

# **Improving Corporate Sustainability Reporting Through the Adoption of Integrated Reporting: A Study of Nigerian and South African Firms**

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## Abstract

There is a body of literature suggesting that integrated reporting <IR> can enhance the quality of sustainability reports. This study investigated, by means of a comparative analysis with South African (SA) firms acclaimed to have improved in sustainability reporting, whether or not the quality of sustainability reporting can be improved in Nigeria (NG) through the adoption of <IR>. A purposive sampling technique was applied to select equal number of NG and SA banks that embedded sustainability reports within the annual reports. Using a disclosure checklist designed in line with the GRI G4 framework, divulgence on economic, environmental and social sustainability issues were content-analysed. It was observed that; portion of space devoted to sustainability reporting in annual reports was positively, strongly and significantly correlated with the quality of the report ( $r = .637$ ,  $p = .001 \leq .05$ ); the extent of disclosure by NG (SA) firms is very low (average); firms from both countries significantly differ in the extent of disclosure on economic sustainability ( $p = .001 \leq .05$ ) and social sustainability ( $p = .016 \leq .05$ ) on the account of the adoption of <IR> by South African firms, but firms do not significantly differ in the extent of environmental sustainability disclosure ( $p = .256 > .05$ ). Overall, NG and SA banks significantly differ in the extent of sustainability disclosure on the account of the adoption of <IR> by SA firms ( $p = .006 \leq .05$ ). To achieve a better quality of sustainability reporting, it was recommended that financial reporting regulatory authorities should consider the adoption of <IR> in Nigeria.

**Keywords:** *corporate social responsibility, GRI, integrated reporting, sustainability, sustainability reporting*

## 1. Introduction

Organisations normally exist as recognisable elements of the society (Bowler, 1981; Mullins & Christy, 2013). On the basis that the society provides context for firms' existence, enabling environment and requisite resources with which organisations carry on their affairs and survive, it is not unthinkable that there should be some form and level of interaction between the society and organisations. Targeting to minimise externalities emitting from the manner of their operations, pre-emptively boycotting regulatory sanctions, and seeking acceptance and recognition in the society, firms typically attempt to legitimise their existence by 'giving back' to the society through engagement in corporate social responsibility (CSR) or sustainability projects (Patten, 1992; Deegan & Rankin, 1996; Brown & Deegan, 1998; Deegan, 2002; Gonçalves, Medeiros, Niyama & Weffort, 2013).

While not seeking to discredit the erstwhile efforts by firms to showcase their social responsibility endeavours through the rendition of either CSR reports embedded within annual reports or issuance of standalone CSR reports, it is desirable to ensure that such reports are not self-laudatory and capricious, especially against the backdrop that CSR reporting is admittedly voluntary in many countries (AAA Financial Accounting Standard Committee, 2002; Uwuigbe & Jimoh, 2012; Oyerogba, 2014; Huang, Pepper & Bowrey, 2014; Nwobu, 2015). To put to an end to arbitrariness in CSR reporting, attempts have been made to develop guidance, through issuance of guidelines and frameworks upon which sustainability reports can be prepared and judged for quality of disclosure. The adoption of some of the frameworks has been imposed in certain jurisdictions (for example China, Denmark, Malaysia, South Africa) (Ioannou & Serafeim, 2014) and implied in others.

The CSR reporting nomenclature has evolved overtime, as the reports have been designated with different names including; sustainability report, sustainable development report, annual and sustainability report, and corporate sustainability report. In this study, corporate social responsibility (CSR) and sustainability are used interchangeably.

The growth in sustainability concerns globally (KPMG, 2013a; KPMG, 2013a; Sulkowski & Waddock, 2014) and attendant escalation in the rendition of sustainability reports in many territories of the world (Eccles, 2011; Maguire, 2011; Makiwane & Padia, 2013) are pointers that CSR has evolved in practice (Orij, 2007) and research (Cramer, 2002; Adeyemi & Ayanlola, 2014; Uwuigbe & Jimoh, 2012; Idowu, 2014; Nwobu, 2015). The ubiquity of the sustainability dialogue is further accentuated by inroads which the subject has made to different disciplines (such as accounting and finance, government, law, amongst others), as well as the gamut of studies carried out under different subthemes across various sectors including; sustainability practices (Cramer 2002; Collett & Hrasky, 2005; Samina, 2012; Uwuigbe & Jimoh, 2012; Oyewo & Badejo, 2014); sustainability and investment decisions (Hope & Fowler, 2007); linkage of CSR to Norton and Kaplan's (1992) balanced scorecard (Huang, Pepper & Bowrey, 2014); country and firm-level characteristics affecting the preparation of sustainability reports (Jensen & Berg, 2012; Barakat, Pérez & Ariza, 2015); impact of CSR on firm performance (Margarita, 2004; Mackey, Mackey & Barney, 2007; de Klerk & de Villiers, 2012; Khaled & Fares, 2012; Olanrewajue, 2012; Uwuigbe & Egbide 2012; Sarwar, Zahid & Ikram, 2012; Dragu & Tiron-Tudor, 2013; Duke & Kankpang, 2013; Ajide & Aderemi, 2014; Iqbal, Ahmad, Hamad,

Bashir & Sattar, 2014); outcomes from mandating sustainability reporting (Ioannou & Serafeim, 2014); the interaction between corporate social investment and integrated reporting (Potter, Singh & York, 2013); the interaction between CSR and value of quoted firms (Fodio, Abu-Abdissamad & Oba, 2013); deepening the quality of sustainability reporting and disclosure (Asaolu, Agboola, Ayoola & Salawu, 2012; Adeyemi & Ayanlola, 2015); CSR disclosure and firm characteristics (Oyewo & Badejo, 2014; Nwobu, 2015), amongst others.

There is a body of literature (for example Samkin, 2012; Makiwane & Padia, 2013) suggesting that integrated reporting (hereafter, <IR>) has enhanced quality and quantity of sustainability reports. <IR> is the preparation of a corporate report which synthesizes both financial and non-financial information, covering economic, environmental, social and governance issues in an organisation (Eccles & Saltzman, 2011; Main & Hespenheide, 2012; Churet & Eccles, 2014; Adams, 2015). Conventional financial reports provide financial information but not a holistic picture of performance (Krzus, 2011; Eccles, 2012). To help users of information make decisions, stakeholders should have a good grasp of other aspects of an entity's performance spanning across how the business is managed, its future prospects, organisational policy on environment and attitude to social responsibility, amongst others (Ministry of Economics, Japan, 2014; Adams, 2015). These issues informing the decisions of stakeholders, which <IR> seeks to address, are often gleaned from published annual reports. The users of corporate reports are growingly becoming sophisticated because conventional financial reports are no longer satisfying their information needs (E&Y, 2013; PwC, 2013). In view of the apparent failure of conventional financial reports in addressing the protracted challenges of information asymmetry, <IR> has gained entry and assumed prominence in corporate reporting (Burritt, 2012; Eccles, 2012; Holmes, 2013). <IR> improves the quality of corporate reporting (Hindley & Buys, 2012).

Hughen, Lulseged and Upton (2014) posited the role of CSR in enhancing the long-term value and strategic operations of a company. The documentation of the long-term value creation by a firm will therefore require some form of sustainability reporting. <IR> requires organisations to report how they are creating value— not just for owners but other stakeholders economically, environmentally and socially; as a result, organisations preparing integrated reports will advertently report on sustainability. Considering that an integrated report is the 'one report' (see Eccles, 2011) that provides an holistic view of an entity's state of affairs, sustainability and sustainability reporting by extension are impliedly integral parts of <IR> (IoDSA, 2010; Marx & Van Dyk, 2011a; Stubbs & Higgins, 2011; Busco, Frigo, Quattrone & Riccaboni, 2013; GRI, 2013c; IIRC, 2013; KPMG, 2013a; KPMG, 2013b; Sokya, 2013; Bohlhoff & Starnitzky, 2014; Eccles & Serafeim, 2015).

It has been worryingly noted in literature (for example, Idowu, 2014; Lugard, 2014) that Nigerian firms pay lip-service to sustainability — by extension, CSR reports accompanying annual reports do not present a true and fair view of the sustainable development activities embarked upon by them. Maguire (2011) noted as well that this *green washing* applies in other territories. Notwithstanding that sustainability reporting is voluntary in most countries of the world, Asaolu et al (2012); and Uwuigbe and Jimoh (2012), corroborated by Adeyemi and Ayanlola (2015) have called for the regulation of CSR reporting in Nigeria; their contention stems from the observation that the depth of sustainability disclosures by Nigerian firms is

shallow. In this regard, Oyerogba (2014) lamented that as the level of adequacy and reliability of information by listed companies in developing countries is lagging behind in comparison to developed countries, so is corporate reporting practice in Nigeria weak. In contributing to the debate, Adeyemi and Ayanlola (2014) decried that Nigerian companies are not doing so well with CSR disclosure. Nwobu (2015) puts sustainability reporting by Nigerian firms to be average at best.

Research on CSR in Nigeria is scant (Uwuigbe & Jimoh, 2012; Duke & Kankpang, 2013; Idowu, 2014); worse still, studies on CSR have recurrently been investigated in the Nigerian oil and gas sector (for example, studies by Bustany & Wysham, 2000; Ifeka, 2004; Asaolu et al, 2012; Idowu, 2014; Lugard, 2014), abandoning other sectors. For example, Asaolu et al.'s (2012) scrutiny of multinational corporations operating in the Nigerian oil and gas industry concluded that the firms fared badly in their environmental and social reporting scorecards which could be partly responsible for the imbroglio and upsurge of unrest in the Niger-Delta region, thereby calling for the localisation of sustainability reporting framework in Nigeria in line with international best practices as practised in countries like France, Germany and South Africa.

The under-researching of CSR in Nigeria affects the financial service sector as well. Whereas Idowu (2014) observed that Nigerian banks commit less than three per cent (3%) of their profit after tax to CSR, ergo calling for improvement in CSR initiatives in the sector, studies specifically focusing on deepening sustainability disclosures in financial service sector seem to be terse; instead, most of the few studies in this sector (for example, Olanrewajue 2012; Uwuigbe & Egbide, 2012; Fodio, et al., 2013; Ajide & Aderemi, 2014; Oyewo & Badejo, 2014; Nwobu, 2015) have prominently dwelt on sustainability reporting vis-à-vis firm characteristics, firm value and firm performance. Over the past four years, sustainability reporting has received attention in Nigerian banks on the account of the affirmation of the Nigerian Sustainable Banking Principles (NSBP) in 2012 by the Central Bank of Nigeria (CBN) and the Nigeria Bankers' Committee (Egwuatu, 2013; Nelson & Orioha, 2015; Nwobu, 2015). Seeing that there is evidence of an increase in CSR activities by Nigerian financial institutions in recent times, Lugard (2014) contended that the current state of CSR in Nigerian banks is yet to be examined. Accordingly, it is paramount to assess whether the introduction of the NSBP has translated into appreciable amelioration in CSR reporting by Nigerian banks.

