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RESEARCH ARTICLE

Audit committee characteristics nexus corporate social responsibilities disclosure of insurance companies in Ethiopia

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Abstract

In light of the increasing focus on the audit committee's potential influence on financial and non-financial reporting, this study aims to explore the impact of audit committee characteristics on the corporate social responsibility disclosures of insurance companies in Ethiopia from 2015 to 2022. The research employed the generalized method of moments (GMM) model to analyze the relationship. The findings indicate that the size of the audit committee (ACS), its independence (ACI), gender diversity (ACGD), and financial expertise (ACFE) significantly and positively influence the disclosure of corporate social responsibility by Ethiopian insurance companies. Conversely, factors such as the frequency of audit committee meetings (ACMF), the age of committee members (ACA), and their tenure (ACT) were found to have a significant and negative impact on these disclosures. Consequently, the study concludes that the characteristics of the audit committee, namely, size, independence, gender diversity, and meeting frequency, play a crucial role in shaping the corporate social responsibility disclosures of insurance companies in Ethiopia. It is therefore recommended that policymakers in the insurance sector enhance and fortify internal governance mechanisms. Additionally, these policymakers need to treat all audit committee characteristics as vital components that foster improved corporate social responsibility disclosures.

Keywords: Corporate social responsibility, Audit committee, Insurance, Financial expertise.

Introduction

The disclosure of corporate social responsibility is a current subject of discussion within accounting literature (Velte, 2019). Multiple theories are utilized to explore the connection between internal governance monitoring mechanisms and corporate social responsibility disclosure, with stakeholder and agency theories being the most prevalent. Stakeholder theory fundamentally revolves around the concept of an unspoken social contract between stakeholders and companies (Freeman, 1984) and is often referenced in the literature concerning corporate social

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responsibility disclosure reporting (Fahad & Rahman, 2020; Garcia *et al.*, 2020).

Companies are increasingly compelled by various stakeholder groups to enhance their corporate social responsibility disclosures (Cadez et al., 2019; Fernandez-Feijoo et al., 2014). Consequently, managers must work to minimize conflicts with shareholders, necessitating an expansion of non-financial information disclosure. The primary aim of corporate social responsibility is to fulfill the informational requirements of all stakeholders (Alazzani et al., 2019). According to Fernandez-Feijoo et al. (2014), initiatives in corporate social responsibility assist firms in alleviating stakeholder pressure by integrating information that spans from corporate strategy to performance. Valls Martinez et al. (2019) and Matuszak et al. (2019) emphasize that stakeholder theory indicates that effective internal corporate governance enhances corporate social responsibility disclosures. Agency theory posits that the audit committee plays a crucial role in monitoring and overseeing top management to ensure alignment of their interests with those of shareholders, thereby reducing agency-related issues and costs (Fama & Jensen, 1983; Jensen & Meckling, 1976). This is accomplished by motivating the committee to engage in more socially responsible initiatives, which aids in addressing information asymmetry challenges (Appuhami & Tashakor, 2017).

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Corporate social responsibilities pertain to the involvement of businesses in societal issues, particularly in social and environmental domains. Consequently, companies must prioritize ethical practices within their local communities (Mohammadi, 2020). Furthermore, organizations must pledge to implement corporate social responsibility initiatives. This approach enables businesses to attract customers and investors who are willing to financially support their operations. The audit committee is essential in overseeing the company's corporate social responsibility activities and disclosures, ensuring their consistent execution (Karamanou & Vafeas, 2005; Qaderi & Alhmoud, 2020).

Audit committees are responsible for overseeing both financial and non-financial reporting as a component of internal corporate governance. Beyond management oversight, the audit committee is crucial in ensuring the company's adherence to relevant regulations. In this context, the audit committee collaborates closely with the internal auditor to monitor the company's internal controls. Additionally, the audit committee assesses the conclusions drawn by external auditors. Consequently, the audit committee plays a pivotal role in evaluating management performance. While the audit committee has been instrumental in the disclosure of corporate social responsibility, the outcomes have varied (Samaha et al., 2015; Baulay & Al-Ajmi, 2020). Bastina & Bernawati (2019) indicate that the frequency of meetings has a significant and positive effect on the corporate social responsibility disclosures of Australian companies. Likewise, Buallay & Al-Ajmi (2020) discovered that both the number of meetings and the independence of audit committee members significantly and positively influence corporate social responsibility disclosures within the banking sector. Furthermore, Dwekat & Carmona (2020) identified that the size of the audit committee and the frequency of meetings have a detrimental effect on corporate social responsibility disclosures.

Empirical studies have examined the influence of audit committee characteristics on various facets of accounting, including the quality of financial reporting (Abernathy et al., 2014; Bajra & C Adez, 2018; Tanyi & Smith, 2015), a company's financial performance (Chaudhry et al., 2020), earnings quality (Ayalew Ali, 2024; Ghaleb, Al-Duais, & Hashed, 2021; Jalan et al., 2020), audit report lag (AlQublani et al., 2020; Ghafran & Yasmin, 2018), and internal audit practices (Wan-Hussin, Fitri, & Salim, 2021). However, the connection between the characteristics of the audit committee and the disclosure of corporate social responsibilities has not been explored in previous research. Furthermore, this study investigates how the traits of audit committees impact corporate social responsibility disclosures in developed nations (Alotaibi, Aburuman, Hussien, 2019; Ismail & Ibrahim, 2008; Adegboye, 2019; Buallay & Aldhaen, 2018; Amosh & Khatib, 2021; Adelopo, 2011; Appiah et al., 2016; and Boateng et al., 2022).

