



KWAME NKURUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
KUMASI, GHANA.

INSTITUTE OF DISTANCE LEARNING

SUSTAINABILITY REPORTING AND ITS IMPLICATIONS FOR FINANCIAL
PERFORMANCE OF LISTED BANKS IN SUB-SAHARAN AFRICA

BY

Kwarteng Foster Amaning

(MSc Accounting and Finance)

PG4683820

A Thesis Submitted to the Department of Accounting and Finance, Kwame Nkrumah
University of Science and Technology in Partial Fulfilment of the Requirement for the degree

Award of

MASTER OF SCIENCE (ACCOUNTING AND FINANCE)

School of Business, KNUST

College of Humanities and Social Sciences

January, 2022.

CERTIFICATION

I, Kwarteng Foster Amaning, hereby declare that this research report herein submitted as a thesis for the award of Master of Science (Accounting and Finance) has neither been entirely nor partially submitted for any other degree elsewhere. Nonetheless, I have duly acknowledged the works of other researchers and authors which served as sources of information.

Kwarteng Foster Amaning (20778396)

Candidates Name and ID

Signature

Date

Certified by:

Dr. Beatrice Sarpong-Danquah

Name of Supervisor

Signature

Date

Prof. Kingsley Opoku Appiah

Name of Head of Department

Signature

Date

DEDICATION

This piece is dedicated to Almighty God for his divine provision and grace. I dedicate this work to all my loved ones, particularly Lucy Gyamfi, for her unwavering support during this journey. I specially dedicate this work to my father, Rev. Dr. Calvin Amaning Kwarteng for being my prayer anchor and to my friend Prince Afriye for his inspiration and morale support. God bless you all.