The study investigated whether or not sustainability reporting can be improved by Nigerian firms through the adoption of <IR>. However, the approach utilised was an inter-country comparative study of Nigerian firms with South African firms operating in the financial service sector. The rationale for contemporaneously benchmarking Nigerian (NG) banks with South African (SA) banks is tri-partite. First; globally, the financial service sector is topmost of the ten leading sectors publishing self-declared integrated reports from 2010-2012 (GRI, 2013c). Correspondingly, the financial service sector in South Africa (with 18% rating) is the next highest ranking sector after the mining sector (with 19%) in the publication of self-declared integrated reports (GRI, 2013c). Second; there is evidence that South Africa is taking the lead on sustainability reporting in the entire African continent (Uwuigbe, 2011; GRI, 2013c; Nwobu, 2015). Third; improvement in sustainability reporting by South African firms has been credited to adoption of <IR> which was mandated by the King III report for publicly quoted firms on the

Johannesburg Stock Exchange [JSE] (IoD, 2009; Hanks & Gardiner, 2012; GRI, 2013c; IIRC, 2013; Oyewo, Obigbemi & Uwuigbe, 2015).

If it could be established that South African firms outperformed Nigerian firms in sustainability reporting quality and quantity on the account of South-African firms concurrently adopting <IR> and applying the GRI guideline in preparing CSR reports, then the supremacy of <IR> over conventional reporting could be argued and the introduction of <IR> in the Nigerian environment recommendable.

The aim of the study is to investigate, through a comparative analysis, whether Nigerian and South African firms differ in the extent of sustainability disclosure on the account of the adoption of <IR> by South African firms. The research objectives are as follows:

- (i) To assess the extent of disclosure on sustainability by Nigerian banks
- (ii) To evaluate the extent of disclosure on sustainability by South African banks
- (iii) To examine the extent to which Nigerian and South African banks differ in the degree of sustainability disclosure on the account of the adoption of <IR> by South African banks.

The rest of the paper is divided into five sections (2-6). After the literature review and development of research hypotheses in Section 2, Section 3 delves into the research design. Next, results and discussion of findings are covered in Sections 4 and 5 respectively, followed by conclusion and recommendations in Section 6.

## **2. Literature Review and Hypotheses Development**

### **2.1 Frameworks for sustainability reporting**

Different frameworks subsist for sustainability reporting some of which are (Asaolu et al, 2012; Zyl, 2013) : Global reporting initiative sustainability reporting guideline developed by Global Reporting Initiative (GRI); Social Accountability 8000 developed by Social Accountability International; Organisation for Economic Cooperation and Development Guidelines for Multinational Enterprises developed by Organisation for Economic Cooperation and Development (OECD), Environmental Management (ISO 14001, EMAS); Code for Responsible Investing by Institutional Investors in South Africa (IoDSA, 2010); JSE Socially Responsible Investment (SRI) Index Minimum Requirements and Criteria; the Ecologically Sustainable Development set out in the National Environmental Management Act (NEMA) in South Africa (1998); the Nigerian Sustainable Banking Principles (CBN, 2012; Bangudu, 2013; Egwuatu, 2013). This study focused on two sustainability frameworks:

- (I) the GRI framework and;
- (II) the Nigerian Sustainable Banking Principles (NSBP).

### **(I) The GRI framework for sustainability reporting**

The GRI guideline is the most definitive, widely-accepted and commonly- applied framework for sustainability reporting globally (Asaolu et al, 2012; Maguire, 2011; Hindley& Buys, 2012). The GRI is a rigorous framework for sustainability reporting. Maguire (2011) stated that the GRI is increasingly becoming the *de factor* standard on sustainability reporting across the world. The latest is the GRI G4 framework launched in May 2013 (GRI, 2013a; GRI, 2013b; CIMA paper F3 study text, 2014). The GRI G4 broadly categorised sustainability disclosures into three; economic, environmental and social performance indicators. There are sub-categories and aspects within the three broad categories. The GRI also published additional guidelines for banks, which was adopted in this study, and are briefly discussed thus;

(a) Economic sustainability: The economic sustainability perspective is concerned with the impact of the entity on the economic conditions of its stakeholders, the flow of capital among different stakeholders, and the entity's impact on economic systems at local, national and international levels (Eccles, 2011; GRI, 2013a; GRI, 2013b; CIMA paper F3 study text, 2014). The economic performance indicators cover; market presence, indirect economic impacts, and procurement practices.

(b) Environmental sustainability: The environmental sustainability standpoint is concerned with the impact of the entity on living and non-living natural systems including land, water, air and ecosystem (GRI, 2013a; GRI, 2013b; CIMA paper F3 study text, 2014). Environmental sustainability also covers entity's impacts on inputs (such as energy and water), outputs (such as emissions, effluents and wastes) and compliance with environmental regulations. Environmental sustainability indicators include; materials, energy, water, biodiversity, emissions, effluents and waste, products and services, compliance, transport, overall, supplier environmental assessment, and environmental grievance mechanisms.

(c) Social sustainability: The social sustainability dimension focuses on the entity's impact on the social systems within which it operates (GRI, 2013a; GRI, 2013b; CIMA paper F3 study text, 2014). The social sustainability indicators are sub-categorised into four; labour practices & decent work, human rights, society, and product responsibility, elaborated below:

- (i) Labour practices and decent work covers the following aspects — employment; labour/management relations; occupational health and safety; training and education; diversity and equal opportunity; equal remuneration for women and men; supplier assessment for labour practices; and labour practices grievance mechanisms.
- (ii) Human Rights aspects are — investment; non-discrimination; freedom of association and collective bargaining; child labour; forced or compulsory labour; security practices; indigenous rights; assessment; supplier human rights assessment; and human rights grievance mechanisms.
- (iii) Society covers these aspects — local communities; anti-corruption; public policy; anti-competitive behaviour; compliance; supplier assessment for impacts on society; and grievance mechanisms for impacts on society

- (iv) Product Responsibility aspects are — customer health and safety; product and service labeling; marketing communications; customer privacy; compliance; product portfolio; audit; and active ownership

## **(II) *The Nigerian Sustainable Banking Principles (NSBP)***

The NSBP is a guideline on sustainability reporting peculiar to the Nigerian financial service sector, which was approved by the Central Bank of Nigeria (CBN) and the Nigerian Bankers' committee in July 2012, with a view to improving the quality of sustainability practice and disclosure by Nigerian banks (Bangudu, 2013; Nelson & Orioha, 2015). The motivation for the issuance of the NSBP stems from the observation that Nigerian banks are doing little in the way of practicing and reporting on sustainability. In September 2012, the regulatory body (CBN) issued a circular directing banks, discount houses and development finance institutions to implement the Nigeria Sustainable Banking Principles (CBN, 2012). The NSBP has eight principles; (i) Principle 1: Business Activities: Environmental and Social Risk Management (ii) Principle 2 – Firms Business Operations: Environmental and Social Footprint (iii) Principle 3 – Human Rights (iv) Principle 4 – Women's Economic Empowerment (v) Principle 5 – Financial Inclusion (vi) Principle 6 – Environmental & Social (E&S) Governance (vii) Principle 7 – Capacity Building (viii) Principle 8 – Collaborative Partnership; and (ix) Principle 9 – Reporting.

### **2.2 The Interaction between Integrated Reporting <IR> and Sustainability Reporting**

An integrated report connects the past, present and future activities of an organisation—this integrated approach to reporting can potentially rouse stakeholders' confidence in an entity (Adams & Simnett, 2011; Zyl, 2013). Eccles, Krzus and Tapscott (2010) designated integrated report to be the 'one report' because it deconstructs separately-prepared financial and nonfinancial reports by enmeshing both into a single integrated report. Regardless of industry, size or establishment motives, organisations worldwide are adopting <IR> (Adams & Simnett, 2011; GRI, 2013c; James, 2013; Kaya & Turegun, 2014).

Most firms prepare sustainability reports as part of their integrated reports using the GRI guideline (Zyl, 2013). In South Africa, the King III report recommended the use of the Global Reporting Initiative (GRI) framework in the rendition of a sustainability report embedded within an integrated report (IoD, 2011; Zyl, 2013), because firms attempting to explain their value-creation process (in an integrated report) will unavoidably comment on sustainability (in a CSR report); sustainability reporting is therefore an intrinsic element of <IR>. GRI has helped companies to prepare integrated report and has formed part of the <IR> checklist (GRI, 2013c). <IR>, sustainability reporting and the GRI guidelines are therefore closely linked and intertwined (Hughen et al, 2014; Sulkowski & Waddock, 2014).

There have been refinements in the quality and quantity of sustainability reporting due to <IR> (E&Y, 2013; IRAS, 2013; Makiwane & Padia, 2013; Purkayastha & Srinivasa Rao, 2013). Samkin (2012), and Solomon and Maroun (2012) concurred that environmental, social and governance issues disclosed in annual reports prepared in an <IR> fashion improved. Eccles and Saltzman (2011) agreed that advancement in sustainability reporting can be achieved through <IR>. Hindley and Buys (2012) upon studying sustainability reporting practice in the South African mining industry concluded that the quality of sustainability report prepared using the



GRI framework improved when, embedded within an integrated report. Potter et al.'s (2013) and Sierra-García, Zorio-Grima and García-Benau's (2015) findings corroborated Hindley and Buys' (2012) position that preparing integrated report improves the quality of CSR reporting. These observed upswings perhaps account for the practice of voluntarily adopting <IR> by some firms in some quarters where adoption of <IR> has not been mandated. To Maguire (2011), firms issue integrated reports to incorporate sustainability into strategy such that the two closely interact like Siamese twins. Jensen and Berg (2012) reported that an awareness of corporate responsibility (in terms of social and environmental issues) is a good indicator of an <IR> company.

