



**The impact of board characteristics on corporate social responsibility disclosures: evidence from state-owned enterprises in Kenya**

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Responses to the editor and reviewer’s comments

RESPONSES TO COMMENTS BY EDITOR AND REVIEWER (S)		
No.	Comments	Our Responses
1.	The manuscript still contains errors, mistakes, and typos. For example, “..these studies not only analyse... but also focuses..” (page 3), “Board independence enhance..” (page 14), “The result also indicate” (page 20), amongst many others. Although the authors claim that they have subjected the manuscript to professional editing and proofreading, the paper still needs a professional proofreading service.	We are very grateful for these recommendations. We have revised structure of sentences to bring clarity. Corrections are highlighted in red on pages 3,14, and 20. The manuscript has been subjected to a proofreader as recommended.
2.	In discussing past studies, it is better to use either past or present tense. For example, "Thompson et al. (2018) claim..." versus "Garde et al. (2020) found".	We are very thankful for the suggestion. We have revised a discussion on past studies using past tense. The corrections are highlighted in red on pages 1, 2,3,4,5,7,8,9,10,11,12,13,14, 15,16,17, 19,20,21, 22 and 23.
3.	Statistics and results should have the same number of decimals after the point. More specifically, some numbers have two decimals while others have three or four (e.g., 8.45; 2.051; 11.1389).	We are very thankful for this suggestion. We have revised the statistics to the same number of decimals (3 decimal places). Corrections are highlighted in red in sections 5.1 and 5.3 on pages 17, 18, and 19. Other corrections are on tables III, IV,V,VI, VII and VIII on pages 34, 35,36, 37, 38, 39 and 40 as highlighted in red.

## The impact of board characteristics on corporate social responsibility disclosures: evidence from state-owned enterprises in Kenya

### Abstract

**Purpose-** To investigate the impact of board characteristics (board gender diversity, board chair age, board sub-committees, board meetings, board skill, board size, and board independence) on corporate social responsibility disclosures (CSR) of state-owned enterprises (SOEs) in Kenya during the period 2015-2018.

**Design/ methodology/ approach-** The study employed fixed-effects balanced panel data to examine the impact of board characteristics on CSR. The analysis is repeated using two regression estimators (robust least square and random effects) and the four CSR subcomponents to evaluate the robustness of the main analysis.

**Findings-** The results established that board gender diversity, board chair age and board sub-committees had significant negative effects on CSR. The impact of the remaining board characteristics were found to be insignificant.

**Research limitations/ Implication-** The study was limited to the disclosures included in the annual reports, which means that information disclosed in other media, like websites was not considered. The second limitation concerns mediating and moderator variables that were not considered.

**Practical implications-** There is a need for a stricter corporate governance implementation mechanism, as opposed to the “comply or explain” principle, since results suggest that most of the board characteristics do not appear to be impactful. Additionally, the low level of reported CSR calls for the establishment of CSR or related committees.

**Social implications-** The evidence suggests that SOEs are reluctant to report on issues such as ethics, health and safety initiatives, environment and social investments.

**Originality/ value-** The paper extends the literature on the impact of board characteristics on CSR in unlisted non-commercial SOEs in a developing country context.

**Keywords-** Corporate Social Responsibility Disclosures, Multi-theoretical framework, Mwongozo code of corporate governance, State-owned enterprises, Kenya.

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**1. Introduction**

Global warming has created unprecedented ecological shift resulting into unbearable damage to Earth’s ecosystem. As a result, corporate governance (CG), social and environmental matters are fast becoming significant focus for stakeholders. In this regard, state-owned enterprises (SOEs) deserve special mention as significant players in the implementation of corporate governance, social and environmental policies as well as an important role model for society as a whole (Córdoba-Pachón et al., 2014; Garde-Sanchez *et al.*, 2018). Besides, SOEs are subject to a lot of pressure with regard to their accountability on Corporate Social Responsibility (CSR) because they usually have large volumes of resources, so their actions have major environmental impact (Garde *et al.*, 2017; Doś, 2019). To achieve these goals, SOEs must have a board of directors who are alert to the needs of society. It is documented that among the CG mechanisms, a firm’s corporate board play a pivotal role with regard to CSR (Walls *et al.*, 2012; Tang et al., 2020). In this respect, Walls *et al.* (2012) argued that the board of directors are responsible for establishing friendly corporate policies, monitoring top management behaviours, approving annual budget and establishing separate committee dealing with CSR matters. On that account, it necessitates the evaluation of various board characteristics that drive corporate social responsibility disclosures (CSRSD).

Although most studies on the relationship between board-related characteristics and CSRSD have been conducted in the past (Garde-Sanchez *et al.*, 2018; Ullah et al., 2019; Pucheta-Martínez and Gallego-Alvarez, 2019; Garde *et al.*, 2020; Fahad and Rahman, 2020; Khaireddine et al., 2020; Tang et al., 2020; Masoud and Vij, 2021), **these studies focused more on non-SOEs relative to SOEs**. The generalizability of research findings of non-SOEs to SOE is likely to be problematic because of the different objectives each pursues. In non-SOEs setting, **several past studies relate** CSR involvement to the likelihood of such disclosures in influencing positive financial returns (Garde-Sanchez et al., 2019; Voinea *et al.* , 2022), while in SOEs, CSRSD is considered as a social obligation. Besides, SOEs are likely to perform worse than non-SOEs when it comes to CSRSD because they enjoy stronger political legitimacy as the government supports them financially through budgetary allocation in each financial year, which makes them lack the motivation to engage in such social incentives.

Further, extant literature that has tested the relationship between board characteristics and CSRSD has mostly been in developed countries (Harjoto *et al.*, 2015; Cucari *et al.*, 2018; Khaireddine *et al.* 2020; Fatma and Chouaibi, 2021) and emerging economies (Ibrahim and Hanefah, 2016; Masud *et al.*, 2018; Khan *et al.*, 2019; Ullah *et al.*, 2019; Ashfaq and Rui 2019; Fahad and Rahman, 2020). The findings from these developed and emerging economies might not apply in the African context due to the voluntary nature of CSR reporting and weak CG systems in most African countries. For instance,

European countries are ranked top in sustainable development (Fatma and Chouaibi, 2021). Besides, most of the developed countries have made CSR reporting as mandatory requirement for companies (La Torre et al., 2018; Ashfaq and Rui, 2019; Khairreddine *et al.*, 2020). In addition, developed countries have well-developed CSR standards compared to weak standards-setting of CSR among developing countries (Rizk et al., 2008; Shum et al., 2009). Moreover, it is argued that CSRD is not implicitly identical and could differ within different regions (Ibrahim and Hanefah, 2016; Masud *et al.* 2018; Khan *et al.*, 2019). Therefore, there is likelihood of different findings from the African context and within different countries.

While recent studies have begun to examine the impact of board characteristics on CSRD in SOEs (Garde *et al.*, 2017; Tang *et al.*, 2020; Masoud and Vij, 2021), these studies have only analyzed a limited subset of CG characteristics such as gender, age, and education (Garde *et al.*, 2017; Garde *et al.*, 2020; Masoud and Vij, 2021), and have focused solely on listed commercial SOEs (Tang *et al.*, 2020; Masoud and Vij, 2021; Voinea *et al.*, 2022), leaving out unlisted and non-commercial SOEs. This means that unlisted and non-commercial SOEs that form the bulk of the entities involved in the provision of social services to the citizen (Chen, 2016; Kim et al., 2019; Mashamaite and Raseala, 2019) remain untapped, yet resources controlled by these entities are huge and have significant impact to the environment (Garde *et al.*, 2017). Thus, there is need for further investigation on under studied variables in SOEs especially in unlisted and non-commercial SOEs.

The Republic of Kenya, a developing country in Africa offers an interesting setting for examining the relationship between board characteristics and CSRD of SOEs because of two key factors: First, board appointments in Kenya's SOEs is dependent on perennial and cyclic alliances of powerful political patrons. The incumbent president and members of friendly political parties abuse board appointment to reward and solidify political power. Therefore, such boards are likely to serve the interests of their political affiliations instead of delivering CSR objectives of SOEs. Second, to the best of the researchers' knowledge, there is dearth of studies on the impact of board characteristics on CSRD of SOEs in Kenya. The available studies are limited in their coverage. For instance, Barako *et al.* (2006), Barako and Brown (2008), Waweru *et al.* (2019) and Injeni et al. (2022) focused their studies on non-SOEs and looked at disclosures in general with exception of Barako and Brown (2008) who studied CSRD, yet SOEs are critical organisations in delivery of social objectives to which CSR is a part (Garde *et al.*, 2017). Government of Kenya (GOK) (2013) avers that achievement of social objectives are dependent on SOEs with sound CG. Thus, we propose that the relationship between board characteristics and CSRD of SOEs in Kenya should be patterned distinctively, especially in comparison to many of the previous studies of the board characteristics-CSRD relationship in other jurisdictions.

