



LJMU Research Online

Ghazwani, M, Alamir, I, Salem, RIA and Sawan, N

Anti-corruption disclosure and corporate governance mechanisms: insights from FTSE 100

<http://researchonline.ljmu.ac.uk/id/eprint/22303/>

Article

Citation (please note it is advisable to refer to the publisher's version if you intend to cite from this work)

Ghazwani, M, Alamir, I, Salem, RIA and Sawan, N (2023) Anti-corruption disclosure and corporate governance mechanisms: insights from FTSE 100. International Journal of Accounting & Information Management. ISSN 1834-7649

LJMU has developed **LJMU Research Online** for users to access the research output of the University more effectively. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LJMU Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain.

The version presented here may differ from the published version or from the version of the record. Please see the repository URL above for details on accessing the published version and note that access may require a subscription.

For more information please contact researchonline@ljmu.ac.uk

<http://researchonline.ljmu.ac.uk/>

Anti-corruption Disclosure and Corporate Governance Mechanisms: Insights from FTSE 100

Dr Musa Ghazwani (First author)

Senior lecturer in Accounting and Finance
Jazan University – Faculty of Business Administration
mughazwani@jazanu.edu.sa

Dr Ibrahim Alamir (Second author)

Senior lecturer in economics
Jazan University, College of Business Administration
iamir@jazanu.edu.sa

Dr Rami Salem (Third and corresponding author)

Senior lecturer in Accounting and Finance Lancashire
School of Business and Enterprise
University of Central Lancashire, Preston, Lancashire, United Kingdom; and University of Gharyan, Libya
riasalem1@uclan.ac.uk

Dr Nedal Sawan (Fourth author) Associate

Professor in Accounting & Finance Liverpool John
Moores University, Business school
n.i.sawan@ljmu.ac.uk

Abstract

Purpose: This study examines the impact of corporate governance (CG) on anti-corruption disclosure (A-CD), paying particular attention to FTSE 100. Notably, it examines how board and audit committees' characteristics affect the quantity and quality of anti-corruption disclosure.

Design/Methodology: Data from FTSE 100 firms, spanning the period from 2014 to 2020 were analysed using the regression of Poisson fixed effect and GEE analyses.

Findings: The findings show that gender diversity, audit committee expertise and the independence of the audit committee are positively associated with both quantity and quality of anti-corruption disclosure. Notably, no statistically significant relationships were identified between anti-corruption disclosure and factors such as board size, role duality, or board meetings.

Implications: Our findings provide valuable insights for decision-makers and regulatory bodies, shedding light on the elements that compel UK companies to enhance their anti-corruption disclosure and governance protocols to alleviate corruption and propel efforts towards ethical behaviour.

Originality: This study makes a notable contribution to the sparse body of evidence by examining the influence of board and audit committee attributes on anti-corruption disclosure subsequent to the implementation of the UK Bribery Act in 2010. Specifically, to the best of the authors' knowledge, this study assesses for the first time the impact of board and audit committee mechanisms on both the quantity and quality of anti-corruption disclosure.

Keywords: Corporate governance, quantity and quality of anti-corruption, FTSE 100, Poisson regression.

1. Introduction

Corruption is an endemic problem that hinders economic development and has a wide range of harmful consequences for individuals, organizations, and societies (Ghazwani et al., 2023; Salem et al., 2023a; Previtali & Cerchiello, 2023). The cost of corruption is difficult to quantify, but it is estimated to amount to tens of billions of dollars annually (Welsch, 2008). In response to the challenges of corruption, governments and international organizations have sought to develop effective strategies to combat them. Two practices that have been shown to be of paramount importance in the combat against corruption are corporate governance (CG) and anti-corruption disclosure (A-CD), which have received significant attention from public and private bodies alike after the implementation of the UK Bribery Act in 2010 (Salem et al., 2023a). This is crucial because, without robust oversight and monitoring, companies may not comply with CG frameworks and A-CD, hindering their effectiveness in the fight against corruption. Additionally, companies may be able to circumvent rules and regulations if there is a lack of public access to information (asymmetry issue) about their activities, which means that there needs to be greater transparency to ensure that companies are held accountable (Adel et al., 2019; Gerged et al., 2023b).

Although developed economies such as the UK, USA, Canada, Australia and Germany have developed regulations concerning anti-corruption disclosure (Williamson & Lynch-wood, 2008), incorporated corporate governance codes (Spitzeck, 2009), and implemented guidelines focused on CSR (Rashid, 2018), only few studies have explored the interrelationship between environmental, social and governance (ESG) factors and CG (e.g., Albitar et al., 2020; Hussainey et al., 2011; Javaid Lone et al., 2016; Ezhilarasi and Kabra, 2017; Hammami and Hendijani Zadeh, 2020). However, investigating the impact of the CG mechanism on the quantity and quality of A-

CD has been neglected in previous empirical research (e.g., Blanc et al., 2017; Bouhamdan et al., 2023; Previtali and Cerchiello, 2023; Salem et al., 2023a), leading to a substantial gap in the literature. To address this research void, we have sought to understand the relationship between A-CD and CG in the UK, a mature economy that has seen enduring governance and regulatory reforms.

The selection of the UK has a plethora of motivations. The initial scenario is a meticulously organized CG system that provides an ideal environment for evaluating the complex relationship between the disclosure of anti-corruption measures and the foundation of CG. Furthermore, the economic landscape of the UK encompasses a wide range of industries and sectors, providing many opportunities to gather and carefully analyse data from various entities. Furthermore, the UK provides a rich historical context of legislative efforts aimed at addressing corruption (Ghazwani et al., 2023). This makes it an ideal setting for conducting a comprehensive investigation into the intricate relationship between A-CD and CG. The historical foundation of anti-corruption laws, which can be traced back to the late 19th century, strengthens the significance of this setting. Additionally, the UK Bribery Act of 2010 is notable for its robust ability to impose severe penalties for acts of bribery. The legislation discussed in this statement is a prominent example of the UK's commitment to combatting corruption, eliminating the problem of bribery and promoting ethical behavior (Ministry of Justice, 2011; Salem et al., 2023a). It reflects the determined efforts made by the country in this regard (Islam et al., 2021). Furthermore, the UK possesses a highly developed system of transparency, which serves as a manifestation of its unwavering commitment to combat corruption and uphold ethical standards within the corporate sphere (Athanasakou and Hussainey, 2014).

The historical development of anti-corruption legislation in the UK is characterised by the enactment of significant statutes, including the Public Bodies Corrupt Practises Act of 1889, the Prevention of Corruption Act of 1906, and the Prevention of Corruption Act of 1916. These legislative milestones reflect the early acknowledgement within the country of the significance of addressing corrupt practices (Ghazwani et al., 2023). These legislative measures laid the foundation for subsequent anti-corruption efforts and were eventually consolidated under the comprehensive UK Bribery Act in 2010. In the context of the UK's role as a vital global financial center, understanding the intricate relationship between Anti-Corruption Compliance (A-CD) and Corporate Governance (CG) becomes crucial. The UK's rich history of anti-corruption laws,

culminating in the Bribery Act, directly influences its position in the international business arena, highlighting the need for a nuanced understanding of the dynamic interplay between A-CD and CG. This understanding is essential due to the multifaceted factors at play, shaping the ethical and legal landscape within which businesses operate globally. To begin with, it is worth noting that the UK possesses a well-established regulatory system, exemplified by the UK Corporate Governance Code. This code serves as a comprehensive guideline, outlining the expected norms and practices that listed firms should adhere to (Salem et al., 2023a; Previtali & Cerchiello, 2023; Ezeani et al., 2021; Ezeani et al., 2023a; Usman et al., 2023; Komal et al., 2023). The analysis of how A-CD practices correspond with these regulatory criteria offers useful insights into the efficacy of current governance systems and policy implementations. Furthermore, the study's significance is underscored by the UK's longstanding dedication to corporate transparency and business ethics. Additionally, this research not only evaluates the extent to which ethical principles are followed but also provides an overview for other nations seeking to enhance their anti-corruption efforts. Moreover, within an era characterised by the presence of corporate scandals and corruption, which present substantial risks to global economies and societies, the outcomes of this study have the potential to contribute valuable insights to the ongoing debate regarding optimal approaches and strategies. Also, it offers an in-depth viewpoint on the ways in which effective governance practices can help mitigate corruption risks, promote transparency, and strengthen trust among stakeholders. Therefore, the rationale of this study extends beyond the confines of a single nation, providing significant insights for corporations, governments, and scholars on a global scale. As a result, this study represents a crucial and timely contribution to the global efforts aimed at combating corruption.

Thus, the primary objective of this study is to explore A-CD and CG nexus within companies listed on the FTSE 100. Employing a Poisson regression model, spanning the period from 2014 to 2020, our findings revealed that different proxies of CG had differing impacts on A-CD. For instance, a significant and positive association emerges between the inclusion of women within the board and the expertise within the audit committee with the A-CD. In contrast, the dimensions of board independence and audit committee independence have a negative association with A-CD. However, no significant associations were found between A-CD and other CG proxies such as board size, role duality, board meetings, or audit committee expertise. This finding seemed to

indicate that companies with female members on the board and experienced audit committees are predisposed to embrace a more candid stance in disclosing anti-corruption endeavors.