In tandem with studies from other countries as discussed in the foregoing, there are empirically-supported the rendition of sustainability report by South African firms upon the adoption of <IR> (for example, Hindley & Buys, 2012; Carels, Maroun & Padia, 2013; IRAS, 2013; Zyl, 2013). Notwithstanding that <IR> has not been adopted nor sustainability reporting mandated in Nigeria, Nigerian firms still publish sustainability reports in annual reports (Asaolu, et al., 2012; Oyewo & Badejo, 2014; Adeyemi & Ayanlola, 2015). With the issuance of the NSBP, sustainability concerns have particularly increased in the Nigerian financial sector lately (Bangudu, 2013; Nwobu, 2015). Based on these discussions, it is hypothesized that;

*H<sub>01</sub>: Nigerian and South African banks do not significantly differ in the extent of sustainability disclosure on the account of the adoption of integrated reporting by South African firms*

Sustainability ramifications mostly reported by firms are the economic, environmental and social (CIMA paper F3 study text, 2014). Thus, the overarching hypothesis is devolved into the following sub-hypotheses:

H<sub>01a</sub>: Nigerian and South African banks do not significantly differ in the extent of economic sustainability disclosure on the account of the adoption of integrated reporting by South African firms

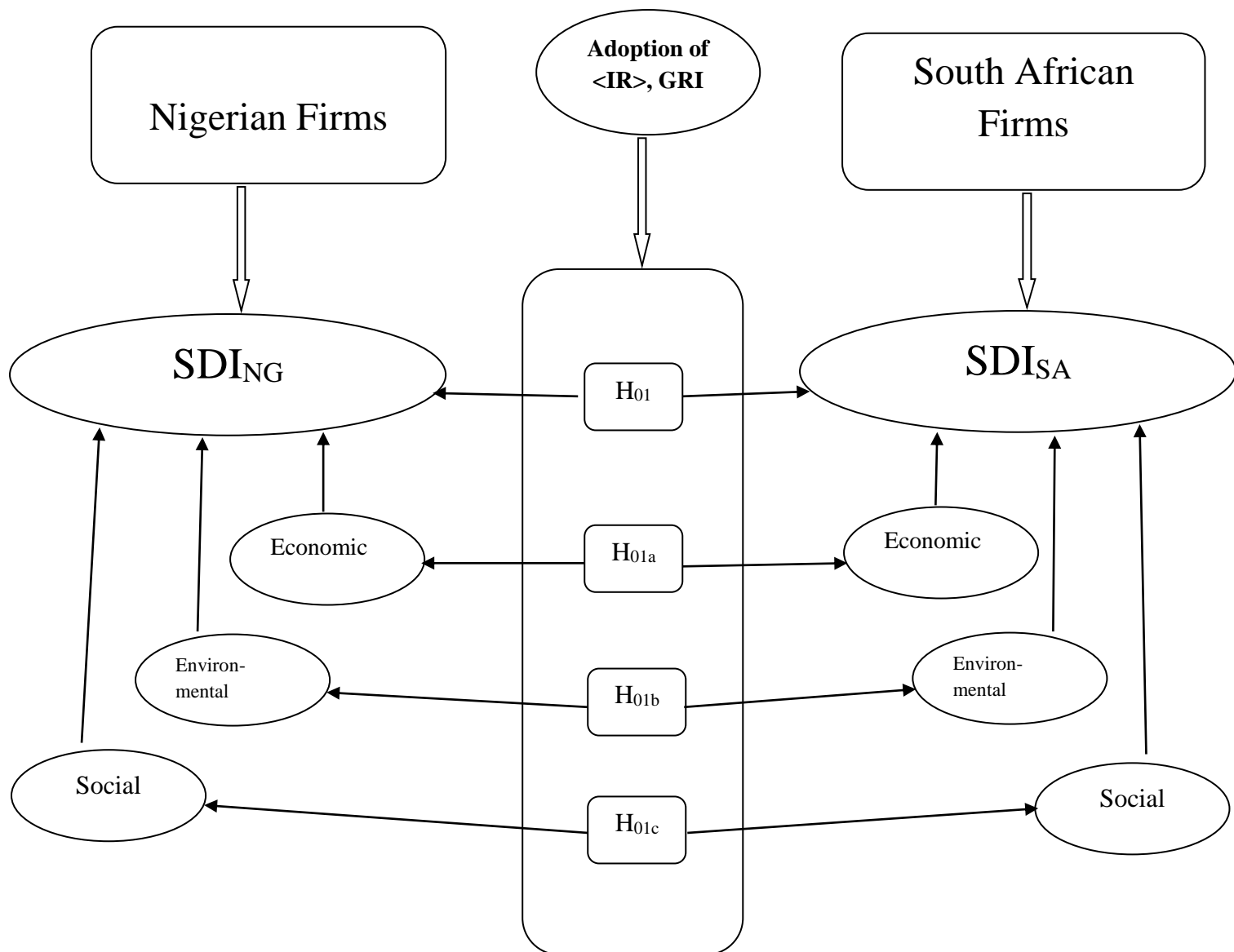
H<sub>01b</sub>: Nigerian and South African banks do not significantly differ in the extent of environmental sustainability disclosure on the account of the adoption of integrated reporting by South African firms

H<sub>01c</sub>: Nigerian and South African banks do not significantly differ in the extent of social sustainability disclosure on the account of the adoption of integrated reporting by South African firms.

## 2.3 Conceptual Framework

The conceptual framework which is a depiction of the extent of difference in disclosure on economic, environmental, social and overall sustainability between NG (SDI<sub>NG</sub>) and SA (SDI<sub>SA</sub>) firms on the account of the adoption of <IR> and GRI by SA firms is illustrated in Figure 1.

**Figure 1: Conceptual Framework Nigerian (NG) and South African (SA) Firms**



Source: Developed by Authors (2017)

## 2.4 Theoretical Framework

There are a number of theories that have been cited to explain the motivation behind sustainability practices and CSR reporting by firms. For example, according to legitimacy theory, firms are motivated to embark on sustainable reporting for legitimation reasons.

Legitimation is the manner in which an organisation goes about seeking societal endorsement of the essence of its existence and activities. Neu, Warsame and Pedwell (1998) suggest that organisations try to maintain their legitimacy because it helps to ensure the continued inflow of capital, labour and customers supplied by the society which are necessary for viability. This perception reveals that when firms engage in CSR endeavour which appears *prima facie* that they are benefiting the society by giving back to it, it is in effect indirectly and ultimately for their (firms') benefit—to keep the flow of resources. Several authors have invoked the legitimacy theory in CSR studies (for example, see Patten, 1992; Lindblom, 1994; Deegan & Rankin, 1996; Bansal & Roth, 2000; Deegan, 2002; Milne & Patten, 2002; Idowu, 2014; Lugard, 2014; Mousa & Hassan, 2015; Adeyemi & Ayanlola, 2015) because of its most-appropriateness in explaining the opportunistic behaviour of firms, consequently its prominence, preponderance, and predominance amongst the other theories accounting for the society-organisation interaction on the CSR platform.

Another theory that has been used to explain the motivation for sustainability reporting is the stakeholder theory. The theory extends the stakeholder-groups originally from the shareholders to several other stakeholders (such as host community, employees, government, suppliers, and competitors, etcetera), as well as the relationship among them. Pressure from the stakeholders therefore coerces firms to disclosure social and environmental information (Watts & Zimmerman, 1978). The stakeholder theory suggests that the resources of the organisation should not be primarily focused on the concerns or needs of the shareholders or owners. When annual reports are published, it should contain information that will serve the needs of all stakeholders in the organisation. This reasoning should provoke the disclosure of financial and non-financial information by firms covering different aspects including economic, environmental, social and governance issues.

According to contingency theory, internal and external factors which apply to organisations, societies or countries may influence the preparation of sustainability report by a firm or group of firms. Jensen and Berg (2012) noted certain characteristics prevalent in countries where integrated reports and sustainability reports are prepared:

- (a) Countries with a high investor protection, with financial systems characterised by disperse ownership and with high degrees of market coordination tend to have adopted <IR>
- (b) <IR> companies are more like to be based in countries where there is high level of expenditure on tertiary education and higher trade union density
- (c) Countries where there is an awareness of corporate responsibility (in terms of social and environmental issues) are likely to adopt <IR>
- (d) <IR> companies are more likely to be based in countries which place emphasis on self-expression, secular-rational values and quality of life.

Firm-level characteristics which may influence the preparation of integrated reports, especially in territories where sustainability and <IR> is voluntary include; size, profit, degree of multi-nationality and stakeholder pressures (Jensen & Berg, 2012). Other studies that have applied the contingency theory to CSR researches include Adeyemi and Ayanlola (2015).

### **3. Research Design**

The population of the study is comprised of publicly-listed deposit money banks (or commercial banks) operating in Nigeria (NG) [made up of 22 banks (see CBN, 2015)] and South Africa (SA) [with 16 registered banks (see Moneyweb, 2015)] as at December 2014. In

accordance with other studies (Uwuigbe & Jimoh, 2012; Duke & Kankpang, 2013; Idowu, 2014), a purposive sampling technique was applied to select equal number of firms that prepared a sustainability report (for NG firms) and firms that embed a sustainability report in the annual integrated report (for SA firms) in both countries. Meanwhile, some SA firms issuing a standalone sustainability report do not incorporate sustainability reports in the integrated report, while some others issued a condensed or abridged version of such report in the integrated annual report (Molate, Klerk & Ferreira, 2014); the approach adopted was to select SA firms that featured sustainability reports in their annual integrated reports in order to provide an equal basis to judge sustainability disclosure by NG and SA firms. The 2014 annual reports were selected for evaluation as they were the most recent, publicly-available annual report simultaneously available in both countries as at the time of undertaking the study. Allowing for equal number of firms from both countries, the selection criteria produced twenty-two (22) firms, consisting of eleven (11) NG firms and eleven (11) SA firms respectively. The eleven (11) emerging NG banks were; Diamond Bank, Fidelity Bank, First Bank, First City Monument Bank (FCMB), Guaranty Trust Bank (GTB), Skye Bank, Sterling Bank, Unity Bank, United Bank for Africa (UBA), Wema Bank and Zenith Bank. The eleven (11) South African (SA) banks selected were; African Bank Limited, Albaraka Bank Limited, Barclays Africa Group, Bidvest Bank Limited, FirstRand Bank, Investec Bank Limited, Mercantile Bank Limited, Sasfin Bank Limited, Standard Bank of South Africa, South African Bank of Athens Limited, and UBank Limited (previously Teba Bank Limited).

