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Board Characteristics and Environmental Disclosure; A Review of Literatures

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ABSTRACT

The function of corporate governance in reducing agency expenses is critical. Corporate boards are responsible for overseeing management and ensuring that the interests of principals and agents are aligned. Boards are accountable for the care and diligence that brings financial control to corporate enterprises, ensuring profitability. This paper focuses on a thorough evaluation of the literature on board characteristics and its role on environmental disclosure. board characteristics variables such as board size, board independence and board gender were discussed in this paper. A descriptive research design is used in this study. When picking different types of board characteristics literature reviews, random sampling is used. The review of literature for this study spans the years 2012 to 2021. The time period is chosen for the sake of convenience sampling. The findings shows that majority of the reviews studies shows that board size, board independence and board gender all have a favorable impact on environmental disclosure.

Keywords. Board characteristic, board size, board independence, board gender, environmental disclosure.

INTRODUCTION

Over the decades, the demand for a company's environmental impact assessment and disclosure has grown enormously. This rallying cry attempted to create a long-term atmosphere that would allow human and corporate organizations to function effectively (Votsi, Kallimanis, & Pantis, 2017). Nigeria, among other countries, has been designated as one of those with a high degree of pollution that contributes considerably to global environmental issues. Nigeria, among other countries, has been identified as having a high level of environmental difficulties, which contributes significantly to global environmental problems. Nigeria is the world's seventh highest gas flaring nation, according to the 2019 World Bank Global Gas Flaring Reduction Partnership. Nigeria also has the highest proportion of contaminants generated by air pollution in Africa (Health Effects Institute, 2019). According to the AirVisual 2018 World Air Quality Report, Nigeria is the tenth most polluted country on the planet. Many of these environmental challenges are the result of enterprises' actions and operations aimed at serving their stakeholders' financial needs. These environmental difficulties are largely attributed to oil corporations in the form of gas flaring, oil spills, and pollution, among other things (Obasanho, 2017). However, they pay little attention to environmental issues, leading to a slew of stakeholder protests.

The composition, independence, and diversity of a board of directors in terms of gender, expertise, and nationality are frequently linked to the board's effectiveness (Ceres, 2019; Kang, Cheng, & Gray, 2007). According to Ganda (2008), a board with a larger number of members strengthens the board's monitoring functions, increasing corporate accountability and disclosure. Similarly, independent directors are usually preoccupied with the company's environmental duties (Webb, 2004)

Female supervisors are more concerned with environmentally responsible conduct and are more likely to try to limit the risks connected with ESG, according to Labelle, Makni, and Francoeur (2010). Companies with a majority of foreign board members are thought to be more vigilant in overseeing the company's operations and decision-making (Otuya & Ofiemun, 2018). Because of their international experience and education, they are more aware of the need for greater transparency regarding the firm's environmental impact. Members of the board who have appropriate experience dealing with challenges of sustainable development are also significant.

As a result, having experienced and skilled specialists on the board of directors' aids in improving corporate accountability and transparency via the disclosure system (Al-Shaer & Zaman, 2016).

Corporate boards are the most important and powerful component of the internal corporate governance system. Corporate boards are primarily responsible for overseeing management. They aid in the alignment of principals' and agents' interests. Boards are accountable for the care and diligence that brings financial control to corporate enterprises, ensuring profitability. Corporate boards provide strategic guidelines to management and ratify their recommendations. Furthermore, boards identify problems in corporate firms and provide ideas for their resolution (Agarwal &Singh, 2020). The goal of this research is to evaluate and review the literature on board characteristics and environmental disclosure.

Objective

The main objective is to review literature on board characteristic and environmental disclosure Specifically. The study examines the follows:

To review literature on board size and environmental disclosure.

To review literature on board independence and environmental disclosure.

To review literature on board gender and environmental disclosure.

LITERATURE REVIEW

Theoretical framework

According to Deegan (2002), in order to comprehend board disclosures, it is necessary to look into many theoretical perspectives. Different theories support the hypotheses in a complementary rather than competitive manner (Carpenter and Feroz, 2001). As a result, agency theory was employed to help the creation of hypotheses in this study.