This study contributes to the current body of research by investigating the influence of corporate governance on a firm's capacity to achieve its anti-corruption disclosure goals, following the enactment of the UK Bribery Act in 2010. This study aims to examine the influence of board and audit committee mechanisms on the value and quality of anti-corruption disclosure, which, to the authors' knowledge, has not been previously investigated. This work addresses the academic void in this particular domain and contributes to the current body of research in this discipline. Simultaneously, our research provides valuable perspectives for policymakers and regulators regarding strategies to address the growing need for enhanced transparency and responsibility in non-financial reporting. The implementation of a soft regulatory framework that encourages the presence of women and experts in audit committees may prove to be a valuable strategy for enhancing overall transparency and, more specifically, disclosure related to anti-corruption efforts (DiMaggio & Powell, 1983). This paper offers valuable insights to policymakers and regulators regarding strategies for addressing the growing need for enhanced transparency and accountability in non-financial reporting. By providing evidence that various corporate governance criteria exert varying levels of impact on a company's A-CD. It may be beneficial to consider implementing a form of regulatory measures that encourage the inclusion of women and individuals with expertise on the audit committee, with the aim of improving the quality of the audit committee's work in relation to the assessment of internal controls and A-CD.

The paper is structured as follows. Section 2 reviews the literature on CG and A-CD, while Section 3 presents the theoretical framework and formulates the research hypotheses, and Section 4 outlines the study design and methodology. The empirical results and robustness tests are presented in Section 5. Finally, we provide concluding remarks in Section 6.

2. Literature Review

The adoption of appropriate disclosure practices can facilitate the enhancement of a company's reputation and strategic networks (Boyd, 1990). In recent years, there has been a notable increase in the significance attributed to anti-corruption initiatives, which have become a fundamental element within the field of corporate sustainability reporting. The aforementioned phenomenon has resulted in a notable increase in the quantity of metrics linked to corporate anti-corruption

practices within sustainability report recommendations. This can be attributed to the significant importance placed on sustainability reporting guidelines such as the Global Reporting Initiative (GRI). It is crucial to acknowledge that corporations possess many avenues for divulging corruption-related information, encompassing corporate codes of conduct and websites, rather than solely relying on sustainability reports, which constituted the principal data source examined in our research.

The relationship between corruption in countries and accounting, including reporting, has been extensively explored in accounting research. According to Malagueño et al., (2010) countries that have higher-quality accounting practices and more reliable auditing systems generally have lower levels of perceived corruption. Similarly, Wu (2005) revealed a negative correlation between enhanced accounting practices and the frequency of bribe payments across twelve Asian countries. Houqe and Monem, (2016) established a positive correlation between low corruption, IFRS experience, and disclosure levels. Blanc et al., (2017) emphasized the significance of press freedom at the country level as a key factor that can explain variations in the disclosure of anti-corruption measures among large multinational corporations. Meanwhile, Barkemeyer et al., (2015) found that businesses with greater vulnerability to corruption tend to divulge less information about their efforts to combat corruption. Conversely, Aldaz Odriozola and Álvarez Etxeberria, (2021) demonstrated that there is a positive correlation between anti-corruption disclosures and the reputation of major European companies. Additionally, Previtali & Cerchiello, (2023) investigated how corporate governance impacts anti-corruption disclosure within ESG reporting on Italian listed firms. The study analyzed 140 CSR reports, finding low disclosure levels and significant influence from corporate governance. Results showed a positive correlation between higher anti-corruption disclosure and the presence of female, external, and total board members. Despite these significant findings, there is still a lack of research in the domain of accounting and corruption analysis in the context of sustainability reporting. Additionally, companies often fail to disclose governance information about corruption and bribery, either intentionally or unintentionally, while providing social responsibility information. Lastly, research on corporate A-CD is limited, indicating a critical gap that needs to be addressed.

The term "corporate governance" encompasses the set of rules, practices, and processes that govern the direction and control of a company, as defined by the OECD (2015)¹. The significance of CG mechanisms such as the board of directors, audit committee, internal control system, and external audit lies in their impact on the allocation of risks and rewards among various stakeholders (Cadbury, 1992), including employees, shareholders, civil society at large, management, suppliers, as highlighted by Freeman, (1984). As noted by Hussainey et al., (2022) the board of directors serves as the key CG mechanism, entrusted with the task of supervising the management team and charting the strategic course of the company. The board of directors can have different characteristics, such as board size, role duality, board independence, and gender diversity. A-CD refers to the voluntary or mandatory reporting of information related to a company's policies, procedures, and practices for preventing and detecting corruption (Ghazwani et al., 2023). A-CD can enhance transparency, accountability, and stakeholder trust, and reduce the risk of reputational damage, legal liability, and financial losses (Previtali & Cerchiello, 2023). A-CD can include various elements, such as the disclosure of anti-corruption policies, training programs, risk assessments, due diligence procedures, whistle-blowing mechanisms, and anti-corruption performance indicators (Islam et al., 2021). Although several scholars have explored the link between different environmental, social, and governance (ESG) elements and A-CD (e.g., Previtali & Cerchiello, 2023; Ghazwani et al., 2023; Joseph et al., 2016; Blanc et al., 2019), to our knowledge, no previous research has investigated the association between the quantity and quality of A-CD and CG. Our work fills this gap in the literature by giving empirical evidence of quantity and quality A-CD and CG nexus in a mature economy, the UK, with a notable history of governance and regulatory reforms.

This study is based on the theories of agency and signalling, which serve as the foundation for evaluating corporate transparency and corporate governance. From an agency theory perspective, it becomes evident that managers may possess incentives to withhold information (Boateng et al., 2022), resulting in an imbalance of information that impedes the efficient monitoring of their performance in the market (Adel et al., 2019; Albitar et al., 2020; Boateng et al., 2022; Salem et al., 2021a). Nevertheless, the implementation of an efficient corporate governance framework plays a crucial role in addressing and minimising this concern (Davidson et al., 2005). Corporate

¹ See www.oecd.org/daf/ca/g20-leaders-endorse-g20-oecd-principles-of-corporate-governance.htm

governance plays a pivotal role in ensuring compliance with financial reporting requirements and an accurate representation of a firm's comprehensive financial status (Bouhamdan et al., 2023; Boateng et al., 2022).

On the other hand, Signalling theory suggests that investors depend on the information provided by firms in order to address the issue of information asymmetry and agency conflict between managers and stakeholders (Harun et al., 2020; Hughes, 1986). This theory emphasises the importance of information credibility in reducing information asymmetry (Hughes, 1986). The implementation of signalling theory is relevant in situations characterised by information asymmetry, wherein external parties typically lack access to the internal information related to a firm, which is only available to its managers. According to Rhodes and Soobaroyen (2010), corporate disclosure has the potential to mitigate agency issues by reducing the imbalance in information, ultimately leading to an improvement in the value of the firm. Signalling theory suggests that managers engage in the disclosure of information in order to mitigate the presence of information asymmetry and to convey a message to external stakeholders that their companies are outperforming their industry counterparts (Harun et al., 2020). Consequently, the utilisation of this theory implies that enhanced A-CD signals, in conjunction with effective governance structures, has the potential to reduce information asymmetry, alleviate conflicts of interest, and improve the overall performance of the organisation (Aldaz Odriozola & Álvarez Etxeberria, 2021; Blanc et al., 2019; Salem et al., 2023a; Lambert et al., 2007).

3. Hypotheses Development

3.1 Board Characteristics

3.1.1 Board size: From an agency perspective, larger boards can serve as a monitoring and control mechanism, which increases the likelihood of detecting and disclosing corrupt behaviour, and ultimately can have a positive effect on preventing corporate corruption (Aboud and Yang, 2022; Salem et al., 2023a). From the perspective of signaling theory, it may be argued that larger boards have the potential to convey a firm's dedication to combatting corruption. This is because the market may interpret larger boards as indicative of a more robust and efficient anti-corruption framework being implemented by the company (Aboud and Yang, 2022). The relationship between board size and corporate A-CD could be either positive or negative, depending on the particular context and the incentives of key actors in CG. Some previous studies have shown that

board size can affect the quality of CG (e.g., Ntim, 2015; Hoang et al., 2018; Al Maeeni et al., 2022). While others have found no significant relationship between board size and corporate disclosure (e.g. Velte, 2019; Wang & Hussainey, 2013). In this research, based on the argument that a larger board can have a more diverse set of skills and expertise, as well as better representation of different stakeholder interests (Hussainey et al., (2022), we believe that a larger board is likely to support and require higher levels of A-CD. Thus, we formulate *H₁* as follows:

H₁: There is a positive association between board size and the quantity and quality of A-CD.

3.1.2 Role duality: From the agency theory perspective, having different people who fill the roles of CEO and chairman can improve CG by separating executive responsibilities, checking and balancing power and increasing transparency and accountability (Previtali & Cerchiello, 2023). The theory further proposes that having a separate chairman can improve CG if the chairman is an expert, an independent or otherwise an influential authoritative figure (Velte, 2019). This can result in increased A-CD, as the executives (agents) will be held more accountable. This, in turn, is anticipated to increase the chance of having more transparent company and reduce the probability of the company's engagement in corrupt behaviour. Additionally, given that the chairman is expected to be an expert, independent, or influential authoritative figure, he/she can act as a check and balance against the CEO and their (potentially) corrupt activity. Empirically, corporate disclosure studies have found a negative relationship between CSR and CEO duality (e.g., Velte, 2019; Le et al., 2015). Therefore, it is hypothesized that having separate roles for the CEO and the chairman increases the chances of organizations engaging in A-CD:

H₂: There is a negative association between role duality and the quantity and quality of A-CD.