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Using agency, stakeholder and legitimacy theories, our study addressed these ostensible research gaps by exploring the impact of board characteristics on CSRD of SOEs in Kenya. Our study relied on fixed-effects panel approach on a sample of 45 SOEs studied from 2015 to 2018 using data sourced from annual reports. We also controlled for SOEs specific characteristics such as age, size, profitability, and leverage. Our results established that board gender diversity, board chair age and board sub-committees had negative significant impact on CSRD. Moreover, results found that frequency of board meetings, board skill, board size, and board independence had insignificant relationships with CSRD. We conducted some robustness checks and found that the results of this study still hold.

This study contributes to the literature in the following three ways. First, we contribute to the dearth of studies on CSRD in SOEs in general and specifically in Kenya, a developing country in Africa. Garde-Sanchez *et al.* (2018) provided evidence of lack of empirical work on CSRD in SOEs with the exceptions of China. Secondly, in divergence from prior studies in listed SOEs which are subjected to extra regulation on CG and disclosure policies, we document evidence of the efficacy of CG and CSRD in unlisted and non-commercial SOEs. Finally, by investigating relatively broader CG variables, this study improves on the limited number of CG variables that have characterised prior studies such as Garde *et al.* (2017), Garde *et al.* (2020) and Masoud and Vij (2021).

The remainder of the paper is structured as follows. Section 2 reviews the related literature. Section 3 presents the hypotheses development. Section 4 describes the research methodology. Section 5 presents main results. Section 6 discusses the results, and finally, section 7 concludes this study.

**2. Literature review**

**2.1 SOEs operating environment in Kenya**

The Constitution of Kenya serves as the principal legal instrument for ethics and integrity in Kenya (Republic of Kenya, 2010). Chapter six of the Constitution prescribes the leadership and integrity of state officers. The Constitution also emphasizes that appointment of board members of SOEs shall be in line with the requirements of Article 27 of the Constitution, which provides for equality and freedom from discrimination. Moreover, SOEs in Kenya operate under the Companies Act chapter 486 laws of Kenya if they are commercial undertakings (GOK, 2013; Guney *et al.*, 2020) or through State Corporation Act, 1986 chapter 446 , if they are established for public service delivery (Non-commercial) (GOK, 2013). The State Corporation Act specify the basic structure and primary rules for SOEs’ operations and establishes the position of directors and their roles. The Act also makes provisions

for establishing SOEs, administration, management, control, and regulation. Part II, section 3 of the Act empowers the president to establish SOE as a body corporate to perform the functions stipulated in the order. Section 4 of the Act requires the president to assign a ministerial responsibility for any SOE to the vice-president and the ministers as she/ he may direct in writing. Part III Section 6 provides for the board composition with the express responsibility of appointing the chairperson bestowed on the president. Section 7 sub-section 3 gives the president absolute power to revoke the appointment of any board member at any time if it appears to him that a board has failed to discharge its functions in the national interest, notwithstanding the provisions of any other written law or articles of associations establishing and governing a board, and empowers the president to nominate a board member to serve for the remaining period.

The Acts are complemented by other provisions of Public Financial Management (PFM) Act of 2012 and the Public Financial Regulation of 2015, which ensure that public institutions spend public resources efficiently and in a transparent manner to improve service delivery to citizens. The Public Audit Act, No. 34 of 2015, part II, provides for the establishment of the office of the Auditor General. All SOEs must submit their financial statements to the Auditor General within three months after the end of the fiscal year for auditing. Upon completion of the auditing process within six months after the end of each fiscal year, as specified by Article 229 of the Constitution, the Auditor General submits the audit report together with the audited financial statements to Parliament and the Public Investment Committee (PIC) for review and appropriate action.

Besides, following the footsteps of other countries, Kenya adopted Mwongozo Code of Corporate Governance (MCCG) in 2015 whose objective was to strengthen the roles and responsibilities of the board of directors of SOEs. It is widely believed that an effective board of directors promotes CSR activities (Ullah *et al.* 2019). However, it is questionable whether a governance code like MCCG based on the “comply or explain” principle can affect CSR activities (Albu and Gîrbină, 2015; Thompson *et al.*, 2018). Moreover, the requirement of CSRD by SOEs, as recommended by the code falls short of explaining the nature of CSR activities that SOEs need to disclose.

## 2.2 Theoretical framework of corporate social responsibility

To gain insight into the impact of board characteristics and CSRD, we adopted a multi-theoretical framework comprising of agency theory, stakeholder theory and legitimacy theory to examine whether board characteristics influence CSRD of SOEs in Kenya. Luo and Tang (2021) argued that a single theory is not adequate in explaining the overall effects of CG. The choice of including the seven CG variables in our study was influenced by a number of factors such as their relevance in the Kenyan



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context owing to the promulgation of Kenyan MCCG, availability of data, and incongruities in results from prior studies.

**2.2.1 Agency theory**

Agency theory was advanced by Fama and Jensen (1983) and Jensen and Meckling (1976) as a mechanism to deal with agency problem resulting from conflict of interest between the agent and the principal due to separation of ownership and control (Bozec, 2005). The theory assumes that the interests of the agent and the principal is at odd (Moral hazard) as a result of separation of ownership and management, hence the need for monitoring mechanisms to act as checks against the excesses of the agent. The main focus of agency theory is to ensure accountability of managers who may be opportunistic due to information asymmetry (Eisenhardt, 1989). In this perspective, board of directors are the primary control mechanism in reducing information asymmetry by ensuring timely disclosure of information.

Within the context of SOEs, the agent is the board of directors appointed by the relevant government official such as line cabinet secretary and the principal is the citizen with the state being the principal shareholder. Agency theory posits that efficient board of directors promotes CSR which align the interests of shareholders and stakeholders with long term goals (Chang *et al.*, 2015). As a result, SOEs are likely to engage in CSR activities if various board sub-committees work collectively in reducing agency conflicts (Masud *et al.* 2018). This is because each board sub- committee brings different expertise to decision making (Berezinets *et al.* 2017; Jiraporn *et al.* 2019). However, unlike private sector, citizens do not have direct relationship with board of directors of SOEs because boards report directly to the line cabinet secretary/ minister or to the parliament. Agency theory has been criticised by previous researchers on its assumption that corporate managers are individualistic on their goals and interest (Donaldson and Davis, 1991; Van Slyke, 2007). Moreover, SOEs’ board of director have multiple constituents to report to such as legislators, civil servants and ministers (Locke and Duppati, 2014), which makes the agency relationship more complex. Consequently, board of directors can be motivated to take decisions based on other interests other than for the general public due to this complex relationship (Royo *et al.*, 2019). Finally, there is doubt as to whether SOEs’ directors appointed by the politicians can act in the best interest of the citizen and whether they have actual autonomy to perform their work without political interference (Simpson, 2014).

**2.2.2 Stakeholder theory**

Put forward by Freeman (1984), stakeholder theory suggests that board of directors have oversight role of ensuring that various stakeholders’ interest are balanced (Harjoto *et al.*, 2019; Khaireddine *et al.*,



2020). The theory argues that firms are obliged to respond to variety of stakeholders such as suppliers, customers, government and their agencies, employees, among others. One of the important obligations that firms are required to respond to is CSR. Stakeholder theory suggests two approaches in which CSRD can be addressed, namely, normative and instrumental approaches (Barka and Dardour, 2015; Zhu *et al.*, 2016). The normative approach is concerned with the stakeholders' representation within the board and can include independent and executive board of directors, while instrumental approach is concerned with board diversity (Hafsi and Turgut, 2013). Board diversity is defined as the various compositions of board of directors such as gender, age, education and work experience (Galia and Zenou, 2013).

Stakeholder theory has been condemned as avenue that management can use to exercise their self-interests by claiming a larger group for which their actions are required (Jensen, 2000; Parmar *et al.*, 2010). Moreover, while the stakeholder theory recognizes diverse group of interest in the entity, it is practically difficult to assess all stakeholders who may be affected or affect performance of the entity (Parmar *et al.*, 2010). This means that accountability themes may only target the most important and instrumental stakeholders (Ntim *et al.*, 2017).

### 2.2.3 Legitimacy theory

This theory originates from the idea of organisational legitimacy (Ofoegbu *et al.*, 2018). Legitimacy is defined as generalised perception or assumption that actions of entity are desirable, proper, or appropriate within some socially constructed system of norm, values, belief, and definition (Suchman, 1995). This implies that the survival of SOEs can only be possible if their activities and objectives are supported and perceived as legitimate by society. The theory conceives social contract between the firm and the society on the expectation that organisational survival is dependent on adherence to the societal values. To fulfil this contractual obligation, entities legitimise their actions through social reporting (Monfardini *et al.*, 2013) such as through CSRD (Ofoegbu *et al.*, 2018). Ethics, health and safety, environment, and social investment disclosures in the reporting media are some of the disclosures that SOEs can provide as a form of gaining legitimacy and accountability to the community. However, such disclosures do not take place homogenously across all the entities; their dissemination are influenced by various board characteristics. Legitimacy theory appears to have some shortcomings since societal demands broadens quite often (Al Maeeni *et al.*, 2022), which means that at some point in time, the organisation may not keep fulfilling every societal demand and conflict become inevitable.