In a similar vein, Bayelign *et al.* (2022) conducted a study on Ethiopian insurance companies to explore the relationship between corporate governance and financial performance in developing economies. However, the study does not establish the influence of corporate governance on the disclosure of corporate social responsibility by these insurance firms. Addressing the identified gaps, the present research intends to investigate how the characteristics of audit committees affect the corporate social responsibility disclosures of insurance companies in Ethiopia, with the following objectives:

- To examine the effect of audit committee size on the corporate social responsibility disclosure of insurance companies in Ethiopia
- To investigate the effect of audit committee independence on the corporate social responsibility disclosure of insurance companies in Ethiopia
- To assess the effect of audit committee gender diversity on the corporate social responsibility disclosure of insurance companies in Ethiopia
- To identify the effect of audit committee tenure on the corporate social responsibility disclosure of insurance companies in Ethiopia
- To examine the effect of audit committee financial expertise on the corporate social responsibility disclosure of insurance companies in Ethiopia
- To assess the effect of audit committee age on the corporate social responsibility disclosure of insurance companies in Ethiopia
- To determine the effect of audit committee meeting frequency on the corporate social responsibility disclosure of insurance companies in Ethiopia

This study offers several important contributions to the existing body of literature. Firstly, it enhances the literature review by providing a thorough understanding of the relationship between audit committee characteristics and corporate social responsibility disclosure. Secondly, it serves as a valuable resource for international researchers and regulators in other developing nations to recognize the significance of corporate social responsibility disclosure. Lastly, the research examines the connection between audit committee characteristics and corporate social responsibility disclosure using a sample of publicly listed insurance firms in Ethiopia, thereby contributing valuable insights from an emerging economy.

Theoretical and empirical literature review

Agency theory

This viewpoint posits that a conflict exists between the interests of shareholders, who are the principals, and those of directors, who serve as agents. This discord arises from the

information asymmetry that favors directors, as they possess greater insight into the institutions and their operations. Establishing an audit committee serves as a mechanism to alleviate this incentive issue, as effective audit committees improve the quality and reliability of annual audited financial statements and support the board of directors in their role of protecting and promoting shareholder interests (Alchain and Demsetz 1972; Fama and Jensen 1983). Consequently, agency theory advocates for the inclusion of non-executive directors on the board to monitor managerial performance. Malik and Makhdoom (2016) assert that the presence of an independent board of directors notably influences a company's performance. Numerous scholars have contended that voluntary disclosure acts as an effective strategy to alleviate agency conflicts, potentially reducing agency costs and reassuring shareholders that directors are performing optimally (Watson et al., 2002; Barako et al., 2006).

Resource dependency theory

According to this notion, a company's board plays a crucial role in providing resources to managers, who then use them to accomplish organizational goals (Hillman & Dalziel, 2003). According to the resource dependence theory, in order for large audit committees to carry out their responsibilities efficiently, they are prepared to contribute greater resources and authority (Allegrini & Greco, 2011). According to the theory, the board should assist the executives, finances, people, and intangible assets. Executives can enhance their performance and abilities by receiving training and mentoring from board members who possess experience and professionalism. Stakeholder theory in the banking sector is centered on meeting the needs of depositors, owners, and other pertinent parties through an efficient governance framework that promotes transparency and trust (Vicnente-Ramos et al., 2020). Therefore, the resource-based view encourages the appointment of experts to a company's board of directors, highlighting the value of outside members who can provide best practices and connections from other businesses. In order to accommodate additional directors with a variety of backgrounds and expertise, the theory also supports expanding the size of the board of directors. To maximize disclosure practices, a company's board of directors should comprise non-executive directors and experts with a broad range of expertise and skills (Ghazali, 2010; Ujunwa, 2012; Francis et al., 2015; Mori, 2014).

Empirical literature review and hypothesis development

Audit committee size and corporate social responsibility disclosures

According to resource dependence theory, larger audit committees perform their duties effectively and are willing

to allocate more resources and authority (Allegrini & Greco, 2011). An audit committee typically consists of at least three members, including independent commissioners and external parties. This composition is intended to enhance the oversight capabilities of the audit committee, which is characterized by a broader scope and possesses a diverse range of strengths and expertise necessary for fulfilling the monitoring requirements associated with corporate social responsibility disclosures, as noted by Khan (2019). An increase in the number of audit committee members correlates with an enhanced capacity to address issues in financial reporting and promote the disclosure of non-financial information, including corporate social responsibility (Buallay & Al-Ajmi, 2020). Several studies have examined the impact of audit committee size on corporate social responsibility disclosures, including those by Barakat (2015), Buallay & Al-Ajmi (2021), and Mohammadi, Saeidi, & Naghshbandi (2020), which indicate a positive relationship between audit committee size and corporate social responsibility disclosures. Conversely, other research has either failed to support this positive correlation or has identified a negative association (Madi et al., 2014; Bicer and Feneir, 2019; Adegboye et al., 2020). Based on the theoretical and empirical analyses, the following research hypothesis is proposed:

H1: The size of the audit committee members has a positive and significant effect on the corporate social responsibility disclosure of insurance companies in Ethiopia.

Audit committee independence and corporate social responsibility disclosure

The chair of the audit committee is tasked with ensuring the committee's effectiveness and the quality of its reporting (Chaudhry et al., 2020; Tanyi & Smith, 2015). The independence of the audit committee is frequently recognized as a corporate mechanism in the literature concerning voluntary disclosure of corporate social responsibilities (Arif et al., 2021; Mohammadi et al., 2021). An independent audit committee is better equipped to fulfill its duties and functions more effectively (Appuhami & Tashakor, 2017; Dwekat et al., 2020). According to agency theory, the independence of the audit committee can influence the execution of sustainable strategic decisions related to socially responsible activities and affect the disclosure of corporate social responsibility (Dwekat et al., 2020). A member of an independent audit committee enhances the level of corporate social responsibility disclosure (Arif et al., 2021; Fallah & Mojarrad, 2019; Mohammadi et al., 2021; Qaderi et al., 2020). Nevertheless, other empirical research conducted by Musallam (2018) indicates that the independence of the audit committee does not affect corporate social responsibility disclosure. Additionally, a study by Appuhami and Tashakor (2017) found no direct correlation between an independent audit committee and voluntary corporate social responsibility disclosure in Australian companies. In light of these empirical findings and agency theory, the following hypothesis for the study is proposed:

H2: Audit committee independence has a positive and significant effect on corporate social responsibilities disclosure of insurance companies' in Ethiopia.