3.1.3 Board independence: Taking an alternative perspective, the connection between board independence and A-CD carries noteworthy significance within the framework of agency theory. This is because the behaviour of the agent might not always be in the best interest of the principal, and hence, a greater level of independence of the board (agent) from the principal can reduce the principal's risk of any failure due to the wrong decisions taken by the agent (Maroun, 2020; Ezeani et al., 2023b; Usman et al.,2022b). Therefore, when a firm discloses relevant information about its anti-corruption practices, it gives an indication or signal to the investors and other stakeholders about the willingness of the board of directors to succeed in creating a business environment in

which corruption and bribery are not tolerated. Empirically, several studies found a positive impact between corporate disclosure and board independence (e.g., Zubeltzu-Jaka et al., 2020; Velte, 2019; Lagasio and Cucari, 2019). Therefore, we believe that the relationship between A-CD and board independence might be positive, i.e., as an increased degree of board independence may result in a heightened level of accountability which in turn enhance A-CD. Thus, we formulate *H₃* as follows:

H₃: There is a positive association between board independence and the quantity and quality of A-CD.

3.1.4 Board activity: When a board takes part in frequent meetings, it is more likely to detect and monitor any fraud, malfeasance, or other corrupt practices that could occur within the organization (Zalata et al., 2018; Usman et al., 2022c). Additionally, frequent board meetings can facilitate improved communication and collaboration between board members and management, which is essential to successful anti-corruption rules' implementation. Along with this view, a number of empirical studies have found a positive association between frequent board meetings and corporate A-CD (e.g., Previtali & Cerchiello, 2023; Endrikat et al., 2020). Similarly, Yusoff et al., (2016) found that there is a positive relationship between the frequency of board meetings and the level of engagement of boards in CSR activities and transparency. In a similar vein, Giannarakis et al., (2019) substantiated a noteworthy positive correlation between environmental disclosure and the frequency of board meetings conducted annually. In contrast, (Barako and Brown, 2008; Majumder et al., (2017) found an insignificant association between corporate disclosure and board meetings. This research agrees with former studies, suggesting that:

H₄: There is a positive association between the frequency of board meetings and the quantity and quality of A-CD.

3.1.5 Gender diversity: The inclusion of diverse perspectives and experiences on the board of directors can have a positive effect on the effectiveness of corporate disclosure practices (Bear et al., 2010; Zalata et al., 2018). According to Jaggi et al., (2021), it was suggested that female directors tend to prioritize more comprehensive and transparent disclosure, particularly in regard to non-financial information. They stated that female directors possess higher ethical values, exhibit social orientation and are more attuned to the demands of stakeholders. These features have

been suggested to contribute to their greater focus on controlling and monitoring activities related to fraud and corruption. In this regard, Endrikat et al., (2020) supported the link between gender diversity and greater volumes of corporate disclosure practices. The notion is reiterated by Bin-Amar et al., (2017) and Previtali & Cerchiello, (2023), underlining the perspective that female directors offer unique viewpoints and experiences. This perspective is further substantiated by Jaggi et al., (2021), who posit that such contributions enhance decision-making quality while mitigating groupthink tendencies (Adams & Ferreira 2009). In contrast, several studies have suggested that gender diversity has no bearing on corporate disclosure (Barako and Brown, 2008; Majumder et al., 2017). Supporting the previous argument, we believe that the relationship between A-CD and gender diversity from an agency theory point of view is positive, i.e., a higher level of board gender diversity might result in a higher level of A-CD:

H₅: There is a positive association between greater gender diversity on a firm's board of directors and the quantity and quality of A-CD.

3.2. Audit committee characteristics

3.2.1 Audit committee expertise: The presence of experienced members on the audit committee can have a significant impact on the accuracy and informativeness of the submitted financial reports (Fama & Jensen, 1983). Evidence from previous studies in CG reveals that an audit committee possessing robust financial expertise is better poised to accurately represent the financial position of the corporation (Zalata et al., 2018). In contrast, if members do not possess such expertise, the committee is unlikely to be able to provide an effective level of oversight and monitoring (DeZoort & Salterio, 2001). Hence, the audit committee experience might improve the transparency and quality of corporate disclosure (Dhaliwal et al., 2010). In this regard, Dhaliwal et al., (2010) suggested that the presence of experts on the audit committee has a positive effect on the monitoring role, which consequently promotes the quality of corporate disclosure. This hypothesis is further validated by previous studies (Abad & Bravo 2018; Lee & Fargher 2018; Kelton & Yang, 2008), which also reported a positive correlation between audit committee expertise and corporate disclosure. Hence, the study in question hypothesizes the following:

H₆: There is a positive association between experts on the audit committee and the quantity and quality of A-CD.

3.2.2 Audit committee independence: According to the agency theory, the involvement of an independent audit committee helps reduce agency costs (Abbott et al., 2004; Tan et al., 2022; Salem et al., 2023a; Usman et al., 2022a). This is because the independence of audit committees allows management to evaluate the authenticity of the financial reports, hindering any opportunism and potential misconduct by the managers, thereby augmenting their performance (Hoitash and Hoitash 2009; Komal et al., 2022). Previous studies conducted in the field of CG space allude to the fact that the presence of independent audit committees results in better corporate disclosure (Abad & Bravo 2018; Al Lawati et al., 2021; Salem et al., 2021b). Evidently, Cerbioni & Parbonetti, (2007) asserted that when the committee operates autonomously, it engenders a conducive environment for enhanced functionality, particularly concerning the domain of corporate disclosure. This suggests that audit committee independence is a significant factor in facilitating positive corporate disclosures, thereby increasing investors' confidence (Raghunandan and Rama 2007; Buallay & Al-Ajmi 2019). Consequently, we formulate the following hypothesis:

H7: There is a positive association between audit committee independence and the quantity and quality of A-CD.

4. Research Design and Methodology

4.1 Sample Description

This paper considers a sample of 76 outstanding non-financial companies listed in FTSE100, providing initial sample of 700 observations from 2014 to 2020. Notably, the choice to exclude financial insurance firms from our sample was made after thorough consideration of multiple factors. Financial insurance firms are subject to distinct accounting rules and regulations that differ significantly from those applicable to non-financial companies (Athanasakou and Hussainey, 2014; Gunduz and Tatoglu, 2003). Nevertheless, it is crucial to recognise that the exclusion of financial insurance businesses from the analysis is justified due to their distinct capital framework. The distinction between these organisations arises from their distinct approach to cash flow accounting and their evaluations of social responsibility, setting them apart from firms in other industries (Aboud & Yang, 2022). Furthermore, it is common for financial institutions to apply unique risk management strategies that distinguish them from firms operating in different industries (Al Rahahleh et al., 2019). The inclusion of these unique characteristics may introduce complexities that have the potential to influence the study's findings and lead to inaccurate

interpretations of the data. The decision to exclude financial entities was made in order to simplify the associated complexities. The rationale for this decision was to maintain the uniformity of the sample, thereby guaranteeing that the analysis remains concentrated and readily understandable.

The purpose of this complete strategy is to address the problem of abnormal financial indicators that have an excessive impact on the analysis (Aboud and Yang, 2022). After implementing the exclusion process, the number of observations in our sample decreased to 532. The distribution of these data across different industries is presented in Table 1. This comprehensive sample comprises 10 separate industrial sectors, which have been classified using the Bloomberg database, as depicted in Table 1. Among these, the consumer discretionary sector comprises the largest proportion, accounting for 18% of the sample, while the technology sector constitutes the smallest percentage at 3%.

Table 1. Sample Structure

Sector	Per sector (%)
Materials	13
Industrials	14
Consumer Staples	14
Healthcare	4
Communications	12
Technology	3
Consumer discretionary	18
Energy	4
Industrial Mining	11
Utilities	7
	100 %

4.2 Variables Measurement

Information about the independent variables of board characteristics and the control variables of firms' characteristics was extracted from DataStream (Table 2). Our methodology aligns with prior research by adopting proxy variables focusing on corporate governance mechanisms. These mechanisms encompass board size, role duality, board independence, frequency of board meetings, gender diversity, audit committee independence, and audit committee expertise, as presented in Table 2 (Salem et al., 2023a; Tan et al., 2022; Previtali et al., 2023). The control variables were corporate characteristics, namely market capitalization, used as a proxy for firm size (Elzahar & Hussainey, 2012); profitability (Gerged, 2021); leverage ratio (Salem et al., 2021a); liquidity ratio (Gerged et al., 2023a); firm age (Gerged et al., 2022); industry sensitivity (Blanc et al., 2019); and code of conduct/policy on bribery and corruption (Code/Bribery-Corruption).