Agency Theory

Agency cost exists, according to agency theory, when a company's ownership and control are separated. This is owing to the fact that the principal and agent have competing interests (Jensen & Meckling, 1976). Agency costs that are faced by managers, according to Jensen and Meckling (1976), may induce them to voluntarily publish corporate environmental information in order to decrease agency costs. If managers do not divulge more information that might benefit stakeholders, there will be a greater information asymmetry between them and shareholders (Gantyowati & Nugraheni, 2014). The agency theory's goal is to lower "agency cost" by implementing internal control mechanisms. Appropriate monitoring systems must be implemented to safeguard shareholders from management's conflict of interest, which is referred to as "agency cost" in corporate governance (Fama & Jensen, 1983).

In this regard, the Board serves as a check and balance mechanism, balancing management and shareholder interests in regards to both financial and non-financial information, such as environmental disclosure (Bushman & Smith, 2001; Prado-Lorenzo & Garcia-Sanchez, 2010). As a result, board monitoring encourages the disclosure of high-quality information, decreasing information asymmetry and the agency concerns that go along with it. The efficiency of the board in its monitoring duty is determined by specific board member characteristics such as size, independence, experience, and diversity. According to agency theory, independent directors were more concerned with corporate social and environmental responsibility (Webb, 2004) In a similar vein, Eng & Mak (2003) found that having a high level of board independence enhances not just the quantity but also the quality of disclosure, whether financial or otherwise, and reduces the benefits of suppressing disclosure information. The notion is reinforced by agency theory, which states that the larger the board, the greater the board members' skill and the quality of their actions, resulting in an improvement in disclosure concerns such as environmental disclosure (Cheng & Courtenay, 2006;) According to Peter and Romi (2013), the board's membership should be independent in order to properly supervise management when publishing sustainability information, particularly on the environment.

Resource Dependency Theory

The impact of board structure on environmental issues is also supported by the resource dependency theory. Management is viewed as a resource that has an impact on the environment in this idea. It goes on to say that non-executive board members will offer the board with greater information and legitimacy (Johnson et al, 1996). According to the resource-dependence hypothesis, the directors' primary role is to assist the firm's management in making high-quality strategic decisions. Furthermore, because they have contacts or links to the external environment, the directors assist in procuring key resources required by the firms (Pfeffer & Salancik, 1978; Bédard, Coulombe, & Courteau, 2008). Furthermore, according to Hillman, Cannella, and Paetzold (2000), because boards perform associating activities between a firm and the external environment, the more diverse the board (with a higher number of female directors), the more network and linkage opportunities a firm has.

Legitimacy theory

The concept of organizational legitimacy is the foundation of legitimacy theory. It gives an organization the right to carry out its operations in accordance with the interests of society. As a result, organizations strive to operate within their particular communities' standards and ambitions. When two value systems are incompatible, the legitimacy of the company is jeopardized. Companies can only exist if they operate within the framework of society's norms and values, according to the legitimacy theory thesis. Greiling and Grüb (2014) emphasize the importance of an organization's accountability for its activities. As corporations attempt to be greener in their operations, legitimacy theory is seen as a possible explanation for the recent significant increase in environmental disclosure (Braam et al., 2016). Environmental pressures and the desire to legitimize their existence and actions have led to corporate disclosures. Companies voluntarily provide social and environmental data in order to maintain their credibility. They want to give the idea that they are socially responsible to the rest of society. The validity of this view is based on the Constitution's strong respect to the rule of law, as well as investors' and citizens' rights to a healthy environment.

The theory clarifies the fundamentals and practice of corporate environmental reporting. When the society's expectations and the organization's operations are in sync, the term "legitimacy" is used. According to the legitimacy theory, businesses will provide society with information about their operations, including environmental information (Deegan & Gordon, 1996). According to O' Donovan (2002), this might be accomplished more effectively through environmental reporting in order to establish a credible image and recognition from society. Others that agree with the legitimacy theory's supremacy as a more comprehensive explanation for environmental reporting include (Hooghienstra, 2000).