Audit committee gender diversity and corporate social responsibility disclosure

Despite previous research yielding mixed outcomes, it has been demonstrated that gender diversity within the audit committee contributes positively to corporate productivity and the committee's overall effectiveness (Aldamen et al., 2018; Green & Homroy, 2018). Pathan and Faff (2013) indicated that female directors exhibit a strong commitment to their responsibilities, dedicating greater effort to their roles. Furthermore, Ibrahim and Al Harasees (2019) established that the conservative and ethical attributes of women enhance corporate governance and mitigate both inherent and potential fraud risks. Din et al. (2021) analyzed 302 firms listed on the Pakistan Stock Exchange, concluding that the expertise of female audit committee members improves the quality of financial reporting. In this context, the overwhelming majority of prior studies indicate a positive and statistically significant relationship between the presence of female board members and corporate social responsibility disclosures (Dah & Jizi, 2018; Fernandez, 2014; Ferrero et al., 2015; Kassinis et al., 2016). Conversely, Muttakin et al. (2015) identified a negative correlation. Drawing from both theoretical and empirical literature, the study formulated the following hypothesis:

H3: Audit committee gender diversity has a positive and significant effect on corporate social responsibility disclosure of insurance companies in Ethiopia.

Audit committee financial expertise and corporate social responsibility disclosure

The financial expertise of audit committee members is a crucial factor affecting the disclosure of corporate social responsibility, and many researchers have utilized it as an indicator of the audit committee's capabilities (Raimo et al., 2020; Setiany et al., 2017). Chaudhry et al. (2020) argue that financial expertise within the audit committee is more effective in enhancing reporting quality and mitigating agency issues. According to agency theory, the financial expertise of the audit committee plays a vital role in its monitoring function and in disseminating information related to corporate social responsibility reporting (Dwekat et al., 2020; Musallam, 2018). Numerous empirical studies have investigated the influence of audit committee financial expertise on corporate social responsibility disclosure, yielding mixed results. Dwekat et al. (2020) and Mohammadi et al. (2021) demonstrate that having financial experts on the audit committee can improve corporate social responsibility disclosure. Additionally, research by Chan *et al.* (2021) suggests that the financial expertise of audit committee members enhances corporate social responsibility reporting. Musallam (2018) provides findings indicating that companies with financially knowledgeable audit committees are less inclined to report socially responsible initiatives. Conversely, Appuhami and Tashakor (2017) and Qaderi *et al.* (2020) indicate that the financial expertise of the audit committee does not significantly affect the disclosure of corporate social responsibility information. Drawing on agency theory and the aforementioned empirical evidence, the present study proposes the following research hypothesis:

H4: Audit committee financial expertise has a positive and significant effect on corporate social responsibility disclosure of insurance companies in Ethiopia.

Audit committee tenure and corporate social responsibility disclosure

Tenure serves as a crucial metric for voluntary disclosure (Othman et al., 2014). Researchers utilize it as a proxy for various factors, including the length of service (A°berg & Shen, 2020). Audit committee members with extended tenure are more inclined to take on a significant role in management and oversight, thereby enhancing voluntary ethics disclosure (Othman et al., 2014). Agency theory posits that long-tenured audit committee members develop closer relationships with the board, gain a deeper understanding of the firm's management strategies, and may become less effective in their monitoring duties (Hafsi & Turgut, 2013; Vafeas, 2003), which exacerbates the agency problem and diminishes disclosure. Prior research has examined the relationship between audit committee tenure and voluntary disclosure (Bravo & Reguera-Alvarado, 2019; Setiany et al., 2017). Setiany et al. (2017) found that audit committee members with longer tenure are likely to generate more voluntary disclosures. Conversely, Bravo and Reguera-Alvarado (2019) did not identify a significant link between the tenure of audit committee members and the quality of the disclosed information. Based on agency theory and empirical evidence, this study formulates the following hypothesis:

H5: Audit committee tenure has a negative and significant effect on the corporate social responsibility disclosure of insurance companies in Ethiopia.

Audit committee age and corporate social responsibility disclosure

The age of directors is regarded as a crucial aspect of a firm's human capital (Katmon *et al.*, 2019). It significantly contributes to strategic leadership by fostering knowledge and creativity, thereby enhancing competitiveness in board value creation (A Aberg & Shen, 2020). From the perspective of agency theory, age diversity among directors

improves the quality of information disclosed. This is likely because older directors typically possess greater experience and knowledge in addressing social and ethical matters (Katmon et al., 2019). Elmagrhi et al. (2019) contend that older directors, with their extensive experience and knowledge, are more likely to disclose information regarding non-financial issues and are more inclined to promote transparency and mitigate information asymmetry. There is a limited number of studies focusing on the relationship between directors' age and corporate social responsibility. Furthermore, Ibrahim and Hanefah (2016) indicate that younger directors are more prone to disclose information related to corporate social responsibility. Elmagrhi et al. (2019) highlight a notable correlation between older female directors and the information disclosed in environmental reporting. Conversely, Katmon et al. (2019) and Khan and Senturk (2019) illustrate that an increase in board age may diminish the quality of corporate social responsibility disclosures, potentially due to inadequate governance. In contrast, research by Cucari et al. (2018) and Giannarakis (2014) suggests that firms with older directors show no significant correlation with the level of corporate social responsibility information disclosure. Based on agency theory and considering the scarcity of empirical data, this study formulates the hypothesis as follows:

H6: Audit committee age has a negative and significant effect on corporate social responsibility disclosure of insurance companies in Ethiopia.