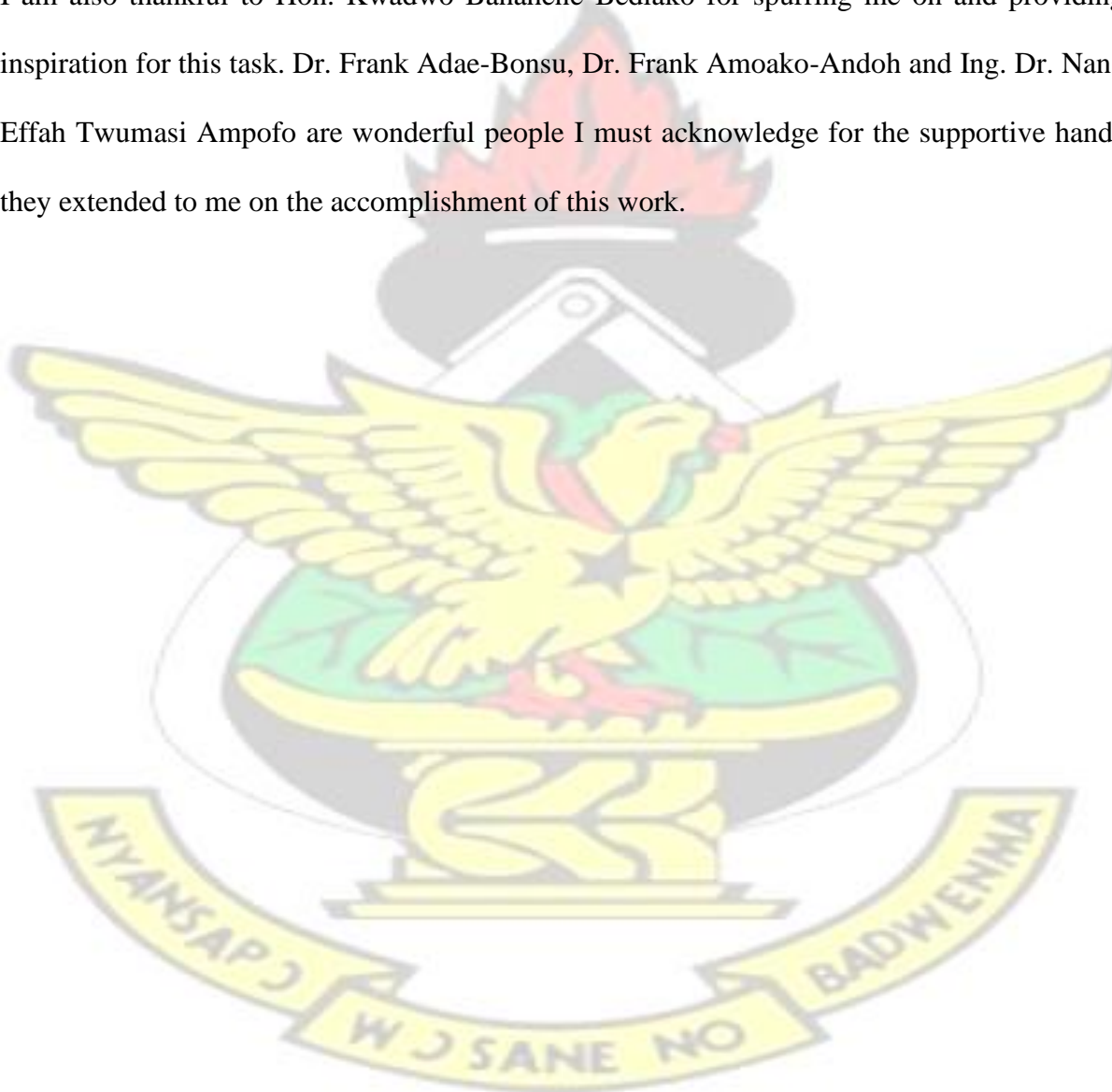


ACKNOWLEDGEMENT

My sincere appreciation is to the Almighty God for the amazing love he has showered upon my life up to this day, his guidance has seen me through this study successfully.

Also, I appreciate greatly the efforts of my supervisor, Dr. Beatrice Sarpong-Danquah for her guidance, criticisms and support on this work. The numerous zoom lessons she gave shaped my understanding of what is expected of me.

I am also thankful to Hon. Kwadwo Banahene Bediako for spurring me on and providing inspiration for this task. Dr. Frank Adae-Bonsu, Dr. Frank Amoako-Andoh and Ing. Dr. Nana Effah Twumasi Ampofo are wonderful people I must acknowledge for the supportive hands they extended to me on the accomplishment of this work.



ABSTRACT

The purpose of this research was to look into the level of Sustainability Reporting by listed banks in Sub-Saharan Africa using the GRI 2016 framework and to identify any existing relationship between sustainability reporting and financial performance of the listed banks. Ex-post facto study approach was used in this study. Financial statements and annual reports of the banks for a period of three years; 2018 to 2020 were studied to compile the data. The sustainability reporting score based on Global Reporting Initiative standards was developed using content analysis. The study analyzed annual reports from fifty-four listed banks in ten Sub-Saharan African countries. This culminates into 162 observations of the study model. For the estimation, the study used the Ordinary Least Square Regression Method.

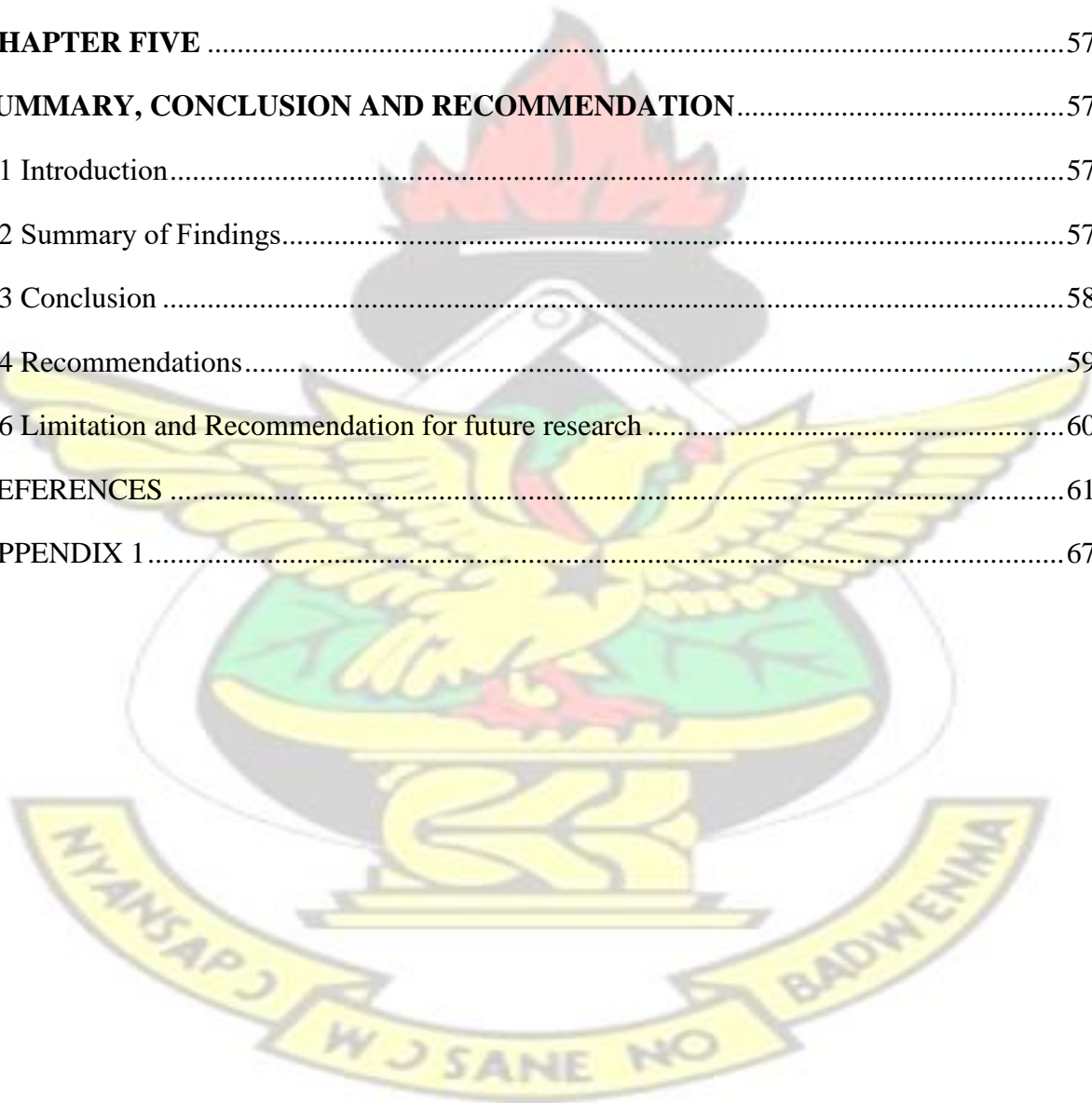
The study also reveals that banks perform worse when environmental disclosure is made. Similar results were found in the study about the effects of social and environmental transparency on bank performance. The study discovers that a measure of the three disclosures; environmental, social, and economic improves the financial performance of banks. Leverage and cost to income ratio have a beneficial impact on a bank's performance, however bank size has a negative effect. According to the study's findings, banks would perform better if the three disclosures were combined.