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**2.3 Board characteristics and CSRD studies**

**2.3.1 Board characteristics and CSRD studies in non-SOEs**

Prior studies have demonstrated several CG determinants of CSRD. Among the most commonly studied CG are board meetings (Hussain and Rigoni, 2018; Fahad and Rahman, 2020; Khaireddine *et al.*, 2020), gender diversity (Orazalin, 2019; Pucheta-Martínez Gallego-Álvarez, 2019; Ullah *et al.*, 2019), board skill (Harjoto *et al.*, 2015; Katmon *et al.*, 2019; Khan *et al.*, 2019), board sub-committees (Mahmood *et al.* 2018; Ashfaq and Rui, 2019; Pucheta-Martínez and Gallego- Alvarez, 2019), board size (Masud *et al.*, 2018; Pucheta-Martínez and Gallego- Alvarez, 2019; Khaireddine *et al.*, 2020), board independence (Kaymak and Bektas, 2017; Ashfaq and Rui, 2019; Khaireddine *et al.*, 2020), board age (Hafsi and Turgut, 2013; Roitto, 2013; Fahad and Rahman, 2020), board ethnicity (Masud *et al.*, 2018; Katmon *et al.*, 2019; Khan *et al.*, 2019), CEO duality (Khan *et al.*, 2013; Fahad and Rahman, 2020; Fatma and Chouaibi, 2021), and ownership structure (Khan *et al.*, 2013; Fahad and Rahman, 2020; Fatma and Chouaibi, 2021). Khaireddine *et al.* (2020) investigated a sample of 82 listed companies in France between 2012-2017. The findings indicated a significant positive relationship between board independence, board gender diversity and the frequency of board meetings on governance, environmental and ethics disclosure. Furthermore, the analysis found a significant positive correlation between board size and environmental disclosure. In a study conducted in USA-based companies, Hussain and Rigoni (2018) examined a sample of 100 US companies for 2007 and 2011. The results showed significant positive correlation between board independence, board gender diversity, board meetings and sustainability committee and social disclosure. No significant relationship was found between board size, CEO duality and social disclosure. In addition, Pucheta-Martínez and Gallego- Alvarez (2019) examined a sample of firms in 39 countries during 2004 to 2015. The findings indicated significant positive effect between board size, board gender diversity, CEO duality, and CSR committees. However, board independence revealed a negative relationship with CSRD. In a study conducted in Finland, Roitto (2013), analysed factors affecting CSRD of 31 listed companies for the period 2012. The empirical results indicated that most of the variables studied had no significant impact but established a significant negative association between board directors' age and CSRD. Fatma and Chouaibi (2021) examined 115 financial institutions belonging to 12 European countries from 2007 to 2017 to assess how CG influenced CSRD and found that board size, board independence, gender diversity and the CEO ownership were positively associated to CSRD, while CEO duality and ownership concentration had no significant associations with CSRD.

In other studies conducted in the South Asian region (Bangladesh, India and Pakistan), Masud *et al.* (2018) investigated a sample of 88 listed organisations' sustainability reports during 2009-2016. The findings indicated that environmental sustainability reporting disclosure had a positive association

between foreign and institutional ownership, board independence, and board size. Moreover, the result revealed negative and significant relationship between director share ownership and environmental sustainability reporting disclosure. Results also revealed no association between environmental sustainability reporting disclosure and family ownership, female directorship, and CSR and environmental committees. Another study in Asian region by Khan *et al.* (2019) examined the relationship between board diversity and the quality of CSRD using data from annual and sustainability reports across 57 listed firms in the Pakistan Stock Exchange from 2010 to 2017. Results revealed that gender and national diversities were the firms' valuable resources, potentially promoting quality of CSRD. However, age diversity was found to be negatively associated to quality of CSRD. Furthermore, education level, education background and tenure were found to be insignificant on quality of CSRD. Fahad and Rahman (2020) tested the influence of CG on the firm's CSRD of 386 companies listed in the BSE 500 index during 2007-2016. The results found that board independence, CEO duality, and sustainability committee improve CSRD. However, board age, employee CSR training and women on board were found to lessen CSRD. In one recent study, Ebaid (2022) examined a sample of 67 companies listed on the Saudi Stock Exchange from 2014-2019 to investigate the impact of CG and CSRD. The results indicated that board independence and board size were positively and significantly associated with CSRD. However, the study found that the percentage of female representation on board had positive but insignificant effect on CSRD. Finally, CG and CSRD literature provide very few studies in Kenyan context. Barako *et al.* (2006) investigated how CG attributes such as ownership structure and company characteristics influenced voluntary disclosure practices in Kenya's companies from 1992 to 2001. The results indicated that audit committee, institutional and foreign ownership significantly influenced voluntary corporate disclosure. The results also revealed negative significant relationship between proportion of non-executive directors and shareholder concentration and voluntary corporate disclosure. In contrast, board leadership structure, liquidity, profitability, and type of external audit firm did not have significant influence on the level of voluntary disclosure. Barako and Brown (2008) studied the influence of board gender and board independence on CSRD by Kenyan banks. The results indicated positive and significant impact of board independence and board gender diversity on CSRD. Other studies such as Waweru *et al.* (2019) and Injeni *et al.* (2022) looked at CG and other disclosure practices rather than CSRD. For instance, Waweru *et al.* (2019) investigated the relationship between CG structures and corporate internet reporting (CIR) by Kenyan and Tanzanian companies over the period 2011 and then 2013 through 2015. The authors found that CIR in both countries increased with foreign ownership, audit committee independence and financial expertise but decreased with domestic ownership concentration. They also found that the effects of ownership concentration are moderated by country specific factors. Injeni *et al.* (2022) on the other hand, focused on the examination

of factors influencing the level of disclosures of sustainability and integrated reporting covering the period 2010 through 2018.

**2.3.2 Board characteristics and CSRD studies in SOEs**

As social organisations, SOEs face a lot of pressure on accountability in relation to CSR (Greiling *et al.*, 2015; Garde *et al.*, 2017; Doś, 2019). Previous research works show little attention of CSRD in SOEs despite being significant stakeholders as role models to the rest of the actors (Córdoba-Pachón *et al.*, 2014; Garde-Sanchez *et al.*, 2018). Garde-Sanchez *et al.* (2018) conducted a systematic literature review on the state of empirical work of CSRD in SOEs and found that CSR in SOEs is still at an incipient stage. Moreover, the authors established that the available studies on CSR are centred on China where cultural influences like Confucianism have an effect on the relationships among companies, state and society. The scarcity of research works of CSRD in SOEs could be as a result of lack of incentives that draw researchers in conducting such studies. In non-SOE setting, several studies relate CSR involvement to the likelihood of such disclosures in influencing positive financial returns and improvement of companies' image (Garde-Sanchez *et al.*, 2019). Financial return is not a key concern for SOEs' involvement in CSR activities but a key obligation in fulfilling their social welfare to the citizen. Nevertheless, recent empirical studies have started showing interest in CSRD in SOEs and their determining factors (Garde *et al.*, 2017; Garde *et al.*, 2020; Tang *et al.*, 2020; Masoud and Vij, 2021; Voinea *et al.*, 2022). Garde *et al.* (2017) analysed the influence of internal aspects of organisations such as size, sector, government ownership and other factors related to the profile of public managers of organisations (gender, age, and education in social responsibility) to determine the extent of CSRD by Spanish SOEs. Garde *et al.* (2020) studied how gender, profile (academic or non-academic staff), size of leadership team, board size, number of board committees, and frequency of board meetings affect CSRD of top 200 universities in the Shanghai ranking. Tang *et al.* (2020) explored the configuration of CG dimension that can result in various levels of CSRD using a sample of 214 firm year listed mining SOEs in China from 2008 to 2016. Further, Masoud and Vij (2021) investigated the impact of internal aspects of organisations such as firm age, firm size, sector, and institutional ownership and other factors related to the profile of public managers of organisations (age, gender, CSR education and CSR responsibilities) on the extent of CSRD by Libyan SOEs.

**3 Hypotheses Development**

**3.1. Board gender diversity and CSRD**

The impact of board gender diversity on CSRD may be explained from theoretical lenses of agency theory (Jensen and Meckling, 1976), stakeholder theory (Freeman, 1984), and legitimacy theory.

Agency theory claims that women leadership style may foster CSRD because they are considered more sympathetic and caring than men (Pucheta-Martínez and Gallego-Álvarez, 2019). It is also argued that they are likely to attend meetings more often compared to their male counterparts (Adams and Ferreira, 2009). From a stakeholder theory standpoint, women are assumed to be sensitive to various stakeholders' demands such as social and environmental matters (Harjoto *et al.*, 2015; Pucheta-Martínez and Gallego-Álvarez, 2019).

