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An Examination of the Level of the Quantity and Quality of Sustainability Reporting among Non-financial Listed Firms in Nigeria

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Abstract

Research Purpose: This study examines the level of sustainability disclosure by non-financial listed firms in Nigeria before and after the Nigerian Exchange Limited (NGX) issued sustainability reporting guidelines in 2018. These guidelines required listed firms to include sustainability reports in their annual reports from 2019.

Methodology: The population comprised 97 non-financial listed firms on the NGX. A sample of 30 firms was purposively and proportionally selected from seven sectors using stratified sampling. Data from 2016 to 2020 (three years before and two years after the guidelines' implementation) were analysed using content analysis, descriptive statistics, and percentages.

Findings: Results indicate that the level of sustainability disclosure in terms of quantity and quality remains low, with 32.89% and 20.35%, respectively.

Conclusion: Despite the NGX guidelines, sustainability disclosure among non-financial listed firms in Nigeria has not significantly improved, indicating the need for stricter enforcement.

Recommendations: The study recommends that the NGX and the Financial Reporting Council (FRC) make sustainability reporting compulsory and mandate external assurance of these reports to enhance transparency and accountability.

Key words: *Stakeholder, Sustainability disclosure, Sustainability reporting, Quantity sustainability disclosure, Quality sustainability disclosure.*

1.0 Introduction

Sustainability, sustainable development and sustainability reporting have become a global issue since sustainable management of the earth's resources came into focus from the 1987

Brundtland report. This established the need for businesses to operate sustainably so as to be able to, apart from their need for profitability, provide for the needs of the future generations. Since then, several organisations (Global Reporting Initiative, Sustainability Accounting Standards Board, Climate Disclosure Standards Board, etc.) provided guidelines for reporting sustainability issues. Recently, however, there has been a call for global sustainability reporting standards providers to make such reports across jurisdictions and industry comparable. This call has prompted the board of the International Federation of Accountancy Bodies (IFAC) to establish the International Sustainability Standards Board (ISSB), just like the International Financial Reporting Standards Board (IFRS), to produce sustainability reporting standards to guide companies internationally in producing sustainability reporting.

Nigeria with a population of about 200 million is the largest economy in Sub-Saharan Africa (CIA, 2020). The first notable move towards sustainability reporting took place in 2012 when the Central Bank of Nigeria (CBN) issued the Nigerian Sustainable Banking Principles (NSPB). The NSPB requires that banks operating in the country take into consideration social and environmental issues and prepare, on an annual basis, sustainability reporting to show how the principles have been implemented. The NSPB was expanded in 2016 to include all operators in the finance industry in Nigeria, such as insurance, pension, mortgage banks and microfinance companies.

In 2018, the Nigeria Exchange Limited (NGX) issued sustainability disclosure guidelines, which required firms listed on the Exchange to include sustainability reports in their annual reports or as a standalone report. NGX's sustainability disclosure guidelines contain 42 indicators classified into social, environmental and governance issues to be reported on. Also, the Nigerian Financial Reporting Council issued the Corporate Governance Code for listed and non-listed firms in Nigeria, with commencement date of January 2019. This Code has six key governance pillars, containing 28 principles with recommended practices for their implementation. These are required to result in four expected outcomes. These outcomes are enhancement of business integrity, rebuilding of public trust and confidence, facilitation of trade and investment and drive of business sustainability (KPMG, 2019). This code mandated listed firms to include in their annual corporate governance report their sustainability policies and how they have been implemented during the year. However, it is not a mandatory requirement that firms must apply but requires firms to explain reasons for noncompliance.

Due to pressure from their foreign parent companies, multinationals have complied with the mandate on an annual basis sustainability report. In the same way, some Nigerian companies listed under foreign exchanges have been preparing annual sustainability reports to meet the requirements of the foreign exchange. Such companies include Guaranty Trust Bank Plc, Zenith Bank Plc, Oando Plc, etc.

The Nigerian Financial Reporting Council had indicated earlier adoption of the two standards already issued by the International Sustainability Standards Board (ISSB). This made Nigeria

to move from the era of voluntary sustainability disclosure to a mandatory regime. Following the NGX requirement and the mandate of the FRC's governance code and in the light of the potential era of mandatory sustainability reporting, it is pertinent to assess the extent of the quantity and quality of sustainability disclosures by non-listed financial companies in Nigeria.

2.0 Review of related literature

2.1 Theoretical framework and hypotheses development

Stakeholder theory was developed by Freeman and Reed (1983). Before 1983, it was traditionally believed that business organisations exist to meet the objective of the owners, which is usually to maximise the shareholders' value. However, Freeman and Reed (1983), opined that the business environment had changed and the obligations of business organisations are not only towards the shareholders but towards a wide group, which they referred to as stakeholder, that is, those groups who can affect the achievement of the firm's objective. Freeman and Reed (1983), defined stakeholder as "any identifiable group or individual who can affect the achievement of an organisation's objective or who is affected by the achievement of the organisation's objective". This definition means that shareholders, creditors, employees, suppliers, consumers, government, media, interest groups and the society in general are stakeholders of every firm (Freeman, 2010; Freeman & Reed, 1983). This definition of stakeholder is appropriate to our study of sustainability reporting.

Without understanding and managing its stakeholders, the organisation may not be able to achieve its goals and objectives. The ability of managers to predict and manage the behaviours of the organisation's stakeholders through relevant theoretical knowledge will likely help the organisation achieve its objectives (Miles, 2012). It follows therefore, that managers must take into consideration the need of the organisation's stakeholders to be able to provide useful sustainability disclosures.

The clamour by stakeholders in recent time for sustainability disclosures has led to increased attention to sustainability reporting by firms (O'Donovan, 2002; Lambrects et al, 2019; Rocal & Searcy, 2012; Crawford & Williams, 2010; Ho & Taylor, 2007; Deegan & Rankin, 1997). Firms are under obligation to provide sustainability information in form of a report covering all aspects of sustainability to satisfy the clamour of the stakeholders in accordance with Freeman and Reed (1983) definition of stakeholder. Although, the information needs of each category of stakeholder are different (Michelon & Parbonetti, 2012). For example, stakeholders with financial interest in the firm will be more interested in the economic dimension of sustainability disclosure, whereas the environmental pressure groups will be more concerned about the environmental aspects. The internal stakeholders, such as employees, may demand for more social information. Some studies (Deegan & Rankin, 1997; Business in Environment (cited in Deegan & Rankin, 1997 have found that most stakeholders (shareholders, accounting academics, representatives of financial institutions, organisations,

including Trade Unions, environmental lobby groups, industry and consumer associations) considered environmental information to be material and relevant for business decision.