Table 2. Description and Measurement of Independent and Control Variables

Variables	Definition	Measurement	Source	Ex. Sign
Independent Variables				
BS	Board size	Number of board members	Eikon database.	+
RD	Role duality	The chair is also the CEO (duality) dummy variable	Eikon database.	-
BI	Board composition	Ratio of non-executive directors to total number of directors on board (a proxy variable for board independence)	Eikon database.	+
BM	Board meeting frequency	Numbers of meetings during one fiscal year	Eikon database.	+
GD	Gender diversity	Percentage of female members on board	Eikon database.	+
ACI	Audit committee Independence	Percentage of independent board members on audit committee	Eikon database.	+
ACE	Audit committee expertise	Company has financial experts in the audit committee; coded 1 if yes, 0 if no	Eikon database.	+
Controls Variables				
FS	Firm size	Natural logarithm of market capitalization	Eikon database.	+
PRO	Profitability	Ratio of net earnings to total assets	Eikon database.	+ \ -
LIQ	Liquidity	Natural logarithm of current ratio	Eikon database.	+
LEV	Leverage	Total debt/total assets	Eikon database.	+ \ -
CBC	Code of Conduct/Policy of Bribery and Corruption	Dummy variable coded 1 if company describes striving to avoid bribery and corruption in all its operations in its code of conduct, 0 if otherwise.	Eikon database.	+
GC	Signed the UN Global Compact	A dummy variable denoting whether a company signed the UN Global Compact was assigned 1 if yes and 0 if not.	Eikon database.	+
FA	Firm age	Natural log of total number of years since foundation	Company Profile	+

IS	Industry sensitivity	dummy variable indicated if a company was in a "more sensitive" industry according to OECD (2014), such as extractive, construction, transportation and storage, information and communication, and manufacturing, with 1 representing sensitive industries and 0 otherwise.	OECD (2014)	+
----	----------------------	--	-------------	---

The dependent variable is the corporate's commitment to disclose information about anti-corruption policies, procedures, and practices in its annual report. Following Ghazwani et al., (2023) and Salem et al., (2023a), we adopted the 25 UK Anti-bribery Act 2010 checklist items (See Appendix 1), a specific measurement was developed to evaluate the extent of A-CD in a corporate annual report using a range of keywords such as corruption, bribery, UK Bribery Act, OECD, UNCAC, fraud, payment facilitation, code of conduct, dismiss, terminate, training, zero tolerance, corrupt, bribe, code of ethics, donation, donate, charity, charitable donation, political donation, and political contribution.

The extent of A-CD comprises two scores which are the quantity of anti-corruption disclosures (A-CDQ) and the quality of anti-corruption disclosures (A-CDL). The A-CDQ score assigns a value of 1 if a keyword is present in the report, and 0 otherwise, for each of the 25 checklist items. The maximum possible score for A-CDQ is 25. In contrast, the A-CDL score rates the language used to describe the level of A-CD on a scale of 0 to 4 points for each of the 25 checklist items. Hence, the maximum possible score for A-CDL is 100. It is noteworthy that A-CDQ primarily focuses on the presence or absence of specific keywords in the report, whereas A-CDL assesses the language quality used to describe the firm's effort to fight anti-corruption (Ghazwani et al., 2023; Nobanee et al., 2020). The literature uses disclosure quantity as a proxy for disclosure quality (e.g. Salem et al., 2021a; Al Lawati et al., 2021). Limited evidence shows that quantity is not a good proxy for quality and each measure has its own determinants (Beattie et al. 2004). However, Beretta and Bozzolan, (2008) state that disclosure quality gives a more realistic picture of disclosure than quantity; therefore, it helps annual report users make rational decisions. They confirm that the dimensions considered in the disclosure quality framework give more realistic picture of disclosure than quantity, and suggest that, in assessing the disclosure, these dimensions could be used to complement each other.

4.3 Statistical Analysis

We investigate the relationship between A-CD and CG in a developed market using panel Poisson regression. In the case of a firm's public disclosures, the dependent variable represents the number of times an event or behaviour occurs. In the case of A-CD, this is the total number score for each firm's public disclosures. Hence, to analyze the effect while accounting for heterogeneity across 76 companies, we use a Panel Poisson model for the period of 2014–2020. The general form of a panel Poisson model can be expressed as:

$$\begin{aligned} \log(\lambda_{it} - \lambda_{it}) &= \beta_0 + \beta_1 \text{BoardSize}_{it} + \beta_2 \text{BoardSize}_{it} + \beta_3 \text{CEOChair}_{it} + \beta_4 \text{BoardSize}_{it} + \beta_5 \text{BoardSize}_{it} + \beta_6 \text{BoardSize}_{it} \\ &+ \sum(\lambda_{it} X_{it}) + \mu_i + \tau_t + \epsilon_{it} \end{aligned}$$

where $\lambda_{it} - \lambda_{it}$ represents the expected count of both the quantity and quality of anti-corruption disclosure for firm i at time t , BoardSize_{it} is the board size, CEOChair_{it} is a binary variable that takes

a value of 1 if CEO-chair duality and 0 otherwise, BoardSize_{it} is a binary variable that takes a value of 1 if the board is independent and 0 otherwise, BoardSize_{it} is the percentage of non-executive directors to total number of directors on board, BoardSize_{it} is a binary variable that takes a value of 1 if the audit

committee has financial expertise and 0 otherwise, BoardSize_{it} is a binary variable that takes a value of

1 if the audit committee is independent and 0 otherwise, $\beta_0, \beta_1, \dots, \beta_6$ are the coefficients of the independent variables, X_{it} represents the control variables, λ_{it} coefficients for the control variables

, where i ranges from 1 to the total number of control variables, μ_i is the firm fixed effect, τ_t is the time fixed effect, and ϵ_{it} is the error

term.

5. Results

5.1 Descriptive statistics and correlation

Table 3 provides the descriptive statistics of the variables, including the mean, median, standard

deviation, minimum, and maximum values. The outcome offered underscores the crucial significance of transparency and accountability within the context of corporate governance. The mean value of 5.399 indicates that companies are actively engaging in the practice of disclosing information related to anti-corruption efforts, so demonstrating their dedication to ethical behavior and responsible business practices. Moreover, the elevated mean quality score of 10.556 indicates

that companies are not just revealing information but are also doing it in a thorough and significant manner. This practice enhances stakeholder engagement and trust by providing investors, customers, employees, and other stakeholders with a more comprehensive understanding of the firm's true dedication to anti-corruption initiatives. The findings of this study indicate that organisations that demonstrate transparency in their anti-corruption initiatives are more effectively positioned to safeguard their reputation in the event of any potential concerns, and are also more inclined to minimise risks associated with their reputation. Moreover, the demonstrated result illustrates the extent to which UK enterprises are harmonising their operations with internationally acknowledged benchmarks such as the United Nations Global Compact and ISO 37001, which pertains to Anti-bribery Management Systems.

Furthermore, the research outcome sheds light on the makeup and dynamics of the corporate governance structure, emphasising the organization's dedication to transparency, diversity, and efficient oversight. The mean board size of 10.181 suggests a well-rounded strategy that promotes cooperation and discourages excessive administrative processes. The strategic focus on impartial decision-making and the mitigation of conflicts of interest is seen in the high proportion of independent directors, who represent 64.8% of the board members. The organization's deliberate decision to have only 2.9% of board members simultaneously serving as CEO and board chair reflects a commitment to maintaining a clear distinction between executive leadership and board supervision. This approach fosters a system of rigorous checks and balances.

The composition of the audit committee, which consists of an average of 95% independent board members, highlights the stringent approach adopted towards financial control and risk management. The committee's capacity to critically evaluate intricate financial concerns and ensure the organization's fiscal health and adherence to industry standards is further strengthened with the addition of 96 experts. The commitment to inclusive leadership is demonstrated by the average percentage of female board members, which stands at 25%, indicating a notable emphasis on gender diversity. The variety of levels of female representation, spanning from a complete absence to a maximum of 54%, serves as a clear indication of the continuous endeavour towards achieving gender parity within corporate leadership. This attempt aims to foster a varied range of viewpoints, which in turn enhances the quality of decision-making processes and fosters a culture of creativity. The board's commitment to active involvement and regular discourse is seen in the

average yearly meeting count of 8, which spans a broad range from 1 to 43. The regularity of engagement enables prompt reactions to evolving issues and opportunities, ultimately enhancing the effectiveness of governance and the adaptability of organisations.

The paper used two diagnostic tools in panel data analysis to detect the presence and quantify the degree of multicollinearity among the independent variables in a regression model. First, the VIF test which calculates the ratio of the variance of the coefficients in a model with multiple independent variables to the variance of the coefficients in a model with only one independent variable. The other tool is Pearson correlation which is commonly used in panel data analysis to assess the degree of correlation between pairs of variables. (See Appendix, Table 4). However, both diagnostic tools indicate the absence of multicollinearity among the explanatory variables.

