Principles are measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* disclosed and signed both agreements of the United Nations Principles for Responsible Investment (UNPRI) and Global Compact (GC) and 0 otherwise. GL is measured by using a dummy variable that takes the value of 1 if disclosed information of firm *i* at year *t* is in line with the framework of the Global Reporting Initiative (GRI), OECD guidelines, and a member of the Ethical Trading Initiative (ETI) and 0 otherwise. Cert is measured as a dummy variable that takes the value of 1 if firm *i* at year *t* discloses and claims it has ISO 9000 and ISO 14000 industry-specific certifications and 0 otherwise. For H-ESG, we used the median value of ESG as a cut-off point to distinguish firms with higher environmental, social, and governance from those with a lower score, and the value of 1 is given to those firms that exceed the median value and 0 otherwise. Com-App is measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* has obtained 1 in all the above four approaches and 0 otherwise. AC is measured as a dummy variable that takes the value of 1 if the firm has an external auditor of its CSR/H&S/sustainability report and 0 otherwise. ACI is measured as the percentage of independent board members on the audit committee. BD is measured as the percentage of females on the board, and BZ is measured as the total number of members on the board at the end of the fiscal year. CEOD is measured as a dummy variable that takes the value of 1 if the CEO simultaneously chairs the board. CGC is measured as a dummy variable that takes the value of 1 if the firm has a corporate governance board. GDP is the logarithm of gross domestic product. CC reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the 'capture' of the state by elites and private interests. RQ reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

*$p < .10$. **$p < .05$. ***$p < .01$.

TABLE 5 Regression analysis for the United States.

Variables		Principles			GL		
		TQ	ROA	ROE	TQ	ROA	ROE
Control variables		7.678 (38.21***)	17.795 (21.66***)	157.878 (25.13***)	0.006 (0.07)	0.247 (0.74)	4.873 (1.88*)
	AC	0.726 (2.72***)	11.947 (10.94***)	27.966 (3.35***)	0.482 (1.47)	11.454 (9.7***)	24.444 (2.65***)
	ACI	0.004 (0.7)	0.004 (0.17)	−0.216 (−1.18)	0.006 (0.93)	0.009 (0.37)	−0.171 (−0.85)
	AIR	−0.012 (−1.25)	−0.023 (−0.58)	−0.050 (−0.16)	−0.011 (−0.93)	−0.020 (−0.48)	−0.030 (−0.09)
	BD	0.001 (0.35)	0.033 (1.95**)	0.104 (0.81)	0.002 (0.44)	0.034 (1.88*)	0.110 (0.78)
	BZ	0.034 (1.84*)	0.228 (3.02***)	0.171 (0.3)	0.096 (4.28***)	−0.083 (−1.03)	1.452 (2.29**)
	CEOD	−0.006 (−0.07)	−0.067 (−0.17)	2.511 (0.82)	−0.097 (−0.81)	−0.261 (−0.6)	0.985 (0.29)
	CGC	−0.321 (−0.8)	3.228 (1.98**)	−10.212 (−0.82)	−0.491 (−1.01)	−3.559 (2.02**)	−12.379 (−0.9)
Country control variables	log_GDP	0.919 (1.9*)	−1.949 (−0.99)	2.284 (0.15)	1.499 (2.52***)	−0.785 (−0.37)	10.523 (0.63)
	CC	0.516 (1.05)	−7.240 (−3.61***)	−13.996 (−0.91)	0.573 (0.96)	−7.106 (−3.29***)	−12.781 (−0.76)
	RQ	−0.161 (−0.84)	0.614 (0.79)	4.557 (0.76)	−0.298 (−1.27)	0.259 (0.31)	0.981 (0.15)
	_cons	−27.75 (−1.85)	69.113 (1.13)	−39.199 (−0.08)	−45.772 (−2.48)	32.726 (0.49)	−29.960 (−0.58)
		R-sq: .3425	*R*-sq: .1762	*R*-sq: .1853	*R*-sq: .0148	*R*-sq: .0444	*R*-sq: .0108
		Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001

Note: *t* statistics in parentheses. TQ is measured as the ratio of the market capitalisation plus total debt divided by the total asset. ROA is measured as profit before tax deferred by total issued capital. ROE is measured as profit before tax deferred by total equity shares. Principles are measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* disclosed and signed both agreements of the United Nations Principles for Responsible Investment (UNPRI) and Global Compact (GC) and 0 otherwise. GL is measured by using a dummy variable that takes the value of 1 if disclosed information of firm *i* at year *t* is in line with the framework of the Global Reporting Initiative (GRI), OECD guidelines, and a member of the Ethical Trading Initiative (ETI) and 0 otherwise. Cert is measured as a dummy variable that takes the value of 1 if firm *i* at year *t* discloses and claims it has ISO 9000 and ISO 14000 industry-specific certifications and 0 otherwise. For H-ESG, we used the median value of ESG as a cut-off point to distinguish firms with higher environmental, social, and governance from those with a lower score, and the value of 1 is given to those firms that exceed the median value and 0 otherwise. Com-App is measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* has obtained 1 in all the above four approaches and 0 otherwise. AC is measured as a dummy variable that takes the value of 1 if the firm has an external auditor of its CSR/H&S/sustainability report and 0 otherwise. ACI is measured as the percentage of independent board members on the audit committee. BD is measured as the percentage of females on the board, and BZ is measured as the total number of members on the board at the end of the fiscal year. CEOD is measured as a dummy variable that takes the value of 1 if the CEO simultaneously chairs the board. CGC is measured as a dummy variable that takes the value of 1 if the firm has a corporate governance board. GDP is the logarithm of gross domestic product. CC reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the 'capture' of the state by elites and private interests. RQ reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

*$p < .10$. **$p < .05$. ***$p < .01$.