Freeman (2010) opined that there is a complex interconnection between economic and social issues, therefore, it is inappropriate for any stakeholder to consider a company's social responsibility as isolated from its economic performance, this is because, in today's business world, companies must consider all aspects of sustainability to be successful. Therefore, firms would consider the adoption of sustainability reporting concepts within their corporate strategies and objectives, which would include embracing the practice of sustainability disclosure, in response to the stakeholders' demand.

Generally, in sustainability disclosure literature, it has been assumed that sustainability information is important to all the company's stakeholders. The evaluations of stakeholder theory suggest that corporate environmental and social commitment is an effective tool to deal with stakeholders' expectations and demands, it has been established that firms must deal with a broad group of stakeholders to gain social acceptance, as it is assumed that there is an unwritten social contract between the firm and its stakeholders. Voluntary sustainability reporting, therefore, plays an important role in fulfilling the demands of the stakeholders and preserving the social contract (Lambrechts et al, 2019; Ballesteros et al. 2017; Gallego-Alvarez & Ortas, 2017; Roca & Searcy, 2012; Salama et al, 2012).

Recent clamour by stakeholders for sustainability disclosures has led to increased attention to sustainability reporting by firms (Lambrects *et al*, 2019). Therefore, based on the stakeholder theory and information asymmetry of agency theory, the following hypotheses were tested in this study:

(i) The level of sustainable disclosure quantity of the non-financial listed firms in Nigeria is not less than 50%.

(ii) The level of sustainable disclosure quality of the non-financial listed firms in Nigeria is not less than 50%

2.2 Empirical literature

Several studies assessing the level of sustainability reporting by firms were found in literature.

Bhatia and Tuli (2020)) assessed and compared the sustainability reporting practice of two major economies, India and China. Global Sustainability Initiative (GRI) guidelines index was used to assess sustainability disclosures. A sample of 17 companies from BSE-30 (India) and 19 companies from SSE 50 (China) was used and the period covered by the study is from 2996/2007 to 2010/2011. Content analysis was used as a tool of data collection. Scoring was done by assigning weights of 2 for indicators fully reported; 1 for indicators partially reported and 0 for indicators not reported. Also, Kruskal–Wallis H test was applied for inter-category and inter-industry comparison of both countries. Results reveal that Indian companies' sustainability disclosures scores are higher compared with China companies' sustainability

disclosure scores. The results of independent sample t tests are also significant at 1 percent level of significance. However, Kruskal–Wallis H test suggests insignificant differences in the category-wise and industry-wise disclosure scores of both countries.

Madugba *et al* (2021) examined environmental reporting and sustainability reports by oil companies in Nigeria to determine the relationship between corporate environmental reporting and determinants of sustainability reports. Ex-post-facto and survey research design were adopted, and data were collected from structured questionnaires administered on corporate respondents based on 56 items of sustainability reporting index adapted from the Global Reporting Initiative. They carried out a descriptive statistics analysis, one way and two factors ANOVA and Post hoc test. Findings show a positive and significant variation between corporate environmental reporting and determinants of sustainability reports in petroleum companies in Nigeria.

Kumar and Prakash (2019) examined the extent of sustainability reporting by the banks operating in India. Sustainability report, corporate social responsibility report, business responsibility report and annual report for the financial years 2015/2016 and 2016/2917 were analysed to determine the extent of disclosure. Coding was done using content analysis against sustainability indicators developed from GRI G4 guidelines, and National Voluntary Guidelines on responsible business conduct. Results show that the banks in India are much slower in adopting sustainability reporting practices. The results further reveal that sustainability issues which are of the highest priorities for the banks are directly related to their business operations like financial inclusion, financial literacy, energy efficient technology etc., while the environmental consideration indicators are relatively unaddressed by most of the banks in India.

Bani-Khalid (2019) examined the quantity and quality of corporate online sustainability information of the industrial sector in Jordan based on the Global Reporting Initiative guidelines. The content analysis method was used to determine the quantitative sustainability indicators disclosed by all industrial companies listed on the Amman Stock Exchange for a period of 7 years, from 2012 to 2018. Results reveal that although all Jordanian industrial sub-sectors practice quantitative sustainability disclosure in a modest degree in the period of 2012–2018, the emphasis on environmental and economic indicators was less than on social indicators in the corporate online reports. While qualitative analysis indicated that, considering all sustainability indicators, only the disclosure on indirect economic impacts, procurement practices, product responsibility, and economic performance have been reported at satisfactory levels of quality but without compliance of GRI guidelines.

Helfaya *et al* (2018) investigated the quality of sustainability reports by firms with the use of a questionnaire that aims at collecting the perceptions of both preparers and users of sustainability reports as to its quality. Their analysis of the responses of 177 users and 86 preparers show that quantity was not perceived as the most significant element in determining

quality. Besides quantity, the respondents also perceived information types, measures used, themes disclosed, adopting reporting guidelines, inclusion of assurance statements and the use of visual tools as significant dimensions/features of reporting quality.

Aggarwal and Singh (2019) analysed the corporate social responsibility (CSR) and sustainability reporting (SR) practices of Indian 60 top listed companies, in terms of disclosure quantity and quality, and investigated the differences in sustainability reporting practices by dimension, industry, ownership structure, firm size and profitability. They collected data from annual reports, business responsibility reports, CSR and sustainability reports. They developed a comprehensive Sustainability Reporting Index (SRI), based on several standards and guidelines, comprising of 80-item equally weighted index under 7 dimensions, namely, economic (8 items), governance and ethics (15), environment (16), community (9), customers and product responsibility (8), employees and labour practices (17) and human rights (7). And then used content analysis techniques to determine level of quantity and quality of disclosure. Results show that 18 items of the index were not disclosed by most companies in India, while sustainability reporting quality was found significantly lower than sustainability reporting quantity. Further, it was discovered that sustainability reporting practices significantly differ by dimension/category, industry-type and firm-size but were not influenced by ownership structure.