Table 3. Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
A-CDQ	532	5.399	3.972	0	18
A-CDL	532	10.556	8.175	0	44
BS	532	10.181	2.125	0	17
RD	532	0.029	0.169	0	1
BI	532	64.862	12.051	33.33	92.86
BM	532	8.051	2.839	1	43
GD	532	25.884	8.756	0	53.85
ACE	532	0.955	0.208	0	1
ACI	532	96.564	8.159	60	100
Log FS	532	16.242	1.196	13.574	19.653
PRO	532	11.809	29.948	-21.58	269.11
Log LIQ	532	1.526	1.805	0.18	29.27
LEV	532	28.8	16.739	.04	131.91
CBC	532	0.878	0.328	0	1
GC	532	0.383	0.487	0	1
Log FA	532	3.861	0.963	0	5.62
IS	532	0.41	0.492	0	1

Table 4. Pearson correlation analysis of model variables

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) BS	1.000														
(2) RD	-0.010	1.000													
(3) BI	0.267***	-0.089*	1.000												
(4) BM	0.067	-0.011	0.055	1.000											
(5) GD	0.062	-0.159***	0.248***	0.077	1.000										
(6) ACE	0.194***	0.037	0.124**	0.029	0.069	1.000									
(7) ACI	-0.067	0.074	0.193***	-0.090*	0.132**	-0.019	1.000								
(8) Log FS	0.426***	-0.127**	0.406***	0.052	0.246***	0.122**	-0.057	1.000							
(9) PRO	-0.089*	-0.010	-0.136***	-0.026	0.189***	0.044	0.045	-0.125**	1.000						
(10) Log LIQ	-0.069	0.106**	-0.249***	-0.123**	-0.152***	0.038	-0.133***	-0.027	0.034	1.000					
(11) LEV	-0.100*	-0.096*	-0.006	0.098*	0.163***	-0.042	-0.067	0.072	-0.067	-0.186***	1.000				
(12) CBC	0.291***	0.067	0.286***	-0.072	0.074	0.258***	0.091*	0.351***	-0.266***	0.059	-0.048	1.000			
(13) GC	0.320***	0.027	0.160***	-0.019	0.109**	0.091*	0.044	0.459***	-0.129**	0.015	0.078	0.285***	1.000		
(14) Log GA	0.019	-0.087*	0.119**	-0.031	0.114**	0.038	0.042	0.015	-0.099*	-0.043	-0.210***	0.013	-0.026	1.000	
(15) IS	-0.051	0.049	0.026	-0.108**	-0.267***	-0.028	-0.033	0.076	-0.087*	0.210***	-0.066	-0.001	0.149***	-0.168***	1.000

5.2 Regression Analysis

Table 5 shows models that estimate the relationship between CG and the quantity and quality efforts of A-CD in the UK firm's annual reports. The first model presents a Poisson model with random effects, which adjusts for unobserved heterogeneity across firms. The second model presents a Poisson model with conditional fixed effects, which accounts for time-invariant unobserved heterogeneity.

5.2.1 A-CDQ

The results for the quantity of anti-corruption disclosure A-CDQ are presented in Table 5 (Columns 1-4). Among the seven variables tested for seven hypotheses, three were deemed significant at varying confidence levels. Specifically, gender diversity (GD) and audit committee expertise (ACE) were found to have a positive association with A-CDQ. Notably, these effects were significant at the 1% levels in models with conditional fixed effects specifications and models with random effects specifications, except for a model with control variables, the significance level for ACE was 5%. These findings lend support to Hypotheses H_5 and H_6 . This finding highlights the significance of promoting gender diversity within corporate governance, which subsequently cultivates a more comprehensive approach to anti-corruption efforts and the improvement of transparency. Furthermore, the significant association observed between ACE and A-CDQ highlights the crucial role that competent and expert audit committees play in shaping an organization's disclosure procedures. The consistent presence of this correlation across several model parameters confirms the robustness of this finding, indicating its potential use in diverse organisational contexts. Our findings are aligned with the concepts of agency and signaling theories. Agency theory suggests that gender diversity in corporate governance serves to harmonise the interests of varied stakeholders, thereby promoting transparency through the reduction of information gaps between executives and shareholders. The presence of females serves as a strong indication of the company's dedication to promoting fairness and inclusivity. Signalling theory suggests that such a commitment signifies high-quality management, translating into superior organisational performance, which leads to fostering transparency. These findings are in line with previous studies (e.g, Previtali and Cerchiello 2023; and Li et al., 2022). For instance, Adam and Ferreira, (2009) report that female directors have better attendance records than male directors in their study of US firms, suggesting greater commitment and reliability in

board responsibilities. Similarly, Liao et al., (2014) found that the presence of females had a positive influence on carbon disclosures in the UK in 2010, while Ben-Amar et al., (2017) observed a positive correlation between female involvement in boardrooms and the voluntary disclosure of climate change information in a sample of Canadian companies from 2008 to 2014. Likewise, Mangena and Pike, (2005), Bravo et al., (2015), Zalata et al. (2018), Bala et al. (2020), and Lee and Fargher, (2018) highlight the significant correlation between accounting expertise in the audit committee and high-quality corporate disclosure. The expertise of accounting experts on the audit committee facilitates the identification of potential areas of risk or concern, allows for pertinent questions to be asked, challenges management assumptions, and promotes effective oversight of the financial reporting process.

In addition, the results reveal a positive relationship between audit committee independence (ACI) and A-CDQ, with statistically significant effects at the 5% and 1% levels in models with random effects specifications, both with and without control variables. Moreover, only the coefficient estimate of a model with conditional fixed effects-control variables is significant (at the 5% level). These findings support our Hypothesis *H7*, which further emphasizes the significance of employing a flexible and applicable strategy towards corporate governance systems. It recognises that the impact of audit committee independence on A-CDQ might differ depending on organisational intricacies and external factors. According to agency theory, the presence of independent audit committees plays a crucial role in overseeing financial reporting and anti-corruption initiatives, thereby promoting accuracy, transparency, and mitigating agency costs. In line with the signaling theory, the existence of an independent audit committee serves as a signal of a company's dedication to upholding ethical standards and promoting transparency, enhances the company's reputation, and emphasises its continuous commitment to anti-corruption endeavors. This outcome seamlessly aligns with the trajectory established by prior seminal research endeavors within the realm of corporate disclosure (e.g, Carcello and Neal 2003; Salem et al., 2021a; and Salem et al., 2023b).

5.2.2 A-CDL

Table 5 (columns 5-8) reports the estimated coefficients of anti-corruption disclosure quality (A-CDL) with and without control variables. Our findings confirm two hypotheses, which show

consistent results for A-CDL with similar levels of statistical significance for GD and ACE variables. Specifically, the coefficients for GD are positively associated with A-CDL and significant at the 1% level for both models with random effects and conditional fixed effects specifications, with and without control variables. Similarly, the coefficients for ACE demonstrate a positive effect on A-CDL and are significant at the 1% level for models with random effects and conditional fixed effects specifications, without control variables. However, when control variables are included, the significance level of the coefficient estimates for ACE decreases to 5%. These results provide support for Hypotheses H_5 and H_6 . This finding aligns with the perspective supported by Beretta and Bozzolan, (2008) and elaborated on by Salem et al., (2021a), highlighting that the effectiveness of corporate disclosure depends not only on the quantity of information disclosed but also on its depth and practical relevance.

On the other hand, the coefficient estimates for audit committee independence (ACI) have been observed to be statistically significant at 5% level, with a positive impact on A-CDL in both models after including control variables. These results support Hypothesis H_7 . These results indicate that the coefficient estimates for role duality (RD) have a negative impact on A-CDL, as shown by the statistically significant effects at the 5% level in a model with control variables and random effects specification. However, this finding should be treated with caution as the significance level may change after including additional control variables. If the significance level remains, it would support Hypothesis H_2 .

Table 5. Coefficient estimates of the panel Poisson using Random and Fixed Effect models for the period 2014-2020.

	A-CDQ				A-CDL			
	RE	FE	RE	FE	RE	FE	RE	FE
BS	0.00117 (0.0340)	-0.0390 (0.0352)	-0.0173 (0.0278)	-0.0241 (0.0320)	-0.0217 (0.0355)	-0.0502 (0.0334)	-0.0322 (0.0309)	-0.0362 (0.0313)
RD	0.238 (0.481)	-0.0239 (0.0547)	0.227 (0.523)	-0.00107 (0.0713)	0.204 (0.388)	-0.118** (0.0577)	0.272 (0.436)	-0.0966 (0.0745)
BI	0.00123 (0.00396)	0.00220 (0.00481)	-0.00304 (0.00426)	0.00251 (0.00471)	-0.000813 (0.00420)	-0.000661 (0.00476)	-0.00355 (0.00435)	-0.000423 (0.00489)
BM	0.00260 (0.00677)	-0.00444 (0.00552)	0.00448 (0.00682)	-0.00245 (0.00451)	0.00494 (0.00545)	0.000935 (0.00511)	0.00683 (0.00434)	0.00328 (0.00451)
GD	0.0196*** (0.00673)	0.0254*** (0.00578)	0.0177*** (0.00683)	0.0155*** (0.00587)	0.0231*** (0.00610)	0.0256*** (0.00611)	0.0214*** (0.00596)	0.0171*** (0.00639)
ACE	0.846*** (0.232)	1.046*** (0.198)	0.564** (0.259)	0.751*** (0.240)	1.042*** (0.291)	1.171*** (0.339)	0.762** (0.321)	0.872** (0.381)
ACI	0.00949** (0.00440)	0.00564 (0.00399)	0.00978*** (0.00389)	0.00688** (0.00347)	0.00569 (0.00377)	0.00374 (0.00354)	0.00692** (0.00329)	0.00528** (0.00360)
Log FS			0.0764 (0.0589)	0.0884 (0.109)			0.128* (0.0765)	0.131 (0.108)
PRO			0.000852 (0.000974)	-2.26e-05 (0.00327)			-2.35e-05 (0.00150)	-0.00190 (0.00371)
Log LIQ			-0.0218*** (0.00600)	-0.00910 (0.00915)			-0.0165** (0.00652)	-0.00340 (0.0100)
LEV			-0.00423 (0.00414)	-0.00959 (0.00803)			-0.00679 (0.00565)	-0.0111 (0.00874)
CBC			0.620*** (0.162)	0.492** (0.211)			0.478** (0.217)	0.385 (0.257)
GC			0.239 (0.165)	0.195 (0.363)			0.158 (0.246)	0.0947 (0.389)
Log FA			0.0388 (0.0661)	1.717*** (0.546)			0.0535 (0.104)	1.479*** (0.566)
IS			0.265** (0.133)	-			0.299** (0.145)	-
Obs.	532	525	532	525	532	525	532	525
# Comp.	76	75	76	75	76	75	76	75

Note

The Hausman test indicates Fixed Effect model is preferred.
 Industry sensitivity (IS) omitted in Fixed Effect models due to no within variations.
 Robust standard errors in parentheses.
 *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

5.3 Robustness Checks

In this section, we briefly show the limitations of the panel Poisson models used in the previous analysis. These models may yield biased regression coefficients when the data exhibits excess zeros or overdispersion, where the variance equals the mean. To overcome these issues, we propose a new method called Generalized Estimating Equations (GEE). Unlike the Poisson model, this method does not require assumptions about the probability distribution of the outcome variable and is more accurate in the presence of overdispersion. The Panel GEE method accounts for within-cluster correlation and allows for flexible modelling of the correlation structure without specifying a covariance structure. Moreover, we suggest using Pan's (2001) quasi-likelihood under

the independence model criterion (QIC) to select the best working correlation structure for the GEE analysis. This approach may provide a more robust and flexible way to analyze this data, ensuring accurate and reliable statistical inference.

