SUSTAINABILITY REPORTING AND FIRM'S VALUE; EMPIRICAL EVIDENCE FROM NON-FINANCIAL SECTOR

Abdul Olalekan Hassan[1] and Wasiu Ajani Musa[2]

[1]Accountancy Department, Kwara State polytechnic, Ilorin, Nigeria.
[2]Department of Accounting, University of Ilorin, Ilorin, Nigeria.

Abstract

Stakeholders have predicted that imbalances in natural systems will negatively influence the quality of human life and economic arrangements. This led current concern over sustainability to be greater than ever since single information on financial and economic performance does not quench the thirst of users except with other social and environmental news that its failure to report may damage corporation's image substantially. Hence, this study observed the association amid sustainability reporting variables and the corporation's value in the non-financial sectors of the Nigerian stock market utilizing a static model underpinned by legitimacy theory. Secondary data spanning between 2013 and 2020 were employed on annual reports of forty firms selected using stratified sample technique. Variance Inflation Factor and Breusch-Pagan / Cook-Weisberg test for heteroskedasticity showed that the model is free from multicollinearity and heteroskedasticity. Post estimation tests of Breusch Pagan Lagragian Multiplier test and Hausman test suggested the consistency of random effect model over pooled ordinary least square model (OLS) model and fixed effect model. The static regression estimator revealed that economic and social sustainability positively and significantly affects firm's value. This study concludes that net asset in the Nigerian non-financial services sector is driven by sustainability reporting except for environmental sustainability. This study proposed that management of quoted non-financial services firms in Nigeria should improve economic and social sustainability reporting through research and development, employee productivity, job creation, community development, and training because they contribute positively to their value.

Keywords: ***Firm's value, Global reporting initiative, Non-financial sector, Sustainability reporting, Triple bottom line***
JEL Classification: M40

1. Introduction

The conventional and dominant focus has been to offer information regarding business progress in areas of economic and financial position. Still, today in the industries, sustainability concern is more significant than before. Aside from fair competition among producers, accurate care should be provided by manufacturers for the usage of natural resources, especially those with wasting character which can also cause harm to the human race. The welfare of employees and management of other stakeholders of the community constitute other factors that organisation should consistently oversee. Failure in management of waste, air emission, water pollution and other sustainability issues may damage the company's image, affecting its market value (Amos & Uniamikogbo, 2016: Brey & Haavaldsen, 2014). Some companies have experienced rising demands from stakeholders to demonstrate environmental and social duty and are requested to provide information on how they adapt employee and waste management issues. Similarly, stakeholders are mounting pressures on corporations to widen business goals beyond the observed owner's returns (Milne, Tregida, & Walton, 2009).

In response to these, firms now approach these pressures through implementation of corporate social responsibility frameworks and disclosure of non-economic information. This points to the fact that process of sustainability development now hinges on all stakeholders in both public and private establishments. Recently, many firms have been providing more excellent information about non-economic aspects of their operations (WCED, 1987). This is since culturally they are consuming the natural resources on which they rely on, at a rate faster than it can be replenished.

Addressing these issues requires them to constantly manage their choices as government agencies, companies and individuals, including what sort of power and quantity they use and the technique of waste management (Amos & Uniamikogbo, 2016:).

As records have shown the shift in societal attention towards environmental sustainability, businesses are encouraged to project the long haul to see the influence on the world around them. A fundamental idea propagated more recently is how imperative it is that businesses consider values in reporting to reduce the possibility that their actions might cause harm to common resources, especially as it affects the future. This continuous public information and change of procedure and policies is tagged Sustainable Development (Utami, 2015).
In literature, firms are deemed to disclose CSP if it will guarantee symbiosis relationship, thereby improving market values (Ostrom, 2009). In contrast, legitimacy theory opined that underperforming companies report sustainability with the aim of increasing the view of populace regarding their sustainability performance (Deegan, 2002). In both cases, the objective is to enhance stakeholders' perception about CSR disclosure (Deegan, 1996). Problem is envisaged when good performing and bad performing organization disclose corporate social responsibility as investors may likely be confused in differentiating bad performing companies from good companies
In the light of this development, this study evaluated the influence of sustainability reporting on firms' value of non-financial firms in Nigeria. Based on this premise, the specific objectives of this study explore sustainability and the 'Triple Bottom Line', as tools to appraise the effects of the economy, social equity, and environment reporting on firm's value.

2. Literature Review

The section examines all related extant literature.

2.1 Conceptual Framework

2.1.1 Sustainability Reporting

There is no singular most accepted description of sustainability reporting since the concept is used in relation to firm's performance regarding economic, social and environmental. This term is usually regarded as sustainable development, corporate social responsibility or triple bottom line. (KPMG, 2008). Brundtland report viewed this concept as the process of meeting present day generation needs without compromising the need of the future (WCED, 1987: Goel, 2010). Turan, Scala, Besterfield and Sacre (2009) and Dagiliene (2014) summarized the concept as organizational strategies in actualizing the needs of direct and indirect stakeholders while putting future generations into consideration.