3.0 Methodology

The population for the study comprises ninety-seven non-financial listed firms active on the Nigerian Exchange (NGX) from 2016 to 2020. A multi-stage purposive sampling technique was used to select a sample of 30 most capitalised listed non-financial firms with up-to-date financial records with the Nigerian Exchange, comprising 3 firms from the Basic material sector, 8 firms from the Consumer goods sector, 4 firms from the Consumer services sector, 2 firms from the Health care sector, 7 firms from the Industrial sector and 3 firms each from the Information technology and Oil and gas sectors, as shown on Table 1. Previous research supports the view that firm size has a significant correlation with firm disclosure, larger firms tend to disclose more than smaller ones (Trotman & Bradley, 1981, Brammer & Pavelin, 2008).

Table1: Sample size

Sector	Nos of companies	Sample selected	% of sample
Basic material	10	3	10
Consumer goods	25	8	27
Consumer services	14	4	13
Health care	7	2	7

Industrial sector	21	7	23
Information technology	9	3	10
Oil and Gas	11	3	10
Total	97	30	100

Data on sustainability disclosures was collected from the corporate annual reports and or standalone sustainability reports of the 30 sampled firms. Content analysis was used to determine the level of the quantity and quality of sustainability reporting disclosure scores by the non-financial listed firms in Nigeria covering the study period of five years, 2016 to 2020, based on 90 indicators constructed from the Global Reporting Initiative (GRI, 2016) Standards. Content analysis is a qualitative research technique used to interpret and draw inferences in an objective, systematic and quantifiable manner by evaluating textual material such as reports against predetermined criteria (Weber, 1988; Krippendorff, 2004). Various scholars have used content analysis in previous community social responsibility communication research (Alotaibi & Hussainey, 2016; Oyewo & Badejo, 2014; Bhatia & Tuli, 2020; Kumar & Prakash, 2019)

Scoring for quantity disclosure was done from a dichotomy point of view. When an item was disclosed, a score of 1 was awarded and when an item was not disclosed, a score of 0 was awarded. For sustainability quality disclosure, when an item was not disclosed, a score of 0 was awarded but when an item was disclosed, a score of 1 – 5 was awarded, depending on the extent and depth of disclosure as shown on Table 2. This scale has been developed based on previous studies (Nobanee & Ellili 2015; Vormedal & Ruud, 2009),

Table 2 : Rating criteria for quantity and quality disclosure

	Rating criteria	**Score**
Quantity	Non-disclosure	0
	Disclosure	1

	Rating criteria	Score
Quality	Non-disclosure	0
	Descriptive and company – specific/quantitative disclosure, but many relevant points not addressed	1
	Descriptive and company – specific/quantitative disclosure, but some relevant points not addressed	2
	Descriptive and company – specific/quantitative disclosure, but few relevant points not addressed	3
	Descriptive and company – specific/quantitative disclosure, with all relevant points addressed	4
	Descriptive and company – specific/quantitative disclosure, but many relevant points not addressed	5

The scoring allowed us to get a final score for each dimension of sustainability reporting and for each firm for each year. By using arithmetic mean, aggregated each firm's score for the study period, 2016 – 2020, consisting of the four dimensions of sustainability reporting (Governance, Economic, Environmental and Social) considered in the study, to determine the average score for each firm and for the 30 sampled firms per year and the mean score for the study period. The scores obtained by each firm per year and for the entire study period was expressed as a percentage of the expected scores, if all items were disclosed. A higher score reflects a higher level of sustainability disclosures and better ability of the company to communicate with its stakeholders transparently.

According to Halimah et al (2020), CSRHUB, a web-based tool that provides ESG ratings on the most prominent companies in North America, Europe and Asia, developed a sustainability scores rating table, as shown in Figure 1. Therefore, it is assumed that sustainability reporting quantity and quality disclosure should be at least 50%.

Low 0 – 29% 30 - 39% 40 - 49% 50 -59% 60 - 79% 80 - 100% High

Figure 1: ESG Scores Rating Table

Source: Halima, Irsyanti & Aini (2020).

The percentage scores on sustainability reporting quantity and quality of the 30 sampled firms are shown on appendices 2 and 3 respectively.

4.0 Data presentation & analysis/Discussion of results

To assess the quantity and quality of sustainability reporting disclosure among listed firms in Nigeria, content analysis, descriptive analysis, such as mean, standard deviation, minimum and maximum, percentages and graphical presentation, were used as methods of analysis.

4.1 Data presentation & analysis

4.1.1 Sustainability reporting quantity: 2016 - 2020

Table 3: Descriptive statistics

Statistic	*2016*	*2017*	*2018*	*2019*	*2020*	*Average (2016-2020)*
Mean	24.27	26.59	28.31	34.59	35.38	29.83
Standard Error	2.48	3.15	3.51	4.43	4.53	3.37
Median	24.44	26.67	26.67	40.63	41.27	28.74
Standard Deviation	6.57	8.33	9.28	11.73	12.00	8.92
Sample Variance	43.13	69.32	86.15	137.58	143.95	79.57
Kurtosis	1.12	(1.11)	(1.79)	(1.34)	(1.62)	(0.47)
Skewness	0.53	(0.10)	0.08	(0.45)	(0.41)	(0.13)
Range	20.83	23.33	24.58	31.94	31.67	26.47
Minimum	15.00	14.44	16.11	17.22	18.33	16.22
Maximum	35.83	37.78	40.69	49.17	50.00	42.69

Count	7	7	7	7	7	7

Source: *Author's computation, 2023*

Descriptive analysis

Table 3 above presents the general statistical characteristics of SR quantity disclosure for the period of study, 2016 to 2020. These include mean, standard error, standard deviation, median, sample variance, kurtosis, skewness, range, minimum and maximum. The mean gives the average value of the sample data, the standard deviation gives information on the spread of the data from the mean. While the skewness measures the degree and direction of the asymmetry. A symmetric distribution, such as a normal distribution, has a skewness of 0. Kurtosis is a measure of the heaviness of the tails of a distribution. A normal distribution has a kurtosis of 3.