Three Poisson GEE models are presented with exchangeable (EX), unstructured (UN), and first-order autoregressive (AR) correlation matrix structures in Table 6. Calculating the QIC values for selecting the best correlation structure models in GEE analysis, we found that a model with autoregressive (AR) correlation matrix structure represents the best-fitted model, Columns 3 and 6. The ACE and ACI results in Passion (GEE) confirmed previous findings with consistent coefficient signs but different significance levels. However, the GD coefficients became insignificant, and the meeting frequency (BM) coefficients became significant at 1% confidence levels compared to the Poisson (GLM) regression model. These results support Hypothesis H_4 .

Table 6. Coefficient estimates of the Poisson (GEE) regression model using three correlation structures for the period 2014-2020.

	A-CDQ			A-CDL		
	EX	UN	AR	EX	UN	AR
BS	-0.0187 (0.0224)	0.00730 (0.0153)	0.00906 (0.0183)	-0.0165 (0.0232)	0.0157 (0.0167)	0.0154 (0.0195)
RD	0.192 (0.521)	0.0871 (0.438)	0.108 (0.496)	0.294 (0.487)	0.223 (0.400)	0.252 (0.449)
BI	-0.00294 (0.00371)	-0.00186 (0.00323)	-0.00407 (0.00367)	-0.00434 (0.00369)	-0.00286 (0.00316)	-0.00451 (0.00361)
BM	0.00917* (0.00468)	0.0163*** (0.00509)	0.0177*** (0.00437)	0.0159*** (0.00435)	0.0257*** (0.00483)	0.0231*** (0.00400)
GD	0.0146*** (0.00506)	0.000689 (0.00405)	0.00632 (0.00480)	0.0157*** (0.00507)	0.00152 (0.00397)	0.00767 (0.00469)
ACE	0.631** (0.273)	0.286** (0.137)	0.256* (0.147)	0.748** (0.353)	0.420*** (0.145)	0.343*** (0.133)
ACI	0.0109*** (0.00367)	0.00838** (0.00356)	0.00913** (0.00365)	0.00884** (0.00356)	0.00797** (0.00311)	0.00932*** (0.00312)
Log FS	0.0872* (0.0472)	0.0863** (0.0420)	0.0641 (0.0426)	0.116** (0.0503)	0.0889** (0.0433)	0.0852* (0.0444)
PRO	0.00191* (0.00106)	0.00212** (0.000893)	0.00205** (0.00105)	0.00165 (0.00125)	0.00222** (0.000946)	0.00197* (0.00119)
Log LIQ	-0.0256*** (0.00773)	-0.0188*** (0.00544)	-0.0219*** (0.00732)	-0.0256*** (0.00877)	-0.0241*** (0.00810)	-0.0249*** (0.00858)
LEV	-0.00376 (0.00344)	-0.000379 (0.00214)	-0.000763 (0.00249)	-0.00373 (0.00373)	-0.000355 (0.00218)	-0.000800 (0.00250)
CBC	0.630*** (0.172)	0.450*** (0.139)	0.611*** (0.169)	0.509** (0.201)	0.345** (0.160)	0.482** (0.192)
GC	0.249* (0.137)	0.196* (0.117)	0.237* (0.127)	0.230 (0.152)	0.201 (0.131)	0.217 (0.142)
Log FA	0.0443 (0.0662)	0.0185 (0.0468)	0.0397 (0.0504)	0.0363 (0.0700)	0.0102 (0.0463)	0.0272 (0.0515)
IS	0.297** (0.128)	0.166 (0.107)	0.245** (0.111)	0.318** (0.134)	0.184* (0.108)	0.255** (0.115)
Constant	-0.238 (1.005)	0.200 (0.799)	0.298 (0.862)	-0.219 (1.082)	0.652 (0.773)	0.608 (0.857)
QIC	-2843	-2900	-2919	-10879	-11047	-11062
Obs.	532	532	532	532	532	532
# Comp.	76	76	76	76	76	76

Note

Model with autoregressive (AR 1) correlation structure has lowest value of QIC.

Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

6. Conclusion

Ever since the enactment of the UK Bribery Act in 2010, it has been observed that companies subject to scrutiny have not been providing extensive historical reports on anti-corruption efforts, unlike their reporting on environmental concerns. Despite the passage of ten years, a considerable number of incomplete duties persist in relation to this matter. This study aimed to fill the current gap in the literature concerning ESG disclosure, with a specific emphasis on the disclosure of anti-corruption practices. In particular, we address the impact of corporate governance and audit committee characteristics on the quantity and quality of anti-corruption disclosure.

Using a sample of FTSE 100 over seven years period (2014-2020), the results of this paper confirm that gender diversity, audit committee expertise and the independence of the audit committee are positively associated with both the quantity and quality of anti-corruption disclosure. These findings suggested that the presence of females on the board, along with the expertise and independence of audit committee members facilitates in recognizing potential areas of concern or risk, challenges management assumptions, and promotes effective oversight of the financial reporting process. This fosters transparency and accountability in corporate disclosure, boosting investor confidence and promoting the efficiency of the capital market. These findings support *H₅*, *H₆* and *H₇* and are consistent with previous studies (Adam and Ferreira 2009; Ben-Amar et al., 2017; Liao et al., 2014; Lee and Fargher 2018; Salem et al., 2023b; Zalata et al., 2018). Nevertheless, this study provides evidence that corporations can improve their adherence to anti-corruption obligations through the use of effective CG practices. CG procedures have the potential to promote the interests of all stakeholders involved in the firm. Therefore, the adoption of appropriate disclosure practices can contribute to enhancing the company's reputation and fostering profitable partnerships. Furthermore, it amplifies the company's attractiveness and is likely to facilitate the investment of alternative resources, thereby supporting the enhancement of company-stakeholder connections.

The implications of our findings have broad significance that extends beyond the corporate realm, encompassing regulatory agencies, policymakers, and society at large. First and foremost, it is crucial to recognise the importance of corporate governance and anti-corruption initiatives in promoting ethical business conduct, particularly at a time characterised by heightened scrutiny and demands for greater transparency. In order to enhance their governance frameworks and

successfully address issues of corruption, firms necessitate access to actionable insights. In response to this particular requirement, our study offers pragmatic recommendations that stem from a thorough analysis of the subject matter. Furthermore, our research sheds light on the significant association between gender diversity within corporate boards and the extent and quality of disclosures related to anti-corruption. This emphasises the crucial contribution of varied viewpoints in the decision-making procedures. It is imperative for companies to proactively promote gender diversity in their leadership positions, as this will effectively strengthen the comprehensiveness and applicability of their anti-corruption initiatives.

Additionally, the presence of capable and independent audit committees significantly influences a company's strategy towards implementing anti-corruption initiatives. Companies can effectively promote transparency and accountability by employing qualified professionals who possess the ability to uncover financial irregularities and ensure the independence of committees. Moreover, our research highlights the significance of tailored corporate governance actions. Rather than rigidly following predetermined solutions, it is advisable for firms to adopt flexible approaches, customising their governance techniques to align with their specific needs. Thus, fostering transparency and accountability through proactive communication about anti-corruption measures is crucial for building stakeholder trust and safeguarding a company's reputation. A holistic approach, integrating tailored governance strategies, gender diversity promotion, competent audit committees, and transparent communication, is vital for enhancing corporate governance and anti-corruption efforts effectively.

This study attempts to analyse the CG aspects that influence A-CD and contribute to the current A-CD literature in a mature economy, the UK. However, it is important to acknowledge certain limitations that exist. Despite the relatively recent nature of the sample, it lacks any data from the past two years. One additional constraint of this study is its exclusive focus on FTSE 100 companies. Consequently, more investigation is needed to extend the scope of this analysis beyond a single-country context and into a cross-national framework, incorporating a substantial dataset that encompasses both market-based and bank-based economies. In addition, it is recommended that future research endeavors encompass a broader spectrum of variables in order to conduct a thorough investigation of the influence of CG on A-CD. Furthermore, the inclusion of additional variables such as industry type and business models in the analytical framework would contribute to a greater understanding of the interconnection.