2.1.2 Motivations for Sustainability Disclosure

Epstein and Freedman (1994) opined that social responsibility disclosure constitutes components of what pleases stakeholders in the annual report of organization. Arvidson (2011) suggested that motivation for sustainable development emanates from laws and regulations including external and internal forces. This implies firms should explain problems facing value creation strategies while also acknowledging disclosure significance.

Deegan (2002) summarized sustainability motivations into legal compliance, rationality, reporting responsibility, lender requirements, communal expectations and company legitimacy. Reason behind reporting sustainability ranges from ability to track progress, strategy implementation, ecological issue awareness, organization information conveyance, and improved transparency. Factors leading to non-disclosure are not limited to doubtfulness about advantages, inconsistency in report publishing, public loss of interest, previous reputation of firms.

2.1.3 Corporate Social Responsibility

CSR has seen a tremendous progress. It is perceived as companies' response to, and consideration of, matters not related to technical, legal and financial needs (Davis, 1973). After some decades, CSR is perceived as an important terminology where voluntary decision about better contribution to the society is made by organizations (Olawale, 2010).

Marrewijk (2003) opined that CSR is vague as it means different things to many stakeholders. This is because some firms utilize the idea with the aim of increasing their sales while covering up negative influences on stakeholders (United Nations ESCAP, 2013). Gray, Kouhy, and Lavers (1995) identify four themes of sustainability development as buyers, employees, community and environment.

2.1.4 Corporate Social Responsibility and Sustainability

In literature, several factors are used to create a distinction between CSR and sustainability. Creation of value, management of intellectual capital and management of production remain the major focus of sustainability while CSR is a product of organizational transparency and communication with stakeholders (Marrewijk, 2003). It is believed that organisation can only meet current and upcoming requests if CSR remains its main objective (Linnanen et al., 2003). In summary, the two concepts create a complete picture of sustainability and corporate responsibility (Marrewijk, 2003)

2.1.5 Triple Bottom Line (TBL)

This is a broad and clear allegory used in past literatures to connote an accounting evaluation framework with a far-reaching perspective aimed at improving organizational value (Elkington, 1997, Henriques, 2007). This outline is divided into Economic, social and environmental.

The economy line is used to assess business impact in relation to financial progress of the organization (Elkington, 1997). This aspect of triple bottom concentrates on how business growth aligns with economic growth and how well business practices support economic development (Spangenberg, 2005). Index of disclosure on wages and other benefits, research and development, and job creation constitutes the measurement of this variable.

The social line of TBL means meeting the needs of employees and host community without being unjust to anyone (Elkington, 1997). Businesses must ensure they give back to the community that hosts them through practices that create value. This can be achieved by payment of reasonable remunerations and provision of good health care for sick employees. Sulaimon, Kasum and Musa (2021) asserted that organizational performance can be negatively affected if disregarded, ignoring the social aspect of sustainability leads to associated economic cost (Goel, 2010). Index of disclosure on community development, training and education, occupation and safety, and customers' health and safety were used to proxy this variable.

The environmental aspect of TBL ensures organization shorn practices that impact negatively on future resources of the nation. Brundtland Report (1987) considers sustainability as a current activity which does not compromise next generation ability. Goel (2010) emphasized management of factors that can affect climatic conditions through gas emission reduction and using energy resources effectively. Previous dimensions employed in researches are community involvement and improvement, education and awareness of host environment, entrepreneurial activities, integrity of management and activism of stakeholders (Sher & Sher, 1994: Painter-Morland, 2006). Disclosure index on waste management, emission and environmental management system were employed as measurement of this variable.

2.1.6 The Global Reporting Initiative (GRI)

The concept of GRI evolved in nineteenth centuries for the purpose of building a world reporting framework on social, economic and environmental performance. The guideline was formerly employed for companies before its usage metamorphosized to other businesses (GRI, 2006). This framework integrates all forms of establishments such as non-governmental organization (NGO), government agencies, accountancies organizations, universities and other stakeholders of the nations. As at year 2002, over one hundred and forty (140) firms had organized their report based on GRI framework of four aspects namely report framework, reporting decision, reliability and quality of report and stakeholders' access to report (GRI, 2011)

2.1.7 Firms Value

Shareholders will only invest surplus funds in firms with extraordinary performance. This is because market-based valuation (stock price) of companies will be pushed by organization performance (Keys & Biggs, 2009; Sudiyatno, Puspitasari & Karkita, 2014). Determining firms value can be complex especially when gaming simulation is utilized in derivation of stock price which constitute weighted average of all other measures. Firm valuation is obtained by different means, each of which is likely to give a figure that varies from that obtained by another measure (Biggs, 2008). This study employs natural log of net assets as proxy for firm value.

