Sustainability Disclosure And Market Value Of Banks In Nigeria: The Mediating Role Of Investors

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ABSTRACT

Changes in the market value of corporate organisations have been a major concern to stakeholders especially the investors. Extant literature opines that the market value of organisations may change as a result of the attraction of more investors to the company through the sustainability activities of such organisations. To confirm this opinion, this study examined the mediating effect of investors on the relationship between sustainability disclosure and market value of banks in Nigeria. Sustainability disclosure was proxied by environmental, social, economic and governance disclosure; market value was proxied by Tobin's Q; the relationship was mediated by number of investors (ordinary shareholders). 13 deposit money banks were sampled from a population of 14 and data were collected and analysed using structural equation's modeling. It was found that sustainability disclosure had insignificant direct relationship with market value but it was further found that the mediating effect (indirect effect) of investors on the relationship between sustainability disclosure and market value had a significant effect. It was recommended that corporate organisations should disclose sustainability in a manner that will attract investors in order to boost their market value

Keywords: Sustainability Disclosure, Market Value, Environmental Disclosure, Economic Disclosure, Social Disclosure, Governance Disclosure

1.0 Introduction

Sustainability disclosure is a global best practice for corporate organisations; it connotes the release of information on the use of economic, governance, social and environmental resources of an organisation. Corporate sustainability disclosure is information to stakeholders on transactions that would make the organization remain in business in the future. Corporate sustainability disclosure is categorised into four dimensions of environmental disclosure, economic disclosure, governance disclosure and social disclosure (Global Reporting Initiative, 2019). The import of corporate sustainability disclosure is to disclose additional performance information to the stakeholders via the four dimensions that have not been explicitly disclosed in the financial statements of the organisation. The four components of sustainability disclosure are strategically made to intimate the public on the below mentioned elements. The Global Reporting Initiative (2019) stipulates that the economic disclosure aspect is concerned with disclosing performance information on the profit, direct and indirect economic impacts, market presence, anticorruption activities, procurements and taxes amongst others. The economic disclosure provides unambiguous information on the performance of the firm to enable stakeholders to have a clear picture of the organization's economic stand. On the other hand, environmental disclosure provides information on the use of the environment and how sustainable the use has been to avoid compromising the use of the same resources in the future. This includes but is not limited to waste control and management, pollution and environmental degradation, materials use, energy use and biodiversity. A proper disclosure on environmental use may inform the stakeholders on the concern of the corporate organization in respect of environmental sustainability. This may also put the company in a green work place and consequently enhance the company's performance through high patronage.

Another aspect of sustainability disclosure is the social disclosure. The social aspect of corporate sustainability is important because it takes care of the stakeholders and the society in general. Social disclosure could be in the form of information on remuneration paid to workers, staff training and education, occupational health and safety, security, employment and donations to communities amongst others. The disclosure of this information may enhance the company's image and give clarity to the stakeholders on the prospects of the company. If a company is socially sustainable, it enjoys good work relationship with the society where it is domicile and may not be prone to attacks like demonstrations by neighboring communities. Such companies will enjoy conducive working atmosphere that encourages investors. Governance disclosure anchors the disclosure of information on the governance structure of the firm. It is concerned with the engagement of stakeholder groups and the organisation's profile amongst others. The disclosure avails the public with information on the governance mechanism of the institution.

In Nigeria, sustainability disclosure is given attention due to the increasing actions and inactions of companies in the economy. The disagreement between workers and corporate organizations on inadequate payment of wages has led to several strikes and other industrial actions in Nigeria. The issue of oil spillage in the Niger Delta area and the spread of cement waste products around the Yandev area in Benue State and the gully gutters created by the Dangotte Cement during the exploration of limestone in Gboko, Nigeria are some possible reasons for increasing demand for sustainability disclosure by companies in Nigeria. However, some corporate organisations have hitherto reneged on the practice of sustainability disclosure this could be viewed from two debates. Viewed from the negative perspective, sustainability disclosure and its activity are expenditure that impairs financial performance as it reduces the profit of the year (Wong, 1975). The contra opinion is that, sustainability disclosure sends signals in the capital market that attracts more investors to patronise the company (Jalila & Komathy, 2019). The attraction of more investors creates competition in the purchase of the shares of the firm and consequently increases the market value through high share prices. The proponent's ontology between sustainability disclosure and market value do not have a direct link but is perceived to be mediated by the attraction of more investors to increase the market value of the company. This implies that for sustainability disclosure to enhance market value such disclosure must attract investors to the company. This makes investors mediators between sustainability disclosure and market value. This part of the debate motivated this research to test the mediating effect of investors on sustainability disclosure and market value of deposit money banks listed on the Nigeria Exchange Group.