#### *Source of data*

Disclosures on sustainability in selected annual reports and accounts were content-analysed. The quantitative content analysis methodology is a procedure that quantified qualitative information, in a number of ways using count of words, sentences and pages and has been used by different researchers overtime (for example, Patten, 1992; Gray, Kouhy & Lavers 1995; Deegan & Gordon, 1996; Deegan & Rankin, 1996; Deegan et al., 2002; Molate, Klerk & Ferreira, 2014). Prior studies on sustainability disclosures have employed the content-analysis approach (for example, see Deegan & Gordon, 1996; Asaolu et al., 2012; Solomon & Maroun, 2012; Uwuigbe & Egbi 2012; Mousa & Hassan, 2015; Nwobu, 2015).

#### *The disclosure checklist and the sustainability disclosure index*

The GRI 4 framework is the most acclaimed framework guiding the preparation of sustainability and upon which sustainability disclosures can be judged (Maguire, 2011). As a result, the disclosure checklist that guided content-analysis was developed with recourse to the general GRI G4 framework and the specific GRI G4 framework for financial service sector (designated 'GRI Financial Services Sector Supplement issued'). Other studies have also either adopted or adapted the GRI guideline to develop a disclosure checklist (for example, Hindley & Buys, 2012; Adeyemi & Ayanlola, 2014; Molate et al., 2014). The *GRI Financial Services Sector Supplement issued* document contains a set of disclosures for use by all financial service organisations (GRI, 2013a). Together, the GRI G4 guidelines and the *Financial Services Sector Supplement issued* make up the reporting framework for the financial services sector as it reflects specific disclosures applicable to financial service firms (GRI, 2013a). The *Financial Services Sector Supplement issued* covers key aspects of sustainability performance that are meaningful and relevant to the financial services sector and which are not sufficiently-covered in the general GRI G4 guidelines. Consistent with Gray et al. (1995) and Molate et al. (2014), analyses also

cover the quality of disclosure (extent) and quantity of disclosure (number of pages, and proportion of the annual report dedicated to CSR reports) in order to allow for robustness in analysis of disclosure. Social, economic and environmental sustainability were examined as a basis for comparison of disclosure because these are the three CSR spectra usually followed (Idowu, 2014; Nwobu, 2015).

Indices were developed for the purpose of classifying extent of CSR disclosures in annual reports. The extent of disclosure was rated on a 5-point rating scale as done in prior studies (Asaolu et al., 2012; Zyl, 2013). The scale, adapted from Marx and Van Dyk (2011a) and Zyl (2013), was developed within the purview of the degree to which the CSR information met qualitative characteristics of useful financial information as set out in the International Accounting Standards Board (IASB) conceptual framework such as relevance, faithful representation, comparability, verifiability, timeliness, and understandability (Marx & Van Dyk, 2011b; Deloitte, 2012; Zyl, 2013) and the GRI G4 principles for defining report quality such as balance, comparability, accuracy, timeliness, clarity and reliability (GRI, 2013b; CIMA paper F3 study text, 2014). The likert-type measurement scale (in appendix 3) guided the assigning of scores on the extent of disclosure. The economic perspective had 8 items (maximum score of  $5 \times 8 = 40$  obtainable for a firm), environmental perspective had 5 items (maximum score obtainable by a firm is  $5 \times 5 = 25$ ), and the social perspective had 20 items across the four aspects (maximum score of  $5 \times 20 = 100$  obtainable for a firm). Overall, the maximum score obtainable across the three sustainability categories by a firm is 165 (economic, 40; environmental, 25; social, 100).

The sustainability disclosure was scaled down to 100, and weights attached to each of perspective thus:

$$\text{Economic} = 40/165 \times 100 = 25\% \quad (1)$$

$$\text{Environmental} = 25/165 \times 100 = 15\% \quad (2)$$

$$\text{Social} = 100/165 \times 100 = 60\% \quad (3)$$

The disclosure index across the three perspectives for each firm, based on the weighting in equations (1), (2), and (3), was derived as follows:

$$\text{Economic Sustainability Index (EcSI)} = X_1 / 40 \times 25 \quad (4)$$

$$\text{Environmental Sustainability Index (EnSI)} = X_2 / 25 \times 15 \quad (5)$$

$$\text{Social Sustainability Index (SsSI)} = X_3 / 100 \times 60 \quad (6)$$

Where  $X_1$ ,  $X_2$  and  $X_3$  represent scores obtained by individual firm on economic, environmental and social sustainability disclosures.

$$\text{Sustainability Disclosure Index (SDI)} = \sum (\text{EcSI}, \text{EnSI}, \text{SsSI}) \quad (7)$$

The breakdown of raw scores and indices of participating firms produced from applying the mathematical procedures in equations (4) to (7) is presented in appendix 1a and 1b. Basis for assigning designations to firms based on SDI scores is furnished in appendix 4.

### *Data-analysis Techniques*

Descriptive statistics (frequency counts, percentage, minimum value, maximum value, mean, standard deviation and standard error) and inferential statistics (Pearson correlation and independent sample t-test) were applied in analysis. Normality was tested using the Kolmogorov-Smirnov test. Following confirmation that data followed a normal distribution ( $p$  values of economic, environmental, social and overall sustainability indices being .960, .907, .846 and .745 > .05 respectively, in appendix 5), the independent sample t-test (a parametric statistical technique) was applied to assess extent of difference in disclosure between NG and SA firms. Inferences were deduced at 5% significance level. Data analysis was aided with the use of Microsoft *Excel 2013* edition and IBM *SPSS* version 21.

#### 4. Results

This section is dedicated to the presentation of results and discussion of analysis. Descriptive analysis is first presented, followed by inferential analysis and test of hypotheses. The section ends with a discussion of findings.

##### *Descriptive Analysis*

Analysis on the quantum of pages dedicated to sustainability reporting by NG and SA firms presented in Table 1 reveals that SA firms dedicated more pages and portion of their annual reports to sustainability reporting than the Nigerian firms. Specifically, a certain Nigerian firm reported CSR in 1 page and another dedicated 25 pages (the maximum for NG firms) to the report. The average number of pages dedicated to sustainability reporting by NG firms is 7 pages. These results contrasts sharply with the statistics for SA firms, dedicating a minimum of 5 pages, maximum of 42 pages and an average of 13 pages (12.64 approximated) to sustainability reporting in annual reports.

**Table 1: Descriptive Statistics of the volume and proportion of annual report dedicated to sustainability reporting by NG and SA firms**

	N	Minimum	Maximum	Mean	Std. Deviation
Volume of annual report dedicated to CSR – Nigerian firms	11	1	25	7.00	7.44312
Volume of annual report dedicated to CSR – South-African firms	11	5	42	12.64	10.500
Proportion dedicated to CSR- Nigerian firms (in %)	11	.29	8.77	3.0464	2.48199
Proportion dedicated to CSR- South-African firms (in %)	11	3.00	12.73	7.4500	3.25672

**Source: Analysis of data extracted from annual reports of sample firms**

An analysis of the portion dedicated to CSR reporting in the annual reports (computed by denominating the number of pages sustainability report covered by the number of pages in the annual report, expressed in per cent) is also presented Table 1. Results show that NG firms dedicated an average of 3.05% and SA firms an average of 7.45% (which is more than twice the average portion NG firms dedicated). Overall, since SA firms devoted more space to sustainability reports (which is an abridged version of the full, standalone sustainability report) in their annual integrated reports in comparison to the CSR report of NG firms rendered in a

conventional annual report, it is concluded that <IR> improves the quantity of sustainability reporting.

### *Economic sustainability disclosure*

**Table 2: Economic sustainability disclosure indices of NG and SA firms**

Nigerian Firms			South African firms		
Index (max: 25.00)	Frequency	Percent	Index (max: 25.00)	Frequency	Percent
.63	2	18.2	3.13	1	9.1
1.25	3	27.3	4.38	2	18.2
1.88	1	9.1	5.00	2	18.2
2.50	2	18.2	5.63	1	9.1
3.75	1	9.1	7.50	3	27.3
5.63	1	9.1	10.63	1	9.1
6.25	1	9.1	11.88	1	9.1
Total	11	100.0	100.0	11	

The result of analysis on economic sustainability disclosure presented in Table 2 evinces that, from the maximum score of 25.00 obtainable, the minimum score for NG firms is 0.63 against SA firms' 3.13 and the maximum of the NG firms is 6.25 against SA firms' 11.88. Also, 5 (45%) SA firms had more than the maximum score (6.25) of the NG firms. 8 (73%) NG firms had scores ranging from .63 to 2.50 which is less than the 3.13 minimum score of SA firms. Mean score of NG firms on economic sustainability disclosure is 2.50, which is less than SA firms' mean of 6.59 (Table 7). It is concluded therefore that SA firms disclosed more on economic sustainability than NG firms.

### *Environmental sustainability disclosure*

**Table 3: Environmental sustainability disclosure indices of NG and SA firms**

Nigerian Firms			South-African firms		
Index (max: 15.00)	Frequency	Percent	Index (max: 15.00)	Frequency	Percent
.00	1	9.1	.60	1	9.1
.60	1	9.1	1.20	1	9.1
1.20	1	9.1	2.40	2	18.2
1.80	1	9.1	4.20	3	27.3
2.40	1	9.1	4.80	2	18.2
3.00	1	9.1	8.40	2	18.2
3.60	1	9.1	Total	11	100.0
4.20	2	18.2			
6.00	2	18.2			
Total	11	100.0			

Result of the analysis on environmental disclosures contained in Table 3 shows one NG firm did not delve at all into environmental issues in its sustainability report which accounted for the overall minimum score of .00 for NG firms; 2 (18%) NG firms had the highest score of 6.00 from a maximum of 15.00 obtainable. The minimum score of 0.60 for SA firms implies that all SA firms disclosed on environmental sustainability. 2 (18%) SA firms each having an index of 8.40 surpassed the 6.00 maximum environmental disclosure score of NG firms by 2.40 (8.40 - 6.00). The mean score of NG firms on environmental disclosure of 3.00 in comparison to the mean of the SA firms of 4.15 (Table 7) suggests that SA firms slightly disclosed more on environmental sustainability than NG firms.

### ***Social sustainability disclosure***

Result on social sustainability disclosure indices of NG and SA firms presented in Table 4 reveals the minimum score of NG firms to be 2.40 which is over three times less than the minimum of SA firms (7.80). The minimum score of 7.80 for SA firms also surpassed the scores of 6 (55%) NG firms having scores in the range of 2.40 - 7.20, which is below 7.80.