2.2 Theoretical framework

2.2.1 Legitimacy Theory

Legitimacy literarily implied acting in conformity to the law. The theory was credited to Dowling and Pfeffer in the year 1975. They asserted that constant disclosure and transparency of CSR assist firms in maintaining legitimacy (Tregidga, Milne & Kearins, 2006). A link between corporate value and bigger societal system is being referred to as legitimacy theory (Lindblom, 1994: Patten, 2005). O'Donovan (2002) and Gray *et al.* (1995) postulate that legitimacy theory can hold if disclosure assumption exists and insights regarding transparency is offered.

In a steady sustainable community, stakeholders require firms to maintain good performance in areas of environmental, social and economic. Adams and Narayana (2007) and Deegan (2002) asserted that one method of achieving legitimacy is constant publication of annual financial report and reinforcement of sustainable practices. Organizations are advised to adopt several practices that modify people’s perception about its legitimacy (Chen & Roberts, 2010). Social legitimacy is actualized when values and norms of the community are taken into consideration by companies operating therein (Patten, 2005). This will ensure the corporation does not break its social contract

According to Shocker and Sethi (1973), organization survival is dependent on provision of socially desirable needs and distribution of benefits to parties that contributed to its success. Equally, it is opined that the right to natural endowment and existence does not belong to corporations since only individuals and companies exhibit social contract (Mathews, 1993).

Deegan (2002) is of the opinion that a breach in the social contract will threaten the well-being of firms in the industry and consequently impact negatively on effective demand of the company’s products. In the same vein, an end may be put to the supply of human resources by providers of labor. There may be a possibility of fall in sources of assessable capital from borrowers (Biggs, 2008). Government agencies like tax authorities may put stringent policies that may not favor the business (Patten, 2005). All the gaps may be breached through corporate disclosure as legitimacy is not viewed distinctly by different stake holders

Separate request of legitimacy is solved by organizations using several means as proposed by Suchman (1995). This means allow companies to be aware of its sustainability motivating factors.

Engaging in activities and procedures with zero social and environmental effect assists organisation in gaining better perception from stakeholders. Goel (2010) emphasized organization proactiveness in achieving moderate perception of stakeholders regarding its sustainability performance.

In summary, conformity to present societal norm was highlighted as the first action that firms need to embark upon to improve performance; secondly, employment of listeners who will usually provide support and cooperation for the firm's activities and programs. Area manipulation and creating awareness to catch new audience form the third procedure for sustaining legitimacy. A firm can repair its perception if strategies is in place for restructuring, account normalization and consistency in value creation (O'Donovan, 2002: Suchman, 1995).

2.3 Empirical Evidence

In a sample of thirty-two (32) company quoted on Indonesian stock market between 2006 and 2009, Burhan and Rahmanti (2012) observed the linear association amid sustainability report factors and corporation performance with the aid of multiple regression technique. The research revealed that only social disclosure variable significantly impacts on firm's value. In another study carried out by Khaveh, Nikhashemi, Yousefi and Haque (2012), a positive and significant correlation exists between sustainability reporting and company turnover. They conclude that environmental and community awareness disclosure guarantee continued profitability to firms as a result of improved turnover.

Tsoutsoura (2004) employed static regression analysis method to test for the existence of relationship between corporate social responsibility and organization income. The study collated extensive data spanning from 1996 to 2000. The study concludes that a positive and significant link exists between corporate social responsibility and triple bottom line variables. The effect of sustainability reporting activities and financial performance of firms in selected industries was evaluated by Duke II and Kankpang (2013). The study utilized regression method after preliminary diagnostic tests were carried out on the data collected. They ascertained that management of waste and pollution improve corporation performance of selected companies.

An observation on the possible impact of environmental accounting on returns of some selected quoted companies in India was done by Makori and Jagongo (2013) with the aid of regression technique. The study reports a negative but significant relationship between ecological variables and returns proxied with earnings per share (EPS) and return on capital employed. In contrast, environmental accounting significantly improves profit margin and dividend per share. Munasinghe and Kumara (2013) employed spearman's rank-order correlation to analyzed firm's motivating factors with regards to corporate social responsibility disclosure and company's performance. It was revealed that profitability is driven by corporate social responsibility.

Aggarwal (2013) examined the impact of the company's sustainability performance on the financial performance of listed Indian companies using regression method of analysis. The study found that the Community-related version has an insignificant positive relationship with the company's economic performance. Employee-related performance, environmental-related performance, and financial-related performance have a significant connection with organisation's performance. Hussain (2015) examined the impact of sustainability disclosure on the financial performance of hundred (100) global fortune firms. The fixed effect regression model was employed as an analytical tool, and the result shows that the economic sustainability variable is not relevant. At the same time, several proxies for profitability display relevance and significant association with social and environmental dimension of sustainability.