TABLE 5 (Continued)

Variables	Cert			ESG			Com-App		
	TQ	ROA	ROE	TQ	ROA	ROE	TQ	ROA	ROE
Control variables	2.021 (13.77***)	5.355 (10***)	36.113 (8.57***)	0.087 (0.93)	0.316 (0.93)	4.165 (1.57)	10.941 (48.97***)	26.251 (27.08***)	17.089 (25.72***)
	0.546 (1.72*)	11.551 (9.99***)	24.081 (2.65***)	0.477 (1.46)	11.367 (9.67***)	22.782 (2.48***)	0.752 (3.1***)	12.029 (11.44***)	27.806 (3.34***)
	0.007 (1.01)	0.010 (0.42)	−0.158 (−0.8)	0.006 (0.88)	0.008 (0.33)	−0.180 (−0.89)	0.005 (1.06)	0.007 (0.32)	−0.182 (−1.01)
	0.019 (1.65*)	−0.042 (−0.99)	−0.173 (−0.51)	−0.011 (−0.92)	−0.020 (−0.47)	−0.025 (−0.07)	−0.007 (−0.86)	−0.012 (−0.32)	0.036 (0.12)
	0.002 (0.58)	0.036 (2.04**)	0.131 (0.94)	0.002 (0.4)	0.034 (1.87*)	0.111 (0.78)	−0.001 (−0.45)	0.025 (1.56)	0.050 (0.39)
	0.072 (3.31***)	−0.147 (−1.84)	1.024 (1.63)	0.096 (4.28***)	−0.083 (−1.03)	1.450 (2.29**)	0.011 (0.7)	0.286 (3.94***)	−0.072 (−0.13)
	−0.156 (−1.34)	−0.434 (−1.02)	−0.416 (−0.12)	−0.091 (−0.76)	−0.256 (−0.59)	0.939 (0.28)	−0.031 (−0.35)	−0.119 (−0.31)	1.829 (0.6)
	−0.426 (−0.9)	3.450 (2.01**)	−12.559 (−0.92)	−0.474 (−0.97)	3.558 (2.02**)	12.826 (0.93)	0.258 (0.71)	3.065 (1.95**)	−9.528 (−0.77)
Country control variables	1.382 (2.41***)	−0.916 (−0.44)	12.142 (0.74)	1.429 (2.4***)	−0.862 (−0.4)	10.767 (0.64)	1.003 (2.29**)	−1.794 (−0.94)	5.306 (0.35)
	0.719 (1.24)	−6.721 (−3.17***)	−10.214 (−0.61)	0.570 (0.95)	−7.119 (−3.3***)	−12.966 (−0.77)	0.213 (0.48)	−7.973 (−4.13***)	−19.322 (−1.27)
	−0.345 (−1.52)	0.171 (0.21)	0.903 (0.14)	−0.311 (−1.33)	0.249 (0.3)	1.103 (0.17)	−0.047 (−0.27)	0.898 (1.19)	6.263 (1.05)
	−42.453 (−2.39)	36.203 (0.56)	−50.766 (−0.69)	−43.634 (−2.36)	35.260 (0.53)	−30.080 (−0.58)	−30.070 (−2.21)	65.043 (1.1)	−27.200 (−0.27)
	R-sq: .0747	*R*-sq: .0758	*R*-sq: .0339	*R*-sq: .0150	*R*-sq: .0445	*R*-sq: .0105	*R*-sq: .4583	*R*-sq: .2356	*R*-sq: .1921
	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001

Note: *t* statistics in parentheses. TQ is measured as the ratio of the market capitalisation plus total debt divided by the total asset. ROA is measured as profit before tax deferred by total issued capital. ROE is measured as profit before tax deferred by total equity shares. Principles are measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* disclosed and signed both agreements of the United Nations Principles for Responsible Investment (UNPRI) and Global Compact (GC) and 0 otherwise. GL is measured by using a dummy variable that takes the value of 1 if disclosed information of firm *i* at year *t* is in line with the framework of the Global Reporting Initiative (GRI), OECD guidelines, and a member of the Ethical Trading Initiative (ETI) and 0 otherwise. Cert is measured as a dummy variable that takes the value of 1 if firm *i* at year *t* discloses and claims it has ISO 9000 and ISO 14000 industry-specific certifications and 0 otherwise. For H-ESG, we used the median value of ESG as a cut-off point to distinguish firms with higher environmental, social, and governance from those with a lower score, and the value of 1 is given to those firms that exceed the median value and 0 otherwise. Com-App is measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* has obtained 1 in all the above four approaches and 0 otherwise. AC is measured as a dummy variable that takes the value of 1 if the firm has an external auditor of its CSR/H&S/sustainability report and 0 otherwise. ACI is measured as the percentage of independent board members on the audit committee. BD is measured as the percentage of females on the board, and BZ is measured as the total number of members on the board at the end of the fiscal year. CEOD is measured as a dummy variable that takes the value of 1 if the CEO simultaneously chairs the board. CGC is measured as a dummy variable that takes the value of 1 if the firm has a corporate governance board. GDP is the logarithm of gross domestic product. CC reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the 'capture' of the state by elites and private interests. RQ reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

*$p < .10$. **$p < .05$. ***$p < .01$.