TABLE OF CONTENTS

CERTIFICATION	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT.....	v
LIST OF TABLES	ix
LIST OF FIGURES	x
CHAPTER ONE	1
INTRODUCTION	1
1.0 Background of the Study	1
1.1 Problem Statement	2
1.2 Research Objectives	5
1.2.1 Specific Research Objectives	5
1.3 Research Questions	5
1.4 Significance of the Study	5
1.5 Brief Methodology	6
1.6 Scope of the Study	7
1.7 Limitation of the Study	7
1.8 Organization of the Study	7
CHAPTER TWO	9
LITERATURE REVIEW	9
2.0 Introduction.....	9
2.1 Conceptual Literature Review	9
2.1.1 Sustainability Reporting.....	9
2.1.1.1 Importance of Sustainability Reporting.....	10
2.1.2 GRI Reporting Framework	11
2.1.2.1 Relationship between GRI SR and Financial Performance of Firms	12

2.2 Theoretical Literature Review	14
2.2.1 Stakeholder Theory	14
2.2.2 Legitimacy Theory	16
2.3 Empirical Literature Review	18
2.3.1 Sustainability Reporting Adherence.....	18
2.3.2 Effect of Sustainability Reporting on Financial Performance	20
2.4 Hypothesis Formulation.....	23
2.5 Conceptual Framework.....	24
2.6 Summary of Chapter	25
CHAPTER THREE.....	26
RESEARCH METHODOLOGY	26
3.1 Introduction.....	26
3.2 Research Design.....	26
3.3 Population and Sampling	26
3.3.1 Research Sampling.....	26
3.4 Data Collection	27
3.5 Measurement of Variables	28
3.6 Model Specification	31
3.7 Summary of Chapter	31
CHAPTER FOUR.....	32
RESULTS AND DISCUSSION OF FINDINGS	32
4.0 Introduction.....	32
4.1 Summary Statistics.....	32
4.2 Correlation Matrix	34
4.3 Panel Unit Root.....	35
4.4 Level of Adherence to SR (Country by Country Analysis).....	37
4.5 Strength of SR in Sub-Saharan Africa	46