In a sample of onehundred (100) public Malaysian firms for 2011 market capitalization selected with purposive method, the impact of environmental disclosure was tested with regards to financial performance by Norhasimah (2015). The study employed multiple regression technique in addition to spearman's correlation for data analysis. It was observed that the profit margin is significantly affected by environmental disclosure. Utami (2015) examined the effect of financial performance and the sustainability disclosures qualities of one-hundred and forty-three (143) firms in the Indonesian Stock Exchange over the period 2011 – 2013, using regression analysis. It was concluded that firms' performance improves with improvement in profitability and leverage. Additionally, growth in returns moderates the effect between firms' sustainability and corporation value.

Ratanacharoenchai, Rachrapradit and Nettayanun (2017) investigated sustainability reports and their effect on the firm value of four-hundred and twenty-five (425) firms in Thailand over the period 2012-2014. A static analysis method was used to analyze. The results reveal a non-positive association between the full disclosure and the firm value; the results contrast with the information asymmetry concept. However, the negative firm value could be due mainly to specific falling oil price phenomena during the study period, not the disclosure itself.

Gnanaweera1 and Kunor (2018) studied the determining variables of sustainability disclosure in eighty-five (85) companies quoted on Tokyo stock exchange (TSE) during the period spanning from 2008 to 2014. Content analysis method was utilized to ascertain the extent of disclosure on social, environmental and economic information. Static panel regression analysis was also employed to test the existence of association between the variables. It was evidenced that a weak significant relationship exists between performance indicators and disclosures.

In the Nigeria context, Ngwakwe (2008) investigated a likely correlation among business practices that are sustainable and performance of sixty (60) firms in the manufacturing sector of Nigerian stock exchange. The study adopted a field survey methodology. The study evidenced that organisation performance is significantly related to sustainable practices. Olawale (2010) assessed the impact of sustainability reporting on profit of first bank of Nigeria (FBN). Test of hypotheses was analyzed with the aid of product-moment correlation. It was established by the study the significant of corporate social responsibility on First Bank Plc.

Utilizing content technique of analysis on data collated from annual reports of six (6) major oil and gas producing companies in Nigeria, Asaolu (2011) investigated the information conformity with regard to global best practices of Nigerian oil and gas sector. It was showed that corporate social responsibility was not present in the sample corporations. The study used content analyses to analyze his data. However, content analyses are descriptive. It describes what is there but may not reveal the fundamental reason for the observed pattern. It tells us what happened but not why it happened. Also, the observed trend may not be a correct measure of reality. Beredugo (2012) studied the link between sustainable development in Nigeria and corporate social responsibility with the aid of survey research technique. The study sampled four hundred (400) respondents.

Ordinary least square with other primary methods of analyses reveal the positive effect of environmental accounting on sustainable development in Nigeria. In addition, the study showed the stakeholders require their firms not to harm the environment as a result of profit motive

Disposition of Nigerian financial institution with regards to sustainability was x-rayed by Oyewo (2014) using banks sampled based on standalone sustainability report for 2012 annual report. Content analysis and correlation was adopted by the study in testing the association assumption between variables of the model. Also, analysis of variance (ANOVA) was utilized in testing the difference of sampled mean. The study concluded that sustainability is not a function of performance as no significant relationship was observed. Akinlo and Iredele (2014) examined the influence of disclosure of environmental information on the market value of fifty (50) listed Nigerian firms between 2003 and 2011. Regression analysis was employed through Tobin's Q. Results revealed that corporate environmental disclosure cumulatively improves corporation's market value.

Adekanmi (2015) surveyed the extent of the environmental disclosure practice of fifty (50) manufacturing firms listed on the Nigeria stock exchange for eight years starting from 2005 and ending in 2012. The study employed content analysis through descriptive statistics vis-à-vis ratio percentage. Findings evidenced that disclosure value is at average. Kwaghfan (2015) purposively sampled one-hundred and twenty (120) listed companies on Nigeria stock exchange to examine the unidirectional causality of sustainability on firm's performance. The study utilized student t-test to evaluate the hypotheses. A positive and significant relationship was observed by the study.

2.4 Research Gap

Studies have been conducted on sustainability reporting and financial performance both within and outside the scope of Nigeria. However, there are gaps that these studies failed to fill; these aspects neglected are also significant. So, the gaps that this study sought to fill are: the application of triple bottom line as representative of sustainability reporting, employment of robust panel analysis that none of the previous studies have used, and finally, the period covered by this study up to 2020, which has not been covered by previous studies. Finally, Non-financial sectors which previous works on sustainability have neglected was selected by this study as the sector guarantees much turnover from goods procured and sold daily leading to positive growth in nation GDP.