In recent years, the inclusion of women in leadership spheres has gained significant popularity due to regulations imposed in many countries promoting gender diversity. The concept of gender diversity came to the limelight in Kenya with the promulgation of the Kenyan 2010 Constitution. This was further cemented by the adoption of MCCG in 2015 for public sector entities which recommends that not more than two-thirds of both appointed and elective positions in the public service should be dominated by members of the same gender (Government of Kenya (GOK), 2015).

However, previous studies provide mixed results. In SOEs, Garde *et al.* (2017) documented a positive but insignificant relationship between the gender diversity of public managers and CSRD of Spanish SOEs. Similarly, Masoud and Vij (2021)'s study showed positive but statistically insignificant correlation between Libyan female SOE managers and the level of CSRD. On the contrary, Garde *et al.* (2020) observed negative but insignificant relationship between the gender of universities rectors and specific CSRD of top 200 Universities in Shanghai ranking. In the context of non-SOEs, positive and significant relationships have been established in prior studies (Barako and Brown, 2008; Ibrahim and Hanefah, 2016; Orazalin, 2019; Pucheta-Martínez and Gallego-Álvarez, 2019; Ullah *et al.*, 2019). Other studies provide negative significant relationships (Cucari *et al.*, 2018; Fahad and Rahman, 2020). Based on the propositions of agency, stakeholder and legitimacy theories, and the empirical evidence of positive relationship, our first hypothesis was as follows:

*H<sub>1</sub>: There is a positive relationship between board gender diversity and the level of CSRD of SOEs in Kenya.*

### **3.2 Age of the board chair and CSRD and CSRD**

The age of the holder of the position of chairperson is an important consideration in enhancing CSRD. From a legitimacy standpoint, Garde *et al.* (2017) argued that seniority in terms of age in public service earns respect due to the greater insight into performance improvement. There has been growing disquiet in Kenya's political class, who are adamant in appointing individuals with advanced age to head SOEs under the pretext of maturity in handling public affairs. However, Katmon *et al.* (2019) and Fahad and



Rahman (2020) **posited** that board members with advanced age may not welcome new ideas from relatively younger members who are energetic and risk takers since older directors are usually cautious and reluctant to take more risk in matters like CSRD.

Empirically, there is dearth of literature on the impact of board chair age on CSRD. However, drawing inferences from other related studies where the focus have been on directors age, Garde *et al.* (2017) and Masoud and Vij (2021) **showed** negative but statistically insignificant correlation between SOE managers' age and the level of CSRD. Similarly, in non-SOEs, Hafsi and Turgut (2013) **studied** the relationship between directors' age and CSRD using sample of 95 firms listed in S&P 500 index in the year 2005 and discovered a negative significant relationship between directors' age and CSRD. Moreover, Roitto (2013) **studied** the relationship between directors' age and CSRD of 31 Finnish listed companies for the period 2012 and established a significant negative association between board directors' age and CSRD. While the emphasis have been placed on directors' age and CSRD, it is ideal to examine the impact of chairpersons' age on CSRD since chairpersons of SOEs provide the overall direction of the organisation. On the assumption of legitimacy theory and empirical evidence of the positive impact of directors' age, the following hypothesis was recommended:

*H<sub>2</sub>: There is a positive relationship between age of the board chair and the extent of CSRD of SOEs in Kenya.*

**3.3 Board sub-committees and CSRD**

Board sub-committees' function on CSRD can be explained from agency theory perspective. Power and responsibilities are decentralised by establishing independent board committees thus enhancing efficiency and effectiveness in addressing CSR activities by reducing agency conflicts (Masud *et al.* 2018). Board sub- committees brings different expertise to decision making (Berezinets *et al.* 2017; Jiraporn *et al.* 2019). Moreover, most of the functions carried out by the board are first tackled by various committees before presenting them to the board for execution (Laux and Laux, 2009). Garde *et al.* (2020) **argued** that the greater the number of committees, the greater the concern for CSRD. In light of this, MCCG provides for a maximum of four committees of the board (GOK, 2015). This implies that each SOE is at liberty to form any committee provided that the total number of such committees **do not** exceed four but which must include an audit committee.

Out of the few studies that have examined the impact of board sub-committees on CSRD in SOEs in general, Garde *et al.* (2020) **found** no significant relationship between the number of universities



governance committees and the extent of CSRD. Mahmood *et al.* (2018), Pucheta-Martínez and Gallego- Alvarez (2019), Ashfaq and Rui (2019) and Fahad and Rahman (2020) **observed** positive and significant relation between board sub-committees and CSRD in non-SOEs setting. On the contrary, Masud *et al.* (2018) reported a positive but insignificant link between environmental committee and CSRD. Therefore, based on the preceding arguments and agency theory perspective, we **hypothesized** that:

*H<sub>3</sub>: There is a positive relationship between the number of board sub-committees and the extent of CSRD of SOEs in Kenya.*

### **3.4 Board meetings and CSRD**

The influence of board meetings on CSRD may be explained from agency theory perspective (Jensen and Meckling, 1976) because more meetings reduce information asymmetry among the management thus motivating ethical disclosures (Khairredine *et al.* 2020). This assertion was also **echoed** by Fahad and Rahman (2020) who **argued** that problem solving ability of the board is determined by the frequency of board meetings. Nonetheless, Thompson *et al.* (2018) **claimed** that board meetings in the public sector are costly, lengthy, and unproductive. MCCG require SOEs to have at least four meetings per calendar year (GOK, 2015), but does not provide the limit of the maximum number of such meetings. Thus, SOE directors can hold many meetings as they deem fit.

While some studies, such as Hussain *et al.* (2018), Katmon *et al.* (2019), and Khairredine *et al.* (2020) have found a positive significant relationship between the frequency of board meetings and corporate CSRD, other studies, such as Lagasio and Cucari (2019), Khan *et al.* (2019), Garde *et al.* (2020), have found a negative but insignificant relationship between the two variables. However, Ofoegbu *et al.* (2018), Fahad and Rahman (2020) have reported a positive but insignificant relationship, while Ștefănescu (2013) has established a negative significant association between the two variables. We believe that frequency of meetings is a sign of transparency which can be an indicator of disclosure of information including those related to CSR. We thus proposed the following hypothesis:

*H<sub>4</sub>: There is a positive relationship between the frequency of board meetings and the extent of CSRD of SOEs in Kenya.*

### **3.5 Board skill and CSRD**

Previous studies indicate that a director with a right skill is a strategic resource to the organisation (Katmon *et al.*, 2019) because of capability required in discharging board functions which may improve

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entity’s CSRD. Lack of knowledge and awareness on issues related to social responsibility can result in poor CSRD (Belal, 2001). According to legitimacy theory, organisations can demonstrate their commitment to social values by appointing directors with PhD qualifications. This is because PhD holders are regarded as tower of knowledge whose skills are needed in addressing social challenges such as CSR. The importance of education is emphasised in the MCCG which recommends that board appointment should consider the mix of skills and competency required for the achievement of the organisation’s long term goals (GOK, 2015). However, previous studies that examined the impact of board skill on CSRD such as Garde *et al.* (2017), Masoud and Vij (2021) found positive but insignificant relationship between the level of education and CSRD. Garde *et al.* (2017) and Masoud and Vij (2021) applied a narrow measure of education focusing on CSR education. In other studies, Harjoto *et al.* (2015) and Katmon *et al.* (2019) found positive relationship between the level of education diversity and CSRD while Khan *et al.* (2019) established positive but insignificant relationship between education level and CSRD. We argue that SOEs may legitimise their actions by appointing board members with adequate skills. Thus, PhD qualification being the highest level of academic achievement, is likely to promote innovation that surpasses a limited view based only on CSR education. Therefore, the following hypothesis was constructed:

H<sub>5</sub>: *There is a positive relationship between board skill and the extent of CSRD of SOEs in Kenya.*

**3.6 Board size and CSRD**

Board of directors perform several functions including approval of CSR strategies. To achieve this goal, it is necessary to define the appropriate size of the board of directors. The agency theory presents divergent views on the impact of board size on CSRD. On the one hand, it posits that larger board improves monitoring capacity, networking and expertise which may result into a better disclosure (Darko *et al.* 2016; Berezinets *et al.* 2017), but on the other hand, larger boards may be regarded as slowing the decision making process (Kaymak and Bektas, 2017). Viewed from stakeholder theory, larger boards are likely to represent wider stakeholders, therefore aligning entity’s activities to the needs of its stakeholders (Kaymak and Bektas, 2017). Regarding SOEs in Kenya, MCCG recommends the number of boards to be between seven to nine (GOK, 2015). While Garde *et al.* (2020) found a negative but insignificant relationship between board size and CSRD, their study was based only in universities which is just one sector of SOEs. Besides, the sample population of the universities were drawn from different countries with different levels of corporate governance maturities.