2.0 Literature Review

2.1 Concept of Sustainability Disclosure

Sustainability disclosure is the information a company releases on how the organization is transacting to enable her remain in business in future. Sustainability disclosure dates back in the 1940s with Professor Theodore J. Kreps as one of the first authors on the theme measurement of social performance of a business organisation (Hess, 2008). Kreps argued that the traditional profit or loss account was inadequate to provide a holistic view on the performance of corporate organisations. He began researching for ways to measure the contribution of companies to the overall goals of the economic system. The work of Kreps was concerned with the social aspect of sustainability disclosure and could not cover other sustainability disclosure aspects like environmental, economic and governance disclosures nevertheless; it was a starting point for more robust information on the performance of the firm rather than having just the profit or loss accounts only. Another precursor of sustainability disclosure was the work of Howard R. Bowen who developed a system for outside auditors in 1945 to measure the performance of companies on matters such as wages, human, public and community relations. The audit was conducted by independent auditors however, the information was intended for internal use only and was not to be made available to the public (Minguel, 2017). These were all steps to provide additional performance measures that could complement the profit or loss account for extra corporate performance information.

Generally, sustainability disclosure has been viewed differently by different scholars, Jalila and Komathy (2019) opined that sustainability disclosures are very vital because stakeholders and investors would not want to invest in any company that occasions negative impacts on the society while performing its business operations. Iheduru and Okoro (2019) viewed sustainability disclosure as an accounting report that contains the activities, methods and systems of recording, analyzing and reporting environmental, social and economic activities of an organization.

Emeka and Osisioms (2019) defined sustainability disclosure as a report that provides information regarding environmental, social, economic and governance performance. This study does not view the concept of sustainability disclosure far from the views of the scholars stated above however; this study conceptualises sustainability disclosure as making use and disclosing how the available resources of economic, social, environmental and governance are used such that the same resources could be available for use in the future.

2.2 Concept of Market Value

Market value is a measure of business performance; market value is the worth of a business organization at a particular time (Utile et al 2018). The market-based approach of firm valuation employs the market price method. The market-based approach evaluates the value of a firm on the basis of prices already quoted on the stock exchange, that is, the current price at which the shares of a company can be bought and sold (Laabs, 2012). It is the current quoted price at which investors buy or sell a share of common stock or a bond at a given time often referred to as market capitalization. Market value is often different from book value in the case of securities. This is because the market value takes into account future growth potentials. Regulatory bodies have considered market value as one of the most important basis of calculating firm value. This study chooses Tobin's Q as a main proxy for market value. This implies that the firm's market value was measured using Tobin's Q. This measure is chosen because it contains both market information and information about assets in place, which makes it a suitable proxy in this study. Tobin's *Q* is defined as the ratio of a firm's market value to the replacement cost of its assets (Okoth & Coskun, 2016). It is a statistic that might serve as a proxy for the firm's value from an investor's perspective.

2.3 Concept of Investor

The ability to advance money into an organization for the purpose of gaining interest on the funds is recognized as investment. An investor is an individual or corporate person that puts money into another organization for the purpose of gaining returns on the money invested. An investor is one who minimizes risk for his investment to maximize returns on the investment (Utile et, al 2018). Investors are categorized into angel investors, venture capitalists and corporate investors amongst others however, this study concentrates more on the corporate investors who are predominantly ordinary shareholders, preference shareholders debenture and bond holders. Iheduru and Okoro (2019) conceptualized investors as those who are interested in growing their funds by investing into organisations with sustainable potentials to grow the invested funds. The ordinary shareholders who are investors that are not just interested in the return on their investment alone but also participate in the appropriation of the profit at the end of the day are highly interested in the sustainability of the company (Farah & Belina, 2016). Buallay (2020) opined that ordinary shareholders are concerned with the sustainability of the firm because it connotes the performance of the firm that is beyond financial performance and speaks volumes on the relationship between the company and the society.