3. Methodology

For this study, the target population is 128 non-financial firms as of May 2021. The sample size of this study is 40 non-financial service companies listed on the Nigeria Stock Exchange spanning from 2013 to 2020, using a stratified sampling technique. The justification for the selection of 40 firms and the period was based on data availability.

The model for this study was built in line with Gnanaweera1 and Kunor (2018), triple bottom line and legitimacy theory.

The model was stated below:

FMV = ESR, SSR. NSR, SIZE)

Where: ESR is Economic Sustainability Reporting; SSR is Social Sustainability Reporting; NSR is Environmental Sustainability Reporting

When transformed into multiple linear econometric models, it is expressed in estimation form as:

$FMV_{it} = \alpha + \beta_1 ESR_{it} + \beta_2 SSR_{it} + \beta_3 NSR_{it} + \beta_4 SIZE_{it} + \mu_{it}$

Where:

α = Intercept of the models (the value assumed by proxies for financial performance when all the independent variables are zero)

$\beta_1 - \beta_4$ = Parameters of the model to be estimated, they represent the slope of the model and measure the amount of variation in the explained variable caused by the independent variables.

$\mu_{it} = \varepsilon_{it} + \lambda_i$

ε_{it} = stochastic error term

λ_i = cross-sectional individual variation

This study utilized a static regression method comprising pooled OLS, fixed effect, and random effect model. Gujarati (2004) observes that the Hausman test's null hypothesis is that the fixed and random effect model estimators are similar. Bruesch and Pagan LM test was applied in choosing the appropriate model between pooled and fixed/random effect.

Data from secondary source was employed by this study. It was extracted from audited annual report of chosen firms in the non-financial sector of Nigerian stock exchange (NSE) from 2013 till 2020. These data are post-tax returns, tur-over, total assets, total equity, economic information, corporate social reporting, and environmental information.

4. Results and Discussion

4.1 Data Presentation

Data used for this study comprises disclosures on remunerations and other benefits, research and development, job creation, community development, staff orientation and education, occupation and safety, health and safety of customers, waste management, and emission and environmental management system.

Table 1: Descriptive statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
FMV	320	6.9250	0.8172	4.7399	8.8052
ESR	320	1.8920	0.4010	2.0000	3.0000
SSR	320	2.1950	0.3073	2.0000	4.0000
NSR	320	0.2000	1.8184	3.0000	8.0000
SIZE	320	7.3368	0.7568	5.5358	8.9838

Source: Author's Works, 2021

Table 1 presents the variables' summary statistics, including; standard deviation, minimum, maximum and average values of selected Nigerian non-financial service firms. The dependent variable is the firm value proxy with the firm's net asset log. In contrast, the independent variable is sustainability reporting measure with economic sustainability reporting, social sustainability reporting, and environmental sustainability reporting and a control variable of firm size proxy with the log of the total asset ranging from 2013- 2020 for selected Nigerian non-financial service companies.

Table 2: Test for Multi-collinearity

Variable	VIF	1/VIF
ESR	1.28	0.7262
SSR	1.28	0.7813
NSR	1.23	0.8126
SIZE	1.16	0.8600
Mean VIF	**1.26**	

Source: Author's Works, 2021

VIF represents one of the ways of checking the existence of strong association between explanatory variables in a regression framework. In table 2, the Variance inflation factor was utilized in detecting the possible multicollinearity of independent variables if it violates the assumption of the estimation techniques; as a general principle, the complex the VIF the higher the possibility of multicollinearity (Gujarati, 2004). From the result, there is an absence of multicollinearity.

Table 3: Breusch-Pagan/ Cook-Weisberg Test for Heteroskedasticity

Variable	Chi^2	P-value
Model	1.11	0.3901

Source: Author's Works, 2021

Variations of error components of several observations is termed heteroskedasticity. Errors in a regression model are expected to be homoscedastic for regression output to be an unbiased estimator. This study tests for homoscedastic assumption of linear regression using breusch-pagan LM. The null hypothesis of the test states that all errors are the same implying a multiplicative function of several variables. The P-value (0.3901) is greater than the 5% significance level, suggesting that the variations between explanatory variables are small.