In other studies drawn from non-SOEs, Masud et al. (2018) and Pucheta-Martínez and Gallego- Álvarez (2019) reported positive significant relationship between board size and CSRD. In contrast, Khairiddine et al. (2020) found positive but insignificant relationship between board size and CSRD. Also, Khan et al. (2019) revealed negative significant relationship between board size and CSRD. Thus, it was hypothesized that:

*H<sub>6</sub>: There is a significant relationship between board size and the extent of CSRD of SOEs in Kenya.*

### **3.7 Board independence**

Board independence is a significant governance mechanism that ensure effectiveness of the board. The influence of board independence on CSRD may be deliberated from the lenses of agency, stakeholder, and legitimacy theories. From the agency viewpoint, a higher proportion of independent directors may be expected to easily scrutinize the entity's operations and put its management on guard because the power and command of the board depends on its composition (Fahad and Rahman, 2020). On the other hand, stakeholder theory posits that independent directors are best placed to represent the wider interests of the organisation (Kaymak and Bektas, 2017). Firms that have independent boards are more representative of multiple stakeholders, which motivates them to engage in CSR initiatives (Hussain et al., 2018). Observed from legitimacy theorists perspective, independent directors may encourage transparency and disclosures including those related to CSR (Garas and ElMassah, 2018). MCCG recommends that at least one third of the board members should be independent at the time of appointment (GOK, 2015).

Kaymak and Bektas (2017), Ashfaq and Rui (2019), and Khairiddine et al. (2020) established a positive and significant relationship between board independence and CSRD. Conversely, Pucheta-Martínez and Gallego-Álvarez (2019) reported a negative significant relationship between board independence and CSRD. The following hypothesis was projected:

*H<sub>7</sub>: There is a positive relationship between board independence and the level of CSRD of SOEs in Kenya.*

## **4 Research Methodology**

This study relied on secondary data from audited annual reports for the four-year period from 2015 to 2018. This period was used because the Kenyan MCCG became operational in 2015. The end of the sample period was 2018 because data was only available for this period at the time of this study. There

is generally a weakness in Kenya’s public sector on the timeliness of release of audited annual reports (Abang’a *et al.*, 2022).

The population for the study were all 169 registered unlisted non-commercial SOEs in Kenya according to the audited annual reports available at <http://www.oagkenya.go.ke/> as of 30 April 2020. In the preparation for data collection, research licence was obtained from the Kenyan Ministry of Education, licence No: NACOSTI/P/20/4745. The sampled entities were divided among five sectors (Table I): public universities, training and research, service corporations, regulatory bodies, and manufacturing. The targeted group of SOEs were found suitable for this study because of their strategic importance in social service delivery that make them likely to adopt CSR practices in conformity to the recommendation of MCCG. The final sample was arrived at after exclusion of 124 SOEs due to lack of continuous data across the sample period from 2015 to 2018. This meant that our final sample consisted of 45 SOEs.

[ INSERT TABLE I ABOUT HERE]

There are three basic types of models available in modelling panel data regression, namely pooled, fixed effects (FE) and random effects (RE). To choose either pooled model or the option of FE or RE models, Breusch and Pagan (1980) Lagrange Multiplier (LM) test was performed and test results indicated that pooled regression model was not appropriate for the analysis since the LM test showed a significant p-values ( $p=0.000$ ). Thus, the null hypothesis was rejected, implying that RE model was appropriate. To select between RE and FE model, Hausman specification test was conducted. RE assumes that entity-specific effects are not correlated with other explanatory variables. Therefore, Hausman test evaluates whether this assumption is satisfied. The result of the Hausman test indicated that RE was more appropriate than FE model ( $p=0.429$ ). The regression analysis was modelled using EVIEWS 12 to examine the relationship between board characteristics, control variables and CSRD of SOEs in Kenya. The estimated empirical model is as follows:

$$CSRD_{it} = \beta_0 + \beta_1 GDIV_{i,t-1} + \beta_2 CHAge_{i,t-1} + \beta_3 BDC_{i,t-1} + \beta_4 BM_{i,t-1} + \beta_5 BSKILL_{i,t-1} + \beta_6 BDSIZE_{i,t-1} + \beta_7 NEDs_{i,t-1} + \beta_8 AGE_{i,t-1} + \beta_9 FMSIZE_{i,t-1} + \beta_{10} ROA_{i,t-1} + \beta_{11} LEV_{i,t-1} + \epsilon_{i,t-1}$$

All the variables are defined in table II.

This study used CSRD index as a dependent variable to quantify CSRD in the annual reports. The extant literature show that the application of CSR activities vary by industry, thus, Yu *et al.* (2017) suggest that it is necessary to determine whether certain CSR activity dimensions apply to the entity before it

can be used. As a result, a total of 16 disclosure items were identified and included in this checklist that contains four dimensions of CSRD, namely, Ethics (four items), Health and safety initiative (four items), Environment (three items) and social investment (five items) (Appendix II). This particular checklist was deemed suitable since it considered elements of prime importance to the Kenyan government. For instance, Public Officer Ethics Act (2003) provides guidance on ethical values for public officers and board of directors of public institutions. Besides, chapter four of the Kenyan Constitution discusses more broadly on the bill of rights as pertains to labour relations, health and safety, and social investment which are all recommended by Organisation for Economic Co-operation and Development (OECD) (2015), for which Kenya is a signatory. Chapter five, part two under section 69 to 72 provides for obligations in respect to the environment. Moreover, chapter six of the Kenyan Constitution prescribes the leadership and integrity of state officers.

The methodology used in scoring CSRD index follows Ntim and Soobaroyen (2013) as indicated below appendix II. The scores were done both by the researchers and two independent raters. Total disclosures under each theme were summed independently. The results were then discussed and harmonized into a single figure. Finally, the aggregated ratio was expressed as a percentage that was used for analysis.

We controlled the model for enterprise-specific characteristics such as SOE age, SOE size and leverage consistent with previous studies (Garde *et al.*, 2017; Argento *et al.*, 2019; Fatma and Chouaibi, 2021). Firm age was treated as a control variable because some of the SOEs that have existed for a longer period might have developed innovative techniques and might have initiated income generating activities and initiatives that boost their CSR budget needs (Masoud and Vij 2021). Besides, greater scrutiny by stakeholders are felt more in entities that have been in existence for a period of time relative to the new ones (Garde *et al.* 2017). From legitimacy theory perspective, it is projected that SOE age positively influence CSRD. SOE size is also considered as a control variable because SOEs with larger resources can afford to engage in more CSR activities than entities with fewer resources. The visibility of such entities also make them prone to public scrutiny (Coffie *et al.*, 2018; Argento *et al.*, 2019). Positive association was therefore foreseen between SOE size and CSRD. Enterprises with high debts in relation to their assets might hinder the achievement of CSRD because debt must be paid first out of the available resources (Nwude and Nwude, 2021). A negative relationship between leverage and CSRD was therefore expected. The type of sector is normally considered as a control variable because sectors which are highly sensitive tend to have more CSRD. In line with prior studies (Peng *et al.*, 2021; Masoud and Vij, 2021), the current study considered industries which are highly sensitive as those operating in manufacturing industry. However, the present study had only four companies out of the 45 which translated to 12 observations, hence little variability which was not enough to draw statistical

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inferences and therefore, was not considered as a control variable. Profitability had also been considered as a control variable because profitable firms have the ability to engage in social responsibilities and when they are less profitable, they focus more on improving their profitability than CSRD (Voinea *et al.*,2022).

To test the seven hypotheses, various dignostic tests were first performed. Data was checked for consistency with assumptions of classical linear regression model of linearity, heteroscedasticity, serial autocorrelation, multi-collinearity and normality. For brevity, we only comment on the results of the diagnostic tests. The results indicated violation of homoscedasticity and serial autocorrelation. To address the problem, following recommendation of Brooks (2014) and consistent with prior studies (Harjoto *et al.*, 2015; Flatt and Jacobs, 2019), we lagged independent variables by one period as well as using robust standard error.

[INSERT TABLE II ABOUT HERE]

5 Results

5.1 Descriptive statistics and correlation matrix

Table III presents statistical summary of sample data of both dependent and independent variables used in this study. The mean CSRD score is 8.450 ( Max=29.690 and Median = 7.810). The mean value of 8.450 per cent means that CSRD is still extremely low. Board gender diversity (Blau index of board gender diversity) has low mean of 0.386 (Max=0.500 and Median = 0.408). The results suggest that the level of board gender diversity is incredibly low in Kenyan SOEs. This is surprising since Kenya has for a long time advocated for one third gender rule on both elected and appointed leaders which is anchored in the 2010 Constitution. The mean CHAge is 57. 267 (Max = 78 and Median is 57.500), mean BDC is 4.022 (Max =13 and Median = 4). The mean BM is 6.639 (Max= 47 and median = 4). This finding shows that majority of SOEs comply with the requirement of MCCG that stipulates that SOEs should hold a minimum of four meetings per calendar year. The mean BSKILL is 24.056 per cent (Max = 100 and Median = 12.500), mean BDSIZE is 11.139 (Max= 40 and Median = 10), mean NEDs is 0.889 (Max = 1 and Median = 1).