From Table 3, sustainability reporting quantity (SRQT) disclosure during the period of study, 2016 to 2020, has a mean of 29.83% for all the sampled firms, which indicates that the SRQT disclosure for the period is less than 50% disclosure. A standard deviation of 8.92% shows a moderate dispersion among the SR scores by the firms.

Table 4: Overall sustainability quantity disclosure (SRQT) Percentage Score – 2016 - 2020

	Years					
	2016	2017	2018	2019	2020	Average
	%	%	%	%	%	%
Basic materials	25.56	26.67	26.67	29.26	29.26	27.48
Consumer goods	35.83	37.78	40.69	49.17	50.00	42.69
Consumer services	22.50	22.50	22.50	22.50	22.50	22.50
Health care	15.00	14.44	16.11	17.22	18.33	16.22
Industrial	27.30	30.63	35.87	40.63	41.27	35.14
ICT	19.26	19.63	20.37	41.85	42.59	28.74

Oil and gas	24.44	34.44	35.93	41.48	43.70	36.00
Overall disclosure	26.85	29.26	31.59	38.00	38.74	32.89

Source: *Author's Excel computation, 2023*

Table 4 above shows the level of sustainability reporting quantity disclosure from 2016 to 2020 by the sampled non-financial listed firms under seven sectors, as classified by the NGX. Results from the table show that the level of sustainability reporting quantity disclosure by all the sampled firms for the period of study, 2016 to 2020, is 32.89%. Thus, rejecting the null hypothesis and accepting the alternate hypothesis as the level of sustainability reporting quantity disclosure is less than 50%. Also, results show that the level of sustainability reporting quantity disclosure gradually increased from 26.85% in 2016 to 38.74% in 2020. The results further revealed that listed firms increased their level of sustainability quantity disclosure in 2019 and 2020.

Graphical presentation

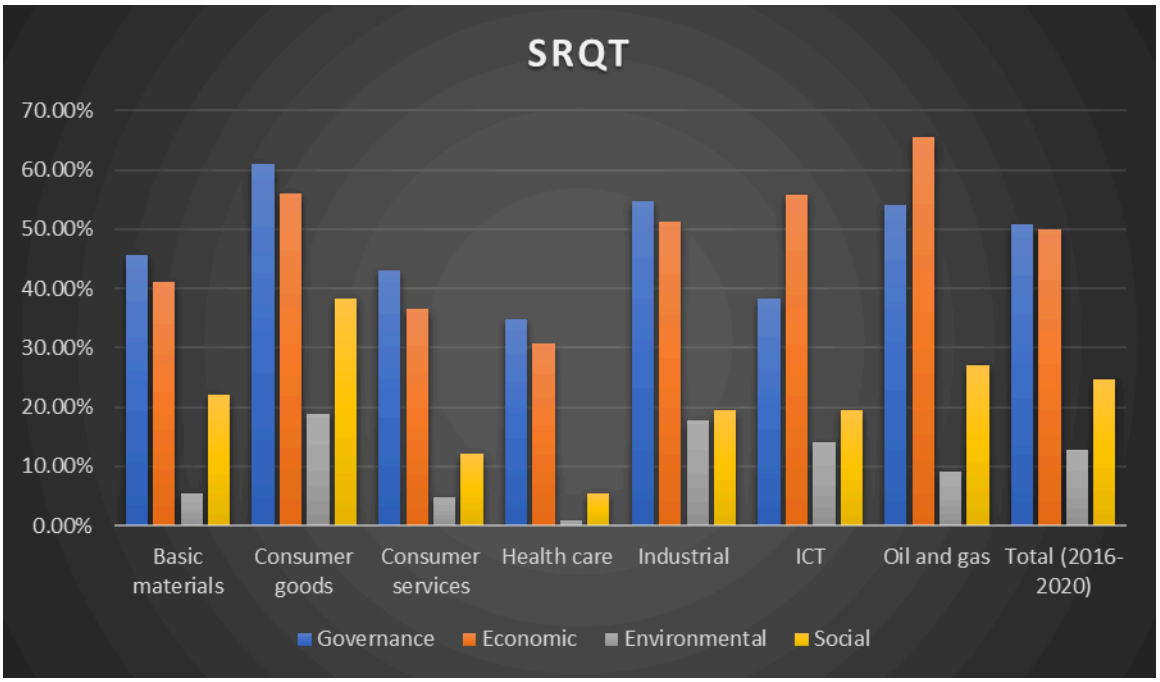

Figure 2: *SRQT bar chart. Author's computation from Excel*

The bar chart above, Figure 2, shows the level of the of sustainability reporting quantity among the seven sectors of the non-financial firms listed on the Nigerian Stock Exchange, based on the four dimensions (Governance, Economic, Environmental and Social), together with the aggregated scores by all the thirty sampled firms, for each of the four dimensions for

the study period, 2016 – 2020. The aggregate sustainability reporting quantity for the period shows that Governance and Economic dimensions have almost the same total scores for the study period, 2016-2020 and have the highest scores. The Environmental dimension has the lowest sustainability disclosure quantity, 12.76%, for the study period, 2016-2020.

4.1.2 Sustainability disclosures quality: 2016-2020

Table 5: Descriptive statistics

Statistic	2016	2017	2018	2019	2020	Average (2016-2020)
Mean	14.79	16.34	17.64	22.35	22.03	18.63
Standard Error	1.53	2.17	2.55	3.50	3.27	2.40
Median	12.78	12.89	14.89	27.40	28.15	19.85
Standard Deviation	4.05	5.74	6.74	9.26	8.65	6.35
Sample Variance	16.38	32.97	45.44	85.72	74.85	40.38
Kurtosis	(1.27)	(2.05)	(1.86)	(2.49)	(2.63)	(2.37)
Skewness	0.69	0.52	0.51	(0.28)	(0.38)	(0.13)
Range	10.56	13.74	15.89	21.63	19.00	14.71
Minimum	10.56	10.56	10.56	11.11	11.44	10.84
Maximum	21.11	24.30	26.44	32.74	30.44	25.56
Count	7	7	7	7	7	7

Source: *Author's computation, 2023*

Descriptive analysis

Table 5 above presents the general statistical characteristics of SR quality disclosure for the period of study, 2016 to 2020. These include mean, standard error, standard deviation, median, sample variance, kurtosis, skewness, range, minimum and maximum. The mean gives the average value of the sample data, the standard deviation gives information on the spread of the data from the mean. While the skewness measures the degree and direction of the asymmetry. A symmetric distribution, such as a normal distribution, has a skewness of 0. Kurtosis is a measure of the heaviness of the tails of a distribution. A normal distribution has a kurtosis of 3.