Stakeholder’s theory

Stakeholder theory is also seen as a theory that may be explained in terms of corporate environmental accounting (Depoers, et al., 2016; Liao et al., 2015). It entails recognizing and identifying the relationship that exists between a company's actions and their influence on its stakeholders. The stakeholder theory viewpoint considers the firm's environment, which includes consumers, suppliers, employees, and other members of society. As a result of this relationship, the corporation relies on the support of its stakeholders in order to stay afloat. If the corporation views the stakeholders to be vital, the link must be managed. To get support and permission from various stakeholders, one method to sustain that relationship is to provide information through voluntary social and environmental disclosures. These enterprise stakeholders, as well as their lobbying decisions, are determined by stakeholders with power, urgency, and legitimacy (Ahmad, 2015).

Critical Mass Theory

According to Kramer, Konrad, and Erkut (2006)'s critical mass hypothesis, the effect of female directors' appearance on the board becomes more evident when the number of women reaches a certain level. This is in line with Granovetter (1978), who believes that a little change in a group's heterogeneity can lead to a larger change in the group's overall behavior. The presence of at least three women on boards, according to Konrad, Kramer, and Erkut (2008), is likely to give genuine adjustment to the board. According to Lückerath-Rovers (2013), having at least three women on a board can result in better decision-making. According to Adams and Ferreira (2009), the ideal measure of women diversity on boards should be a minimum of three women directors, rather than their mere presence. According to critical mass theory, having at least three women on a board will boost the effectiveness of the women diversity tool and lead to improved environmental reporting.

Environmental Disclosure

Environmental issues and their management are hot subjects these days. This is despite the fact that numerous laws and organizations demand and are devoted to environmental preservation. This, however, will not be enough unless residents recognize the importance of the environment and work to safeguard it. As a result, it is obligatory on society to work and contribute to improving individual and organizational environmental behavior and raising environmental consciousness. 2018 (Ayasrah). Darwish (2009) described environmental disclosure as a set of data points about a company's environmental management performance and activities, as well as their past, present, and future financial ramifications. According to previous studies, the number of companies disclosing environmental information in their annual financial reports is increasing in order to meet the needs of investors and other stakeholders. As a result, the topic of environmental disclosure has shifted from a paragraph in the annual report to the preparation of independent environmental reports published on corporations' websites or in printed publications. This disclosure can take many different forms, including data, quantitative facts, figures, and financial statement notes.

According to Nabulsi (2011), economic and social trends, as well as the advent of international markets, have all influenced the importance of disclosure and expansion, particularly as accounting information has become a major source of decision-making for customers in these markets. It also assists owners and other stakeholders in making decisions, including as consumers, investors, consumer protection authorities, the environment, and public opinion. This, however, is founded on the reality that these parties have reciprocal relationships with the organization, which holds the organization accountable for meeting these parties' needs and requirements. As a result, this serves as a foundation for its decision-making. According to Saleh (2015), disclosure as a relative concept benefits investors, creditors, project managers, and other stakeholders. It attempts to improve the overall welfare of the national economy by simplifying decision-making processes and benefiting from resource efficiency. The development of these firms' activities is aided by facilities that do their part to protect the environment. Increase the pressure on enterprises that do not execute their environmental responsibilities, which leads to a reduction in activity and the burden of repairing the harm caused by pollution.

Characteristics of the Board of Directors

Board independence.

According to the "independence" concept, a BOD should primarily consist of outside directors who are not affiliated with management (Fama, 1980; Fama & Jensen, 1983; J. L. Johnson, Daily, & Ellstrand, 1996). According to contemporary observers, corporations would pursue more effective strategies if their boards exercised more independent supervision over their management (Chatterjee & Harrison, 2001). This is to ensure that the managers' actions are in line with the firm's owners' aims, so reducing the agency problem (Eisenhardt, 1989; Jensen & Meckling, 1976). Furthermore, the study claims that, in line with the stakeholder–agency paradigm, higher board independence as a monitoring tool is more likely to ensure that managers act in the best interests of the firm's stakeholders when it comes to CEP. Berrone and Gomez-Mejia (2009) discovered, for example, that some directors include environmental factors in executive remuneration schemes in response to legitimacy demands from environmental stakeholders. Independent directors, such as community representatives, are also more likely than inside directors to speak and enforce shareholder and other stakeholder grievances within the board (Luoma & Goodstein, 1999). As a result, a larger number of independent directors might provide various stakeholders a stronger voice.