Regarding control variables, SOE age ranged from a minimum of 1 year and a maximum of 60 years, with average age being 16.750 years which is similar to the minimum and average age reported by Zahid *et al.*(2020). SOE size has mean value of 7.268 (Max=12.932 and Median =7.542). ROA has a wider range and greater variability over the years. The findings show that the SOE with highest ROA



had 71.209 and the lowest value of -321.355 with mean and standard deviation of -1.124 and 46.894, respectively. Majority of SOEs are unlevered with a mean of 2.051 over the four years.

CSR index is negatively associated with GDIV, CHAge, BDC, BM, BDSIZE, and NEDs but positively correlated with BSKILL. Overall, the correlation among all the variables suggest that there is no problem of multicollinearity since the coefficient values are below the threshold. Gujarati and Porter (2004) and Brooks (2014) suggest that multicollinearity is a problem when the correlation coefficient exceeds 0.8. All the correlations in this study are below 0.8 (Table V). We also analyse the variance inflation factor (VIFs) (Gujarati and Porter, 2004) for each variable. All the VIF are less than 5 (Table VI), the highest VIF is 1.920 confirming that multicollinearity is not a problem.

[INSERT TABLE III ABOUT HERE]

## 5.2 CSR reporting based on the four themes as per Kenya's SOEs classification (2015-2018)

Table IV presents CSR reporting patterns of SOEs on four CSR themes: Ethics, health and safety, environment, and social investment as a percentage of the total. On average, all categories of SOEs seems to prioritize social investment disclosure. Adherence to social investment is a noteworthy finding, especially since some scholars, for instance, Ervits (2021) found a similar trend of social CSR among Chinese SOEs. The second priority is environmental disclosure, followed by health and safety and finally, ethics. This outcome suggests that SOEs in Kenya have different sets of priorities in addressing social problem.

[INSERT TABLE IV ABOUT HERE]

[INSERT TABLE V ABOUT HERE]

## 5.3 Regression results

Table VI shows the results of panel regression model, which is based on GDIV, CHAge, BDC, BSKILL, BM, BSIZE, NEDs, and control variables (AGE, FMSIZE, ROA and LEV). The  $R^2$  adjusted is 75 per cent and the model is significant ( $F = 8.291$ ,  $p = 0.000$ ). The results indicate that coefficient of GDIV is negative and significant at 10 per cent ( $\beta = -6.422$ ,  $p = 0.071$ ). This means that  $H_1$  is rejected. Secondly, the coefficient of CHAge is negative and significant at 5 per cent ( $\beta = -0.109$ ,  $p = 0.029$ ). In this regard,  $H_2$  is rejected. Thirdly, the coefficient of BDC is negative and significant at 1 per cent ( $\beta = -0.774$ ,  $p = 0.007$ ), therefore,  $H_3$  is rejected. Furthermore, the coefficient of BSKILL is positive but insignificant ( $\beta$

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= 0.035,  $\rho = 0.245$ ), hence,  $H_4$  is rejected. Furthermore, the coefficient of BM is negative but insignificant ( $\beta = -0.032, \rho = 0.571$ ). This suggests that  $H_5$  is rejected. Finally, the coefficient of BDSIZE and NEDs are positive but insignificant ( $\beta = 0.009, \rho = 0.954$ ;  $\beta = 1.213, \rho = 0.633$ ) respectively, therefore  $H_6$  and  $H_7$  are rejected. Among the control variables, only AGE is significant ( $\beta = 0.716, \rho = 0.034$ ) while FMSIZE, ROA, and LEV are all insignificantly related with CSRD ( $\beta = 0.127, \rho = 0.755$ ;  $\beta = -2.74E-080, \rho = 0.828$ ;  $\beta = -0.303, \rho = 0.272$ ).

[INSERT TABLE VI ABOUT HERE]

5.4 Robustness analyses

Two additional analyses were performed to confirm the robustness of our baseline results. First, to check if our results were consistent across different regression estimation techniques, we conducted robust least square and RE regressions. The reported results of both regression estimators in Table VII were not significantly different from the key findings which used FE regression. Also, the estimated coefficients of control variables remained consistent with the main results except for SOE age which turned out to be negative and significantly related. Finally, consistent with prior studies (Jordaan *et al.*, 2018; Buerter *et al.*, 2020), we examined whether there was any variation in the relationship between board characteristics and the Individual CSRD subcomponents. Table VIII show that results largely remained the same across all the subcomponents. We, therefore, concluded that our results are robust across alternative regression estimators (FE and robust least square) and to various CSRD subcomponents.

[INSERT TABLE VII ABOUT HERE]

[INSERT TABLE VIII ABOUT HERE]

5.5 Endogeneity concern

The concern for endogeneity was addressed by employing panel FE method despite Hausman test suggesting RE consistent with earlier studies (Ntim *et al.*, 2012; Ali *et al.*, 2018; Tingbani *et al.*, 2020). The application of 2SLS and GMM in addressing endogeneity require regressor endogeneity test to be performed to establish the presence of endogeneity in explanatory variables (Also known as Durbin-Wu-Hausman Test). This is because the application of these two approaches in the presence of exogenous variables produces biased parameter estimates (Locke and Duppati, 2014; Harjoto *et al.*, 2015; Ntim *et al.*, 2017; Guney *et al.*, 2020). Since the tests results suggested that explanatory variables are exogenous, these two approaches were not used to deal with endogeneity.

## 6. Discussion of results

Most of the previous literature on CSRD focused heavily on non-SOEs. In response to lack of understanding of CSR in SOEs, researchers have begun to pay close attention to CSR in SOEs. Despite this growing attention, studies linking board characteristics and CSRD in SOEs have been under-investigated. In our study, we examined the impact of board characteristics on CSRD of SOEs in Kenya.

Board gender diversity was **found** to have a negative significant effect on CSRD. This result aligns with previous studies' findings in non-SOE sector (Cucari *et al.*, 2018; Fahad and Rahman, 2020) but contradict prior studies in SOEs that established positive but insignificant relationship (Garde *et al.*, 2017; Masoud and Vij, 2021) and those that found negative but insignificant link (Garde *et al.*, 2020). The result **might** suggest that female members of the board do not put enough pressure on CSRD which could be due to their underrepresentation in board membership (Blau index of board gender diversity **had** a mean of 0.39). Therefore, agency, stakeholder and legitimacy theories' proposition on the impact of board gender diversity on CSRD are not confirmed.

The result which indicates negative significant coefficient of board chair age on CSRD is in line with those reported by Roitto (2013), Hafsi and Turgut (2013), and Katmon *et al.* (2019) in non-SOEs. The result is however contrary to the negative but insignificant relationship reported by Garde *et al.* (2017) and Masoud and Vij (2021) in SOEs. The result supports the assertion that older chairpersons are usually cautious and reluctant to take more risk in CSRD (Katmon *et al.* 2019; Fahad and Rahman, 2020). Result contradict legitimacy theory's argument on the impact of board chairpersons' age on CSRD.

The reported negative and significant relationship between board sub-committees and CSRD is not in line with prior studies that reported insignificant relationship between the number of universities governance committees and the extent of CSRD (Garde *et al.*, 2020). The result also contradict Mahmood *et al.* (2018), Pucheta-Martínez and Gallego-Alvarez (2019), Ashfaq and Rui (2019) and Fahad and Rahman (2020) who observed positive and significant relation between board sub-committees and CSRD. Probable explanation for this result could be that board sub-committees are less powerful to institute meaningful impact on CSRD. This is because their work is more of advisory to the board who decide on whether to implement recommended policies. The result suggest that agency theory argument on the role of board sub-committees on CSRD in SOEs in Kenya is not substantiated.

The study also found that there is a weak and insignificant negative relationship between the frequency of board meetings and CSRD which is consistent with the results obtained by Lagasio and Cucari (2019), Khan *et al.* (2019), and Garde *et al.* (2020). The result is however in contrast with prior studies such as Hussain *et al.* (2018) and Khairiddine *et al.* (2020) who revealed positive significant relationship between the frequency of board meetings and CSRD, although these authors do not focus on SOEs. The result suggest that as more meetings are held, CSRD decreases. It implies that board members may be engaging in other unproductive discussions as opposed to CSR activities. Therefore, proposition of agency theory regarding the impact of frequency of board meetings on CSRD is not supported.

Further, board skill and CSRD showed insignificant association, which means that the number of board members with PhD qualification is not important in determining CSRD. Our finding supports Garde *et al.* (2017), Khan *et al.* (2019), and Masoud and Vij (2021), who also found similar result. However, the result is not in tandem with other prior studies, such as Harjoto *et al.* (2015) and Katmon *et al.* (2019) who found positive relationship between the level of education diversity and CSRD. Based on this result, legitimacy theory postulation on the role of board skill on CSRD is not validated.