From table 5, sustainability reporting quantity (SRQT) disclosure during the period of study, 2016 to 2020, has a mean of 18.63% for all the sampled firms, which indicates that the SRQT disclosure for the period is less than 50% disclosure. A standard deviation of 6.35% shows a moderate dispersion among the SR scores by the firms.

Table 6: Overall sustainability reporting quality (SRQL) Percentage Score - 2016 – 2020

	2016	2017	2018	2019	2020	Average
Basic materials	11.93	11.93	11.93	13.93	14.22	12.79
Consumer goods	18.92	19.67	20.56	28.50	28.78	23.28
Consumer services	12.78	12.89	12.89	12.89	12.89	12.87
Health care	10.56	10.56	10.56	11.11	11.44	10.84
Industrial	21.11	22.79	26.44	27.40	28.25	25.20
ICT	11.85	12.22	14.89	29.85	30.44	19.85
Oil and gas	16.37	24.30	26.22	32.74	28.15	25.56
Overall	16.39	17.83	19.38	24.10	24.03	20.35

Source: *Author's Computation*

Table 6 above shows the level of sustainability reporting quality disclosure from 2016 to 2020 by the sampled non-financial listed firms under seven sectors, as classified by the NSE. Results from the table show that the level of sustainability reporting quality disclosure by all

the sampled firms for the period of study, 2016 to 2020, is 20.35%. Thus, rejecting the null hypothesis and accepting the alternate hypothesis as the level of sustainability reporting quality disclosure is less than 50%. Also, results show that the level of sustainability reporting quality disclosure gradually increased from 16.39% in 2016 to 24.03% in 2020. The results further revealed that listed firms increased their level of sustainability quality disclosure in 2019 and 2020.

Graphical presentation

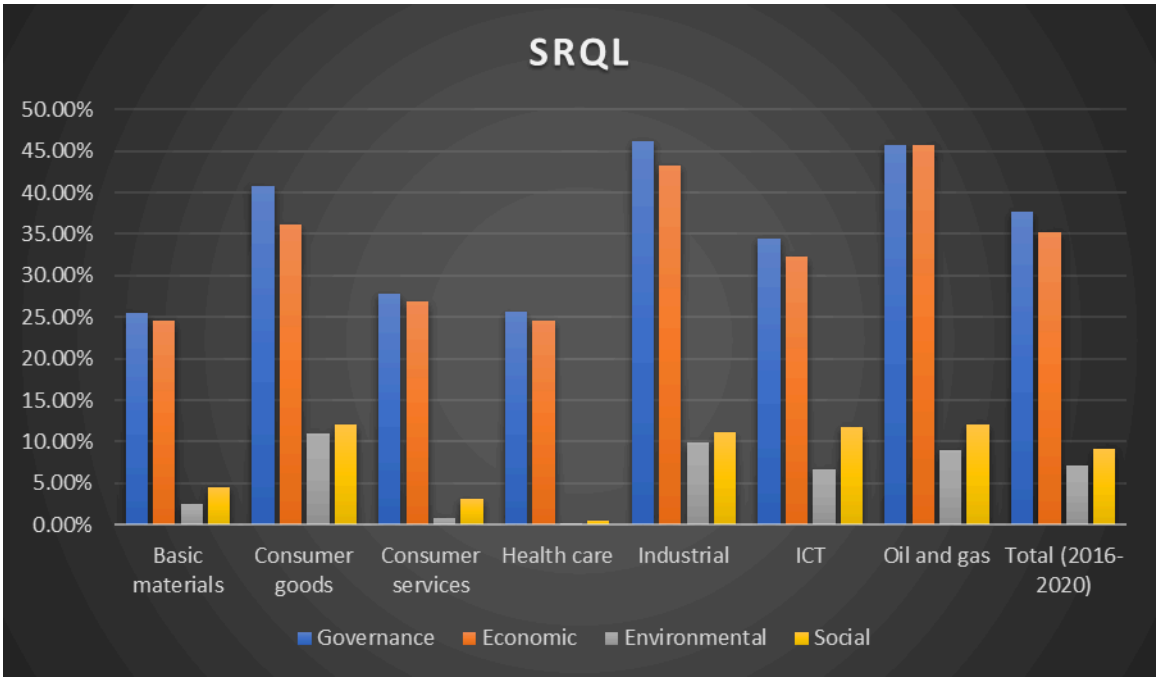

Figure 3: SRQL bar chart. Author's computation, 2023

The bar chart, Figure 3, shows the level of the quality of sustainability reporting among the seven sectors of the non-financial firms listed on the Nigerian Stock Exchange, based on the four dimensions, Governance, Economic, Environmental and Social together with the aggregate of the four dimensions during the study period, 2016 – 2020. The aggregate sustainability reporting quality for the period shows that Governance has the highest level of sustainability reporting quality, followed by Economic, Social and Environmental dimensions respectively.

The disclosure levels of sustainability reporting quantity and quality in each of the four dimensions of sustainability reporting by the sampled firms is shown in Appendix 2, Table 15.