**Table 4: Social sustainability disclosure indices of NG and SA firms**

Nigerian Firms			South-African firms		
Index (max: 60.00)	Frequency	Percent	Index (max: 60.00)	Frequency	Percent
2.40	1	9.1	7.80	1	9.1
3.00	1	9.1	9.00	2	18.2
4.80	2	18.2	10.20	1	9.1
5.40	1	9.1	14.40	1	9.1
7.20	1	9.1	15.00	1	9.1
10.80	1	9.1	16.20	2	18.2
11.40	1	9.1	18.60	2	18.2
14.40	1	9.1	25.80	1	9.1
15.00	1	9.1	Total	11	100.0
16.80	1	9.1			
Total	11	100.0			

The maximum score of SA firms (25.80) exceeded the maximum score of NG firms (16.80) by an index of 9.00 (54%). The mean score of SA firms of 14.62 in comparison to that of NG firms of 8.73 (Table 7) establishes that SA firms markedly disclosed more on social sustainability than NG firms.



### Overall sustainability disclosure

The combined sustainability disclosure indices for the twenty-two (22) firms in both countries are presented in Table 5. The minimum sustainability index for NG (SA) firms is 3.03 (11.53). The lowest score for SA firms ( $SDI_{SA}$ ) exceeded the minimum score for the NG firms ( $SDI_{NG}$ ) by almost four times (3.8 times). The SA firm with the minimum sustainability disclosure index (SDI) of 11.53 surpassed 5 (46%) NG firms in SDI score. The NG firm with the highest SDI of 26.65 exceeded 6 (55%) SA firms in scores; stated differently, 5 (45%) SA firms had SDI scores above the maximum score of NG firms. Also, the maximum score of SA firms (44.83) exceeds that of NG firms (26.65) by almost two times (1.7 times). SA firms generally had higher SDI designations than NG firms (for example, unlike NG firms that had one 'B' and no 'B+' designation, SA firms had four 'B' and one 'B+' designations). The overall mean SDI of NG firms ( $SDI_{NG} = 14.23$ ) is strikingly below the mean SDI of SA firms ( $SDI_{SA} = 25.35$ ) [Table 7]. This is graphically depicted in appendix 6; it is concluded that SA firms generally disclosed more on sustainability in annual reports than NG firms.

**Table 5: Overall sustainability disclosure indices of NG and SA firms**

Nigerian Firms				South-African firms			
Index (max: 100.00)	Frequency	Percent	Designation	Index (max: 100.00)	Frequency	Percent	Designation
3.03	1	9.1	C	11.53	1	9.1	C
6.03	1	9.1	C	14.58	1	9.1	C
7.25	1	9.1	C	20.00	1	9.1	C+
9.68	1	9.1	C	23.60	1	9.1	C+
10.95	1	9.1	C	24.23	1	9.1	C+
12.05	1	9.1	C	24.78	1	9.1	C+
15.05	1	9.1	C+	26.70	1	9.1	B
18.10	1	9.1	C+	28.50	1	9.1	B
23.50	1	9.1	C+	29.28	1	9.1	B
24.23	1	9.1	C+	30.90	1	9.1	B
26.65	1	9.1	B	44.83	1	9.1	B+
Total	11	100.0		Total	11	100.0	

The checklist with details of sustainability disclosures on each of items by Nigerian and South African firms is delineated in appendix 2. Under the economic sustainability disclosure measures, SA firms populated most of the cells across the 5 disclosure ratings than NG firms. The few NG firms clustered around category 1-2 except 2 firms that were rated 4 per disclosure on economic impact. This distribution pattern accounts for difference in extent of disclosure between NG and SA firms on the EcSI. The distribution pattern under environmental sustainability disclosure was such that dispersal of scores between NG and SA firms was almost equal, as firms from both countries populated most cells in the range of 1-2 except certain firms (recurrently SA firms) having outlier scores of 4. This logically explains the slight variation in

EnSI between NG and SA firms. Under the social sustainability measures, dissemination for most firms from both countries were in the range of 1-3. Though some few firms scored above average (with a rating of 4), most were SA firms; this accounts for the noticeable difference in SsSI between NG and SA firms. Overall, the pattern of diffusion on sustainability disclosures was such that most SA firms were clustered around the middle of the 5-point tapered scale (range of 2-4) while most NG firms were concentrated at the lower part of the scale (range of 1-2), thus the difference in SDI among firms from both countries.

### Results from Inferential Analysis

Descriptive analysis provided *prima facie* evidence that the extent of disclosure on sustainability differed between firms from the two countries. In this section, the paper delved into deeper analysis on differences in disclosure, employing inferential statistical tools.

#### *The interaction between quantity and quality of Sustainability Disclosure*

From results in Table 1, it was established that SA firms devoted more space in annual reports to sustainability reporting (quantity of disclosure); result in Table 5 also established that SA firms disclosed more on sustainability than NG firms (quality of disclosure). It was therefore investigated as to whether the quality of disclosure is congruous with quantum of disclosure by correlating the overall sustainability disclosure indices (SDI) with the proportion of entire report dedicated to sustainability reports by all the twenty two (22) firms. The result is presented in Table 6.

**Table 6: Correlation between sustainability indices and space dedicated to CSR report**

		Proportion of entire report dedicated to CSR
Overall sustainability disclosure index	Pearson	.637**
	Correlation	
	Sig. (2-tailed)	.001
	N	22

The result emitted from this analysis furnished in Table 4 shows a positive, strong and statistically significant relationship ( $r = .637$ ,  $p = .001 \leq .05$ ). The difference in the extent of disclosure on CSR between NG and SA firms could be adduced to the quantum of space dedicated to CSR reporting by entities from the two countries. The result in Table 5 adds more noise to the earlier inference drawn from Table 1 that SA firms generally dedicated more space to CSR reporting than NG firms, hence greater extent or quality of disclosure by SA firms than NG firms.

#### *Analysis of difference in extent of disclosure by Nigerian and South African firms*

Differences in sustainability disclosure was analysed using the independent sample t-test; result is as presented in Table 7.

**Table 7: Group Statistics on sustainability disclosure by NG and SA firms**

Sustainability perspective	Firm Group	N	Mean	Std. Deviation	Std. Error Mean	P value from t-test
Economic [EcSI]	Nigerian Firm	11	2.5000	1.93649	.58387	.001
	South-African Firm	11	6.5909	2.72952	.82298	
Environmental [EnSI]	Nigerian Firm	11	3.0000	2.02583	.61081	.256
	South-African Firm	11	4.1455	2.53786	.76519	
Social [SsSI]	Nigerian Firm	11	8.7273	5.14997	1.55277	.016
	South-African Firm	11	14.6182	5.39515	1.62670	
Overall [SDI]	Nigerian Firm	11	14.2273	7.95985	2.39998	.006

There appears to be differences in the mean score of firms from both countries, with SA firms having higher mean score than NG firms across the three sustainability dimensions, thereby resulting in marked difference in the overall sustainability score (Table 7). Specifically, the difference in economic ( $p = .001 \leq .05$ ), social ( $p = .016 \leq .05$ ) and overall ( $p = .006 \leq .05$ ) sustainability disclosures respectively between NG and SA firms is significant at 5%, while environmental sustainability is not statistically significant ( $p = .256$ ). Judging on the basis of overall mean score using the interpretation guide in appendix 4, NG firms were designated 'C' (very low;  $SDI_{NG} = 14.23$ ) and SA firms 'B' (average;  $SDI_{SA} = 25.35$ ) as to the extent of disclosure on sustainability.

#### ***Analysis of difference in extent of disclosure among Nigerian firms***

NG firms were dichotomised based on the application of NSBP in preparing sustainability reports, into adopters (applied NSBP) and non-adopters (did not apply NSBP). The objective in this regard was to assess the adequacy of the NSBP in improving the quality of sustainability reporting among NG banks. Some firms stated their adoption of the NSBP without presenting reports using the framework. Since the approach was to recognise the substance of the reporting rather than mere declaration or statement of intent to apply the guideline, such firms were categorised as non-adopters. Difference in extent of disclosure were analysed between adopters and non-adopters (result reported in Table 8).

**Table 8: Extent of Difference in Sustainability Disclosure among NG firms**

Sustainability perspective	Firm Group	N	Mean	Std. Deviation	Std. Error Mean	P value from t-test
Economic	Did not apply NSBP	6	1.7708	1.21299	.49520	.227
	Applied NSBP	5	3.3750	2.40442	1.07529	
Environmental	Did not apply NSBP	6	2.1000	1.80997	.73892	.109
	Applied	5	4.0800	1.86869	.83570	
Social	Did not apply NSBP	6	5.3000	3.20687	1.30920	.006
	Applied	5	12.8400	3.83249	1.71394	
Overall	Did not apply NSBP	6	9.1708	5.18665	2.11744	.011
	Applied	5	20.2950	6.35596	2.84247	

Firms that applied the NSBP (firms that did not apply the NSBP) had mean score of 3.38 (1.77), 4.08 (2.10) and 12.84 (5.30) on economic, environmental and social sustainability respectively; the overall sustainability score was 20.30 (9.17). At 5% significance level,  $p$  values establish that adopters and non-adopters of the NSBP do not significantly differ in economic ( $p = .227 > .05$ ) and environmental ( $p = .109 > .05$ ) sustainability disclosures but differed significantly as per social sustainability ( $p = .006 \leq .05$ ) and the overall sustainability disclosure ( $p = .011 \leq .05$ ). Since firms that applied the NSBP in the rendition of sustainability report had higher SDI score than others that did not, it is concluded that the adoption of the NSBP has, to some extent, deepened the quality of sustainability disclosure by Nigerian banks.

***Analysis of difference in disclosure between Nigerian firms adopting NSBP, Nigerian firms not adopting NSBP and South African firms***

Analysis was performed on the gap in extent of disclosure between NG firms that adopted the NSBP and SA firms applying the GRI on one hand (results in Table 9); and NG firms that did not adopt the NSBP and SA firms applying the GRI framework on the other hand (results in Table 10), with a view to finding out the extent to which the introduction of NSBP has improved the quality of sustainability reporting by Nigerian banks.