2.4 Signaling Theory

The signaling theory was developed by Akerlof in 1970. The thrust of the theory posit that the managers of an organization are duty bound to transmit credible and accurate information about the organization to other stakeholders in the capital market. The signaling theory was developed to arrest the issue of information asymmetry in the capital market. The agents of any corporate organization usually have more information than the other stakeholders. The information is usually used to prepare the mandatory disclosure information prepared by the management. Thus any other information available to the shareholders about the organization is viewed as a signal. Signals could be seen as hints about the company that may be vital to investors when making investment decisions. Omoike et al (2018) assert that credible signals released by a business organization can spur high reputation for the company and consequently increase its market performance. This is because, the release of additional information informs stakeholders that the company is reliable and can be trusted not to hide information about its operations even if the information is negative or positive. This may earn reputational advantage for the company and may also attract new investors to the firm (Wasara & Ganda, 2019).

Signaling theory recommend that organizations supply information that would facilitate individuals to have good investment thoughts about the organization, its values and the future direction. For instance, people might need information to purchase a company's stocks or goods, in such circumstance, the additional information that comes as a hint (signal) is very vital. It is however worthy of note that sometimes the signals are not credible and could be misleading. When signals are voluntary in nature, they are not audited. In addition, companies are not under compulsion to release voluntary information thus, they may release the information that favours them against the information that stands in their way (Onyali et al, 2014).

The relationship between signaling theory and this study is visible in the sustainability disclosure carried out by the company. Sustainability disclosure is a positive signal given by the company to investors and other stakeholders. The wider the disclosure made by the company the more the information is received by investors. The wider the information received by investors the higher the level of investor confidence and patronage in the company. With a high level of confidence, investors will response positively to the company in the form of price movements stocks that tend to rise. This implies that sustainability signals affect the price movement of shares with consequences on the market value of the firm.

2.5 Empirical Reviews

Corporate social responsibility of companies in China was examined by Nana et al (2019) corporate social responsibility was measured using reporting index obtained from the checklist by the Global Reporting Initiative. Tobin's Q was used as a proxy for market value. The study found that within the study period, CSR had negative insignificant effect on Tobin's Q. Similarly, Farah and Rachmawati (2019) studied the effect of corporate social responsibility disclosure on the performance of Indonesian companies. The study discovered that corporate social responsibility disclosure hand negative effect on market value. Ndukwe and Nwakanma (2017) studied corporate sustainability reporting and firm profitability of selected quoted companies in Nigeria Findings indicated that no significant relationship existed between sustainability reporting and market value.