In addition, board size was found to have an insignificant positive effect on CSRD, which meant that size of the board of directors is not a determining variable of CSRD. The finding is consistent with Khairiddine *et al.* (2020) but disagreed with the result of Garde *et al.* (2020), who established negative but insignificant connection as well as the result reported by Khan *et al.* (2019) who revealed negative significant relationship between board size and CSRD. The finding is not a surprise given that board appointment of SOEs in Kenya is based on political affiliations other than on merit. The finding failed to establish the proposition of agency and stakeholder theories in SOEs in Kenyan context, that a larger board improves monitoring capacity and likely to represent a wider stakeholder group capable of aligning entities's activities to the needs of its stakeholders.

Finally, board independence showed insignificant positive association with CSRD of SOEs. The result is not in line with the findings of Kaymak and Bektas (2017), Ashfaq and Rui (2019), and Khairiddine *et al.* (2020) who established positive and significant relationship between board independence and CSRD as well as Pucheta-Martínez and Gallego-Álvarez (2019) who reported negative significant relationship between the two variables. The result could mean that board of directors are not truly independent, and their positions tend to be more of symbolic than substantive, hence their presence only negates CSRD. The result do not support the argument advanced by agency theory, stakeholder theory and legitimacy theory on the role of board independence on CSRD.

Regarding the control variables, AGE presented statistical significance in its positive relation with CSR, contradicting Garde *et al.* (2017) and Voinea *et al.* (2022), who observed an inverse relationship between SOE AGE and CSR. This result signifies that older SOEs can engage in more CSR, probably due to accumulated experience over the years. Moreover, we found that FMSIZE, ROA and LEV generally exhibited insignificant impact on CSR.

## 7. Summary and conclusion

This research examined the link between board characteristics and CSR of SOEs in Kenya. Using a balanced panel of 135 firm-year observations over 2015-2018 periods, the findings showed that board gender diversity, board chair age and board sub-committees have significant negative association with CSR. However, the frequency of board meetings, board skill, board size, and board independence do not appear to improve CSR. Our results confirm that SOEs' board characteristics in Kenya do not positively impact CSR.

The study fills the void in the literature in three main areas. First, the study adds to the limited empirical evidence on the relationship between board characteristics and SOEs in developing countries generally and specifically in the Kenyan context. Second, we contribute to the dearth of literature on corporate governance and CSR in public sector in general and specifically in unlisted and non-commercial SOEs context. We demonstrate that various board characteristics that have been investigated by prior studies in non-SOEs and listed SOEs do not explain the relationship between board characteristics and CSR in unlisted and non-commercial SOEs in Kenya. Finally, by employing a relatively broader number of board characteristics variables, this study improves on the limited number of CG variables that have characterised prior studies such as Garde *et al.* (2017) and Masoud and Vij (2021) who considered only three CG variables.

Our evidence provides useful insights to policy makers in setting corporate governance reforms of SOEs in Kenya. We would like to suggest to policy makers that due to lack of positive impact of various board characteristics on CSR, the "comply or explain" approach to CG code implementation is not working and therefore, a need for a more stricter enforcement mechanism. The low level of reported CSR, especially on ethics subcomponent suggests that SOEs have to do more to improve on their CSR practices. This is particularly worse for public universities that are usually regarded as the centre and disseminator of knowledge. Possible solution to deal with the challenge of low CSR could be the establishment of CSR committee in each of the SOEs to help in developing CSR policies. The evidence suggests that SOEs are reluctant to report on issues such as ethics, health and safety initiatives, environment and social investments. Coffie *et al.* (2018) argued that by establishing CSR committee or

its equivalent is a demonstration of the seriousness of the enterprise on CSR issues. Finally, MCG guideline setters should prescribe the contents of CSRD requirements that SOEs should report. Lack of clear guidelines on the disclosure practices promotes inconsistencies in reporting.

Our results have some limitations that should be acknowledged, and which can be addressed by future work. First, the study **focused** on information that **was** included in the SOEs' audited annual reports. This meant that information that may not necessarily translate to disclosures in annual reports, but which may have been disclosed in other media like websites **was** not considered. Finally, we argue that the relationship between board characteristics and CSRD may not certainly be direct. There is a possibility of a moderator or a mediating variable in such relationships.

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1  
2  
3 **Appendix I: CSRD items**  
4

5  
6 **Ethics**  
7

8 ETHICS1: Policies and practices in relation to corruption

9  
10 ETHICS2: Equal opportunities policy

11  
12 ETHICS3: Code of ethics ( adoption, implementation, and or enforcement).

13  
14 ETHICS4: Policies and practices relating to the treat of labour, union, and human rights.

15 **Health and safety initiative**  
16

17 HESA1: Health program for employees related disclosure.

18  
19 HESA2: Safety in workplace disclosure

20  
21 HESA3: HIV-AIDS program

22  
23 HESA4: Health and safety training

24 **Environment**  
25

26 ENVI1: Overall SOE policy recognizing environmental issues, standards, and achievement.

27  
28 ENVI2: Detailed environmental themes (e.g, materials, water, and energy) related actions and  
29 impacts.

30  
31 ENVI3: Other activities relating to conservation, aesthetics, and sustainability, among others.

32 **Social investment**  
33

34 SOIN1: Disclosure of information on education.

35  
36 SOIN2: Other community support and poverty alleviation

37  
38 SOIN3: Training and development policy

39  
40 SOIN4: Forced labour policy including child labour force.

41  
42 SOIN5: Internship opportunities for students.  
43

44  
45 **Scoring procedure:**

46 0: No disclosure

47  
48 1: General or rhetorical (including instances of ritualistic and repeated) statements: deemed to be purely  
49 symbolic with no evidence of actual actions on the ground

50  
51 2: Narrative explanation of what has been done or implemented: deemed to be a message of  
52 commitment (beyond symbolic)

53  
54 3: Information provided in (2) above supported by quantitative / monetary data: deemed to be  
55 substantive by providing evidence of the scale of activities or actions  
56  
57  
58  
59  
60

4: Information provided in (3) above supported by explicit assessments of performance (relative to last period) or events (even if they are “bad” news “and which allows comparison between companies using external reporting models, benchmarks/ assurance: deemed to be comprehensive.

**Table I: Sample SOEs classification**

No	Industry type	Total sample	Sample (%)
1.	Public universities	2	4
2.	Training and Research	8	18
3.	Service corporation	23	51
4	Regulatory	8	18
5	Manufacturing	4	9
Total		45	100

**Table II: Operationalization of study variables**

Variables	Acronym	Measurement	Supporting literature
<b>Dependent</b>			
CSR	CSR	CSR score to the maximum possible score expressed as a percentage (Appendix I).	Ntim and Soobaroyen (2013).
<b>Independent</b>			
Gender diversity	GDIV	Blau index of gender diversity <sup>1</sup>	Tarigan <i>et al.</i> (2018), Harjoto <i>et al.</i> (2019).
Board chair age	CHAge	Age of the chairperson	Cheng <i>et al.</i> (2010).
Board sub-committee	BDC	Number of board committees	Jiraporn <i>et al.</i> (2019), Garde et al. (2020).

<sup>1</sup> The Blau index is measured as  $1 - \sum_{i=1}^n P_i^2$ , where  $P_i$  is the percentage of board members in each category and represents the number of categories used and  $n$  is the total number of board members. The values of the Blau index for gender diversity range from 0 to a maximum of 0.5, which occurs when board members comprise an equal member of men and women.

Board meetings	BM	No. of meetings in a year	Ofoegbu <i>et al.</i> (2018), Fahad and Rahman (2020), Khairiddine <i>et al.</i> (2020).
Board skill	BSKILL	Ratio of board members with PhD qualification	Assenga <i>et al.</i> (2018), Aldhamari <i>et al.</i> (2020).
Board size	BSIZE	Total number of board members	Ofoegbu <i>et al.</i> (2018), Khairiddine <i>et al.</i> (2020).
Board independence	NEDs	I if at least one half of board members are independent members, 0 otherwise	Ntim (2013), Nerantzidis (2016).
Age of SOE	AGE	Number of years since incorporation	Fahad and Rahman (2020).
Size of SOE	FMSIZE	The natural log of total assets	Muttakin <i>et al.</i> (2015), Ofoegbu <i>et al.</i> (2018), Fahad and Rahman (2020).
ROA			
Leverage	LEV	Natural log of total liabilities divided by total assets	Muttakin <i>et al.</i> (2015), Yu <i>et al.</i> (2017).