TABLE 6 Regression analysis for Canada.

Variables		Principles			GL		
		TQ	ROA	ROE	TQ	ROA	ROE
Control variables		1.484 (9.81***)	6.636 (3.53***)	11.367 (3.18***)	0.001 (0.01)	−0.325 (−0.29)	3.041 (1.43)
	AC	−0.184 (−0.53)	5.511 (1.27)	6.411 (0.77)	−0.195 (−0.54)	5.429 (1.24)	6.648 (0.8)
	ACI	0.002 (0.5)	0.069 (1.35)	0.091 (0.94)	0.001 (−0.1)	0.058 (1.12)	0.078 (0.79)
	AIR	−0.014 (−1.27)	0.164 (1.14)	0.406 (1.49)	−0.009 (−0.76)	0.192 (1.33)	0.421 (1.54)
	BD	0.001 (0.28)	0.058 (1.08)	0.013 (0.13)	0.001 (0.26)	0.061 (1.1)	−0.008 (−0.08)
	BZ	0.313 (14.4***)	2.174 (8.04***)	0.697 (1.36)	0.365 (16.56***)	2.406 (9.09***)	1.037 (2.07**)
	CEOD	−0.097 (−0.71)	−0.270 (−0.16)	−0.768 (−0.24)	−0.201 (−1.43)	−0.747 (−0.44)	−1.476 (−0.46)
	CGC	2.486 (4.35***)	−1.333 (−0.19)	2.785 (0.21)	2.564 (4.31***)	−0.847 (−0.12)	2.091 (0.15)
Country control variables	log_GDP	1.896 (3.4***)	16.676 (2.41***)	5.590 (0.42)	1.670 (2.88***)	15.564 (2.24**)	4.760 (0.36)
	CC	0.910 (1.62)	4.699 (0.67)	−4.989 (−0.38)	0.817 (1.35)	3.709 (0.51)	−0.486 (−0.04)
	RQ	0.099 (0.24)	6.627 (1.29)	19.650 (2.01***)	0.303 (0.7)	7.298 (1.39)	23.408 (2.36***)
	_cons	−59.464 (−3.65)	−52.98 (−2.58)	−21.17 (−0.52)	−53.476 (−3.16)	−89.872 (−2.41)	−95.003 (−0.5)
		R-sq: .2960	*R*-sq: .1008	*R*-sq: .0243	*R*-sq: .2428	*R*-sq: .1020	*R*-sq: .0181
		Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001

Note: *t* statistics in parentheses. TQ is measured as the ratio of the market capitalisation plus total debt divided by the total asset. ROA is measured as profit before tax deferred by total issued capital. ROE is measured as profit before tax deferred by total equity shares. Principles are measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* disclosed and signed both agreements of the United Nations Principles for Responsible Investment (UNPRI) and Global Compact (GC) and 0 otherwise. GL is measured by using a dummy variable that takes the value of 1 if disclosed information of firm *i* at year *t* is in line with the framework of the Global Reporting Initiative (GRI), OECD guidelines, and a member of the Ethical Trading Initiative (ETI) and 0 otherwise. Cert is measured as a dummy variable that takes the value of 1 if firm *i* at year *t* discloses and claims it has ISO 9000 and ISO 14000 industry-specific certifications and 0 otherwise. For H-ESG, we used the median value of ESG as a cut-off point to distinguish firms with higher environmental, social, and governance from those with a lower score, and the value of 1 is given to those firms that exceed the median value and 0 otherwise. Com-App is measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* has obtained 1 in all the above four approaches and 0 otherwise. AC is measured as a dummy variable that takes the value of 1 if the firm has an external auditor of its CSR/H&S/sustainability report and 0 otherwise. ACI is measured as the percentage of independent board members on the audit committee. BD is measured as the percentage of females on the board, and BZ is measured as the total number of members on the board at the end of the fiscal year. CEOD is measured as a dummy variable that takes 1 if the CEO simultaneously chairs the board. CGC is measured as a dummy variable that takes the value of 1 if the firm has a corporate governance board. GDP is the logarithm of gross domestic product. CC reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the 'capture' of the state by elites and private interests. RQ reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

*$p < .10$. **$p < .05$. ***$p < .01$.

TABLE 6 (Continued)