References

- Abad C, Bravo F (2018) Audit committee accounting expertise and forward-looking disclosures: a study of the US companies. *Manag Res Rev* 41(2):166–185
- Abbott LJ, Parker S, Peters GF (2004) Audit committee characteristics and restatements. *Audit J Pract Theory* 23(1):69–87
- Aboud, A. and Yang, X., (2022). Corporate governance and corporate social responsibility: new evidence from China. *International Journal of Accounting & Information Management*, 30(2), pp.211-229.
- Adams, R., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94(2), 291-309.
- Adel, C., Hussain, M.M., Mohamed, E.K. and Basuony, M.A., (2019). Is corporate governance relevant to the quality of corporate social responsibility disclosure in large European companies? *International Journal of Accounting & Information Management*, 27(2), pp.301-332.
- Albitar, K., Hussainey, K., Kolade, N., & Gerged, A. M. (2020). ESG disclosure and firm performance before and after IR: The moderating role of governance mechanisms. *International Journal of Accounting & Information Management*.
- Aldaz Odriozola, M., & Álvarez Etxeberria, I. (2021). Determinants of corporate anti-corruption disclosure: The case of the emerging economies. *Sustainability*, 13(6), 3462.
- Al Maeni, F., Ellili, N. O. D., and Nobanee, H. (2022), "Impact of corporate governance on corporate social responsibility disclosure of the UAE listed banks", *Journal of Financial Reporting and Accounting*, Vol.ahead-of-print, doi: 10.1108/jfra-11-2021-0424
- Al Lawati, H., Hussainey, K., & Sagitova, R. (2021). Disclosure quality vis-à-vis disclosure quantity: does audit committee matter in Omani financial institutions?. *Review of Quantitative Finance and Accounting*, 57(2), 557-594.
- Al Rahahleh, N., Ishaq Bhatti, M. and Najuna Misman, F., (2019). Developments in risk management in Islamic finance: A review. *Journal of Risk and Financial Management*, 12(1), p.37.
- Athanasakou, V., & Hussainey, K. (2014). The perceived credibility of forward-looking performance disclosures. *Accounting and business research*, 44(3), 227-259.
- Bala, H., Amran, N.A. and Shaari, H., (2020). Audit committee attributes and cosmetic accounting in Nigeria: The moderating effect of audit price. *Managerial Auditing Journal*, 35(2), pp.177-206.
- Barkemeyer, R., Preuss, L., & Lee, L. (2015). Corporate reporting on corruption: An international comparison. *Accounting Forum* (Vol. 39, No. 4, pp. 349-365).
- Barako, D. G., & Brown, A. M. (2008). Corporate social reporting and board representation: evidence from the Kenyan banking sector. *Journal of management & governance*, 12, 309-324.
- Bear, S., Rahman, N., & Post, C. (2010). The impact of board diversity and gender composition on corporate social responsibility and firm reputation. *Journal of business ethics*, 97, 207-221.
- Beattie, V., McInnes, B., & Fearnley, S. (2004). A methodology for analysing and evaluating narratives in annual reports: a comprehensive descriptive profile and metrics for disclosure quality attributes. In *Accounting Forum* (Vol. 28, No. 3, pp. 205-236)
- Ben-Amar, W., Chang, M., & McIlkenny, P. (2017). Board gender diversity and corporate response to sustainability initiatives: Evidence from the carbon disclosure project. *Journal of Business Ethics*, 142(2), 369-383.
- Beretta, S., & Bozzolan, S. (2008). Quality versus quantity: the case of forward-looking disclosure. *Journal of Accounting, Auditing & Finance*, 23(3), 333-376.
- Blanc, R., Islam, M.A., Patten, D.M. and Branco, M.C., (2017). Corporate anti-corruption disclosure: an examination of the impact of media exposure and country-level press freedom. *Accounting, Auditing & Accountability Journal*, 30(8), pp.1746-1770.
- Blanc, R., Branco, M. C., & Patten, D. M. (2019). Cultural secrecy and anti-corruption disclosure in large multinational companies. *Australian Accounting Review*, 29(2), 438-448.

- Boyd, B. (1990). Corporate linkages and organizational environment: A test of the resource dependence model. *Strategic Management Journal*, 11(6), 419-430.
- Boateng, R.N., Tawiah, V. and Tackie, G., (2022). Corporate governance and voluntary disclosures in annual reports: a post-International Financial Reporting Standard adoption evidence from an emerging capital market. *International Journal of Accounting & Information Management*, 30(2), pp.252-276
- Bouhamdan, R.F., Mostapha, N. and Hegazy, W., (2023). Corporate Governance and Anti-Corruption Disclosure: Evidence from MENA Region. *European Journal of Science, Innovation and Technology*, 3(2), pp.122-136.
- Bravo, F., Abad, C. and Briones, J.L., (2015). The board of directors and corporate reputation: an empirical analysis. *Academia Revista Latinoamericana de Administración*, 28(3), pp.359-379.
- Buallay A, Al-Ajmi J (2019) The role of audit committee attributes in corporate sustainability reporting. *J Appl Account Res* 21(2):249–264.
- Carcello, J.V. and Neal, T.L., (2003). Audit committee independence and disclosure: Choice for financially distressed firms. *Corporate Governance: An International Review*, 11(4), pp.289-299.
- Cadbury, A. (1992). Report of the committee on the financial aspects of corporate governance (Vol. 1). Gee.
- Cerbioni, F., & Parbonetti, A. (2007). Exploring the effects of corporate governance on intellectual capital disclosure: an analysis of European biotechnology companies. *European Accounting Review*, 16(4), 791-826.
- DeZoort, F. T., & Salterio, S. E. (2001). The effects of corporate governance experience and financial-reporting and audit knowledge on audit committee members' judgments. *Auditing: A Journal of Practice & Theory*, 20(2), 31-47.
- Davidson, R., Goodwin-Stewart, J. and Kent, P. (2005), "Internal governance structures and earnings management", *Accounting and Finance*, Vol. 45 No. 2, pp. 241-267.
- Dhaliwal, D. A. N., Naiker, V. I. C., & Navissi, F. (2010). The association between accruals quality and the characteristics of accounting experts and mix of expertise on audit committees. *Contemporary accounting research*, 27(3), 787-827.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 147-160.
- Endrikat J, de Villiers C, Guenther TW, Guenther EM (2020) Board characteristics and corporate social responsibility: a meta-analytic investigation. *Business & Society*.
- Ezhilarasi, G., & Kabra, K. C. (2017). The impact of corporate governance attributes on environmental disclosures: Evidence from India. *Indian Journal of Corporate Governance*, 10(2), 24-43.
- Ezeani, E., Salem, R., Kwabi, F., Boutaine, K., Bilal, & Komal, B. (2021). Board monitoring and capital structure dynamics: evidence from bank-based economies. *Review of Quantitative Finance and Accounting*, 1-26.
- Ezeani, E., Kwabi, F., Salem, R., Usman, M., Alqatamin, R. M. H., & Kostov, P. (2023a). Corporate board and dynamics of capital structure: Evidence from UK, France and Germany. *International Journal of Finance & Economics*, 28(3), 3281-3298.
- Ezeani, E., Salem, R. I. A., Usman, M., & Kwabi, F. (2023b). Board characteristics and corporate cash holding: evidence from the UK, France and Germany. *International Journal of Accounting & Information Management*.
- Elzahar, H., & Hussainey, K. (2012). Determinants of narrative risk disclosures in UK interim reports. *The Journal of Risk Finance*, 13(2), 133-147.
- Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The journal of law and Economics*, 26(2), 301-325.
- Freeman, R. Edward . (1984). Strategic Management: A Stakeholder Approach (Boston: Pitman Publishing Inc.).
- Gerged, A. M. (2021). Factors affecting corporate environmental disclosure in emerging markets: The role of corporate governance structures. *Business Strategy and the Environment*, 30(1), 609-629.
- Gerged, A. M., Chijoke-Mgbame, A. M., Konadu, R., & Cowton, C. J. (2022). Does the presence of an environmental committee strengthen the impact of board gender diversity on corporate environmental disclosure? Evidence from sub-Saharan Africa. *Business Strategy and the Environment*.