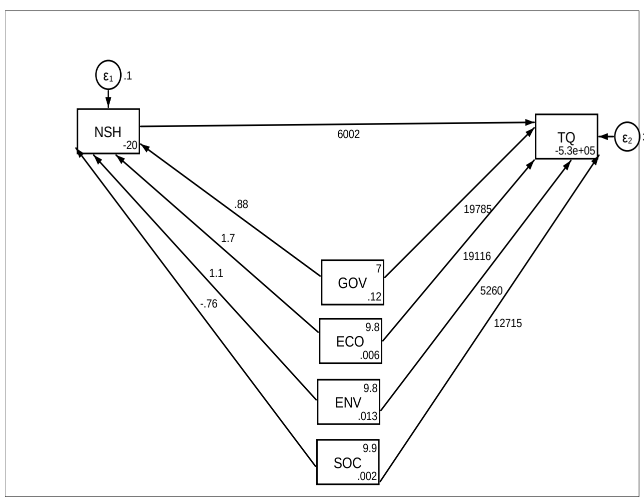
Buallay (2020) studied sustainability reporting and its impact on market value in London. The results show that sustainability disclosure had negative insignificant effect on market value. Furthermore, the moderating effect of country sustainability law on the relationship between sustainability reporting and market value also had insignificant effect on market value. A related study was further conducted by Effiong et al (2019) using triple bottom line disclosure and market value of Oil and Gas Companies in Nigeria. Triple bottom line was measured using economic, social and environmental disclosure. Market value was measured using share prices while triple bottom line disclosure was measured using the disclosure checklist by GRI. Findings indicated that sustainability variables had significant effect on market value. Jalila and Komathy (2019) examined sustainability disclosure and firm performance in Malaysia the study sampled 100 firms with good sustainability disclosure practices in 2016. The sample was selected based on the data published by the Minority Shareholder Watchdog Group of Malaysia. It was found that sustainability disclosure had significant relationship with the market value. Idil and Destan (2019) conducted a study on sustainability reporting and market value in Turkey. Sustainability reporting was proxied by environmental and social reporting. Data were collected from automotive industries of different countries between 2010- 2018 using 155 firms. The data were collected via Thomson and Reuters Data Stream database and the GRI sustainability disclosure database. Market value was measured using Tobin's Q. Logistic regression was used for the purposed of data analysis; it was found that sustainability disclosure had significant effect on market value.

To conclude the review of empirical studies, it is imperative to state that the studies reviewed indicated varying effects between sustainability disclosure and market value. This may be due to differences in the measurement of variables and the domain the researches were conducted. This study differs from the reviewed studies as it examined the mediating effect of investors on the relationship between sustainability disclosure and market value of deposit money banks in Nigeria against extant studies that examined only the direct effect of sustainability disclosure and market value. Also, the studies reviewed used regression analysis which was quite suitable for analysis of direct effect between sustainability disclosure and market value. However, this study used the structural equations modelling as it was considered suitable for the analysis of an indirect relationship like the one in this study. In addition, this study collected data using the GRI G4 sustainability disclosure checklist which emphasizes materiality of the disclosure that is industry specific. Contrary, the reviewed studies mostly used disclosure checklist that were earlier than the GRI G4 which were not based on the materiality of items necessary for disclosure in a particular industry. Furthermore, most of the reviewed studies concentrated on the direct effect of sustainability on market value but did not lag the regression models. It therefore appeared as though sustainability disclosure of the same year will affect the market value of the same year. This study corrected this methodological gap by lagging the sustainability data by one year so that sustainability signals will be effectively captured in the market value of the following year.

3.0 Methodology

The study employed quantitative research design with data collected from 13 banks that were listed on the NGX. The data were collected using the published annual reports of the banks from 2014-2023. Variables of the study were independent, moderating and the dependent variables. The independent variable was sustainability proxied by economic, social, environmental and governance disclosure; each of the proxies of sustainability was measured as the ratio of the actual disclosure to the total expected disclosure. The mediating variable was investors measured using number of ordinary shareholders while the independent variable was market value proxied by Tobin's Q. The data were analysed using structural equation's modelling. The structure of the model is shown below.

3.1 Model Specification



Structural equation's Model

Where
NSH = number of ordinary shareholders
GOV = Governance disclosure

ECO = Economic disclosure
ENV = Environmental disclosure
SOC = Social disclosure
TQ = Tobin's Q

4. Analysis and Discussion of Results

4.1 Descriptive statistics

The descriptive statistics is a function of the data in appendix VI. The descriptive statistics was computed using STATA version 15 and it comprises of the mean, the standard deviation, the maximum and minimum. The descriptive statistics is presented in the table below.