Furthermore, independent directors may demand that a company reduces its environmental concerns. Environmental issues can have a negative impact on a company's financial and environmental performance, as well as its image (Fama & Jensen, 1983). Independent directors have less motive to suppress negative environmental issues because they are not under pressure to agree to the manager's requests (Dalton et al., 1998). Independent directors will be able to provide an objective assessment of the firm's operations and express their dissatisfaction with management. This helps to alleviate environmental activists' and nongovernmental groups' concerns (Baron, 2001; Lyon & Maxwell, 2011).

Board size.

The number of directors on a board has a direct impact on a company's cumulative relational capital, as a company with more directors has access to more resources (Walls & Hoffman, 2013). As a result, its resource reliance on external contingencies can be reduced. Legitimacy, routes for conveying timely information with external groups, and preferred access to external funding are examples of such resources (Kimball, Palmer, & Marquis, 2012; Wernerfelt, 1984). Larger boards benefit companies that demand more counsel since more respected directors can be included on the board (Certo, 2003). When the firm is faced with more environmental needs, for example, a larger board size can better support the firm by offering more resources (de Villiers et al., 2011; Pfeffer, 1972). Furthermore, environmental unpredictability can lead to bigger board sizes so that businesses have the resources they need to deal with the uncertainty (Booth & Deli, 1996). As a result, larger boards are more likely to include more resource-rich directors who are familiar with environmental performance challenges, encouraging businesses to seek good CEP.

Board Gender

Various countries are debating whether or not to implement a female quota for management and supervisory boards (i.e., Norway, Germany, the Netherlands). When it comes to business performance, the literature on the efficiency of such quotas and the additional value of women on boards is equivocal. This dispute is fueled by the so-called "glass ceiling," or vertical segregation that prevents women from rising to the top of corporations. Gender stereotyping, according to Barreto, Ryan, and Smitt (2009), is one of the causes of this invisible barrier. The structural and socialization approach is used by Betz, O'Connell, and Shepard (1989) to investigate the relationship between gender and ethics. Men were more preoccupied with money and career, while women were more concerned with relationships and helping others, according to the researchers. In a business setting, men were also twice as likely to participate in unethical behavior.

Empirical review

Board Size and Environmental Disclosure.

Setyawan and Kamilla (2015) used a sample of 33 mining companies in Indonesia to evaluate the impact of corporate governance on corporate environmental disclosure. The disclosure index for the year 2011-2013 was calculated using the GRI criteria. They discovered that board gender improves corporate environmental disclosure but board size and independent directors have no effect on corporate environmental disclosure using multiple regression analysis.

Using a sample of 62 non-financial enterprises listed on the BIST-100 index at the end of 2011, Akbas (2016) investigated the link between selected board features and the level of environmental disclosure in annual reports of Turkish corporations. The extent of environmental disclosure is measured via a content analysis. The study found board size to have statistically meaningful and positive link with the level of environmental disclosure, according to the regression analysis' findings. As a result of this finding, companies with larger boards of directors disclose more environmental information than those with smaller boards. The rest of the independent factors, on the other hand, are shown to be unrelated to the level of environmental disclosure. For the time period studied, the sample companies' boards of directors had a low degree of independence and gender diversity.

The agency theory was utilized by Darus and Janggu (2016) to argue for the provision of such information to stakeholders. The quantity of risk management disclosure was determined by analyzing the content of forty (40) public-listed businesses in the plantation industry's annual and sustainability reports for the year 2013. The data for the multiple regressions were examined using the Partial Least Squares Structural Equation Modelling approach (SEM-PLS). The study's findings found that the size of the board of directors had no bearing on risk management disclosure.