Audit committee meeting frequency and corporate social responsibility disclosure

Prior research has utilized the frequency of audit committee meetings as a metric for assessing the activity and diligence of audit committees (Appuhami & Tashakor, 2017; Sharma *et al.*, 2009; Yin *et al.*, 2012). Meeting frequency is defined

as the total number of meetings conducted by an audit committee within a financial year, with an increased number of meetings signifying elevated levels of activity (Gendron et al., 2004). Empirical investigations have explored the connection between audit committee meetings and disclosure practices. Kelton and Yang (2008) assert that a greater frequency of audit committee meetings enhances internet financial disclosure. Furthermore, Kent and Stewart (2008), Allegrini and Greco (2013), and Vafeas (2005) identified a significant positive correlation between the level of voluntary disclosure and the frequency of audit committee meetings. While Al-Shaer and Zaman (2018) propose a positive link between the frequency of audit committee meetings and the credibility of sustainability reports, a recent study by Zaman et al. (2021) suggests that a higher frequency of audit committee meetings correlates with improved quality of Corporate Social Responsibility Assurance (CSRA). These conclusions are corroborated by Jizi et al. (2014), Appuhami and Tashakor (2017), Buallay and Al-Ajmi (2019), and Arif et al. (2020), who also reported a positive association between corporate social responsibility disclosure and audit committee meetings. Conversely, Othman et al. (2014) found a minimal correlation between the frequency of audit committee meetings and the extent of voluntary ethics disclosure based on a sample of the top 94 Malaysian companies. In light of the aforementioned discussion, the following hypothesis is proposed:

H7: Audit committee meeting frequency has a positive and significant effect on corporate social responsibility disclosure of insurance companies in Ethiopia.

Conceptual frame work

Following the evaluation of prior research, the framework outlined below was developed, illustrating the relationship between the dependent and independent variables as depicted in the conceptual framework in Figure 1.

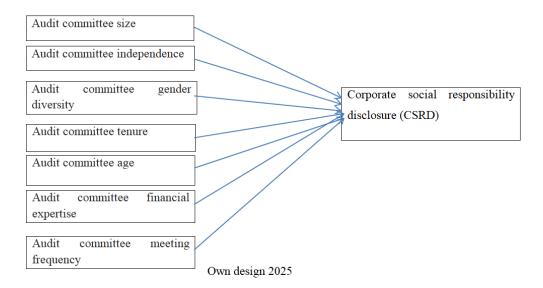


Figure 1: Conceptual framework

Research Design

Sample selection

This research aimed to explore the influence of audit committee attributes on the corporate social responsibility disclosures of insurance firms in Ethiopia. Given the study's objectives and the quantitative nature of the data, a quantitative methodology was utilized to assess the impact of audit committee characteristics on the corporate social responsibility disclosures of these companies. Consequently, an explanatory research design was implemented to analyze the causal relationships between corporate governance and corporate social responsibility disclosures.

The study population comprises all insurance companies that operated in Ethiopia between 2015 and 2022. By the end of 2022, there were a total of 18 insurance companies. Out of these, 17 were selected for inclusion in this research. The selected companies are Africa Insurance Company, Awash Insurance Company, Global Insurance Company, Lion Insurance Company, Nib Insurance Company, Nile Insurance Company, Nyala Insurance Company, United Insurance Company, Abay Insurance Company, Berhan Insurance Company, National Insurance Company, Oromia Insurance Company, Ethio-Life and General Insurance Company, Tsehay Insurance Company, Lucy Insurance Company, Bunna Insurance Company, and Ethiopian Insurance Company, which together account for 94 percent of the total population. Zemen Insurance Company is excluded from the analysis due to its establishment in 2020 and the lack of sufficient data. The chosen insurance companies were targeted for this study because their data is readily accessible. Data were gathered from the annual audit reports of the seventeen (17) insurance companies. A summary of the selection process is presented in Table 1.

Model specifications

This research employed a generalized method of moments (GMM) model to explore the complex relationship between the characteristics of audit committees and the disclosure of corporate social responsibility by insurance firms in Ethiopia. The GMM model serves as a panel data estimator that utilizes the lags of the dependent variable to correct for the endogeneity bias inherent in static estimation methods. Specifically, Arellano and Bond (1991) introduced the GMM difference estimator, which applies a first differentiation technique to mitigate the inconsistencies and biases associated with static estimation methods. Nevertheless, simulation studies have indicated that the GMM difference may be less effective and yield inferior instruments when the

Table 1: Study sample

Total number of insurance companies	18
Number of insurance companies with missing data	1
Final study sample	17

sequence is short or continuous (Bun & Windmeijer, 2010). Consequently, the GMM system was developed to address the shortcomings of the first difference estimator. In this approach, lagged level conditions are utilized as instruments for the differentiated equation, while lagged differences of the dependent variable serve as instruments for the level equation (Blundell & Bond, 1998). The GMM system is considered to be more reliable and robust due to its use of additional procedures, thereby enhancing accuracy when applied to a large panel over a short duration.

The two-step system estimator demonstrates greater consistency and asymptotic effectiveness in addressing autocorrelation and heteroscedasticity (Arellano & Bover, 1995). Consequently, this research utilized the two-step GMM framework to evaluate the impact of the audit committee on the corporate social responsibility disclosures of insurance companies in Ethiopia. Diagnostic tests applicable for validating the results of GMM estimation include the Arellano and Bond tests for the absence of second-order serial correlation, as well as the Hansen test for over-identifying restrictions, which operates under the null hypothesis that the moment conditions hold true. The exogeneity of the subsets of GMM instruments is assessed through a distinction in Hansen statistics. Therefore, the failure to reject these null hypotheses signifies the dependability of the GMM estimates. Consequently, this study adapted Ozkan's (2001) partial adaptation model to align with the primary findings of the research. The model is expressed as:

$$Yit = (\lambda - 1) - 1 + \beta Xit + \mu i + \mu t + \varepsilon it$$

$$CSRDi, t = (\lambda - 1) - 1)CSRDi, t - 1 + \beta 1ACSi, t + \beta 2ACIi, t + \beta 3ACGDi, t + \beta 4ACTi, t + \beta 5ACAEi, t + \beta 6ACCAi, t + \beta 7ACM + \varepsilon it$$

Whara

CSRDi,t represents the corporate social responsibility disclosures of the insurance company I at time t. ACS denotes the size of the audit committee for an insurance company i at time t, while ACI indicates the independence of the audit committee for the same company and time. ACGD refers to the gender diversity within the audit committee of the insurance company at time t. ACT signifies the tenure of the audit committee for an insurance company i at time t, and ACAE represents the presence of accounting experts on the audit committee of the same company at the same time. ACCA indicates the age of the audit committee chair for insurance company I, and ACM reflects the frequency of audit committee meetings at time t. lastly, ϵ denotes the error term.