**Table 9: Comparison of disclosure by NG firms applying NSBP and SA firms applying GRI**

Sustainability perspective	Firm Group	N	Mean	Std. Deviation	Std. Error Mean	P value from t-test
Economic	NG Applying NSBP	5	3.3750	2.40442	1.07529	.040
	SA applying GRI framework	11	6.5909	2.72952	.82298	
Environmental	NG Applying NSBP	5	4.0800	1.86869	.83570	.960
	SA applying GRI framework	11	4.1455	2.53786	.76519	
Social	NG Applying NSBP	5	12.8400	3.83249	1.71394	.520
	SA applying GRI framework	11	14.6182	5.39515	1.62670	
Overall	NG Applying NSBP	5	20.2950	6.35596	2.84247	.271
	SA applying GRI framework	11	25.3545	8.81896	2.65902	

From the result of analysis in Table 9, there appears to be some divergence in the extent of disclosure on economic (NG, mean = 3.38; SA, mean = 6.59;  $p = .040 \leq .05$ ), environmental (NG, mean = 3.38; SA, mean = 6.59;  $p = .960 > .05$ ), social (NG, mean = 12.84; SA, mean = 14.62;  $p = .520 > .05$ ) and overall sustainability disclosures (NG, mean = 20.30; SA, mean = 25.35;  $p = .520 > .05$ ) with SA firms having higher disclosure indices across the three sustainability perspectives and the overall sustainability disclosure. Aside the economic sustainability which shows statistically-proven significant difference in extent of disclosure at 5% significance level, inferential analysis result suggests that the difference in disclosure between firms from both countries is not so pronounced as to retain statistical significance at 5%. The five (5) NG firms applying the NSBP had an overall mean score of 20.30, designated 'C+' (low), which is a slight improvement upon the 'C' (very low) designation based on overall average SDI score of NG firms. As the gap between NG firms that adopted the NSBP (mean SDI = 20.30) and SA firms applying the GRI (mean SDI = 25.35) is still wide (though not statistically significant at 5%), it is inferred that the NSBP has helped to marginally step-up the quality of sustainability reporting in Nigeria in comparison to global standards.

**Table 10: Comparison of NG firms not applying NSBP and SA firms applying GRI**

Sustainability perspective	Firm Group	N	Mean	Std. Deviation	Std. Error Mean	P value from t-test
Economic	NG non-NSBP adopters	6	1.7708	1.21299	.49520	.000
	SA firms applying GRI	11	6.5909	2.72952	.82298	
Environmental	NG non-NSBP adopters	6	2.1000	1.80997	.73892	.103
	SA firms applying GRI	11	4.1455	2.53786	.76519	
Social	NG non-NSBP adopters	6	5.3000	3.20687	1.30920	.002
	SA firms applying GRI	11	14.6182	5.39515	1.62670	
Overall	NG non-NSBP adopters	6	9.1708	5.18665	2.11744	.001
	SA firms applying GRI	11	25.3545	8.81896	2.65902	

In Table 10, the mean difference between NG firms not adopting NSBP and SA firms applying GRI is wide and statistically-significant for three sustainability indices except environmental sustainability (Table 10). The 6 Nigerian non-NSBP adopters have a very low SDI mean score of 9.17 (designated 'C'), which dampened the 20.30 SDI mean score of the 5 NSBP adopters, thus weighing down the overall SDI mean score of NG firms to 14.23. In sum, NG firms that applied NSBP in preparation of sustainability report designated C+ generally scored higher than others that did not apply the NSBP (designated 'C'). This suggests that the overall gap in sustainability disclosure between NG and SA firms would have been wider but for the introduction of the NSBP.

### ***Hypotheses Testing***

The results from descriptive analysis in Table 2 and inferential analysis in Table 7 ( $p = .001 \leq .05$ ) support the conclusion that there is significant difference in the extent of disclosure on economic sustainability between NG firms that do not prepare sustainability report using the GRI guide and SA firms preparing sustainability report using the GRI guideline as part of an integrated report and the difference is statistically significant at 5%. The null hypothesis ( $H_{01a}$ ) is therefore rejected but the alternate hypothesis accepted that Nigerian and South African banks significantly differ in the extent of economic sustainability disclosure on the account of the adoption of integrated reporting by South African firms.

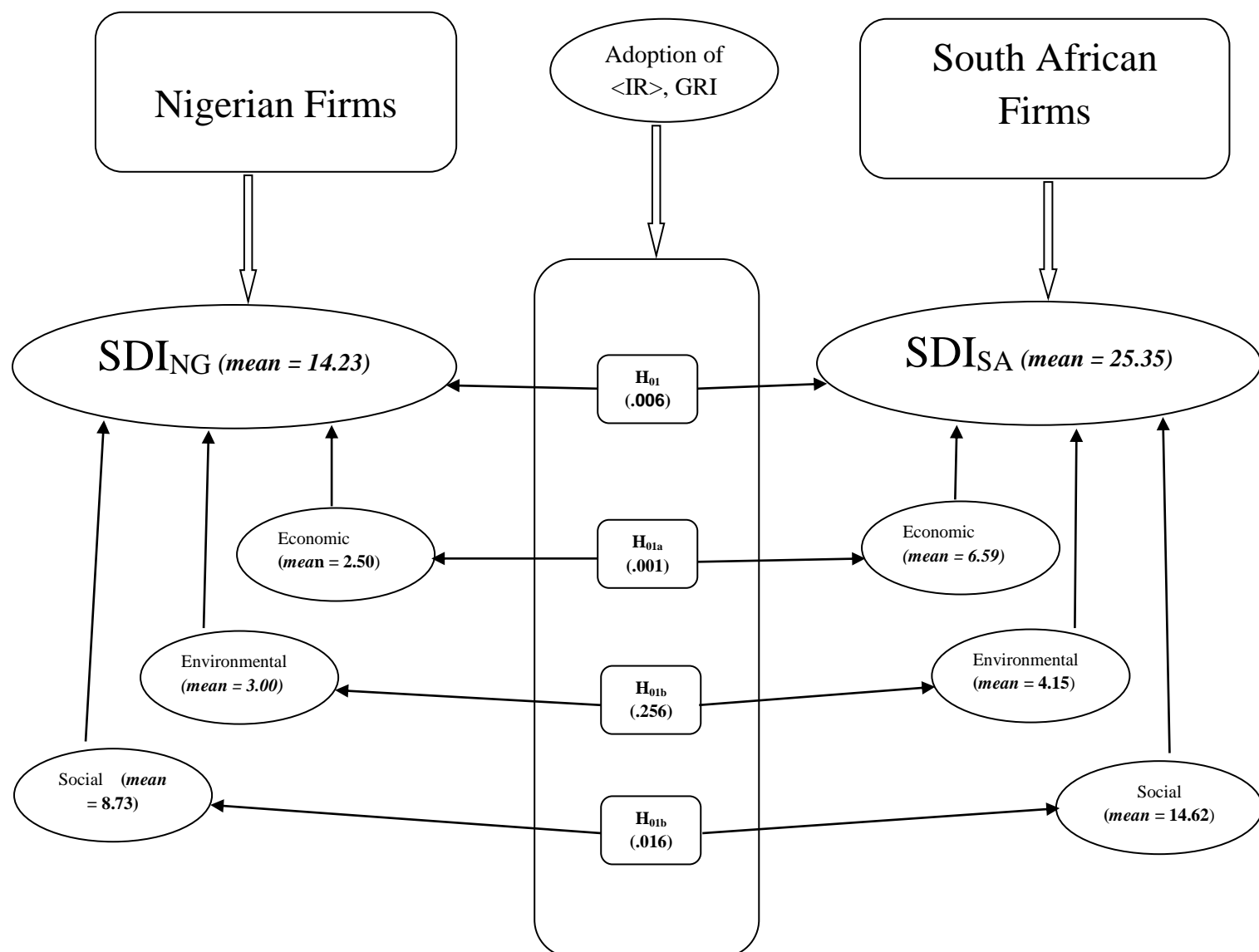
Descriptive analysis result in Table 3 shows that although there are some differences in extent of environmental sustainability disclosure between NG and SA firms, the difference failed

to retain statistical significance when inferential statistics was invoked to judge the magnitude of difference (results in Table 7,  $p = .256 > .05$ ). The null hypothesis ( $H_{01b}$ ) is therefore retained that Nigerian and South African banks do not significantly differ in the extent of environmental sustainability disclosure on the account of the adoption of integrated reporting by South African firms. The result in Table 4 shows evidence of difference in the extent of disclosure between NG and SA firms on social sustainability. This difference in disclosure is statistically-proven by the results contained in Table 7 ( $p = .016 \leq .05$ ), hence the null hypothesis ( $H_{01c}$ ) is rejected and the alternate hypothesis retained that Nigerian and South African banks significantly differ in the extent of social sustainability disclosure on the account of the adoption of integrated reporting by South African firms.

The difference in the extent of disclosure across the three sustainability perspectives culminates to the extent of difference in overall sustainability disclosures between firms from both countries (Table 5). Inferential analysis on difference in disclosure lending credence to this conclusion is contained in Table 7 ( $p = .006 \leq .05$ ). Also, since the null form of two ( $H_{01a}$  and  $H_{01c}$ ) out of the three sub-hypotheses is rejected, the overarching null hypothesis ( $H_{01}$ ) is therefore reject, while the alternate hypothesis prevails; thus, it is concluded that Nigerian and South African banks significantly differ in the extent of sustainability disclosure on the account of the adoption of integrated reporting by South African firms.

The conceptual framework, reproduced with statistical results incorporated ( $p$  values of  $t$ -test placed in parentheses), is presented in Figure 2.

**Figure 2: Conceptual framework on extent of sustainability disclosures by Nigerian (NG) and South African (SA) Firms reproduced, incorporating statistical results**



Source: Developed by Authors (2017)

## 5. Discussion of Findings

The extent of sustainability disclosure was assessed across the economic, environmental, social and the overall disclosure by NG and SA firms using sustainability reports enshrined in annual reports. SA firms disclosed more on economic sustainability than NG firms. Noting that



disclosure on environmental sustainability was low by firms from both countries, this perspective recorded the least score as observed by other studies from Nigeria (Uwuigbe & Jimoh, 2012) and South Africa (Zyl, 2013). Uwuigbe and Jimoh (2012), from the study of selected Nigerian firms, noted that firms almost avoided disclosing on environmental issues. Zyl (2013) from the study of a cross-section of twenty-three (23) South African firms contended that disclosures relating to environmental sustainability are still very low amongst the firms. In spite of the overall low disclosure on environmental sustainability, South African firms still disclosed more than Nigerian firms. Consistent with prior studies (for example, Teoh & Thong, 1984; Uwuigbe & Jimoh, 2012; Oyewo & Badejo, 2014), this study documents that firms from both countries generally disclosed more on social sustainability; South African firms disclosed more than Nigerian firms though.