Table 1: Descriptive Statistics

Var.	Obs	Mean	Std. Dev.	Min	Max
TQ	130	2.65	1.67	0.47	8.14
ENV	130	0.86	0.10	0.77	1.00
SOC	130	0.79	0.75	0.66	0.94
ECO	130	0.86	0.11	0.62	1.00
SIZ	130	7.51	0.74	5.62	8.58
NSH	130	1111559	158762	658834	1671400
GOV	130	0.828	0.78	0.66	0.94

Source: STATA version 15

The result of the descriptive statistics shows that the total number of observations for the study was 130 observations. This means that the data were collected from a panel of 13 banks for a period of 10 years. The study further indicated that within the study period, the average TQ stood at 2.60 with a little deviation from the mean of 1.67 implying that only a few of the TQ deviated from the mean TQ. The maximum and minimum stood at 8.14 and 0.47 respectively. The mean value of TQ of 2.65 was an indication that on the average, the banks generated market value that was higher than the value of the recorded assets. The deviation of 1.77 implied that few banks had TQ that were not close to the mean. The minimum value of 0.47 was an indication that within the study period, at least one bank had market value that was less than the book value of the assets.

In addition, the descriptive statistics show that the mean disclosure index of environmental, social, economic and governance disclosure within the study period were 0.86, 0.79, 0.86 and 0.80 respectively. The respective deviations from the mean were 0.10, 0.75, 0.11 and 0.07as indicated by the standard deviations. The maximum disclosure index for environmental disclosure was 1.00 that of social disclosure stood at 0.94, the economic was 1.00 and government disclosure witnessed the maximum disclosure index of 0.94. The mean reporting indexes of all the independent variables were close to '1' meaning that the disclosure ability of the banks on sustainability was generally high. The low values of standard deviations were indications that only few banks disclosed sustainability that was above and below the mean.

The number of investors (NSH) which is a mediating variable in the study has an average of 1.11 million shareholders with the maximum shareholders standing at 1.67 million and a standard deviation of 1.58.

4.2 Analysis of Results using Structural Equation's modelling

To analyse the results using structural equations modelling, the structure of the models was presented. The structure is made of a chain of effects between sustainability variables and investors and between investors and market value. The direct effect between sustainability disclosure and market value was also captured in the structure. The structure of the models is shown under the methodology.

Table 2: Results of structural equation's modeling

		Coef	Z	P>Z
Goodness of fit	TQ R^2			0.6930
	NSH R^2			0.5132
	Overall R^2			0.7175
	P>Chi2			0.0000
Structural: **NSH**	**Model 1**			
	ENV	1.11	0.85	0.396
	SOC	-0.75	3.36	0.001
	ECO	1.72	3.30	0.001
	GOV	0.88	7.47	0.000
TQ	**Model 3**			
	NSH	6002	2.85	0.005
	ENV	5260	0.82	0.412
	SOC	12715	0.80	0.424
	ECO	19115	1.96	0.050
	GOV	19784	7.07	0.000

Source: STATA version 15

Table 2 above indicated the model probability of 0.0000, which is an indication that all the models included in the structural equation's model were fit for interpretation and generalization of results. The table also indicated an R^2 (coefficient of determination) of 0.513 for model 1, 0.693 for model 2 and 0.717 for model 3 which was the overall model. This was an indication that in model 1, 51% of the variation in the number of investors (NSH) of the banks investigated was a function of sustainability disclosure activities of the banks within the period investigated. In addition, the R^2 of 0.693 in model 2 was an indication that sustainability disclosure accounts for 69% of the variation in market value (TQ) of the banks examined. Furthermore, the R^2 of 0.717 in the overall model was an indication that when sustainability disclosure attracts investors (NSH) to affect market value (TQ), sustainability disclosure would account for 72% of the variation in market value of the banks examined. Summarily, all the values of R^2 in the three models are above 50%, which was an indication that within the design of the models of the study and the study period, sustainability disclosure accounted for more than 50% of the variation in market value of the Banks. Other factors that may cause changes in market value accounts for less than 50% in all the three models set for the study. The table also indicates under model 1 that ENV has significant (0.001) effect on NSH. This means that a unit increase in environmental disclosure (ENV) holding other variables constant would increase the number of investors