- Gerged, A. M., Kuzey, C., Uyar, A., & Karaman, A. S. (2023a). Does investment stimulate or inhibit CSR transparency? The moderating role of CSR committee, board monitoring and CEO duality. *Journal of Business Research*, 159, 113762.
- Gerged, A.M., Salem, R. and Beddewela, E., (2023b). How does transparency into global sustainability initiatives influence firm value? Insights from Anglo - American countries. *Business Strategy and the Environment*. Ghazwani, M., Whittington, M., & Helfaya, A. (2023). Assessing the Anti-Corruption Disclosure Practices in the UK FTSE 100 Extractive Firms. *Sustainability*, 15(6), 5155.
- Giannarakis, G., Andronikidis, A., and Sariannidis, N. (2019), “Determinants of environmental disclosure: investigating new and conventional corporate governance characteristics”, *Annals of Operations Research*, doi: 10.1007/s10479-019-03323.
- Gunduz, L. and Tatoglu, E., (2003). A comparison of the financial characteristics of group affiliated and independent firms in Turkey. *European Business Review*, 15(1), pp.48-54.
- Hamami, A. and Hendijani Zadeh, M., (2020). Audit quality, media coverage, environmental, social, and governance disclosure and firm investment efficiency: Evidence from Canada. *International Journal of Accounting & Information Management*, 28(1), pp.45-72.
- Harun, M.S., Hussainey, K., Mohd Kharuddin, K.A. and Farooque, O.A., (2020). CSR disclosure, corporate governance and firm value: a study on GCC Islamic banks. *International Journal of Accounting & Information Management*, 28(4), pp.607-638.
- Hoitash U, Hoitash R (2009) Conflicting objectives within the board: evidence from overlapping audit and compensation committee members. *Group Decision and Negotiation*, 18, pp.57-73.
- Hoang, T.C., Abeysekera, I. and Ma, S.G. (2018), “Board diversity and corporate social disclosure: evidence from Vietnam”, *Journal of Business Ethics*, Vol. 151 No. 3, pp. 833-852,
- Houqe, M. N., & Monem, R. M. (2016). IFRS adoption, extent of disclosure, and perceived corruption: A cross-country study. *The International Journal of Accounting*, 51(3), 363-378.
- Hussainey, K. Albitar, K. and Alkaraan, F. (2022), Corporate Narrative Reporting on Industry 4.0 technologies: Does Governance matter? *International Journal of Accounting and Information Management*, 1834-7649 DOI 10.1108/IJAIM-02-2022-0024
- Hussainey, K., Elsayed, M., & Razik, M. A. (2011). Factors affecting corporate social responsibility disclosure in Egypt. *Corporate Ownership and Control*, 8(4), 432-443.
- Islam, M. A., Hasan, M. M., Ali, M. M., & Saha, S. K. (2021). The effect of UK Bribery Act 2010 on corporate social responsibility reporting: Evidence from the UK companies. *Corporate Social Responsibility and Environmental Management*, 28(1), 339-350.
- Jaggi, B., Allini, A., Ginesti, G., & Macchioni, R. (2021). Determinants of corporate corruption disclosures: evidence based on EU listed firms. *Meditari Accountancy Research*, 29(1), 21-38.
- Javaid Lone, E., Ali, A., & Khan, I. (2016). Corporate governance and corporate social responsibility disclosure: evidence from Pakistan. *Corporate Governance: The international journal of business in society*, 16(5), 785-797.
- Joseph, C., Gunawan, J., Sawani, Y., Rahmat, M., Noyem, J. A., & Darus, F. (2016). A comparative study of anti-corruption practice disclosure among Malaysian and Indonesian Corporate Social Responsibility (CSR) best practice companies. *Journal of cleaner production*, 112, 2896-2906.
- Kelton, A. S., & Yang, Y. W. (2008). The impact of corporate governance on Internet financial reporting. *Journal of Accounting and Public Policy*, 27(1), 62-87.
- Komal, B., Ezeani, E., Usman, M., Kwabi, F., Abbas, A., & Ye, C. (2023). Do the educational profile, gender, and professional experience of audit committee financial experts improve financial reporting quality?. *Journal of International Accounting, Auditing and Taxation*, 100580
- Komal, B., Ye, C. and Salem, R., 2022. The impact of audit committee effectiveness on firms' outcomes in China: a systematic review. *International Journal of Accounting & Information Management*, 30(5), pp.583-599.
- Lambert, R., Leuz, C. and Verrecchia, R. (2007), “Accounting information, disclosure, and the

e cost of capital”,
Journal of Accounting Research, Vol. 45 No. 2, pp. 385-420.

- Liao, L., Luo, L. and Tang, Q. (2014). Gender Diversity, Board Independence, Environmental Committee and Greenhouse Gas Disclosure, Forthcoming in *British Accounting Review*
- Lagasio V, Cucari N (2019) Corporate governance and environmental social disclosure: a meta-analytical review. *Corporate Social Responsibility Environmental* 26:701–711
- Lee G, Fargher NL (2018) The role of the audit committee in their oversight of whistle-blowing. *Auditing: A Journal of Practice & Theory*, 37(1), pp.167-189.
- Le S, Fuller B, Muriithi S, Walters B, Kroll MJ (2015) The influence of top managers' values on corporate social performance: a meta-analysis. *Journal of Managerial Issues*, 27:9–27
- Li, P., Song, C., Wang, J.J. and Zheng, H., (2022). CFOs' audit experience and corporate disclosure quality: evidence from China. *Accounting & Finance*, 62(3), pp.4013-4039.
- Majumder MTH, Akter A, Li X (2017) Corporate governance and corporate social disclosures. A meta-analytical review. *International Journal of Accounting & Information Management*, 25:434–458
- Malagueño, R., Albrecht, C., Ainge, C., & Stephens, N. (2010). Accounting and corruption: a cross-country analysis. *Journal of Money Laundering Control*, 13(4), 372-393.
- Mangena, M., & Pike, R. (2005). The effect of audit committee shareholding, financial expertise and size on interim financial disclosures. *Accounting and business research*, 35(4), 327-349.
- Maroun W (2020) A conceptual model for understanding corporate social responsibility assurance practice. *Journal of Business Ethics*, 161:187–209
- Ministry of Justice. (2011). The Bribery Act 2010 guidance. *The Stationery Office*.
- Nobanee, H., Atayah, O. F., & Mertzanis, C. (2020). Does anti-corruption disclosure affect banking performance? *Journal of Financial Crime*, 27(4), 1161-1172
- Ntim, C. G. (2015). Board diversity and organizational valuation: Unravelling the effects of ethnicity and gender. *Journal of Management & Governance*, 19(1), 167-195.
- Pan, W., (2001). Akaike's information criterion in generalized estimating equations. *Biometrics*, 57(1), pp.120-125.
- Previtali, P., & Cerchiello, P. (2023). Corporate governance and anti-corruption disclosure. Corporate Governance: *The International Journal of Business in Society*.
- Raghubandan K, Rama DV (2007) Determinants of audit committee diligence. *Accounting Horizons*, 21(3):265–279.
- Rashid, A. (2018). The influence of corporate governance practices on corporate social responsibility reporting. *Social Responsibility Journal*, 14(1), 20-39.
- Salem, R. I. A., Ezeani, E., Gerged, A. M., Usman, M., & Alqatamin, R. M. (2021 a). Does the quality of voluntary disclosure constrain earnings management in emerging economies? Evidence from Middle Eastern and North African banks. *International Journal of Accounting & Information Management*, 29(1), 91-126.
- Salem, R.I.A., Ghazwani, M., Gerged, A.M. and Whittington, M., (2023a). Anti-corruption disclosure quality and earnings management in the United Kingdom: the role of audit quality. *International Journal of Accounting & Information Management*.
- Salem, R., Ezeani, E., & Song, X. (2023b). The relationship between religiosity and voluntary disclosure quality: a cross-country evidence from the banking sector. *Review of Quantitative Finance and Accounting*, 1-41.
- Salem, R., Usman, M. and Ezeani, E., (2021b). Loan loss provisions and audit quality: Evidence from MENA Islamic and conventional banks. *The Quarterly Review of Economics and Finance*, 79, pp.345-359.
- Spitzeck, H. (2009). The development of governance structures for corporate responsibility. Corporate Governance: *The international journal of business in society*, 9(4), 495-505.
- Tan, D., Komal, B., Ezeani, E., Usman, M., & Salem, R. (2022). Carbon emission disclosures and financial reporting quality: Does ownership structure and economic development matter? *Environmental Science & Policy*, 137, 109-119.
- Usman, M., Ezeani, E., Salem, R. I. A., & Song, X. (2022a). The impact of audit characteristics, audit fees on classification shifting: evidence from Germany. *International Journal of Accounting & Information Management*, 30(3), 408-426.
- Usman, M., Nwachukwu, J., Ezeani, E., Salem, R. I. A., Bilal, B., & Kwabi, F. O. (2023). Audit quality and classification shifting: evidence from UK and Germany. *Journal of Applied Accounting Research*.

- Usman, M., Nwachukwu, J., & Ezeani, E. (2022b). The impact of board characteristics on the extent of earnings management: conditional evidence from quantile regressions. *International Journal of Accounting & Information Management*, 30(5), 600-616.
- Usman, M., Salem, R. and Ezeani, E., (2022c). The impact of board characteristics on classification shifting: evidence from Germany. *International Journal of Accounting & Information Management*, 30(5), pp.565-582.
- Velte P (2019) Does board composition influence CSR reporting? A meta-analysis. *Corporate Ownership & Control*, 16:48–59
- Wang, M., & Hussainey, K. (2013). Voluntary forward-looking statements driven by corporate governance and their value relevance. *Journal of accounting and public policy*, 32(3), 26-49.
- Wu, X. (2005). Corporate governance and corruption: A cross-country analysis. *Governance*, 18(2), 151-170.
- Welsch, H. (2008). The welfare costs of corruption. *Applied Economics*, 40(14), 1839-1849.
- Williamson, D., Lynch-Wood, G., & Ramsay, J. (2006). Drivers of environmental behaviour in manufacturing SMEs and the implications for CSR. *Journal of Business Ethics*, 67, 317-330.
- Yusoff, H., Abdul Jamal, A.D. and Darus, F. (2016), “Corporate governance and corporate social responsibility disclosures: an emphasis on the CSR key dimensions”, *Journal of Accounting and Auditing: Research and Practice*, Vol. 2016 No. 2016, doi: 10.5171/2016.7650. Article ID 476550.
- Zalata, A. M., Tauringana, V., & Tingbani, I. (2018). Audit committee financial expertise, gender, and earnings management: Does gender of the financial expert matter?. *International review of financial analysis*, 55, 170-183.
- Zubeltzu-Jaka E, Alvarez-Etxeberria I, Ortas E (2020) The effect of the size of the board of directors on corporate social performance: a meta-analytic approach. *Corporate Social Responsibility and Environmental Management*, 27:1361–1374