Table 4: Regression Results

Variables	Random-effects Model
Constant	7.0466*** (0.000)
ESR	0.0628** (0.016)
SSR	0.0306*** (0.000)
NSR	1.4824 (0.239)
SIZE	1.2556*** (0.000)

F-stat	
Wald X^2	37.99*** (0.0000)
Hausman Test	1.76 (0.2714)
Breusch and Pagan Lagrangian Multiplier Test	191.87*** (0.000)

*, **, ***: denotes Significant at 10%, 5% and 1% level respectively.
Bracket: denotes P-value, while the value denotes Coefficients
Source: Author's Works 2021

Table 4 shows the linear relationship between integrated reporting and the firm's value of non-financial service firms in Nigeria, using static panel regression technique. The table reveals the random-effects model and the posts estimation test (probability test and Hausman test).
The two-post estimation test revealed that random-effects are appropriate as indicated by coefficient and probability value. Based on the sign of the coefficient, all variables support *a priori* expectation of positive sign; this implies existence of direct link between dependent variables and the firm's value. The study's objectives were achieved with the sign and magnitude of the coefficient of each variable.

The first objective of the study was achieved with the signs and magnitude of economic sustainability reporting (ESR), which has a significant positive effect on firm's value of selected non-financial service firms in Nigeria, as indicated by a coefficient (0.0628) with P-value (0.016) below 0.05 level of acceptance. The null hypothesis was debunked; this implies that an improvement in the economic sustainability reporting of non-financial service firms in Nigeria will induce a 6.3% improvement in the firm's value.
Signs and magnitude of social sustainability reporting (SSR) revealed a significant positive effect on the firm's value of selected non-financial service firms in Nigeria, as indicated by a coefficient (0.0306) with P-value (0.000) less than to 0.05 significance level. The null hypothesis was rejected; this implies that a unit increase in social sustainability reporting of non-financial service firms in Nigeria will induce a 3.1% improvement in the firm's value.
In contrast, the sign and coefficient of environmental sustainability indicate no significant association between the two variables. The coefficient (1.4824) with P-value (0.239) is higher than the 0.05 significance level suggesting that environmental sustainability reporting of non-financial service firms in Nigeria does not contribute to the firm's value.

Overall, the Wald X2 (37.99) with P-value (0.000) at 5% level of significant means that sustainability reporting of non-financial service firms in Nigeria has a significant impact on firms' value, this implies that reporting on firms' sustainability in Nigeria contributes positively to firm" s value.

4.2 Discussion of Findings

Findings from the analyses above are explained below:

i Economic sustainability reporting has a significant positive effect on firms' value of non-financial service firms in Nigeria. This was revealed by the statistics presented in table 4, and it is consistent with the finding of Aggarwal (2013), and Utami (2015) as the studies also found positive and significant relationship, but against the result of Hussain (2015) as the study found no significant effect between the variables. The result also supports legitimacy theory.

ii It was evidenced that social sustainability reporting has a positive and significant effect on firm's value of non-financial service firms in Nigeria. This result is consistent with the finding of Hussain (2015), who found a similar result, but against the result of Aggarwal (2013) as the study found no significant effect between the variables. The result is in line with the Legitimacy theory.

iii Furthermore, environmental sustainability reporting has no significant effect on the firm's value of non-financial service firms in Nigeria. This result is not in line with the finding of Aggarwal (2013), Hussain (2015), Norhasimah (2015), and Beredugo (2012) as the studies found positive and significant effects between the variables.

5. Summary and Conclusion

This study surveys the impact of sustainability report factors on values of selected non-financial goods firms using static panel regression estimator. This study revealed that economic, social, and environmental sustainability variables positively impact firms' value. It was concluded that the value of firms in the non-financial sectors of the Nigerian stock exchange is affected by the expenditure incurred by corporations in the area of economic, social, and environmental. However, when an individual component of sustainability reporting is evaluated, economic sustainability reporting and social sustainability reporting have positive and significant, while environmental sustainability reporting has less effect.

This study suggested that management of non-financial service firms in Nigeria should improve economic sustainability reporting through research and development, employee productivity, job creation because they contribute positively to their value. Also, non-financial service firms in Nigeria should be consistent with socially sustainable activities such as community development, training, education, occupational health, and safety because they contribute positively to their value and the strength of networks with their stakeholders. Lastly, firms in the Nigerian non-financial sectors improve environmentally friendly practices such as waste management, emissions control, biodiversity, water, energy conservation, and environmental management so that they can contribute positively to their value.

References

Adams, C. & Narayana, V. (2007). The standardisation of sustainability reporting, in Unerman, J., Bebbington, J., & O'Dwyer, B. (Eds.) *Sustainability Accounting and Accountability*.70-85, London: Routledge.

Adekanmi, A. D. (2015). Environmental accounting: A tool for sustainable development. *International Journal of Advanced Academic Research - Social Sciences and Education, 1*(2), 23- 31.

Aggarwal, P. (2013). Impact of sustainability performance of company on its financial performance: A study of listed Indian companies. *Global Journal of Management and Business Research Finance, 13*(11), 60 – 70.

Akinlo, O. O. & Iredele, O. O. (2014). Corporate environmental disclosures and market value of quoted companies in Nigeria. *The Business & Management Review, 5*(3), 3 - 14.