of the banks investigated by 1.11 units. Furthermore, the table indicated under model '3' that ENV has an insignificant (0.412) effect on TQ. This means that units increase in environmental disclosure would insignificantly affect market value if all other factors are held constant. The table further indicated under model '1' that SOC has a negative and insignificant (0.396) effect on NSH. This means that unit increase in social disclosure holding other variables constant would insignificantly reduce the number of shareholders of the banks investigated by 0.75 units. On the other hand, the table indicated under model '3' that SOC has insignificant 0.424 effects on TQ. This means that units increase in social disclosure would insignificantly increase market value if all other factors are held constant. The same table provided that ECO has significant (0.001) positive effect on NSH. This meant that when other variables are held constant within the period under investigation, a unit increase in ECO would increase the number of investors by 1.72 units. Further evidence in the table provided that under model '3' ECO had significant (0.050) positive effect on TQ if all other factors are eliminated.
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This showed that within the period of the study, a unit increase in ECO will increase market value. In addition, the table provided that GOV has significant (0.000) effect on NSH. This connotes that a unit increase in GOV would increase investors by 0.88 units. Similarly, the table indicated in model '3' that GOV had significant (0.000) effect on TQ. This was an indication that GOV may have direct effect on market value of the Banks investigated. The table indicated under model '3' that NSH had significant (0.005) effect on TQ, which was an indication that the attraction of more shareholders can significantly change the market value of the Banks if all other factors are kept constant.

4.3 Analysis of Direct and Indirect Effect

The table below contains data for the analysis of the direct and indirect effect. The direct effect is a representation of the direct effect of sustainability variables on market value while the indirect effect is the representation of the mediating effect of investors on sustainability disclosure and market value of the Banks. This section therefore, examined whether direct or indirect effect exists regardless of whether the mediating effect is partial or full mediation

Table 3: Direct or Indirect effect

Direct effect		Coef	Z	P>Z
Structural: **NSH**				
	ENV	1.11	3.29	0.001
	SOC	-0.75	-0.85	0.396
	ECO	1.72	3.38	0.001
	GOV	0.88	7.47	0.000
TQ				
	NSH	6002	2.85	0.005
	ENV	5260	0.82	0.412
	SOC	12715	0.80	0.424
	ECO	19115	1.96	0.050
	GOV	19784	7.07	0.000

Indirect effect		Coef	Z	P>Z
Structural: **NSH**	No Path			
TQ				
	ENV	6667	2.15	0.032
	SOC	-4561	-0.81	0.461
	ECO	10355	2.17	0.032
	GOV	5284	2.65	0.008

Source: STATA version 15

Considering the direct effect in table 3 above, all the sustainability variables had significant effect on NSH except SOC that had an insignificant effect. This meant that within the study period, all the sustainability disclosure variables directly affect the investors of the banks investigated except social disclosure. The table however, indicated under the same direct effect that NSH had significant (0.005) effect on TQ, meaning that the changes in shareholders can affect the market value of the Banks. ENV had insignificant effect on TQ. This meant that within the study period, if other factors were not considered, environmental disclosure had no direct effect in the changes in the market value of the banks. On the contrary, ENV has significant (0.032) effect on TQ in the indirect effect. This implied that Environmental disclosure may be mediated by investors to affect market value. Based on the results in table 3, we concluded that since ENV has insignificant effect on TQ under the direct effect but had significant effect under the indirect effect, mediation exists between ENV and TQ therefore, environmental disclosure may only pass through investors to affect the market value of the Banks.

Another variable of interest was the SOC (social disclosure) which has insignificant (0.424) effect on TQ in the direct effect and an insignificant (0.461) effect on TQ in the indirect effect. Both the direct and the indirect effect were insignificant implying that within the study period, investors had no mediating effect on the relationship between social disclosure and market value of the Banks studied. Contrary, ECO had significant (0.050) effect on TQ in the direct effect and (0.032) significant effect on TQ in the indirect effect. This implied that investors had mediating effect on the relationship between economic disclosure and market value. Similarly, GOV has positive significant effect on TQ in both the direct and indirect effect meaning that considering the study period with other variables held constant, investors had mediating effect on the relationship between governance disclosure and market value of the Banks investigated.