Variables constriction

The research employed corporate social responsibility disclosures as the dependent variable, while corporate governance factors, including audit committee size,

independence, gender diversity, tenure, accounting expertise, age, and meeting frequency, served as the independent variables. A summary of the study variables is presented in Table 2.

Dependent variable

In this study, the corporate social responsibility disclosure score for each bank served as the dependent variable. The measurement of corporate social responsibility disclosures (CSRD) was based on the index created by Akhtaruddin and Haron (2010), which comprises 64 items. To compute the index for each insurance company, we followed a systematic approach: Initially, we meticulously reviewed the financial records of each insurance company to determine if the items in the voluntary disclosure index were reported. Subsequently, if an item was reported, we assigned a value of 1 to that disclosure and 0 if it was not. Finally, we derived the voluntary disclosure score for each insurance company by dividing its total score by 64.

$$CSRDIi = \frac{\sum xij}{Nj}$$

CSRDI: The total index of corporate i's social responsibility disclosures.

Xij: The total items of corporate disclosures.

Nj: The total number of social responsibility disclosure items that are supposed to be disclosed, which is = 64

Independent Variables

Audit committee size

The resource dependence theory suggests that larger audit committees are more inclined to allocate additional resources and authority to fulfill their responsibilities effectively (Allegrini & Greco, 2011). The Financial Services Authority (POJK) Regulation Number 55 of 2015 stipulates that an audit committee must consist of at least three members, including independent commissioners and external parties. This requirement is intended to enhance the oversight capabilities of the audit committee. Larger audit committees are believed to possess a significant level of strength and a diverse range of expertise, which is essential for meeting the monitoring demands associated with corporate social responsibility disclosures, as noted by Khan (2019). The size of the audit committee is quantified by the total number of its members, as referenced by Bastina & Bernawati (2019).

Audit committee independence

The independence of the audit committee is a key corporate mechanism often highlighted in the literature regarding voluntary disclosures of corporate social responsibilities (Arif et al., 2021; Mohammadi et al., 2021). The level of independence is assessed by the proportion

of non-executive directors on the audit committee. An independent audit committee is better equipped to fulfill its responsibilities and functions more effectively (Appuhami & Tashakor, 2017; Dwekat *et al.*, 2020). According to agency theory, the independence of the audit committee can influence the execution of sustainable strategic decisions related to socially responsible initiatives and can affect the disclosure of corporate social responsibility (Dwekat *et al.*, 2020). This independence is quantified as the ratio of independent directors to the total number of directors within the audit committee (Liao *et al.*, 2015; Yekini *et al.*, 2015).

Audit committee gender diversity

The inclusion of women on the audit committee may enhance the company's governance. Their attributes bolster the board's capacity to fulfill the essential role of overseeing and monitoring management (Bear et al., 2010). Research by Saona et al. (2019) and Gavious et al. (2012) suggests that women are generally more prudent and risk-averse compared to their male counterparts. Furthermore, Pathan and Faff (2013) demonstrated that female directors often exhibit a strong commitment to their responsibilities by dedicating greater effort to their roles. Additionally, Ibrahim and Al Harasees (2019) affirmed that the conservative and ethical traits of women contribute positively to corporate governance and mitigate both inherent and potential fraud risks. The ratio of female members on the audit committee acts as an indicator of the committee's gender composition (Meah et al., 2021; Kyaw et al., 2015; Alqatan, 2019).

Audit committee tenure

Tenure serves as a significant metric for voluntary disclosure (Othman et al., 2014). Researchers utilize it as a representative measure for various aspects, including the length of service (Aberg & Shen, 2020). Audit committee members with extended tenure are more inclined to undertake a pivotal role in management and oversight, thereby enhancing voluntary ethical disclosures (Othman et al., 2014). Agency theory posits that long-serving audit committee members develop closer relationships with the board, gain a deeper understanding of the firm's management strategies, and may become less effective in their monitoring duties (Hafsi & Turgut, 2013; Vafeas, 2003), which exacerbates the agency problem and reduces disclosure levels. Prior research has examined the relationship between audit committee tenure and voluntary disclosure (Bravo & Reguera-Alvarado, 2019; Setiany et al., 2017). Nonetheless, empirical studies in this area remain scarce. The tenure of the audit committee is quantified by the number of years the current chair has held this position (Al-Qublani et al., 2020; Ghafran & Yasmin, 2018).

Audit committee financial expertise

The financial expertise of audit committee members is a crucial factor affecting corporate social responsibility

disclosures, with many researchers utilizing it as an indicator of the committee's capabilities (Raimo *et al.*, 2020; Setiany *et al.*, 2017). Chaudire *et al.* (2020) argue that financial expertise within the audit committee significantly enhances reporting quality and mitigates agency issues. Agency theory suggests that audit committee members with long tenures develop closer relationships with the board, gain a deeper understanding of the firm's management strategies, and become less effective in their oversight roles (Hafsi & Turgut, 2013; Vafeas, 2003), which exacerbates agency problems and reduces transparency in disclosures. The audit committee's effectiveness is quantified by the ratio of accounting experts to the total number of members within the committee, as supported by Sharma and Kuang (2014) and Lubis and Adhariani (2019).

Audit committee age

The age of directors is regarded as a significant aspect of a firm's human capital (Katmon *et al.*, 2019). It is crucial for strategic leadership as it enhances knowledge and creativity, thereby fostering competitiveness in the creation of board value (A° berg & Shen, 2020). From the perspective of agency theory, age diversity among directors enhances the quality of monitoring. According to Elmagrhi *et al.* (2019), older directors who possess more experience and knowledge are more likely to share information regarding non-financial matters and are more inclined to promote transparency

and mitigate information asymmetry. The age of the audit committee is calculated by summing the ages of all its members.