With an average SDI score of 14.23 from a maximum of 100.00, the extent of sustainability disclosure by Nigerian firms is rated very low (research objective one); this finding aligns with prior studies (Asaolu et al, 2012; Uwuigbe & Jimoh, 2012; Adeyemi & Ayanlola, 2014; Adeyemi & Ayanlola, 2015; Nwobu, 2015). Taking into account the SDI score of South African firms being 25.35, the extent of sustainability disclosure in abridged sustainability reports inculcated in annual integrated reports of South African firms is adjudged average (research objective two). Albeit South African firms incorporated abridged sustainability reports in annual integrated reports aside the issuance of full, separate or standalone CSR report by some of them, the extent of sustainability disclosure in such condensed CSR reports was significantly higher than what is contained in the average CSR report rendered by a Nigerian firm (research objective three). South African firms devoted more space to sustainability reports in annual reports than Nigerian firms. The observation that the quality of sustainability disclosure correlated strongly, positively and significantly with the quantum of space dedicated to sustainability reporting in annual reports bolsters the result of the significant difference in extent of disclosure extent between firms from both countries with South African firms disclosing more (research objective three).

Nigerian firms that adopted the NSBP showed some evidence of improvement over the others not applying the principle to render sustainability reports. The comparison of the quality of disclosure by Nigerian firms applying the NSBP with South African firms presenting abridged sustainability reports, rendered as part of integrated reports, using the GRI guidelines showed some gaps (though difference not so pronounced as to retain statistical significance at 5% level of significance), with SA having higher score. This means the NSBP still somewhat falls below the *de factor* global standard on sustainability reporting (the GRI framework).

## 6. Conclusion and Recommendations

This paper focused on examining whether the adoption of integrated reporting can improve the quality and quantity of sustainability reporting in Nigeria. The approach followed was to comparatively analyse sustainability reports of twenty-two (22) firms (11 each from Nigeria and South Africa). Bearing in mind that some South African firms published standalone sustainability reports, the study selected South African firms that incorporated sustainability reports in their annual integrated reports with a view to comparing disclosures with Nigerian

firms that commonly rendered sustainability reports as part of conventional annual reports. It was observed that the portion of space devoted to sustainability reporting was significantly correlated with the quality of the CSR report. It is documented that there is significant difference in the extent of disclosure on sustainability between Nigerian and South African firms, with firms from South Africa disclosing more on the account of adopting integrated reporting and preparing sustainability reports using the GRI guideline. However, Nigerian firms preparing sustainability reports using the Nigerian Sustainable Banking Principles (NSBP) showed some evidence of improvement in CSR reporting quality.

This paper has contributed to scant research on measures that can be taken to deepen sustainability reporting quality in Nigeria. The comparative analysis approach used in investigating the place of integrated reporting in contributing to the quality of sustainability reporting combined with studying the subject of integrated reporting in its earliest or formative stage further reinforces the originality of the paper and its contribution to knowledge.

This study is not without its limitations. The study focused on financial service industry in Nigeria and South Africa. Results obtained from this sector may not be applicable, transferable or generalisable to other sectors; there is therefore the need to examine what obtains in other sectors. The study used content analysis technique to evaluate and rate disclosure on sustainability; analysis was limited to what was disclosed. The disclosure checklist was interpretively constructed, as is the scale used to quantify and rate the extent of disclosures—the limitations of content-analysis therefore apply. Milne and Alder (1999) pointed out that no universal rule of thumb or universal minimum standard which can be adopted for content-analysing the reliability of social and environmental disclosures subsists. To the extent that the scale is appropriate, results are reliable. To ensure validity of the research instrument, the most definitive and recent framework on sustainability reporting (the GRI G4) and the framework peculiar to financial service sector were both used as a guide in drawing up the disclosure checklist.

The introduction of the Nigerian Sustainable Banking Principles (NSBP) appears to have elevated sustainability reporting quality in Nigerian banks for adopters. Whilst noting that certain Nigerian firms claiming to apply the NSBP in rendering sustainability reports still recorded low scores (for example, *NF7*, SDI = 12.05; *NF10*, SDI = 15.05 in appendix 1a), the noticeable discrepancy in the extent of disclosure between Nigerian firms that applied the NSBP and South African firms that applied the GRI framework establishes the inadequacy of the NSBP in improving sustainability reporting in Nigeria in comparison with international sustainability reporting standards. Certain aspects of sustainability featured in the GRI framework were not covered in the NSBP (discussed in section 3.2). Whereas the instigation of the NSBP is considered a move in the right direction in stemming the tide on poor sustainability reporting in the banking sector, the guideline may have to be reviewed, revised and benchmarked against other globally-renown sustainability reporting guidelines such as GRI 4 to step-up its potency in enhancing sustainability reporting quality.

Aside the financial service sector where the NSBP applies, other sectors in Nigeria having no framework on CSR reporting but seeking elevation in the quality of such reports may consider preparing CSR reports using the GRI guidelines. Firms voluntarily adopting <IR> using the GRI guideline in CSR reporting in countries where sustainability reporting is not mandated attributed their decision to adopt to meeting stakeholders' expectations (GRI, 2013c). Regulatory authorities in other sectors may also consider adopting or adapting the GRI guideline in

providing guidance for firms operating in the sector to instill high quality in sustainability reports. At the moment, a bill (the Corporate Social Responsibility bill) seeking the regulation of CSR and the establishment of the CSR commission is in offing in the Nigerian legislative arm (National Assembly, 2008; Oserogho & Associates, 2014). When birthed, following the passage of the CSR bill into law, the Commission may consider adopting or adapting the GRI guideline in discharging part of its responsibilities of creating standards for social responsibility of corporate organisations that is consistent with international standards, with a view to improving quality of CSR disclosure. As the practice and reporting quality of sustainability anticipatorily improves in Nigeria, firms may have to demonstrate their commitment to sustainability reporting by issuing standalone sustainability reports, aside sustainability reports imbued in conventional annual reports, as done globally (South Africa inclusive).

Nigeria has not adopted <IR> and by extension none of the Nigerian firms applied the GRI guide on sustainability reporting. To the extent that South African firms outperformed Nigerian firms in sustainability disclosures on economic, environmental and social matters on the account of South African firms preparing integrated reports, and on the basis that in other parts of the world, sustainability reporting improved due to the adoption of <IR>, it is recommended that financial reporting regulatory authorities and other relevant government machineries should consider the adoption of <IR> in Nigeria in the nearest future to improve the quality of corporate reporting in general, and sustainability reporting in particular. As the characteristic limitations of conventional financial reporting growingly and rapidly paves way for <IR>, it is conceivable that <IR> is the next major evolution in corporate reporting. There are also evidences of collaboration between the International Integrated Reporting Council, IIRC (issuer of <IR> framework) and the International Accounting Standards Board, IASB (issuer of International Financial Reporting Standards, IFRS) [IIRC & IFRS Foundation MOU, 2013], an indicator that <IR> may be the future of corporate reporting. In this light, Nigerian firms may start proactively considering ways of implementing <IR> especially now that the transitioning to IFRS is ebbing out. The adoption of <IR> in Nigeria should simultaneously achieve betterment in the quality of sustainability reporting and corporate reporting.

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## APPENDICES

**Appendix 1a: Sustainability Disclosure Scores and Indices of Nigerian firms**

<b>Firm Code</b>	<b>Score</b>	<b>Economic</b>	<b>Environmental</b>	<b>Social</b>	<b>SDI (Total)</b>	<b>No of pages Annual Report</b>	<b>No of pages on CSR in Annual Report</b>	<b>Pro Portion (%)</b>
NF1	Raw	1	1	8	10	346	1	0.29
	Scaled	0.625	0.6	4.8	6.06			
NF2	Raw	4	7	19	30	89	2	2.25
	Scaled	2.5	4.2	11.4	18.18			
NF3	Raw	9	3	28	40	285	25	8.77
	Scaled	5.625	1.8	16.8	24.24			
NF4	Raw	10	10	24	44	225	12	5.33
	Scaled	6.25	6	14.4	26.65			
NF5	Raw	4	10	25	39	288	15	5.21
	Scaled	2.5	6	15	23.5			
NF6	Raw	1	0	4	5	193	1	0.52
	Scaled	0.625	0	2.4	3.03			
NF7	Raw	2	6	12	20	200	4	2.00
	Scaled	1.25	3.6	7.2	12.05			
NF8	Raw	6	7	5	18	214	6	2.80
	Scaled	3.75	4.2	3	10.95			
NF9	Raw	2	2	8	12	164	4	2.44
	Scaled	1.25	1.2	4.8	7.25			
NF10	Raw	2	5	18	25	267	4	1.50
	Scaled	1.25	3	10.8	15.05			
NF11	Raw	3	4	9	16	125	3	2.40
	Scaled	1.875	2.4	5.4	9.68			
	Raw	44	55	160	259			

**Appendix 1b: Sustainability disclosure scores and indices of South African firms**

<b>Firm Code</b>	<b>Score</b>	<b>Economic</b>	<b>Environmental</b>	<b>Social</b>	<b>SDI (Total)</b>	<b>No of pages Annual Report</b>	<b>No of pages on CSR in Annual Report</b>	<b>Pro Portion (%)</b>
SF1	Raw	8	4	27	39	116	8	6.90
	Scaled	5	2.4	16.2	23.60			
SF2	Raw	19	14	15	48	200	6	3.00
	Scaled	11.88	8.4	9	29.28			
SF3	Raw	12	4	31	47	76	9	11.84
	Scaled	7.5	2.4	18.6	28.50			
SF4	Raw	17	14	43	74	110	14	12.73
	Scaled	10.63	8.4	25.8	44.83			
SF5	Raw	8	8	17	33	95	6	6.32
	Scaled	5.00	4.8	10.2	20.00			
SF6	Raw	7	7	27	41	332	13	3.92
	Scaled	4.38	4.2	16.2	24.78			
SF7	Raw	9	7	24	40	88	5	5.68
	Scaled	5.63	4.2	14.4	24.23			
SF8	Raw	12	7	25	44	110	10	9.09
	Scaled	7.50	4.2	15	26.70			
SF9	Raw	12	8	31	51	416	18	4.33
	Scaled	7.50	4.8	18.6	30.90			
SF10	Raw	7	2	15	24	552	42	7.61
	Scaled	4.38	1.2	9	14.58			
SF11	Raw	5	1	13	19	76	8	10.53
	Scaled	3.13	0.6	7.8	11.53			
	Raw	116	76	268	460			