Osazuwa et al. (2016) in Nigeria, looks at the link between board characteristics and the length of environmental disclosure. It looked at 116 companies over the course of a year in 2013. The study discovered a link between board size and environmental disclosure. Rafique, et al. (2017) added to knowledge as it examined the relationship between environmental disclosure and corporate governance traits has produced mixed results. The study used a sample of 00 randomly selected Karachi Stock Exchange enterprises for the year 2015. The findings of this study revealed a link between environmental disclosure and the percentage of independent directors on the board of directors. The finding reveals a link between the level of environmental reporting and the size of the board of directors. The study found no link between environmental reporting and the percentage of female members on a board of directors.

Further, Naseer and Rashid (2018) used content analysis on 50 non-financial enterprises quoted in Pakistan from 2014 to 2015 to investigate the impact of corporate governance on environmental reporting. The study was founded on agency and stakeholder theory. According to the results of a multiple regression study, board independence and board size have a considerable positive impact on the degree of environmental reporting. While the number of female directors has little bearing on the degree of environmental reporting,

Rabi (2019) looked at the association between board of director qualities and environmental disclosure in Jordanian industrial companies listed on the Amman Stock Exchange from 2014 to 2017. Three variables were examined in a total of 63 industrial companies: board size, board independence, and board ownership. The study discovered that during the years (2014-2017), the amount of environmental disclosure increased on average. In addition, the study discovered a link between board size and the extent of environmental disclosure. They concluded that board size improves environmental disclosure.

Further Nuskiya et al. (2021) investigated the levels and trends in corporate environmental disclosure among a sample of Sri Lankan publicly traded enterprises. This research uses a panel quantile regression model to investigate the determinants of CED in Sri Lanka, using a sample of 205 firm-year observations from 2015 to 2019. The study discovered that board size and board independence are all linked to a higher level of CED.

In this study, Nguyen and Thanh (2021) look at the impact of board features on environmental performance in manufacturing enterprises in rising East Asian markets. board size, board independence, and board leadership structure, and study their effects on a multidimensional construct of environmental performance from 2011 to 2016, the authors used fixed-effects regression and discovered an inverse U-shaped association between board size and environmental performance was identified in the study. The study also discovered that when the number of independent directors on boards increases, industrial companies are more likely to have higher environmental performance.

Board Independence and Environmental Disclosure.

Using a sample of twenty-one (21) environmentally sensitive enterprises in Nigeria, (Oba & Fodio, 2012) investigates how board qualities interact with the quality of environmental reporting. The study took place between 2005 and 2009, and the data was analyzed using logistic regression. To find companies that publish qualitative environmental reports, content analysis was used. According to the research, the size of the board of directors has a negative link with environmental reporting.

Liao et al. (2014) evaluated the role of the boards of directors on the voluntary disclosure of greenhouse gas (GHG) emissions in the form of a Carbon Disclosure Project report. They discovered that a significant positive association between gender diversity and the propensity to disclose GHG information, as well as the extent of that disclosure, using both univariate and regression models with a sample of the 329 largest companies in the United Kingdom. Furthermore, a board with more independent directors or an environmental committee is more likely to be environmentally transparent stakeholder theory, implying that a diversified and independent board of directors, as well as the presence of a board-level environmental committee, can help a company balance its financial and non-financial goals with limited resources, as well as moderate the potentially conflicting expectations of stakeholders with divergent interests.

Grace and Odoemelam (2018) used 303 firms, including environmentally sensitive companies from South Africa (213) and Nigeria (traditional reporting framework), to examine the impact of corporate board characteristics on the extent of environmental disclosure quantity of listed firms in two leading emerging economies in Africa, South Africa (integrated reporting framework) and Nigeria (traditional reporting framework) (90). Using text analysis, the researchers revealed that board independence arrangements can act as bonding mechanisms in low-reporting environments, implying a substitutive relationship between board independence and regulatory framework.

In their study, Khaireddine et al. (2020) looked at how board qualities affect governance, environmental, and ethics disclosure. The size of the board, gender diversity, board independence, CEO/chair duality, and board meetings are all factors to consider. The panel regressions were tested using generalized least squares on a sample of 82 companies listed in the SBF120 between 2012 and 2017. Board independence and board gender diversity all have a favorable and significant impact on governance, environmental, and ethics disclosure, according to the study. Only corporate environmental disclosure is positively and strongly linked with board size.