**Table III: Descriptive statistics of dependent and independent variables between 2015-2018**

Variables	Obs	Mean	Median	Max	Min	Std. Dev.
CSR	180	8.446	7.813	29.688	0.000	5.883
GDIV	180	0.386	0.408	0.500	0.000	0.110
CHAge	180	57.267	57.500	78.000	31.000	8.843
BDC	180	4.022	4.000	13.000	0.000	1.867
BM	180	6.639	4.000	47.000	0.000	6.522
BSKILL	180	24.056	12.500	100.000	0.000	26.786
BDSIZE	180	11.139	10.000	40.000	1.000	5.201
NEDs	180	0.889	1.000	1.000	0.000	0.315
AGE	180	16.750	10.000	60.000	1.000	15.294
FMSIZE	180	7.268	7.542	12.932	2.474	2.287
ROA	180	-1.124	2.250	71.209	-321.355	46.894
LEV	180	2.051	1.696	10.645	-1.614	1.840



**Table IV: CSRD based on the four themes as per Kenya's SOEs classification (2015-2018)**

SOE Classification	CSRD theme categories %			
	Ethics	Health and safety	Environment	Social investment
Public Universities	2.860	17.140	34.290	45.710
Training and Research	14.800	25.440	31.360	28.400
Service corporation	15.670	26.200	23.410	34.720
Regulatory	13.770	21.000	23.200	42.030
Manufacturing	17.760	27.100	24.300	30.840

Source: Own authorship based on the analysis of 45 audited annual reports of SOEs between 2015-2018

Table V: Spearman correlation coefficients matrix for state-owned enterprises in Kenya

Correlation Probability	1	2	3	4	5	6	7	8	9	10	11	12
1. CSRD	1											
2. GDIV	-0.143*	1										
	0.098											
3. CHAge	-0.017	0.028	1									
	0.847	0.752										
4. BDC	-0.134	0.083	-0.089	1								
	0.122	0.341	0.307									
5. BM	-0.246***	-0.014	0.013	0.204**	1							
	0.004	0.872	0.881	0.018								
6. BDSKILL	0.197**	0.100	0.066	0.250***	-0.253***	1						
	0.022	0.249	0.449	0.003	0.003							
7. BDSIZE	-0.171**	-0.027	0.013	0.145*	0.119	-0.187**	1					
	0.047	0.754	0.886	0.092	0.169	0.030						
8. NEDs	-0.107	0.219**	0.219**	0.132	0.140	-0.199**	-0.004	1				
	0.216	0.011	0.011	0.127	0.105	0.020	0.958					
9. AGE	-0.096	-0.263***	-0.017	-0.152*	0.207**	-0.126	0.239***	-0.136	1			
	0.269	0.002	0.843	0.079	0.016	0.145	0.005	0.117				
10. FMSIZE	0.191**	-0.157*	0.283***	-0.070	0.114	0.063	-0.170	-0.080	0.197	1		
	0.027	0.068	0.001	0.420	0.188	0.471	0.049	0.357	0.022			
11. ROA	-0.138	-0.089	0.065	-0.033	0.251***	-0.168	0.071	0.173**	0.021	0.027	1	
	0.111	0.303	0.453	0.705	0.003	0.052	0.414	0.044	0.814	0.754		
12. LEV	-0.152*	-0.024	0.080	-0.135	0.098	-0.004	-0.270	-0.101	-0.038	0.393***	0.274***	1
	0.078	0.779	0.354	0.120	0.258	0.966	0.002	0.243	0.661	0.000	0.001	

Notes: \* Significant at the 10% level (2-tailed), \*\* significant at the 5% level (2-tailed), \*\*\* significant at the 1% level (2-tailed).

**Table VI: Fixed effects regression results of the relationship between board characteristics and CSR**

Variable	Coefficient (t-statistics)	VIF
Constant	6.772 (0.917)	N/A
<b>Independent</b>		
GDIV (-1)	-6.422** (-1.829)	1.490
CHAge (-1)	-0.109** (-2.232)	1.133
BDC (-1)	-0.774*** (-2.695)	1.913
BM (-1)	-0.032 (-0.569)	1.755
BDSKILL (-1)	0.035 (1.171)	1.618
BDSIZE (-1)	0.009 (0.058)	1.208
NEDs (-1)	1.213 (0.480)	1.920
<b>Control</b>		
AGE (-1)	0.716** (2.157)	1.242
FMSIZE (-1)	0.127 (0.314)	1.475
ROA (-1)	-2.74E (-0.218)	1.260
LEV (-1)	-0.303 (-1.107)	1.353
R <sup>2</sup>	0.850	
Adjusted R <sup>2</sup>	0.800	
F-statistics	8.291***	
Observations	135	

Notes: \*\* and \*\*\* indicate significance at the 5% and 1% levels, respectively (2-tailed) with *t*-statistics indicated in parentheses. Independent variables lagged by 1 year, hence reducing the number of observations from 180 to 135.

**Table VII: Robust least square and random effects regression results of the relationship between board characteristics and CSR**

	Robust least square	Random effects
Variable	Coefficient (z-statistics)	Constant (t-statistics)
Constant	<b>14.049***</b> (3.592)	<b>14.892***</b> (3.618)
<b>Independent</b>		
GDIV (-1)	<b>-0.054**</b> (-2.306)	<b>-7.355*</b> (-1.897)
CHAge (-1)	<b>-0.101*</b> (-1.869)	<b>-0.100**</b> (-2.040)
BDC (-1)	<b>-0.632**</b> (-2.055)	<b>-0.758***</b> (-2.886)
BM (-1)	-0.054 (-0.611)	-0.045 (-0.837)
BDSKILL (-1)	<b>0.057**</b> (2.324)	0.035 (1.455)
BDSIZE (-1)	0.048 (0.489)	0.084 (0.571)
NEDs (-1)	2.525 (1.198)	0.909 (0.381)
<b>Control</b>		
AGE (-1)	<b>-0.0635**</b> (-1.935)	-0.044 (-0.965)
FMSIZE (-1)	<b>0.860**</b> (3.594)	<b>0.660**</b> (1.902)
ROA (-1)	1.25E (0.059)	4.68E (0.371)
LEV (-1)	<b>-0.938***</b> (-3.230)	<b>-0.505**</b> (-2.016)
R <sup>2</sup>	0.220	0.160
Adjusted R <sup>2</sup>	0.150	0.080
F-statistics	-	<b>2.096**</b>
Observations	135	135

Notes: \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively (2-tailed) with z/ t-statistics indicated in parentheses. Independent variables lagged by 1 year, hence reducing the number of observations from 180 to 135.

**Table VIII: Sensitivity analysis of the impact of board characteristics on CSRD subcomponents**

Variables	ETHICS	HESA	ENVI	SOIN
Constant	-2.455 (-0.258)	-9.246 (-0.791)	2.467 (-0.187)	4.777 (-0.507)
GDIV (-1)	-2.640 (-0.573)	1.696 (-0.323)	-8.947 (-1.445)	<b>-14.537***</b> (-2.740)
CHAge (-1)	-0.048 (-0.477)	0.082 (-4.290)	<b>-0.330***</b> (-2.867)	-0.086 (-1.046)
BDC (-1)	-0.484 (-1.387)	<b>-1.268***</b> (-2.852)	-0.441 (-0.594)	<b>-0.926**</b> (-2.082)
BM (-1)	-0.080 (-0.985)	0.025 (-0.229)	-0.088 (-0.558)	-0.088 (-1.059)
BSKILL (-1)	0.018 (-0.467)	0.015 (-0.355)	<b>0.111**</b> (-1.9670)	0.015 (-0.395)
BDSIZE (-1)	-0.153 (-0.674)	0.407 (-1.632)	-0.043 (-0.155)	0.178 (-0.757)
NEDs (-1)	3.185 (-0.971)	-0.013 (-0.007)	2.478 (-0.649)	-0.798 (-0.259)
<b>Control</b>				
AGE (-1)	<b>1.070**</b> (-2.609)	0.891 (-1.556)	<b>1.391**</b> (-2.208)	0.392 (-0.877)
FMSIZE (-1)	-0.655 (-1.295)	-0.152 (-0.228)	0.978 (-1.158)	<b>1.891***</b> (-3.109)
ROA (-1)	<b>-4.06E***</b> (-2.900)	-1.61E (-1.650)	-1.47E (-0.874)	3.12E (-1.389)
LEV (-1)	-0.282 (-0.586)	-0.232 (-0.525)	0.112 (-0.183)	<b>-1.068***</b> (-2.676)
R <sup>2</sup>	0.780	0.830	0.770	0.780
Adjusted R <sup>2</sup>	0.630	0.720	0.610	0.630
F-statistics	<b>5.077***</b>	<b>7.236***</b>	<b>4.740***</b>	<b>5.089***</b>
Observations	135	135	135	135

This table reports the results of board characteristics and control variables on CSRD subcomponents. Notes: \*\* and \*\*\* indicate significance at the 5% and 1% levels, respectively (2-tailed) with *t*-statistics indicated in parentheses. HESA, ENVI and SOIN refers to health and safety initiatives, environment, and social investments in that order. Detailed variable definitions and supporting literature are provided in Table II. Independent variables lagged by 1 year, hence reducing the number of observations from 180 to 135.