4.4 Environmental disclosure and market value

The analysis of data in this study indicated that environmental disclosure had insignificant direct effect on market value of banks listed on the Nigeria Exchange Group. This is consistent with the findings of Abubakar et al (2017); Zamil and Hassan (2019) and Omoike, et al (2018) who empirically examined the relationship between environmental disclosure and market value and found insignificant relationship between environmental disclosure and market value. This means that an increase in environmental disclosure may not automatically increase market value. The result however changed when the effect of environmental disclosure on market value was considered from an indirect perspective where investors were introduced as mediators between environmental disclosure and market value. It was observed that environmental disclosure successfully passed through the investors to affect market value. This meant that environmental disclosure attracted more investors to invest into the banks by purchase of more shares causing competition for the shares and consequently increasing share prices that eventually increased the market value of the banks.

This result was supported by the voluntary disclosure theory and the signaling theory. The later posit that the managers of an organization are duty bound to transmit credible and accurate information about the organization in order to signal their performance. By implication, the management of the Banks investigated had the moral obligation to provide information to the stakeholders to signal the Banks performance. The information may have served as signals to investors in making informed investment decisions. In addition, the voluntary disclosure theory stated that information is supposed to be released willfully in its natural form without adulteration to provide facts about an organisation's performance. Such information attracts more investors and consequently impact positively on performance. The release of environmental disclosure information by the banks may be what had attracted more investors to purchase the shares of the banks causing an increase in share prices and higher market value for the banks. The study recommended that banks investigated should continue with environmental disclosure activities as it enhances market value through the attraction of more investors and high share prices.

4.5 Social disclosure and market value

The effect of social disclosure on investors was insignificant as shown in table 3 under the direct effect results. This means that an increase in social disclosure activities by one unit may insignificantly increase the number of investors of the banks investigated. This finding was supported by the voluntary disclosure theory that states that companies should voluntarily disclose information even if the information does not support their objective. The finding is further supported by the legitimacy theory because legitimacy theory posits that organizations should respect the law and behave in accordance with the norms of the land. Also, companies that are legitimate and ethical in their functions are rewarded with high reputation; this connotes that companies are obligated to disclose their CSR to be law abiding with the laws of the land.

Furthermore, the analysis of this study indicated that within the study period, corporate social responsibility disclosure has direct insignificant effect on market value of banks listed on the Nigerian Exchange Group. Consistent with this result were the findings made by Bualley (2020); Nan et al (2019), Erhirhie and Ekwueme (2019); who also found insignificant relationship between corporate social responsibility reporting and market value of different corporate organizations. The study also found an indirect insignificant relationship when investors were used as mediators between social disclosure and market value. The implication of this result was that within the study period, social disclosure did not affect market value even when it was mediated by investors.

This result is supported by the stakeholder theory, which posits that firms must accommodate the needs and desires of all the stakeholders including those that may affect or be affected negatively by the banks. This means that if the social disclosure information prepared by the banks does not attract investors, they may not buy the shares of the firm and market value may be affected negatively. By the position of this theory, firms have to be sustainable in their functions by considering all the stakeholders even if it is detrimental to the determination of market value. Thus, it was concluded that within the study period, the effect of corporate social disclosure on market value may not be appreciated even with investors as mediators. The study recommended that going forward, the banks examined should prepare and disclose adequate social responsibility activities in such a manner that more investors would be attracted to invest in the company this is because some of the disclosure requirements on social disclosure were not met by the banks in some of the years examined.

4.6 Economic disclosure and market value

Similar to the findings of Jalila and Komathy (2019); Effiong et al (2019) and Utile et al (2018) that economic disclosure had positive and significant effect on the performance of different companies studied, this study also obtained a direct positive and significant effect between economic disclosure and the market value of Deposit Money Banks listed on the Nigerian Exchange Group. This means that an increase in economic disclosure would increase the market value of the banks examined. The indirect effect between ECO and TQ also had a positive and significant effect. This meant that the effect of economic disclosure on market value would be appreciated more if investors mediate it.

This finding contradicts the agency theory where the agents were assumed to act against the interest of the principal. Here, the agents have released economic information by fully disclosing economic issues that reduced information asymmetry for more investors to make informed investment decisions. In addition, investors mediate economic disclosure because investors are interested in economic information like market presence, procurement practices, anti-corruption reports and anti-competitiveness which are economic disclosure activities that may enable the investors to have adequate information for informed decision making. Since investors have mediating effect between economic disclosure and market value, the banks investigated are encouraged to continue to improve their economic disclosures to attract more investor participation that may increase market value.