4.2 Discussion of results

From the descriptive statistics results in Table 3, the mean of sustainability reporting quantity (SRQT) is 39.33% and the sustainability reporting quantity disclosure percentage scores in Table 4, the average SRQT is 32.89%, which shows that the aggregate level of sustainability quantity disclosure for the study period is less than 50%. However, when each of the four dimensions of sustainability reporting are considered, as shown in Appendix 1, Governance sustainability reporting quantity disclosure is 50.93%, which is above 50%, Table 7, so also the Economic dimension sustainability reporting disclosure is 50.05%, which is above 50%, Table 8. While the Environmental dimension sustainability disclosure level for the study period is 12.76%, which is less than 50%, Table 9 and the Social dimension sustainability reporting disclosure level is 24.77%, which is less than 50%, Table 10. The above results reveal that, while in aggregate, the null hypothesis is rejected and the alternative is accepted, when each of the four dimensions of sustainability reporting is considered, for Governance and Economic dimensions, the null hypothesis is accepted while the alternative hypothesis is rejected. However, for Environmental and Social dimensions, the null hypothesis is rejected while the alternative is accepted. The overall conclusion is that the level of sustainability reporting quantity disclosure among non-financial listed firms in Nigeria is still very low. This result is in line with the results from the study of Setyahuni and Handayani (2020) that examined the level of sustainability reporting disclosure by Indonesia listed firms, for the period 2012 – 2018. Their results show that the level is very low, as the average sustainability score by all the sampled firms was 22.26%. The same finding was returned by Zraqat (2019) in his study on sustainability reporting disclosure of banks listed on Amman Stock Exchange, Jordan, which has a mean of 16.34%.

Also, from the descriptive statistics results in Table 5, the mean sustainability reporting (SRQL) disclosure is 26.79% and the sustainability reporting quality disclosure percentage scores in Table 6, the average SRQL score is 20.35%, which show that the aggregate level of sustainability quality disclosure for the study period is less than 50%, thus rejecting the null hypothesis that states that the sustainability reporting quality disclosure of the non-financial listed firms in Nigeria is not less than 50%. The alternate hypothesis is therefore accepted. In the same way, when each of the four dimensions of sustainability reporting are considered, as shown in Appendix 1, Governance sustainability reporting quality disclosure average score is 37.64%, Table 11, which is below 50%, thus rejecting the null hypothesis, Also, Economic dimension sustainability reporting quality disclosure average score is 35.20%, Table 12, Environmental dimension sustainability reporting average disclosure level for the study period is 7.18%, which is less than 50%, Table 13 and for Social dimension sustainability

reporting disclosure level is 9.09%, which is less than 50%, Table 14. The above results reveal that, the aggregate sustainability quality (SRQL) disclosures and the average score by each of the four dimensions of sustainably quality disclosure, the null hypothesis is rejected, and the alternative is accepted. The overall conclusion is that the level of sustainability reporting quality disclosure among non-financial listed firms in Nigeria is still very low. These results agree with the findings of Okwuosa and Adesina (2021) in their study of assessment of the quality of sustainability reporting among listed firms in Nigeria in 2019.

5.0 Finding, conclusion and recommendations

The level of sustainability quantity disclosure is still very low among non-financial listed firms in Nigeria. However, as a result of the NGX requirement that listed firms should submit sustainability report from 2019, the level of sustainability reporting quantity disclosure has significantly increased from 26.85% in 2016 to 38.74% in 2020;

In the same vein, the level of sustainability quality disclosure is still very low among non-financial listed firms in Nigeria. However, as a result of the NGX's requirement that listed firms should submit sustainability reports from 2019, the level of sustainability reporting quality disclosure significantly increased from 16.39% in 2016 to 24.03% in 2020.

To improve the level of sustainability reporting disclosure by the non-financial listed firms, NGX and FRC should make inclusion of sustainability reports mandatory for all listed firms and ensure they monitor compliance by all listed firms. Also, sanctions for non-compliance should be introduced. The FRC has recently adopted the two standards, IFRS S1 and IFRS S2, recently issued by the International Sustainability Standard Board (ISSB), to be the basis for sustainability reporting by listed firms in Nigeria. Thus, FRC should enforce implementation of the standards by listed firms. Also, the FRC should mandate assurance of sustainability reports produced by the listed firms, once it becomes mandatory.

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Appendix 1
Sustainability Reporting Disclosures By Dimensions
Table 7: Sustainability Reporting Quantity Scores - Governance Dimension

Industry	Years					Average
	2016 %	2017 %	2018 %	2019 %	2020 %	%
Basic materials	44.00	45.33	45.33	46.67	46.67	45.60
Consumer goods	55.00	57.50	61.50	66.00	65.50	61.10
Consumer services	43.00	43.00	43.00	43.00	43.00	43.00
Health care	34.00	34.00	34.00	36.00	36.00	34.80
Industrial	47.43	54.29	55.43	58.86	57.71	54.74
ICT	29.33	29.33	29.33	50.67	53.33	38.40
Oil and gas	44.00	52.00	53.33	60.00	61.33	54.13
Overall	45.47	48.67	50.13	55.20	55.20	50.93

Source: *SRQT Governance Dimension Percentage Scores – Author's Excel Computation*

Table 8: Sustainability Reporting Quantity Scores – Economic Dimension

Industry	Years					Average
	2016 %	2017 %	2018 %	2019 %	2020 %	%
Basic materials	41.03	41.03	41.03	41.03	41.03	41.03
Consumer goods	50.00	50.96	53.85	62.50	62.50	55.96
Consumer services	36.54	36.54	36.54	36.54	36.54	36.54
Health care	30.77	30.77	30.77	30.77	30.77	30.77
Industrial	49.45	50.55	50.55	52.75	52.75	51.21
ICT	48.72	51.28	56.41	61.54	61.54	55.90
Oil and gas	53.85	64.10	69.23	69.23	71.79	65.64
Overall	46.15	47.95	49.74	53.08	53.33	50.05

Source: *SRQT Economic Dimension Percentage Scores – Author's Excel Computation*

Table 9: Sustainability Reporting Quantity Scores – Environmental Dimension

Industry	Years					Average
	2016 %	2017 %	2018 %	2019 %	2020 %	%
Basic materials	1.59	1.59	1.59	11.11	11.11	5.40
Consumer goods	11.31	11.31	14.29	26.79	30.95	18.93
Consumer services	4.76	4.76	4.76	4.76	4.76	4.76
Health care	-	-	-	2.38	2.38	0.95
Industrial	6.8	10.2	18.4	25.2	28.6	17.80
ICT	3.2	3.2	3.2	30.2	30.2	14.00
Oil and gas	-	7.9	7.9	12.7	17.5	9.20
Overall	5.71	7.30	10.00	19.21	21.59	12.76