Abubakar and Moses (2020) evaluated the effect of corporate governance qualities on environmental disclosure of listed manufacturing businesses in Nigeria. The study used a sample of twenty (20) companies registered on the Nigerian Stock Exchange over a seven-year period, from 2012 to 2018. The study employed fixed effect regression to provide evidence that independent directors have a considerable favorable impact on listed industrial businesses' environmental disclosure.

Issa et al. (2021) contributed to the Nigerian study by looking into the impact of board mechanisms on environmental disclosure quality. Over an eight-year period from 2012 to 2019, content analysis was used on annual reports of seven listed oil and gas businesses on the Nigerian Stock Exchange. According to a PCSE regression analysis, board independence, board gender diversity, and board expertise all have a significant beneficial impact on environmental disclosure quality. However, the size of the board and the nationality of the board have little bearing on the quality of environmental disclosure. The study found that board monitoring efficacy has a favorable impact on the quality of environmental information disclosed to stakeholders.

In contrast to the previous studies, Baalouch, Damak, and Khaled (2019) used the multiple theory framework to perform a study on the determinants of environmental disclosure quality in France. Data was collected from 570 firm-year observations of publicly traded French firms from 2009 to 2014, and content analysis was utilized to assess the quality of the disclosures in the annual reports. The results of the regression study revealed that board independence has a considerable negative impact on environmental disclosure quality, whereas gender diversity has a large favorable impact.

Aliyu (2019) In Nigeria, look into the relationship between corporate governance factors such as board size, board independence, board meetings, and corporate environmental reporting. This research used a sample of 24 non-financial publicly traded firms on the Nigerian Stock Exchange, which were divided into three sectors: industrial goods, natural resources, and tourism. They found that board size positively and insignificantly influences CER while independence director was found to enhance CER.

Board Gender and Environmental Disclosure

In addition, Al-Shaer and Zaman (2016) investigated the impact of board gender diversity on sustainability reporting quality using a variety of proxies. The study discovered that gender diverse boards are associated with higher quality sustainability reports after controlling for corporate governance, firm reporting incentives, reporting behavior, and reporting environment, and that independent female directors have a greater impact on sustainability reporting quality than female directors.

In a sample of enterprises, Modiba and Ngwakwe (2017) investigated the association between the presence of women on the board of directors and social investment disclosure and energy disclosure. Using a sample of five companies by employing panel-data regression technique. The study discovered that the number of women on the board of directors has a positive link with corporate transparency on social investment and energy use. The study concluded that women on the board of directors have an impact on sustainability disclosure, such as energy and social investment, within the sample of companies studied.

Manita et al. (2018) examined the influence of gender on level of ESG disclosure. The study used a sample of 379 companies that make up the Standard & Poor's 500 Index (S&P 500) from 2010 to 2015. A fixed effect model with lagged board variables is utilized to account for the endogeneity problem between board gender diversity and ESG disclosure. The study no evidence of a link between board gender diversity and ESG disclosure. The concluded that that the critical mass theory, as the association between board gender diversity and ESG disclosure is not statistically significant below three female directors. However, no meaningful association was discovered beyond that.

Using a quantitative meta-analysis technique, Ng and Thosuwanchot (2019) investigated the association between board qualities and business environmental performance. The study discovered that environmental disclosures are favorably connected with board independence and gender diversity.

Yane's (2020) focused on the relationship between board diversity, as defined by gender variances, and sustainability disclosures based on economic, social, and environmental data, as well as how sustainability disclosures impact business value. From 2016 to 2018, this research looked at the sustainability reports and information offered by the winning firms in the category of the National Sustainability Reporting Centre, which is also listed on the Indonesia Stock Exchange. The economic transparency score grew dramatically as the number of female directors on the business board increased, according to the data path analysis.

Chebbi et al. (2020) evaluated whether gender diverse board is linked to environmental sustainability reporting. The study discovered that the presence and proportion of women on the board of directors are positively associated with environmental disclosures using a sample of 833 French firms-year observations from 2010 to 2019.