Amos, O. A. & Uniamikogbo, E. (2016). Sustainability and triple bottom line: An overview of two interrelated concepts. *Igbinedion University Journal of Accounting, 2*(1), 88-126.

Arvidsson, S. (2011). Disclosure of Non-Financial Information in the Annual Report; A Management-Team Perspective. *Journal of Intellectual Capital, 12(2)*, 277-300.

Beredugo, S. B., & Mefor, I. P. (2012). The Impact of environmental accounting and reporting on sustainable development in Nigeria. *Research Journal of Finance and Accounting,3*(7) 1-7.

Biggs, W. D. (2008). A comparison of ranking and relational grading procedures in a general management simulation. *Simulation And Games, 9,* 185-200.

Brey, C. & Haavaldsen, M. (2014). *Exploring the relationship between sustainability disclosure, financial performance and initial public offerings: UK evidence among recently listed companies on the AIM.* Unpublished Master Thesis, Copenhagen Business School, Denmark.

Brundtland, G. (1989). *Our common future: The world commission on environment and development.* England: Oxford University Press.

Burhan, A. H., & Rahmanti, A (2012). The impact of sustainability reporting on company performance. *Journal of Economics, Business, and Accountancy Ventra, 15*(2), 257 – 272.

Chen, J. C., & Roberts, R. W. (2010). Toward a more coherent understanding of the organization-society relationship: A theoretical consideration for social and environmental accounting research. *Journal of Business Ethics, 97*(4), 651-665.

Dagiliene, L. (2014). Impact of normative institutional factors on sustainability reporting. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering, 8*(6), 1-16.

Davis, K. (1973). The case for and against business assumption of social responsibilities. *Academy of Management Journal, 16*(2), 312-322.

Deegan, C. (2002). Organizational legitimacy as a motive for sustainability reporting, in Unerman, J., Bebbington, J., & O'Dwyer, B. (Eds.) *Sustainability Accounting and Accountability*. London: Routledge.

Deegan, C., & Gordon, B. (1996). A study of the environmental disclosure policies of Australian corporations. *Accounting and Business Research*, *26*(3), 187-199.

Duke II, J. & Kankpang, K. (2013). Implications of corporate social responsibility for the performance of Nigerian firms. *Advances in Management & Applied Economics,* 3(5). 73-87.

Elkington, J. (1997). *Cannibals with forks: 1he triple bottom line o/21" century business.* Gabriela Island, BC: New Society Publishers.

Epstein, M., & Freedman, M. (1994). Social disclosure and the individual investors. *Accounting, Auditing and Accountability, 7*(4), 94-109.

Global Reporting Initiative (GRI). (2006). *Sustainability reporting guidelines*. Amsterdam, Netherlands.

Global Reporting Initiative. (2011). Sustainability reporting guidelines. global reporting initiative. Retrieved from https://www.globalreporting.org/resourcelibrary/G3.

Gnanaweera1, K. A. & Kunori, N. (2018). Corporate sustainability reporting: Linkage of corporate disclosure information and performance indicators. *Accounting, Corporate Governance & Business Ethics Research Article, 2*(2), 24 - 36.

Goel, P. (2010). Triple bottom line reporting: An analytical approach for corporate sustainability. *Journal of Finance, Accounting, and Management, 1*(1), 27-42.

Gray, R., Kouhy, R., & Lavers, S. (1995). Constructing a research database of social and environmental reporting by UK companies. *Accounting, Auditing & Accountability Journal, 8*(2), 78-101.

Gujarati, D. N. (2004). *Basic econometrics*, (3rd ed.). New Delhi, Tata McGraw Hill Education Pvt Ltd.

Henriques, A. (2007). *CSR, sustainability and the triple bottom line*. In Henriques, A., & Richardon, J. (Eds). The Triple Bottom Line: Does it All Add Up? London: Earthscan. 26-33.

Hussain, N. (2015). Impact of sustainability performance on financial performance: an empirical study of global fortune 100 firms. *Working paper 1*(1), 1-49.

Keys, J. B., & Biggs, W. D. (2009). A review of business games. In J. W. Gentry (Ed.), Guide to business gaming and experiential learning (48-73). East Brunswick, NJ: Nichols/GP Publishing.

Khaveh, A., Nikhashemi, S. R.,Yousefi, A. & Haque, A. (2012). Voluntary sustainability disclosure, revenue, and shareholders wealth – A perspective from Singaporean companies. *Business Management Dynamics, 1*(9), 06-12.

KPMG (2008). Sustainability reporting: A Guide, Retrieved from www.kpmg.com on 22nd June, 2017.

Kwaghfan, A. (2015). *Impact of sustainability reporting on corporate performance of selected quoted companies in Nigeria.* Unpublished Thesis, University of Nigeria, Nigeria.