***Source**: SRQT Environmental Dimension Percentage Scores – Author's Excel Computation*

Table 10: Sustainability Reporting Quantity Scores – Social Dimension

Industry	Years					Average
	2016 %	2017 %	2018 %	2019 %	2020 %	%
Basic materials	20.43	22.58	22.58	22.58	22.58	22.15
Consumer goods	31.05	34.27	36.29	45.16	45.16	38.39
Consumer services	12.10	12.10	12.10	12.10	12.10	12.10
Health care	3.23	1.61	6.45	6.45	9.68	5.48
Industrial	15.67	17.05	25.81	31.34	31.80	24.33
ICT	9.68	9.68	9.68	34.41	34.41	19.57
Oil and gas	12.90	25.81	26.88	34.41	35.48	27.10

Overall	18.06	20.65	23.66	30.54	30.97	24.77

Source: *SRQT Social Dimension Percentage Scores – Author's Excel Computation*

Table 11: Sustainability reporting Quality Scores – Governance Dimension

Industry	**Years**					
	2016 %	2017 %	2018 %	2019 %	2020 %	**Average %**
Basic materials	25.33	25.33	25.33	25.87	25.87	25.55
Consumer goods	33.70	34.50	35.50	50.00	50.30	40.80
Consumer services	27.80	27.80	27.80	27.80	27.80	27.80
Health care	24.80	24.80	24.80	26.40	27.20	25.60
Industrial	40.91	43.54	47.43	48.11	50.74	46.15
ICT	24.27	24.27	24.80	48.53	50.67	34.51
Oil and gas	29.07	42.40	49.07	57.60	50.40	45.71
Overall	31.76	33.92	35.81	43.23	43.47	37.64

Source: *Author's Computation, 2023*

Table 12: Sustainability Reporting Quality Scores – Economic Dimension

Industry	**Years**					
	2016	2017	2018	2019	2020	**Average**
	%	%	%	%	%	%
Basic materials	24.62	24.62	24.62	24.62	24.62	24.62
Consumer goods	33.08	33.65	35.00	38.85	39.81	36.08
Consumer services	26.92	26.92	26.92	26.92	26.92	26.92
Health care	24.62	24.62	24.62	24.62	24.62	24.62
Industrial	41.32	42.20	44.18	44.18	44.18	43.21
ICT	25.64	25.64	28.21	41.03	41.03	32.31
Oil and gas	42.05	45.13	45.13	48.21	48.21	45.74
Overall	32.92	33.59	34.67	37.28	37.54	35.20

***Source**: Author's Computation, 2023*

Table 13: Sustainability Reporting Quality Scores – Environmental Dimension

Industry	Years					
	2016	2017	2018	2019	2020	Average
	%	%	%	%	%	%
Basic materials	0.32	0.32	0.32	5.71	5.71	2.48
Consumer goods	6.19	7.50	8.45	17.38	15.36	10.98
Consumer services	0.48	0.95	0.95	0.95	0.95	0.86
Health care	-	-	-	-	0.48	0.10
Industrial	5.31	6.80	11.70	12.93	12.79	9.90

ICT	0.32	0.32	3.81	14.60	14.60	6.73
Oil and gas	-	8.57	8.57	15.56	12.38	9.02
Overall	3.02	4.63	6.38	11.37	10.51	7.18

***Source**: Author's Computation, 2023*

Table 14: Sustainability Reporting Quality Scores – Social Dimension

Industry	**Years**					
	2016 %	2017 %	2018 %	2019 %	2020 %	**Average** %
Basic materials	3.66	3.66	3.66	5.38	6.24	4.52
Consumer goods	9.68	10.08	10.65	14.35	15.89	12.13
Consumer services	3.06	3.06	3.06	3.06	3.06	3.06
Health care	0.32	0.32	0.32	0.65	0.65	0.45
Industrial	7.37	8.76	12.07	13.46	13.92	11.12
ICT	3.87	4.95	8.82	20.43	20.43	11.70
Oil and gas	6.45	11.61	11.83	17.85	12.47	12.04
Overall	6.13	7.18	8.52	11.78	11.85	9.09

***Source**: Author's Computation, 2023*

Appendix 2
Table 15: Sustainability Reporting quantity and Quality Disclosure – 2016 - 2020
Governance

Industry	**Company**	**Quantity**	**Quality**
Basic materials			
	Berger Paints Plc	56.8	32.32

	Cap Plc	52.8	33.12
	Premier Paints Plc.	27.2	11.2
Industry average		45.6	25.55
Consumer goods	Dangote Sugar Refinery Plc	76	51.68
	Flour Mills Nig. Plc.	62.4	42.08
	Guinness Nig Plc Ikeja Hotel Plc	83.2	74.72
	Nascon Allied Industries Plc	50.4	31.84
	Nestle Nigeria Plc.	53.6	17.44
	Nigerian Breweries Plc.	56	33.6
	Presco Plc	40	16.8
	Unilever Nigeria Plc.	67.2	58.24
Industry average		61.1	40.8
Consumer services	Capital Hotel Plc	40	26.4
	Ikeja Hotel Plc	16	4
	Transcorp Hotels Plc	72	48.8
	University Press Plc.	44	32
Industry average		43	27.8
Health care	Fidson Healthcare Plc	32	27.2
	May & Baker Nigeria Plc.	37.6	24
Industry average		34.8	25.6
Industrials	Beta Glass Plc.	53.6	44
	Bua Cement Plc	21.6	25.76
	C & I Leasing Plc.	33.6	25.92
	Dangote Cement Plc	88	72.32
	Julius Berger Nig. Plc.	32	31.36
	Lafarge Africa Plc.	95.2	88
	U A C N Plc.	59.2	35.68
Industry average		54.74	46.15
ICT	Africa Prudential Plc	36.8	36.8