Audit committee meeting frequency

The frequency of audit committee meetings has been employed in previous studies to assess the activity and diligence of the audit committee (Appuhami & Tashakor, 2017; Sharma et al., 2009; Yin et al., 2012). The phrase 'meeting frequency' denotes the number of times an audit committee convenes within a fiscal year; a greater number of meetings suggest higher levels of activity (Gendron et al., 2004). Various corporate governance codes recommend a specific number of audit committee meetings, which auditing firms utilize as a proxy to evaluate the efficiency and performance of the audit committee (Yin et al., 2012). Regular meetings also enable audit committee members to deliberate on corporate social responsibility disclosure strategies and persuade stakeholders (Fahad & Rahman, 2020). Li et al. (2012), in a study involving 100 UK-registered companies, identified a positive correlation between the frequency of audit committee meetings and the extent of corporate social responsibility disclosures. Dhaliwal (2010), as referenced in Qaderi & Alhmoud (2020), utilized the total count of audit committee meetings as a substitute for measuring audit committee frequency.

Table 2: Variable and their measurement

Variables	Symbol	Measurement
Dependent variable		
CSR disclosure index	CSRD	Index guideline developed by Akhtaruddin and Haron (2010). $ \text{CSRDi} = \frac{\sum xij}{Nj} $
Independent variable		
Audit committee size	ACS	Number of audit committee members.
Audit committee independent	ACI	Measured as the proportion of independent directors on the board. $ACI = \frac{Indepedent\ directors}{Total\ number\ of\ audit\ committee}$
Audit committee gender diversity	ACGD	Percentage of female members in the audit committee. $ACGD = \frac{Number \ of \ female in the audit \ committee}{Total \ number \ of audit \ committee}$
Audit committee tenure	ACT	The number of years that the present audit committee has been serving on the committee.
Audit committee financial expertise	ACFE	The percentage of members with accounting or financial expertise on the audit committee. $ ACFE = \frac{Number\ of\ accounting\ expert}{Total\ number\ of\ audit\ committees} $
Audit committee age	ACA	Dividing each audit committee's age by the total age of the audit committee's
Audit committee meetings frequency	ACMF	The frequency of audit committee meetings each year

Source: Owen design, 2025

Table 3: Descriptive statistics

			•		
Variables	Obs	Mean	Std. Dev	Min	Мах
CSRD	136	22.33	10.356	10.215	56.321
ACS	136	4.764	1.521	3	7
ACI	136	0.4241	0.2031	0.026	0.965
ACFE	136	0.2101	0.0803	0.012	0.3985
ACGD	136	0.0814	0.0933	0.012	0.3265
ACMF	136	15.5	6.2598	2	36
ACA	136	0.1808	0.018	0.15	0.22
ACT	136	5.44	2.38	1	10

Source: STATA 14 result

Empirical Results and Discussion

Descriptive Statistics

Table 3 presents the descriptive statistics for the variables utilized in this study. The average corporate social responsibility disclosure score across the entire sample is 22.33%, with values ranging from a low of 10.215 to a high of 52.321. The corporate social responsibility disclosure among Ethiopian insurance companies shows a deviation of 10.356 from the mean. The size of the audit committee (ACS) varies from a minimum of 3 to a maximum of 7, with an average of 4.764. In Ethiopia, the sizes of audit committees in insurance companies differ by 1.521 from the mean. The average audit committee independence (ACI) rating for insurance firms in Ethiopia is 0.4241, with a range from 0.026 to 0.965. The independence of the audit committees deviates from the mean by 0.2031. The average audit committee financial expertise (ACFE) for these companies is 0.2101, with a standard deviation of 0.0803, and ranges from a minimum of 0.012 to a maximum of 0.3985. The audit committee gender diversity (ACGD) has a mean of 0.0814 and a standard deviation of 0.0933, with values ranging from 0.012 to 0.3265. The average number of audit committee meetings (ACMF) is 15.5, with a standard deviation of 6.2598, and the frequency of meetings ranges from 2 to 36. The mean audit committee age (ACA) for the entire sample is 0.1808, with a range from 0.15 to 0.22, and the audit committee age for Ethiopian insurance companies deviates from the mean by 0.018. The tenure of the audit committee (ACT) ranges from 1 to 10 years, with an average of 5.44, and the age of the audit committees in Ethiopian insurance companies varies by 2.38 from the mean.

Correlation matrix

Table 4 below illustrates a positive correlation among the size of the audit committee, its independence, financial expertise, gender diversity, and tenure, with coefficients of 0.2762, 0.1702, 0.1455, 0.2039, and 0.2920, respectively. Additionally, the frequency of audit committee meetings and the age of the audit committee exhibit negative correlations with the corporate social responsibility disclosures of insurance companies in Ethiopia, with values of 0.0355 and 0.0941, respectively.

Regression analysis

The results of the model are presented in Table 5, illustrating the impact of audit committee characteristics on the corporate social responsibility disclosure of Ethiopian insurance companies. The adjusted R2 value in Table 5 indicates that the variables of the model account for 52.24% of the total variability in the corporate social responsibility disclosure of insurance companies. The findings confirm that the essential criteria of the GMM diagnostic tests are met. The p-value of the Hansen statistics initially supports the validity of the GMM results. Additionally, the p-value of the AR2 test confirms the absence of second-order serial correlation. The Wald statistics highlight the overall significance of the explanatory variables, while the Hansen test discrepancy affirms the consistency of the instrument subsets in predicting the dependent variable. At a significance level of 5%, the lagged corporate social responsibility disclosure (CSRDit-1) is found to be significant, supporting the GMM estimations of the coefficients.

With a coefficient of 1.963 and a *p-value* of 0.042, the regression results show that audit committee size (ACS)

Table 4: Correlation matrixes

	CSRD	ACS	ACI	ACFE	ACGG	ACMF	ACA	ACT
CSRD	1.0000							
ACS	0.2761	1.0000						
ACI	0.1702	0.2253	1.0000					
ACFE	0.1455	0.1623	0.2830	1.0000				
ACGD	0.2039	-0.1754	-0.1966	-0.0325	1.0000			
ACMF	-0.0355	-0.1478	-0.0094	0.0723	-0.027	1.0000		
ACA	-0.0941	0.3732	-0.0756	0.2813	0.0919	-0.0860	1.0000	
ACT	0.2920	0.1267	0.2446	0.2000	0.0258	0.1180	0.2568	1.0000