4.7 Governance disclosure and market value

The analysis of governance disclosure had significant direct effect on market value of Banks listed on the Nigeria Exchange Group. This is consistent with the findings of Oladeji and Agbesanya (2022) and Salem et al (2019) who empirically examined the relationship between governance disclosure and market value and found significant relationship between the two variables. This meant that an increase in governance disclosure may increase market value. The result was similar when the effect of governance disclosure on market value was considered from an indirect perspective where investors were used as mediators between governance disclosure and market value. It was found that governance disclosure successfully passed through investors to affect market value. This further meant that governance disclosure attracted more investor because investors are interested in the governance structure of any organization, they intend to invest in. The profile of the directors of the firm for example is usually an interesting part for investors because the integrity of the directors is a motivating factor for investor participation in the firm. If the directors are predominantly of questionable reputation, investment may not receive optimal patronage

The later posit that the managers of an organization are duty bound to transmit credible and accurate information about the organization in order to signal their performance. By implication, the management of the Banks investigated had provided adequate signals on governance disclosure. The legitimacy theory posits that firms should carry out their functions in line with the law and norms of the society. Governance disclosure is therefore a legitimate thing that any corporate organization would willingly disclose. Since the disclosure of governance issues had significant effect on market value with or without the mediation of investors, Banks investigates were encouraged to continue to take adequate governance disclosure to enhance market value.

5 Conclusion

This study aimed at examining the mediating effect of investors on the relationship between sustainability disclosure and market value of Deposit Money Banks listed on the Nigeria Exchange Group. Investors mediated four variables of sustainability disclosure and market value. The conclusion of this study was based on the findings arising from the test of the hypotheses that were formed in chapter one. First, the result obtained from table 3 under the indirect test indicated that the mediating effect of investors on the relationship between environmental disclosure and market value was significant. This means that environmental disclosure does not have direct effect on the market value of the banks since the direct effect of environmental disclosure and market value was insignificant as shown by the direct effect test in table 3. The implication of this finding was that within the study period, investors of the Banks could only motivate the nexus between environmental disclosure and market value. This may be possible because the environmental disclosure was done in a manner that attracted more investors cum additional capital for the banks; innovative ideas and improved technology that may have led to increase productivity to enhance market value. Besides, the attraction could have created competition for the shares of the Banks causing a rise in share prices to enhance market value. Based on the findings of this study and subject to the study period, it was concluded that investors are mediators between environmental disclosure and market value.

The second conclusion was that within the study period, investors had no mediating effect on the relationship between social disclosure and market value of Deposit Money Banks in Nigeria. This was because the result of the indirect test in table 3 on social disclosure and market value was insignificant. Furthermore, the result of the direct effect also indicated that social disclosure had insignificant effect on market value. In addition, the effect of social disclosure on investors was also insignificant. The implication of this conclusion was that between 2011- 2020, the social disclosure of the banks was unable to attract investors and market value could not be enhanced directly nor indirectly.

Thirdly, it was concluded that investors had significant mediating effect on the relationship between economic reporting and market value of Deposit Money Banks listed on the Nigeria Exchange Group. The conclusion was drawn based on the analysis of data under the indirect effect in table 3 where investors were found to have significant mediating effect on economic reporting and market value of the banks studied. This relationship may have been possible because investors were interested in the disclosure on anticorruption policies of the banks, market presence and anticompetitive strategies that could have motivated investors to invest more causing a boost in the market value of the Banks.

The last conclusion was that investors had significant mediating effect on governance disclosure and market value of Deposit Money Banks listed on the Nigeria Exchange Group. The conclusion was based on the results obtained in table 3 under the indirect effect test. The result indicated that governance disclosure successfully passed through the action of investors to affect the market value of the Banks. This may have occurred because of the interest of investors on the governance practices of the banks. The implication is that banks investigated may have made adequate disclosure on governance issues of interest to investors. This may have caused the attention of many potential investors to invest in the banks with positive consequences on the market value.

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