**Appendix 2: Disclosure checklist with breakdown of sustainability disclosures by Nigerian and South African firms**

	1	2	3	4	5
<b>1.ECONOMIC SUSTAINABILITY</b>					
To what extent does the report disclose the direct economic value generated and distributed, disaggregated into direct economic value generated (revenues), economic value distributed (e.g. operating costs, Employee wages & benefits) and economic value retained?	(3)*	(1)*	(1)*	(3)*	(1)*
To what extent does the report disclose and contextualizes risks and opportunities posed by climate change that have the potential to generate substantive changes in operations, revenue or expenditure.	(1)*				
Did the firm report on total monetary value of financial assistance received by the organisation from governments during the reporting period, including, as a minimum, tax relief and tax credits, awards, financial assistance, incentives and benefits?		(1)*			
Does the report contain significant proportion of workforce compensated based on wages subject to minimum wage rules, ratio of the entry level wage by gender at significant locations of operation to the minimum wage, percentage of senior management at significant locations of operation that are hired from the local community and general market presence?	(1) <sup>≠</sup>	(2)*			
Does the report disclose significant indirect impact such as; changing the productivity of organisations, sectors, or the whole economy, economic development in areas of high poverty, economic impact of the use of products and services?	(2) <sup>≠</sup> (3)*	(4) <sup>≠</sup> (4)*	(1)*	(2) <sup>≠</sup> (1)*	(1)*
Were there disclosures on business goals for community investments? Was context provided for the community investment activities and elements? Was data provided for performance assessment?	(2) <sup>≠</sup>	(4) <sup>≠</sup> (2)*	(4)*	(1)*	
Was community investment broken down into themes (e.g., arts, education etc.), regions/geographical areas, types (in cash; in time such as staff-volunteering; in-kind such as reduced fee, foregone revenue fee or refusal to charge a charitable organisation; and management costs) and/or amount expended in relation to profit proportion?	(1)*	(4) <sup>≠</sup> (4)*	(1) <sup>≠</sup> (3)*		
Was disclosure made with respect to the amount expended on community investment? Was the amount expended related as a proportion of the total profit generated? Was the expenditure situated within the context of, or in comparison with prior year expenditure on community investment?		(2) <sup>≠</sup> (2)*	(2)*	(2)*	(3)*
<b>2.ENVIRONMENTAL SUSTAINABILITY</b>					
Are the impacts of entity's operation on Materials, Energy, Water disclosed and contextualized? Was amount expended on remedying damages caused by use of materials, dissipation of energy and water contamination disclosed?	(2) <sup>≠</sup>	(2) <sup>≠</sup> (3)*	(3) <sup>≠</sup> (3)*		

Are the impact of entity's operation on greenhouse gas (GHG) emissions, effluents and waste disclosed, contextualized and measurable targets for reduction stated?	(1) <sup>≠</sup>	(2) <sup>≠</sup> (2)*	(3) <sup>≠</sup> (3)*	(3)*	
Are the firm's products and services environmentally compliant? Are future improvement targets imbued into the firm's sustainability strategy?	(3)*	(1) <sup>≠</sup> (1)*	(1) <sup>≠</sup> (1)*	(1)*	
Did the company report compliance and/ or non-compliance with, or prosecution by relevant environmental laws? Was payment for non-compliance with environmental laws disclosed? Were instances of flaunting environmental laws and/ or prosecution reported?	(2)*	(3) <sup>≠</sup> (1)*	(1)*	(1)*	
Does the firm have a mechanism in place where the impact of its operation on the environment is reported? Did the report disclose the number of, or instances of externalities reported through its environmental grievance mechanism?	(3) <sup>≠</sup> (2)*	(4) <sup>≠</sup> (5)*		(1) <sup>≠</sup>	
<b>3.SOCIAL SUSTAINABILITY</b>					
<b>3.1 Labour Practices and Decent Work</b>					
Is there an employment policy? Does the firm have an employment policy guiding labour practice and supporting decent work? Are there results demonstrating the linkage of the employment policy to actual performance achieved by the firm?	(1) <sup>≠</sup> (1)*	(2) <sup>≠</sup> (5)*	(2) <sup>≠</sup> (3)*		
Are there mechanisms in place for management-employee interaction and employee engagement?	(1)*	(4) <sup>≠</sup> (4)*	(1) <sup>≠</sup> (2)*	(3)*	
Are structures in place to monitor employee health and safety and well-being? Does the report disclose expenditure on health and safety; details of injuries, and man-hour lost to fatalities/diseases/injuries/accidents?	(3) <sup>≠</sup>	(4) <sup>≠</sup> (5)*	(1) <sup>≠</sup> (2)*	(1)*	
To what extent does the report discloses average hours of training per year per employee, total hours dedicated to, and amount expended on employee training and development?	(1) <sup>≠</sup> (1)*	(4) <sup>≠</sup> (1)*	(1) <sup>≠</sup> (5)*	(2) <sup>≠</sup> (3)*	
Is there a policy in place for diversity, equal opportunity and equal remuneration for female and male employees? Are there statistics evidencing adherences, compliance or sustenance of diversity and equal opportunity and equal remuneration claims?	(1) <sup>≠</sup>	(5) <sup>≠</sup> (2)*	(1) <sup>≠</sup> (5)*	(3)*	
Are there mechanisms in place for reporting, resolving and managing labour practice grievances? Is labour turnover disclosed and contextualized?	(4)*	(1) <sup>≠</sup> (1)*	(1)*	(2)*	
<b>3.2 Human Rights</b>					
Does the report contain policy on upholding human rights, non-discriminatory practice and freedom of association with legitimately constituted groups?	(1) <sup>≠</sup> (2)*	(6) <sup>≠</sup> (4)*	(1)*		
Does the organisation have a policy protecting against child, forced or compulsory labour? Are there specifically funded or supported anti-child, anti-forced labour programmes? Was expenditure on such projects disclosed?		(2) <sup>≠</sup>			
Are security practices and programmes disclosed? To what extent was		(1) <sup>≠</sup>			



disclosure made with respect to expenditure on protecting lives and properties in the society?		(1)*			
Are mechanisms in place for reporting, resolving and managing human rights grievances? Are disclosures made on human rights grievances contextualized?	(2)*	(1) <sup>‡</sup> (1)*			
<b>3.3 Society</b>					
Does the firm have a policy on supporting local communities such as access points in low-populated or economically disadvantaged areas? Are there initiatives to improve access to financial services for disadvantaged people (financial inclusion programme)? Did the report disclose programmes and expenditure in support of local communities?	(2) <sup>‡</sup>	(3) <sup>‡</sup> (1)*	(4) <sup>‡</sup> (4)*	(2) <sup>‡</sup> (6)*	
Does the firm have a policy on anti-corruption, anti-competitive behaviour and upholding compliance with societal ethical values? Are there evidences in the report suggesting support for upholding the policy?	(1) <sup>‡</sup>	(2) <sup>‡</sup> (3)*	(3)*		
Does the firm have a mechanism in place for assuring and monitoring that its major suppliers uphold human rights? Are evidences presented to support the existence, functioning and effectiveness of such mechanisms	(1)*	(2) <sup>‡</sup> (3)*	(1) <sup>‡</sup>		
Are mechanisms in place for reporting, resolving and managing grievances arising from the entity's impact on the society? Are disclosures detailed and well contextualized?	(1) <sup>‡</sup> (2)*				
<b>3.4 Product Responsibility</b>					
Are there mechanisms in place to ensure customer health & safety, and product & service labeling such as initiatives to enhance financial literacy? Are there disclosures with respect to moves or initiatives to make the financial products affordable especially for the financially disadvantaged?	(1) <sup>‡</sup>	(2) <sup>‡</sup> (1)*	(1) <sup>‡</sup> (1)*	(2) <sup>‡</sup> (1)*	
Does the report contain mechanisms in place to ensure customer privacy? Are there disclosures on enforcements of duty of secrecy owed customers?	(1)*	(3)*			
Are there evidences presented in the report that the firm respects or complies with regulations on product (financial service) responsibility and communication with customers?	(1) <sup>‡</sup> (1)*	(3) <sup>‡</sup>	(4)*	(1)*	
Are there disclosures in terms of monetary value and percentage on loan portfolios for business lines by specific region, size, and sector?		(1)*			
What is the disclosure extent on coverage and frequency of audits to assess implementation of environmental and social policies and risk assessment procedures?		(1) <sup>‡</sup> (2)*	(1)*		
What is the disclosure extent on number and percentage of organisations held in the institutions portfolio with which the reporting organisation has interacted on environmental and social issues	(1) <sup>‡</sup>				

**Source: Developed by Authors (2017)** Notes: Figures in parentheses represent the number of firms under each category of disclosure (Legend: <sup>‡</sup> for NG firms; \* for SA firms)

### Appendix 3: Likert scale scores and interpretation

Interpretation	Assigned score
No Disclosure - The subject is not mentioned in the report at all	0
Just Mentioned- The subject is only mentioned briefly in the report with no context provided	1
Disclosure to a less extent - The subject is only mentioned briefly in the report (which might include measured results) with little context provided	2
Disclosure to a moderate extent - The subject and measured results are discussed and a measurable target is provided for the current and/or future.	3
Disclosure to a large extent - The current year performance on the subject is discussed against the target and mitigation is provided to improve performance	4
Significant disclosure - Full integration is achieved by linking the risk, target, and mitigation with the financial aspects on the subject.	5

Source: Adapted from Zyl (2013)

### Appendix 4: Guide to interpretation of SDI score

Score (Based on 100.00)	Interpretation	Designation
Below 15.00	Very low	C
15.00-24.99	Low	C+
25.00-39.99	Average	B
40.00- 54.99	Above average	B+
55.00-69.99	High	A
70.00-100.00	Very High	A+

Source: Developed by Authors (2017)

### Appendix 5: One-Sample Kolmogorov-Smirnov Test of Normality

		Economic sustainability performance	Environmental sustainability performance	Social sustainability performance	Overall sustainability disclosure index
N		22	22	22	22
Normal Parameters <sup>a,b</sup>	Mean	4.5455	3.5727	11.6727	19.7909
	Std. Deviation	3.11714	2.31623	5.96483	9.98170
Most Extreme Differences	Absolute	.108	.121	.131	.145
	Positive	.108	.121	.082	.099
	Negative	-.104	-.107	-.131	-.145
Kolmogorov-Smirnov Z		.506	.565	.613	.680
Asymp. Sig. (2-tailed)		.960	.907	.846	.745

a. Test distribution is Normal.

b. Calculated from data.

**Appendix 6: Line chart on Sustainability Disclosure by NG and SA firms**