	E-Tranzact International Plc	32	33.44
	Mtn Nigeria Communications Plc	46.4	33.28
Industry average		38.4	34.51
Oil & Gas	Ardova Plc	29.6	31.2
	Seplat Petroleum Development Company Plc	70.4	67.52
	Total Nigeria Plc.	62.4	38.4
Industry average		54.13	45.71
Overall Sample		50.93	37.64

ECONOMIC Industry	**Company**		
Basic materials			
	Berger Paints Plc	69.23	30.77
	Cap Plc	30.77	23.08
	Premier Paints Plc.	23.08	20
Industry average		41.03	24.62
Consumer goods	Dangote Sugar Refinery Plc	38.46	26.16
	Flour Mills Nig. Plc.	53.84	37.54
	Guinness Nig Plc Ikeja Hotel Plc	76.92	54.46
	Nascon Allied Industries Plc	49.23	32
	Nestle Nigeria Plc.	61.54	27.69
	Nigerian Breweries Plc.	58.46	39.08
	Presco Plc	38.46	23.08
	Unilever Nigeria Plc.	70.77	48.61
Industry average		55.96	36.08
Consumer services	Capital Hotel Plc	30.77	23.08

	Ikeja Hotel Plc	30.77	29.23
	Transcorp Hotels Plc	53.85	27.69
	University Press Plc.	30.77	27.69
Industry average		36.54	26.92
Health care	Fidson Healthcare Plc	30.77	27.69
	May & Baker Nigeria Plc.	30.77	21.54
Industry average		30.77	24.62
Industrials	Beta Glass Plc.	47.69	35.38
	Bua Cement Plc	38.46	30.77
	C & I Leasing Plc.	30.77	24.31
	Dangote Cement Plc	76.92	62.77
	Julius Berger Nig. Plc.	30.77	30.77
	Lafarge Africa Plc.	72.31	69.23
	U A C N Plc.	61.54	49.23
Industry average		51.21	43.21
ICT	Africa Prudential Plc	76.92	28.61
	E-Tranzact International Plc	46.16	30.46
	Mtn Nigeria Communications Plc	44.62	37.85
Industry average		55.9	32.31
Oil & Gas	Ardova Plc	60	29.23
	Seplat Petroleum Development Company Plc	67.69	62.77
	Total Nigeria Plc.	69.23	45.23
Industry average		65.64	45.75
Overall Sample		**50.05**	**35.20**

ENVIRONMENT				
Industry	**Company**			
Basic materials				
	Berger Paints Plc	4.76		0.95
	Cap Plc	11.43		6.48
	Premier Paints Plc.		-	-
Industry average		5.4		2.48
Consumer goods	Dangote Sugar Refinery Plc	0.95		1.14
	Flour Mills Nig. Plc.	15.24		9.14
	Guinness Nig Plc Ikeja Hotel Plc	66.67		49.14
	Nascon Allied Industries Plc	15.24		4.57
	Nestle Nigeria Plc.	8.57		1.71
	Nigerian Breweries Plc.	16.19		8.76
	Presco Plc		-	-
	Unilever Nigeria Plc.	28.57		13.33
Industry average		18.93		10.98
Consumer services	Capital Hotel Plc		-	-
	Ikeja Hotel Plc		-	-
	Transcorp Hotels Plc	19.05		3.43
	University Press Plc.		-	-
Industry average		4.76		0.86
Health care	Fidson Healthcare Plc		-	-
	May & Baker Nigeria Plc.	1.9		0.19
Industry average		0.95		0.1
Industrials	Beta Glass Plc.		-	-
	Bua Cement Plc	4.76		0.19
	C & I Leasing Plc.		-	-
	Dangote Cement Plc	39.05		15.81

	Julius Berger Nig. Plc.	-	-
	Lafarge Africa Plc.	70.47	48.19
	U A C N Plc.	10.48	5.14
Industry average		17.82	9.91
ICT	Africa Prudential Plc	9.52	0.95
	E-Tranzact International Plc	-	6.29
	Mtn Nigeria Communications Plc	32.38	12.95
Industry average		13.97	6.73
Oil & Gas	Ardova Plc	-	-
	Seplat Petroleum Development Company Plc	24.76	22.47
	Total Nigeria Plc.	6.35	4.57
Industry average		10.16	9.02
Overall Sample		**12.76**	**7.18**
SOCIAL			
Industry	**Company**		
Basic materials			
	Berger Paints Plc	35.48	7.1
	Cap Plc	25.81	6.45
	Premier Paints Plc.	5.16	-
Industry average		22.15	4.52
Consumer goods	Dangote Sugar Refinery Plc	23.23	15.1
	Flour Mills Nig. Plc.	36.78	7.36
	Guinness Nig Plc Ikeja Hotel Plc	81.29	33.8
	Nascon Allied Industries Plc	38.06	12
	Nestle Nigeria Plc.	41.94	4.78
	Nigerian Breweries Plc.	22.58	4.77
	Presco Plc	16.13	2.58
	Unilever Nigeria Plc.	47.1	16.65
Industry average		38.39	12.13

Consumer services	Capital Hotel Plc	3.23	-
	Ikeja Hotel Plc	3.23	1.29
	Transcorp Hotels Plc	25.81	7.74
	University Press Plc.	16.13	3.23
Industry average		12.1	3.06
Health care	Fidson Healthcare Plc	3.23	0.65
	May & Baker Nigeria Plc.	7.74	0.26
Industry average		5.48	0.45
Industrials	Beta Glass Plc.	3.23	1.29
	Bua Cement Plc	7.1	0.39
	C & I Leasing Plc.	12.9	4.13
	Dangote Cement Plc	52.26	25.81
	Julius Berger Nig. Plc.	6.45	8
	Lafarge Africa Plc.	57.42	23.48
	U A C N Plc.	30.97	14.71
Industry average		24.33	11.12
ICT	Africa Prudential Plc	19.35	9.03
	E-Tranzact International Plc	2.58	8.26
	Mtn Nigeria Communications Plc	36.78	17.81
Industry average		19.57	11.7
Oil & Gas	Ardova Plc	9.68	2.58
	Seplat Petroleum Development Company Plc	36.77	20.9
	Total Nigeria Plc.	34.84	12.65
Industry average		27.1	12.04
Overall Sample		**30.45**	**9.09**