Source: STATA 14 result

has a significant and favorable impact on the corporate social responsibility disclosure of insurance businesses in Ethiopia. The coefficient 1.963 indicates the size of the audit committee of insurance companies. This indicates that a 1% increase in audit committee size results in a 1.963 percent increase in the corporate social responsibility disclosure of insurance businesses in Ethiopia, holding all other explanatory variables constant. An audit committee of a larger nature possesses reasonable strength and expertise that are highly diversified to achieve the expected monitoring process needed by corporate social responsibility disclosure expectations (Khan, 2019). The study's findings align with research done on the influence of the size of the audit committee on corporate social responsibility disclosures by (Buallay & Al-Ajmi, 2021; Mohammadi, S., & Naghshbandi, 2020), which shows that the size of the audit committee positively affects corporate social responsibility disclosures. The result is also supported by resource dependence theory, which advocates a larger board of directors to accommodate more directors with a wide range of experience and knowledge. However, other studies did not support such a positive association or found a negative relationship between audit committee size and corporate social responsibility disclosure (Bicer and Feneir, 2019; Adegboye et al., 2020). Consequently, the study rejects the null hypothesis and accepts the alternative hypothesis.

The regression analysis revealed a significant relationship between audit committee independence (ACI) and the corporate social responsibility disclosure of insurance companies, with a 5% level of significance and a coefficient of 0.662. This implies that 66.2% of the total audit committees in insurance companies are independent. Therefore, it can be inferred that insurance companies with a higher degree of audit committee independence are likely to exhibit effective corporate social responsibility disclosure. This finding corroborates the conclusions of Arif et al. (2021), Fallah & Mojarrad (2019), Mohammadi et al. (2021), and Qaderi et al. (2020), and aligns with agency theory, which posits that an independent audit committee is significantly and directly related to corporate social responsibility disclosure. As a result, the study rejects the null hypothesis in favor of the alternative hypothesis.

At a 1% level of significance, audit committee financial expertise (ACFE) has a positive and significant impact on the corporate social responsibility disclosure of insurance companies with a coefficient of 0.132. This means 13.2% of audit committees are financial experts from the total audit committees of Ethiopian insurance companies. The result implied that greater audit committee financial expertise results in better corporate social responsibility disclosure for insurance companies because greater audit committee financial expertise improves financial reporting. This outcome is in line with the results of Dwekat *et al.* (2020)

and Mohammadi *et al.* (2021) and agency theory, which showed financial expert's capacity boosts corporate social responsibility disclosure and the inclusion of accounting and finance professionals in audit committees has a favorable effect on financial quality. The study is also in line with the study of (Chan *et al.*, 2021), which indicates that audit committee members' financial expertise improves corporate social responsibility information disclosure. The findings, which are at odds with those of Appuhami and Tashakor (2017) and Qaderi *et al.* 2020, reveal that the audit committee's financial expertise does not influence corporate social responsibility information disclosure. As a result, the study rejects the null and adopts the alternative hypothesis.

At a 10% level of significance and a coefficient of 2.947, the audit committee's gender diversity (ACGD) has a significant and positive impact on the corporate social responsibility disclosure of insurance companies in Ethiopia. The coefficient of 2.947 indicates that there are 2.947% female members in the total audit committees of insurance companies in Ethiopia. The positive relationship between audit committee gender and corporate social responsibility disclosure is because the higher the audit committee gender, the more favorable the corporate social responsibility disclosure of insurance businesses. The outcome is in line with the findings of Ibrahim and Al Harasees (2019) and Din et al. (2021) that audit committees with a higher proportion of female financial specialists have a more significant impact on corporate social responsibility disclosure. This may be because of the conservative nature and ethical qualities of females. However, the findings are contradictory to those of Muttakin et al. (2015), who reached the conclusion that there is a negative and substantial correlation between the percentage of women on the audit committee and corporate social responsibility disclosure. As a result, this study rejects the null and adopts the alternative hypothesis.

Furthermore, the results reported in Table 5 show that audit committee meeting frequency (ACMF) had a negative and statistically significant impact on the corporate social responsibility disclosure of Ethiopian insurance businesses at the 5% significance level and 0.175 coefficients. This means insurance companies' annual meetings were conducted by 17.53% in a given fiscal year. The result is incongruous with the study of Kelton and Yang (2008) and Kent and Stewart (2008), who conclude that higher audit committee meeting frequency has a positive impact on financial disclosure. On the other hand, the result is also unlike the study of Othman et al. (2014); the study found an insignificant association between audit committee meeting frequency and the level of voluntary ethics disclosure. Subsequently, the alternative hypothesis is rejected, and the null hypothesis is accepted in this study.

Moreover, the results presented in Table 5 show that audit committee age (ACA) had a negative and statistically

significant impact on the corporate social responsibility disclosure of Ethiopian insurance businesses at the 5% significance level and 0.024 coefficients. This means a one-year increase in audit committee age negatively affects corporate social responsibility disclosures by 2.4%. The result is inconsistent with the studies of Katmon *et al.* (2019) and Elmagrhi *et al.* (2019), who argue that older directors with greater experience and knowledge are more inclined to disclose information. The study also contradicts agency theory, which contends that diversity in the age of directors improves information disclosure. Subsequently, the alternative hypothesis is accepted, and the null hypothesis is rejected in this study.

Finally, Table 5 in the statistical analysis result shows audit committee tenure (ACT) had a negative and statistically significant impact on the corporate social responsibility disclosure of Ethiopian insurance businesses at the 1% significance level and 1.595 coefficients. This means one-year experience audit committee tenure negatively affects corporate social responsibility disclosures by 1.59% as agency theory perspectives, long-tenured audit committee members become closer to the board, more familiar with the firm's management strategy and less efficient in monitoring them (Hafsi & Turgut, 2013; Vafeas, 2003),) which increases the agency problem and decreases disclosure. However, the study is inconsistence with the study of Setiany et al. (2017) concludes that audit committee members with longer tenure tend to produce more voluntary disclosure. In addition, the study is not the same as the study conducted by Bravo and Reguera-Alvarado (2019) fail to find a correlation between the audit committee members' tenure and the corporate social responsibility disclosure. Therefore, the alternative hypothesis is supported.