The impact of board gender diversity on renewable energy use is investigated by Atif et al. (2020). We find a favorable association between board gender diversity and renewable energy consumption using a panel of 11,677 firm-year observations from the United States from 2008 to 2016. The study found that female independent directors have a favorable impact on renewable energy use.

Perera and Hewagama (2020) evaluated the role of board and environmental reporting of listed firms on the New Zealand Stock Exchange. The study employed a sample of 30 market-capitalized. The findings imply that board size and gender diversity are the most important factors that positively impact environmental reporting, and that these factors can help enhance corporate governance.

Kilincarslan et al. (2020) conducted a study in the Middle East and Africa to look into the impact of corporate governance systems on environmental disclosure practices. 121 publicly traded (non-financial and non-utility) enterprises from 11 Middle East and African (MEA) countries were studied between 2010 and 2017. MEA enterprises with high governance disclosures had stronger environmental disclosure policies, according to the report. Gender diversity and board size had a beneficial impact on MEA companies' voluntary environmental disclosures, whereas board independence has a negative impact.

On a sample of 215 enterprises listed on the London Stock Exchange, Tingbani, et al. (2020) found a link between board gender diversity, environmental committees, and voluntary greenhouse gas (GHC) declarations (LSE). Gender diversity has a substantial favorable connection, they concluded that a more diverse board can meet a broader range of stakeholder expectations, thereby legitimizing the company's green credentials and gaining trust from a wide spectrum of stakeholders.

METHOD

The research methodology, research design, sample design, and data collection method employed in this study are all depicted in this section. The research is based on a descriptive research design. When picking different types of literature reviews of board structure, random sampling is applied. Simple random sampling is used to select board structure, among other aspects of corporate governance. The target population is based on research studies conducted all across the world. The review of literature for this study was conducted between 2012 and 2021. The time period is chosen for the sake of convenience sampling. Secondary data was employed as a source of information. The board structure literature review was compiled from a variety of research publications available on multiple platforms such as JSTOR, the National Digital Library, google scholar, research gate, Academia and others.

ANALYSIS AND CONCLUSIONS

Based on the above reviews of literature regarding the relationship among board size, board independence and board gender, conclusions from this research can be deduced easily.

As far as the size of the board is concerned, it is clearly shown that the large size of boards will make a positive impact and contribution towards environmental disclosure, which helps in mitigating agency cost or the conflict of interests between principals and agents and also satisfies stakeholders. this was supported in the studies by Akbas (2016), Osazuwa et al. (2016), Naseer and Rashid (2018), Rabi (2019), Khaireddine et al. (2020), Kilincarslan et al. (2020), Perera and Hewagama(2020) and Nuskiya et al. (2021) The results of the above reviews of literature match with the agency theory ,stewardship theory as well as stakeholder theory.

Further, on independent directors, although the findings are mixed, however, majority of the study revealed indicated that independent directors improve monitoring and they work to ensure that management discloses information that pertain to environment. This conforms with the prior studies by Ng and Thosuwanchot (2019), Osazuwa et al. (2020), Abubakar and Moses (2020), Issa et al. (2021), Nguyen and Thanh (2021) and Nuskiya et al. (2021). The results of the above reviews of literature match with the agency theory, resource dependence theory and stakeholder theory

Finally on-board gender, most of the literature support that female director positively influence environmental disclosure. This conforms with the resource dependency and critical mass theory and prior studies of Modiba and Ngwakwe (2017), Manita et al. (2018), Baalouch,et al. (2019) Atif et al. (2020), Perera and Hewagama(2020) Kilincarslan et al. (2020), Chebbi et al. (2020), Tingbani,et al. (2020), Issa et al. (2021).

The study review literature on board characteristic and environmental disclosure with focus only on three board variables which are board size, independent directors and gender of the board. After review of prior literatures from different countries and sectors, the study found that although the findings are mixed but most literature establish that the three board variables positively influence environmental disclosure. The study concludes that size of the board, independence of the board of directors and board gender positively improve environmental disclosure.

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