Lindblom, C. K. (1994). *The implications of organizational legitimacy for corporate social performance and disclosure.* Paper presented at the Critical Perspectives on Accounting Conference, New York, NY.

Makori, D. M & Jagongo, A. (2013). Environmental accounting and firm profitability: An empirical analysis of selected firms listed in Bombay Stock Exchange, India. *International Journal of Humanities and Social Sciences*, *3*(8), 25-32.

Marrewijk, M. (2003). Concepts and definitions of CSR and corporate sustainability: Between agency and communion. *Journal of Business Ethics, 4*(3), 95-105.

Mattews, M. R. (1993). Twenty-five years of social and environmental accounting research: Is there a silver jubilee to celebrate. *Accounting, Auditing & Accountability Journal*, *10*(4), 481–531.

Milne, M. J., Tregida, H., & Walton, S. (2009). Words not actions! The ideological role of sustainable development reporting. *Accounting, Auditing & Accountability Journal, 22* (8), 1211-1257.

Munasinghe, M. & Kumara, D. (2013). Impact of disclosure of corporate social responsibility on corporate financial performances of plantations companies in Sri-Lanka. *Journal of emerging trends in Economics and Management sciences, 4*(3), 371-376.

Ngwakwe, C. C. (2008). Environmental responsibility and firm performance: Evidence from Nigeria, *International Journal of Social, Management, Economics and Business Engineering, 2 (10)*, 187-194.

Norhasimah, M. N. (2015). The effect of environmental disclosure on financial performance in Malaysia *7th International Economics & Business Management Conference, 5th - 6th October 2015, Malaysia.*

O'Donovan, G. (2002). Environmental disclosures in the annual report: Extending the applicability and predictive power of legitimacy theory. *Accounting, Auditing & Accountability Journal*, *15*(3), 344-371.

Olawale, A. S. (2010). The Impact of corporate social responsibility on the profitability of the Nigerian banking sector, A case study of First bank of Nigeria Plc, Retrieved from http/www.ediaro.com. on 2nd April 2018.

Ostrom, E. (2009). A general framework for analyzing sustainability of social-ecological systems. *Journal of Social Sciences*, *325*(5939), 419-422.

Oyewo, B. M. (2014). Sustainable development reporting practices by Nigerian Banks. *Mediterranean Journal of Social Sciences, 5*(23), 25-35.

Painter- Morland, M. (2006). Triple bottom-line reporting as social grammar: integrating corporate social responsibility and corporate codes of conduct. *Business Ethics European* Review, 15(4), 352-364.

Patten, D. M. (2005). Legitimacy and the internet: an examination of corporate web page environmental disclosures. *Advances in Environmental Accounting & Management*, *2*(1), 31-57.

Ratanacharoenchai, C., Rachapradit, P. & Nettayanun, S. (2017). Sustainability Reports and Its Effect on Firm Value in Thailand. *Proceedings of 41st International Business Research Conference 20 - 21 April, Imperial College, London, UK*

Shocker, A., & Sethi, S. (1973). An approach to incorporating societal preferences in developing corporate action strategies. *California Management Review*, *15*(4), 97-105.

Spangenberg, J. (2005). Economic sustainability of the economy: Constructs and indicators. *International Journal of Sustainable Development*, *8*(1/2), 47-64. http://dx.doi.org/10.1504 /IJSD .2005.007374. Retrieved on 24th June 2018.

Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of management review*, *20*(3), 571-610.

Sulaiman, E. A., Kasum, A. S., & Musa, W. A. (2021). Intellectual capital efficiency and market based financial performance: Evidence from listed conglomerate companies. *Corporate & Business Strategy Review*, *2*(2), 31–42.

Tregidga, H., Milne, M., & Kearins, K. (2006). *Organisational legitimacy and social and environmental reporting research: the potential of discourse analysis.* Australasian Conference on Social and Environmental Accounting Research, Wellington.

Tsoutsoura, M. (2004). Corporate social responsibility and financial Performance, Retrieved from http//scholarship.org/uc on 2nd April, 2018.

Turan, F. K., Scala, N. M. Besterfield, H. & Sacre, M. (2009). An Analytic Network Process (ANP) Approach to the Project Portfolio Management for Organizational Sustainability. IEE Annual Conference Proceedings, January 1.

United Nations ESCAP. (2013). *From corporate social responsibility to corporate sustainability: moving the agenda forward in Asia and the Pacific.* Bangkok: United Nations.

Utami, W. (2015). Financial performance and the quality of sustainability disclosure based on global reporting initiative: value relevance study in Indonesia stock exchange. *Mediterranean Journal of Social Sciences MCSER Publishing*, *6*(5), 243-248.

WCED (World Commission on Environment and Development). (1987). *Our Common Future*. Oxford: Oxford University Press.