Variables	Cert			ESG			Com-App		
	TQ	ROA	ROE	TQ	ROA	ROE	TQ	ROA	ROE
Control variables	0.885 (6.35***)	−0.411 (−0.23)	−3.934 (−1.22)	0.080 (0.83)	3.542 (3.06***)	11.789 (5.4***)	3.515 (19.74***)	26.571 (11.4***)	40.987 (9.1***)
	−0.100 (−0.28)	5.524 (1.18)	5.905 (0.71)	−0.167 (−0.46)	6.686 (1.53)	10.397 (1.26)	0.467 (1.47)	3.405 (0.82)	3.154 (0.39)
	−0.002 (−0.48)	0.060 (1.08)	0.080 (0.81)	−0.007 (−0.17)	0.045 (0.88)	0.028 (0.29)	0.001 (0.27)	0.069 (1.41)	0.089 (0.94)
	−0.006 (−0.49)	0.141 (0.91)	0.434 (1.59)	−0.010 (−0.83)	0.151 (1.05)	0.324 (1.2)	−0.017 (−1.65)	0.127 (0.93)	0.354 (1.34)
	0.001 (−0.06)	0.046 (0.79)	0.020 (0.19)	0.007 (0.16)	0.035 (0.65)	−0.061 (−0.6)	−0.002 (−0.5)	0.033 (0.65)	−0.024 (−0.24)
	0.333 (15.04***)	2.396 (8.26***)	1.223 (2.38***)	0.364 (16.61***)	2.414 (9.18***)	1.130 (2.28**)	0.279 (14.18***)	1.756 (6.81***)	0.090 (0.18)
	−0.189 (−1.36)	−0.724 (−0.4)	−1.624 (−0.51)	−0.201 (−1.43)	−0.723 (−0.43)	−1.523 (−0.48)	0.169 (1.36)	2.068 (1.27)	2.758 (0.88)
	2.955 (5.03***)	−1.064 (−0.14)	1.647 (0.12)	2.529 (4.26***)	−2.521 (−0.35)	−1.731 (−0.13)	2.430 (4.68***)	−1.995 (−0.29)	1.823 (0.14)
Country control variables	1.527 (2.68***)	18.082 (2.43***)	4.487 (0.34)	1.705 (2.94***)	17.241 (2.48***)	9.111 (0.7)	1.544 (3.05***)	14.716 (2.22**)	2.394 (0.19)
	0.850 (1.48)	8.685 (1.16)	−5.887 (−0.44)	0.852 (1.46)	5.952 (0.85)	−0.126 (−0.01)	1.010 (1.98**)	5.751 (0.86)	−3.441 (−0.27)
	0.307 (0.72)	3.187 (0.58)	21.183 (2.16**)	0.301 (0.7)	7.507 (1.46)	21.115 (2.18**)	0.312 (0.83)	7.605 (1.55)	21.313 (2.24**)
	−49.758 (−2.99)	−51.774 (−2.58)	−11.619 (−0.45)	−54.529 (−3.22)	−41.306 (−2.67)	−31.176 (−0.82)	−49.393 (−3.34)	−43.402 (−2.4)	−10.777 (−0.29)
	R-sq: .2661	*R*-sq: .0923	*R*-sq: .0187	*R*-sq: .2432	*R*-sq: .0986	*R*-sq: .0386	*R*-sq: .4203	*R*-sq: .1761	*R*-sq: .0766
	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001	Prob > *F* = 0.0001

Note: *t* statistics in parentheses. TQ is measured as the ratio of the market capitalisation plus total debt divided by the total asset. ROA is measured as profit before tax deferred by total issued capital. ROE is measured as profit before tax deferred by total equity shares. Principles are measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* disclosed and signed both agreements of the United Nations Principles for Responsible Investment (UNPRI) and Global Compact (GC) and 0 otherwise. GL is measured by using a dummy variable that takes the value of 1 if disclosed information of firm *i* at year *t* is in line with the framework of the Global Reporting Initiative (GRI), OECD guidelines, and a member of the Ethical Trading Initiative (ETI) and 0 otherwise. Cert is measured as a dummy variable that takes the value of 1 if firm *i* at year *t* discloses and claims it has ISO 9000 and ISO 14000 industry-specific certifications and 0 otherwise. For H-ESG, we used the median value of ESG as a cut-off point to distinguish firms with higher environmental, social, and governance from those with a lower score, and the value of 1 is given to those firms that exceed the median value and 0 otherwise. Com-App is measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* has obtained 1 in all the above four approaches and 0 otherwise. AC is measured as a dummy variable that takes the value of 1 if the firm has an external auditor of its CSR/H&S/sustainability report and 0 otherwise. ACI is measured as the percentage of independent board members on the audit committee. BD is measured as the percentage of females on the board, and BZ is measured as the total number of members on the board at the end of the fiscal year. CEOD is measured as a dummy variable that takes 1 if the CEO simultaneously chairs the board. CGC is measured as a dummy variable that takes the value of 1 if the firm has a corporate governance board. GDP is the logarithm of gross domestic product. CC reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the 'capture' of the state by elites and private interests. RQ reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

*$p < .10$. **$p < .05$. ***$p < .01$.

process as follows. First, we run both the Wu–Hausman and the Durbin tests to determine the likely incidence of endogeneity of individual regressors. Theoretically, the independent variables (i.e., TQ, ROA, and ROE) must not be related to the residuals (Ullah et al., 2018). Implementing these tests indicates that the firm value proxies are endogenously, and not exogenously, attributable to ESG transparency approaches. This means that our primary results in Tables 4–6 can be biased. Therefore, we use a dynamic GMM model to address the possible presence of endogeneity concerns.

Following previous studies, we use a dynamic GMM regression model to tackle the likelihood of endogeneity problems that might occur as a result of both omitted variables and the reversal causality relationship between firm value measures and ESG transparency proxies (Ullah et al., 2018). Essentially, we incorporate the lags of the dependent variable (i.e., firm value proxies) into the GMM system.

Roodman (2009) states that incorporating these lagged values of the dependent variable is expected to overcome the probable endogeneity concerns by transforming the data internally, where a variable's value of the previous year is subtracted from its current value. Wooldridge (2016) consistently suggests that internal transformation in the GMM system statistically enhances its effectiveness.