Test of statistical assumptions

Multi-collinearity

Table 6 displays the tolerance and variance inflation factor (VIF) for the independent variables utilized in the regression analysis. To ascertain whether there is severe multi-collinearity between independent variables, the VIF statistics for each independent variable are computed. Multi-collinearity is present if VIF is greater than 10. Tolerance VIF is also used to assess for multi-collinearity. Multi-collinearity is present if the tolerance is less than 0.1 and the VIF is more than 10 (Gujarati & Porter, 2009). According to Table 6, every VIF number is low; none of them is greater than 10, and there are no tolerance values that are lower than 0.1 therefore, Multi-collinearity does not provide a challenge for our investigation.

Normality test

Table 7 shows that the data are consistent with the standard distribution assumption, as shown by the probability values of 0.25 in the Shapiro-Wilk W test statistics.

Heteroscedasticity and auto-correlation

In treating heteroscedasticity and autocorrelation, the two-step GMM estimator approach is more consistent and asymptotically effective (Arellano & Bover, 1995).

Conclusion

Motivated by the absence of studies that examine the effect of audit committee characteristics on corporate social responsibility disclosure, specifically in the study area, the current study aimed to investigate the impact of audit committee characteristics on the corporate social responsibility disclosure of insurance companies in

Table 5: The two-step system GMM estimation results

CSRD	Coef.	Std. err.	Z	p> z	[95% conf. interval]
CSRDit-1	1.523636	2.3256652	3.25	0.044**	1.3265458 5.32565
ACS	1.963843	0.9668539	2.03	0.042**	0.0688446 3.858842
ACI	0.6623969	3.700365	0.18	0.0358*	-6.590186 7.914979
ACFE	0.1323429	9.240916	0.01	0.0098***	-18.24421 17.97952
ACGD	2.947348	6.99665	-0.42	0.0674*	-16.66053 10.76583
ACMF	-0.175338	0.1109532	-1.58	0.0114**	3928029 .0421256
ACA	-0.024453	79.6027	-1.56	0.0118**	-280.4721 31.56475
ACT	-1.595009	0.3069687	5.20	0.000***	0.9933613 2.196657
cons	29.51489	13.01648	2.27	0.023	4.00306 55.02671
Wald stat	16.235				
AdjR²	52.236				
AR²(p-value	0.0214				

Source: STATA 14 result

^{***, **, *} indicate significance at 1, 5 and 10% significance levels, respectively.

Table 6: Multi-collinearity test for independence variable

Variables	VIF	1/VIF
ACA	1.44	0.693314
ACS	1.32	0.755225
ACI	1.31	0.761374
ACFE	1.23	0.816082
ACT	1.19	0.838349
ACGG	1.09	0.917463
ACMF	1.06	0.941286
Mean VIF	1.24	

Source: STATA 14 result

Table 7: Normality test

Variables	Obs	W	V	Z	Prob>z	
Residual hat	136	0.96756	3.472	2.807	0. 250	

Source: STATA 14 result

Ethiopia. The study tests for correlations with a number of independent variables relating to audit committee characteristics and corporate social responsibility disclosure from 2015 to 2022. Corporate social responsibility disclosure (CSRD) was used as the dependent variable in the analysis, along with independent factors such as audit committee size (ACS), audit committee independence (ACI), audit committee financial expertise (ACFE), audit committee gender diversity (ACGD), audit committee meeting frequency (ACMF), audit committee age (ACA), and audit committee tenure (ACT).

The study found that audit committee size has a significant impact on the corporate social responsibility disclosure of insurance businesses in Ethiopia. The positive correlation between audit committee size and corporate social responsibility disclosure suggests that an audit committee of a larger nature possesses reasonable strength and expertise that are highly diversified to achieve the expected monitoring process needed by corporate social responsibility disclosure that is supported by agency and resource dependency theories. Moreover, the study found that audit committee independence has a significant and positive effect on the corporate social responsibility disclosure of insurance companies in Ethiopia, which is supported by the agency theory. The financial expertise of audit committees and corporate social responsibility disclosure of insurance companies in Ethiopia also showed a positive and significant relationship that states the greater audit committee financial expertise improves financial reporting that is supported by agency theory.

There was a noteworthy and favorable correlation found between the gender of audit committees and the corporate social responsibility disclosure of insurance businesses in Ethiopia. This is because the higher the audit committee gender, the more favorable the corporate

social responsibility disclosure of insurance businesses in Ethiopia, which is supported by both agency and resources dependency theory. Unlike the audit committee characteristics presented above, audit committee age, audit committee meeting frequency and audit committee tenure have a negative and significant relationship with corporate social responsibility disclosure of insurance companies in Ethiopia.

Policy Implications

The following policy implications were provided in light of the study's findings: Our results highlight the critical role of audit committee size, audit committee accounting expertise, and independent members in increasing the work of corporate social responsibility disclosure. First, the size of the audit committees for insurance businesses in Ethiopia should be within a range that is both practical and efficient. Second, consequently, regulators and policymakers could encourage firms to increase the proportion of independent audit committee members. The study suggested that while developing audit committees in Ethiopian insurance businesses, consideration should be given to gender diversity and should include more females. The result emphasizes the significance of the audit committee's financial expertise member role in upgrading the level of corporate social responsibility disclosure; accordingly, regulators and policymakers should include more than one financial expertise on the audit committee. Policymakers are advised to make policy changes by reducing audit committee meeting frequency and encouraging young audit committee members.

This study suffers from some limitations. First, the scope of the study is limited because it focuses only on insurance companies in Ethiopia from 2015 to 2022. Second, the sample data contains some missing values. Third, the study examined only seven of the audit committee characteristics. Thus, future studies may address these limitations by incorporating any important attributes of the audit committees that impact corporate social responsibilities disclosure. Further, corporate social responsibility disclosure is reported in previous studies using various measurements; thus, the validity of our findings is subject to similarity with the measures applied in this study. Upcoming research could also repeat the study on different corporate social responsibilities disclosure measures, such as credibility of sustainability reporting and disaggregate the corporate social responsibilities disclosure (ESG score) into three measures (governance, social and environmental), also in different institutional frameworks, by expanding the sample or use different countries.

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