Besides, we use a number of post-estimation tests, including the Arellano–Bond test and the Hansen test, to evaluate the validity of the dynamic GMM estimator and whether the used instruments (i.e., lags of FV measures) are specified appropriately. These instruments should be exogenous as an essential hypothesis of the validity of the GMM method, according to Ullah et al. (2018). The outcomes of the pre-estimation and post-estimation tests appeared insignificant, suggesting that our instruments are exogenous, hence, valid. This implies that a dynamic GMM model is a suitable estimation to tackle the possibility of endogeneity concerns.

Table 7 shows the results of conducting the dynamic GMM models. Collectively, the results suggest that of the five transparency approaches, the Principle and Certificate approaches influence the firm value of the corporations (i.e., market value - TQ) across the selected Anglo-American countries, but no such influence is seen in relation to the Guideline and ESG Disclosure approaches. The Comprehensive Approach also positively influenced firm value across the sample.

To the extent that the findings of the endogeneity checks are comparable with those of the primary models statistically, we are relatively confident that our results are not sensitive to the possible presence of endogeneity concerns and, thus, are robust. This means that the occurrence of endogeneity matters and does not influence our primary findings.

6.5 | Discussion

Our empirical evidence indicates that the Principle and Cert approaches influence the firm value of the corporations across the three countries, while the GL and ESG approaches have no such influence. In addition, the Com-App had a positive and statistically significant effect on the market value across three countries. This suggests that H1, H3, and H5 have been statistically confirmed; however, H2 and H4 have not been empirically supported. Our finding is consistent with our argument that corporations should adopt a comprehensive approach to their global sustainability/CSR activities to aid salient stakeholders in comprehending the impact of transparency on the firm's value and to ensure more standardisation and verification of their sustainability/CSR disclosures.

Given that investors are concerned about what global transparency approaches are adopted by corporations to improve their sustainability/CSR disclosures and their subsequent impact on the market value of the corporation (Plumlee et al., 2015), the extant global transparency approaches (including ESG rating systems) have, nevertheless, been criticised by both investors and corporate executives, for being inconsistent, inaccurate, and an exercise in 'ticking boxes' (Hume & Sanderson, 2020). These global transparency approaches, thus, tend not to be reflective of the 'on the ground' realities that many corporations encounter when engaging in implementing corporate sustainability/CSR. Furthermore, investors are also left to increasingly interpret, at times, contradictory and highly variegated disclosures related to the sustainability and ESG performance of corporations (Pavoni, 2020). As highlighted by investors, the solution is to adopt integrated reporting to assist them in allocating capital to companies responding more effectively to resolving sustainability-related risks, such as climate change and resource scarcity (Bernow et al., 2019).

Thus, corporations have now started calling for a 'common set of rules' similar to the International Financial Reporting Standards (IFRS), where an integrated report for sustainability collated within it is the comprehensive insights into the corporation's sustainability strategy as well as its governance of economic, social, and environmental issues, thereby presenting investors (and other salient stakeholders) with a clear and concise statement of how the corporation creates and maintaining value (García-Sánchez & Noguera-Gámez, 2017). For example, Blackrock, the world's largest asset manager, has emphasised the need to replace the range of private sector reporting frameworks and standards available for sustainability disclosure with a single global framework, to reduce duplication and overcome the lack of consistent and comparable data (Mooney, 2020).

As such, actions are being undertaken to develop a more integrated (and common) system for corporate transparency (Nauman et al., 2020). For example, five sustainability organisations (i.e., The Sustainability Accounting Standards Board, the Global Reporting Initiative, the International Integrated Reporting Council, CDP [formerly the Carbon Disclosure Project], and the Carbon Disclosure Standards Board) are working together to develop a global reporting system, along with the Big Four accountancy firms who have also announced their intention to develop their own ESG framework (Mooney, 2020). Such measures could result in corporations using integrated reporting for sustainability disclosure, ensuring a collation of data and information related to creating sustainable value rather than diluting it across several divergent reporting systems (Eccles & Krzus, 2010).

In comparison, the move towards mandatory ESG reporting is mixed in North America and the United Kingdom. Many public

TABLE 7 GMM regression analysis for full sample "endogeneity analysis".

Variables		Principles			GL		
		TQ	ROA	ROE	TQ	ROA	ROE
Control variables		4.732 (27.46***)	10.776 (8.66***)	80.996 (14.41***)	0.644 (1.00)	0.241 (2.47***)	10.521 (3.54***)
	AC	0.973 (3.59***)	8.986 (4.64***)	5.618 (0.63)	0.851 (2.84***)	8.595 (4.36***)	4.010 (0.44)
	ACI	0.007 (1.96**)	0.032 (1.20)	0.275 (2.23**)	0.010 (2.41***)	0.038 (1.38)	0.312 (2.45***)
	AIR	0.030 (3.22***)	−0.045 (−0.67)	0.120 (0.39)	0.030 (2.89***)	−0.039 (−0.58)	0.123 (0.39)
	BD	0.008 (2.27**)	0.028 (1.06)	−0.163 (−1.33)	0.007 (1.93**)	0.026 (0.98)	(−0.194) (−1.53)
	BZ	0.105 (5.18***)	0.751 (5.15***)	0.425 (0.64)	0.175 (7.89***)	0.906 (6.16***)	1.481 (2.18**)
	CEOD	−0.102 (−0.74)	0.631 (0.64)	−3.509 (−0.78)	−0.205 (−1.35)	0.432 (0.43)	−5.007 (−1.08)
	CGC	4.569 (10.80***)	4.404 (1.56)	47.453 (3.60***)	5.016 (10.77***)	4.312 (1.50)	49.660 (3.65***)
Country control variables	log_GDP	3.903 (8.55***)	−0.704 (−0.41)	−4.043 (−0.28)	4.595 (9.16***)	−1.077 (−0.61)	5.587 (0.38)
	CC	2.902 (6.14***)	−1.429 (−0.52)	−5.317 (−0.35)	3.701 (7.10***)	−0.920 (−0.32)	9.264 (0.59)
	RQ	−0.614 (−3.15***)	0.881 (0.71)	4.546 (0.72)	−0.805 (−3.75***)	0.894 (0.70)	1.678 (0.26)
	_cons	−16.90 (−8.44)	2.962 (0.06)	34.201 (0.31)	−38.778 (−9.13)	11.494 (0.21)	−80.643 (−2.40)
		Prob > F = 0.0001	Prob > F = 0.0001	Prob > F = 0.0001	Prob > F = 0.0001	Prob > F = 0.0001	Prob > F = 0.0001

Note: t statistics in parentheses. TQ is measured as the ratio of the market capitalisation plus total debt divided by the total asset. ROA is measured as profit before tax deferred by total issued capital. ROE is measured as profit before tax deferred by total equity shares. Principles are measured by using a dummy variable that takes the value of 1 if firm i at year t disclosed and signed both agreements of the United Nations Principles for Responsible Investment (UNPRI) and Global Compact (GC) and 0 otherwise. GL is measured by using a dummy variable that takes the value of 1 if disclosed information of firm i at year t is in line with the framework of the Global Reporting Initiative (GRI), OECD guidelines, and a member of the Ethical Trading Initiative (ETI) and 0 otherwise. Cert is measured as a dummy variable that takes the value of 1 if firm i at year t discloses and claims it has ISO 9000 and ISO 14000 industry-specific certifications and 0 otherwise. For H-ESG, we used the median value of ESG as a cut-off point to distinguish firms with higher environmental, social, and governance from those with a lower score, and the value of 1 is given to those firms that exceed the median value and 0 otherwise. Com-App is measured by using a dummy variable that takes the value of 1 if firm i at year t has obtained 1 in all the above four approaches and 0 otherwise. AC is measured as a dummy variable that takes 1 if the firm has an external auditor of its CSR/H&S/sustainability report and 0 otherwise. ACI is measured as the percentage of independent board members on the audit committee. BD is measured as the percentage of females on the board, and BZ is measured as the total number of members on the board at the end of the fiscal year. CEOD is measured as a dummy variable that takes the value of 1 if the CEO simultaneously chairs the board. CGC is measured as a dummy variable that takes the value of 1 if the firm has a corporate governance board. GDP is the logarithm of gross domestic product. CC reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the 'capture' of the state by elites and private interests. RQ reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

*p < .10. **p < .05. ***p < .01.

TABLE 7 (Continued)

Variables	Cert			ESG			Com-App		
	TQ	ROA	ROE	TQ	ROA	ROE	TQ	ROA	ROE
Control variables	2.706 (18.53***)	0.966 (1.96*)	38.994 (8.44***)	0.243 (1.68)	0.137 (1.56)	0.092 (1.64)	6.086 (30.60***)	15.520 (10.55***)	10.715 (16.71***)
	0.914 (3.18***)	8.568 (4.36***)	3.217 (0.36)	0.841 (2.82***)	8.733 (4.44***)	3.205 (0.35)	0.863 (3.26***)	8.542 (4.45***)	2.159 (0.25)
	0.006 (1.50)	0.036 (1.32)	0.252 (1.99**)	0.009 (2.20**)	0.029 (1.07)	0.276 (2.15**)	0.004 (1.12)	0.025 (0.95)	0.224 (1.84**)
	0.033 (3.32***)	−0.039 (−0.57)	0.101 (0.32)	0.030 (2.89***)	−0.042 (−0.61)	0.142 (0.45)	0.030 (3.32***)	−0.045 (−0.67)	0.134 (0.45)
	0.007 (1.94**)	0.027 (1.00)	−0.190 (−1.52)	0.007 (1.72*)	0.016 (0.60)	0.225 (1.76*)	0.008 (2.37***)	0.021 (0.80)	−0.195 (−1.61)
	0.148 (6.90***)	0.902 (6.13***)	1.088 (1.61)	0.177 (7.96***)	0.915 (6.24***)	1.541 (2.28**)	0.099 (5.00***)	0.719 (4.98***)	0.227 (0.35)
	(−0.226) (−1.55)	0.397 (0.40)	−5.488 (−1.20)	−0.200 (−1.32)	0.496 (0.50)	−4.783 (−1.03)	−0.135 (−1.01)	0.614 (0.63)	−3.911 (−0.88)
	4.725 (10.56***)	4.327 (1.51)	−42.585 (−3.15***)	5.012 (10.77***)	4.176 (1.46)	47.987 (3.53***)	4.855 (11.77***)	4.849 (1.74*)	43.797 (3.36***)
Country control variables	4.950 (10.28***)	−1.020 (−0.58)	7.985 (0.54)	4.604 (9.18***)	−1.212 (−0.69)	7.349 (0.50)	3.713 (8.32***)	−0.313 (−0.18)	−3.322 (−0.23)
	4.073 (8.16***)	−1.044 (−0.37)	9.029 (0.58)	3.619 (6.98***)	−1.032 (−0.37)	6.086 (0.39)	2.936 (6.37***)	−0.706 (−0.26)	−1.957 (−0.13)
	0.970 (4.70***)	0.833 (0.66)	0.581 (0.09)	−.823 (−3.83***)	0.673 (0.53)	1.046 (0.16)	−0.470 (−2.47***)	0.986 (0.80)	5.994 (0.96)
	−49.57 (−10.25)	10.399 (0.19)	−47.31 (−0.55)	−38.815 (−9.13)	16.088 (1.30)	−24.457 (−0.50)	−10.859 (−8.20***)	−8.495 (−0.16)	14.172 (0.26)
	Prob > F = 0.0001	Prob > F = 0.0001	Prob > F = 0.0001	Prob > F = 0.0001	Prob > F = 0.0001	Prob > F = 0.0001	Prob > F = 0.0001	Prob > F = 0.0001	Prob > F = 0.0001

Note: t statistics in parentheses. TQ is measured as the ratio of the market capitalisation plus total debt divided by the total asset. ROA is measured as profit before tax deferred by total issued capital. ROE is measured as profit before tax deferred by total equity shares. Principles are measured by using a dummy variable that takes the value of 1 if firm i at year t disclosed and signed both agreements of the United Nations Principles for Responsible Investment (UNPRI) and Global Compact (GC) and 0 otherwise. GL is measured by using a dummy variable that takes the value of 1 if disclosed information of firm i at year t is in line with the framework of the Global Reporting Initiative (GRI), OECD guidelines, and a member of the Ethical Trading Initiative (ETI) and 0 otherwise. Cert is measured as a dummy variable that takes the value of 1 if firm i at year t discloses and claims it has ISO 9000 and ISO 14000 industry-specific certifications and 0 otherwise. For H-ESG, we used the median value of ESG as a cut-off point to distinguish firms with higher environmental, social, and governance from those with a lower score, and the value of 1 is given to those firms that exceed the median value and 0 otherwise. Com-App is measured by using a dummy variable that takes the value of 1 if firm i at year t has obtained 1 in all the above four approaches and 0 otherwise. AC is measured as a dummy variable that takes 1 if the firm has an external auditor of its CSR/H&S/sustainability report and 0 otherwise. ACI is measured as the percentage of independent board members on the audit committee. BD is measured as the percentage of females on the board, and BZ is measured as the total number of members on the board at the end of the fiscal year. CEOD is measured as a dummy variable that takes the value of 1 if the CEO simultaneously chairs the board. CGC is measured as a dummy variable that takes the value of 1 if the firm has a corporate governance board. GDP is the logarithm of gross domestic product. CC reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the 'capture' of the state by elites and private interests. RQ reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

*p < .10. **p < .05. ***p < .01.

companies in Canada have been slow in taking up ESG disclosure, although recent pressures arising from powerful institutional investors, such as the Canadian pension funds, and proxies' advisory services firms, such as the Institutional Shareholder Services (ISS), forewarned corporate boards that investment decisions in the future would be tied to companies' ESG performance and disclosure (Erlichman & DuMoulin, 2020). However, the US government, to date, has not expressed any interest in mandating ESG disclosures of listed corporations. Despite several proposals in 2019 from US federal lawmakers on ESG disclosure requirements, the Securities and Exchange Commission (SEC) has not taken up the inclusion of mandated requirements for specific ESG or climate-related disclosures as yet (Clarkin et al., 2020). As such, any pressures upon public corporations in the United States are arising from investors—specifically influential institutional investors, such as BlackRock, Vanguard, and State Street—who have publicly called upon corporations to make their ESG disclosures aligned with both the Sustainability Accounting Standards Board (SASB) and Task Force on Climate-Related Financial Disclosures (TCFD) frameworks, which have gained particular traction in the United States (Clarkin et al., 2020).

Taking into consideration the above-mentioned extant issues related to corporate transparency, the empirical findings of this study confirm that *verifiability* of disclosed sustainability/CSR information can be achieved by developing an integrated global transparency approach as indicated in our findings, that is, Com-App, which is associated with a better firm value in the long term. At the same time, our results suggest adopting a comprehensive transparency approach, assuming that it will institute substantive corporate sustainability changes to generate subsequent disclosures, which consistently engender firm value to firms across countries.

7 | SUMMARY AND CONCLUSION

Corporate transparency in the context of sustainability/CSR disclosure provides corporations with an opportunity to enhance stakeholders' trust and legitimacy. Such approaches range from cross-industry reporting initiatives, such as the Global Reporting Initiative (GRI), to global frameworks, such as the United Nations Principles for Responsible Investment (UN PRI), to certifications, such as ISO 14000. While extant research has indicated that sustainability disclosures can increase the firm value of corporations, what was less clear is about (i) the added value of adopting global transparency approaches and (ii) which of these extant global transparency approaches would be more effective in engendering firm value.

Our analysis of a sample of 6978 top-listed firms in the United States (S&P 500), Canada (S&P-TSX 221), and the United Kingdom (FTSE 350) revealed that while adopting global sustainability initiatives can result in increases in firm value, there are substantive differences in relation to how different transparency approaches effectuated it across these three countries. The data indicated mixed results for the effectiveness of certain sustainability approaches, such as UNGC, PRI, ISO standards, and ESG disclosures, with some affecting increased firm value over others. However, the data clearly indicated that the firm value will always increase when an 'integrated' or a 'composite' approach to global sustainability/CSR transparency initiative is adopted.

Our research has significant implications for corporate transparency and its influence on firm value. For corporations mired under numerous sustainability reporting systems, the overall goal should be to review the 'value' of engaging in a variety of disclosure approaches and adopt a more 'composite' approach towards sustainability disclosures (Haack et al., 2021). Such corporations (Leitch, 2017) would be actively providing sustainability information to their stakeholders, making information sharing a 'norm' rather than an 'exception', adopting a consistent, neutral, and composite approach to the disclosure of sustainability information irrespective of the 'nature' (i.e., good or bad) of the information, thereby engendering a trusting relationship with stakeholders.

For policymakers, who are keen on engendering greater corporate involvement in global sustainability initiatives, such as the sustainable development goals (SDGs), mandatory disclosure requirements should be a potential pathway together with more pervasive collaborations on engendering private regulatory efforts to integrate the current variegated sustainability disclosure approaches, leading towards the development of an integrated global disclosure regime.

Although it has been rigorously conducted, our study still has several limitations that should be acknowledged. For example, our study is confined to examining the influence of transparency approaches in the context of sustainability on firm value. Future studies can examine the added financial value of corporate transparency in the context of the whole nonfinancial disclosure. Similarly, our study is limited to using Tobin's Q only to measure firms' market value in line with a stream of previous studies (see Plumlee et al., 2015), while future researchers can employ more proxies for market value, such as stock price, expected future cash flows, and cost of equity capital. Also, further studies can expand our evidence by examining the added financial value of adopting an integrated corporate transparency approach in other developed and developing economies. Our results imply that global transparency guidelines and standards not only enhance the overall sustainability/CSR reporting level but are also associated with a better firm value of corporations across different Anglo-American countries. We interpreted this finding based on the *verifiability* transparency perspective that assumes that investors highly value adopting international transparency initiatives to increase verifiability and comparability (harmonisation) of sustainability reporting across countries. Thus, future research can build on our findings by examining the potential mediating role of sustainability performance in the link between corporate adoption of various global transparency initiatives and firm value in line with the *performativity* transparency perspective.

CONFLICT OF INTEREST

The authors whose names are listed immediately below certify that they have NO affiliations with or involvement in any organisation or entity with any financial interest or nonfinancial interest in the subject matter or materials discussed in this manuscript.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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APPENDIX A

TABLE A1 Operational definition of research variables.

Variable		Definition/measurement
Firm value dependant variable	TQ	Tobin-Q is measured as the ratio of the market capitalisation plus total debt divided by total asset.
	ROA	Return on assets is measured as profit before tax deferred by total issued capital.
	ROE	Return on equity is measured as profit before tax deferred by total equity shares.
Independent variables	Principles	The Principle Approach is measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* discloses and signed both agreements of the United Nations Principles for Responsible Investment (UNPRI) and Global Compact (GC) and 0 otherwise.
	GL	The Guideline Approach: This is measured by using a dummy variable that takes the value of 1 if disclosed information of firm *i* at year *t* is in line with the framework of the Global Reporting Initiative (GRI), OECD guidelines, and a member of the Ethical Trading Initiative (ETI) and 0 otherwise.
	Cert	The Certificate Approach is measured as a dummy variable that takes the value of 1 if firm *i* at year *t* disclose and claims it has ISO 9000 and ISO 14000 industry-specific certifications and 0 otherwise.
	H-ESG	The ESG Disclosure Approach: Following Filbeck et al. (2019) and Salem et al. (2020), we used the median value of ESG as a cut-off point to distinguish firms with higher environmental, social, and governance from those with a lower score, and the value of 1 is given to those firms that exceed the median value and 0 otherwise.
	Com-App	The Comprehensive Approach is measured by using a dummy variable that takes the value of 1 if firm *i* at year *t* has obtained 1 in all the above four approaches and 0 otherwise.
Control variables	AC	Existing external audit is measured as a dummy variable that takes the value of 1 if the firm has an external auditor of its CSR/H&S/sustainability report and 0 otherwise.
	ACI	Audit committee independence is measured as the percentage of independent board members on the audit committee.
	BD	Board diversity is measured as the percentage of females on the board.
	BZ	Board size is measured as the total number of members on the board at the end of the fiscal year.
	CEOD	CEO-chairman separation (duality) is measured as a dummy variable that takes the value 1 if the CEO simultaneously chairs the board.
	CGC	Corporate governance committee is measured as a dummy variable that takes the value of 1 if the firm has a corporate governance board.
Country control variables	GDP	The logarithm of gross domestic product.
	CC	Control of corruption reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as 'capture' of the state by elites and private interests.
	RQ	Regulatory quality reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

APPENDIX B

TABLE B1 Sample structure by countries.

	Observations		
	UK	Canada	USA
Initial observations	2450	1547	3500
Excluding firms with missing data related to transparency approaches	(350)	(35)	(49)
Excluding firms with missing financial data	(50)	(14)	(21)
Final observations	2050	1498	3430
Percentage (%)	29	22	49