4.6 Strength of SR, Regional Analysis	48
4.7 Empirical Results	50
4.7.1 GRI Sustainability Reporting and Banks' Performance (Tobins' Q)	50
4.7.2 GRI Sustainability Reporting and Banks' Performance (ROE).....	52
4.8 Discussion of Results.....	53
4.8.1 Level of Adherence to SR based on GRI.....	53
4.8.2 Effects of GRI Sustainability Reporting on Banks' Performance.....	54
CHAPTER FIVE	57
SUMMARY, CONCLUSION AND RECOMMENDATION.....	57
5.1 Introduction.....	57
5.2 Summary of Findings.....	57
5.3 Conclusion	58
5.4 Recommendations.....	59
5.6 Limitation and Recommendation for future research	60
REFERENCES	61
APPENDIX 1.....	67



LIST OF TABLES

Table 4.1: Summary of Descriptive Statistics.....	43
Table 4.2: Correlation Matrix	45
Table 4.3: Panel Unit	46
Table 4.4: Sustainability Reporting in Bostwana	47
Table 4.5: Sustainability Reporting in Ghana.....	48
Table 4.6: Sustainability Reporting in Kenya.....	49
Table 4.7: Sustainability Reporting in Malawi	50
Table 4.8: Sustainability Reporting in Nigeria	51
Table 4.9: Sustainability Reporting in South Africa.....	52
Table 4.10: Sustainability Reporting in Tanzania.....	53
Table 4.11: Sustainability Reporting in Uganda.....	54
Table 4.12: Sustainability Reporting in Zambia.....	54
Table 4.13: Sustainability Reporting in Zimbabwe	55
Table 4.14: Sustainability Reporting of Listed Banks in Sub-Saharan Africa (combined).....	56
Table 4.15: Effects of GRI – SR on Banks’ Performance (Tobins’ Q).....	58
Table 4.15: Effects of GRI – SR on Banks’ Performance (ROE)	58

LIST OF FIGURES

Figure 1 Conceptual Framework (Source: Author, 2022) 25

KNUST



CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

Today, a lot of businesses have realized the great advantages that come with being socially conscious in the communities in which they operate. Today, the debate centers on firms' ability to share their social contributions with stakeholders, rather than whether or if they should be good corporate citizens (Abukari et al, 2018). The need for corporate sustainability and reporting of sustainable practices has gained heightened attention in the past two decades. For a company or business to disclose their non-financial performance (environmental and social) has become relevant for strategic direction of the company. Sustainability Reporting (SR), which encompasses economic, environmental, and social performance indicators, is an important factor in determining sustainable corporate development (Orazalin et al, 2019; Lozano and Huisingh, 2011).

(KPMG, 2020), shares more insight into the growing demand for sustainability information as business models are becoming sensitively geared towards social and environmental issues and climate change policies. Nowadays, investors request information that allows them to validate companies on how well they impact the environment and the bearing it has on a company's future goals. Dumay et al, (2010) asserts that sustainability reporting guidelines helps to promote disclosure of social, ethical, governance and environmental matters which is of interest to the various stakeholders of organizations. Sustainability reporting has been labeled a vital step by (Godha and Jain, 2015), in managing a global economy, one that blends social justice and environmental care with profitability.

The Global Reporting Initiative (GRI) has been described as an independent global organization that assist governments, businesses and other organizations to comprehend and

proclaim their impacts (GRI, 2020). Among the various standards for managing SR, Global Reporting Initiative (GRI) guidelines have been acclaimed worldwide as very useful. The standards assist its users with a holistic approach for comparing SR information between organizations. Having served as the basis of several studies (e.g. Nikolaeva and Bicho, 2010; Talbot and Boiral, 2015; Greiling and Traxler, 2015; Guthrie and Farneti, 2008; Ahenkan et al, 2018; Dumay et al, 2010; Yadava and Sinha, 2015, it offers an organization flexibility in transparent accountability in SR.

The primary purpose of a GRI report is to assist an organization to account for the impacts caused by its daily activities and to demonstrate the efforts of the organization towards a sustainable global economy.

1.1 Problem Statement

According to Pham et al, 2021, the need to change to a sustainable economic system and the economic consequences of environmental challenges for various industries and businesses are key components of the quickly expanding interdisciplinary area of sustainability study. A variety of businesses have undergone change as a result of sustainable development techniques. While larger and established corporations are shifting toward producing more environmentally safe and friendly goods to meet social demands, many businesses are already aware of the importance of current trends and are utilizing go-green business strategies with interconnected corporate social responsibilities. As noted by Hinson et al, 2015; Musarri and Monfardini; 2010; KPMG 2011, SR continues to evolve as a global concept and has changed the phase of performance reporting by business and organizations whether they exist for profit or not. SR has become a tool for advocacy through which companies use to establish their goodwill and corporate images. The discussion surrounding sustainability issues is also highly influenced by the contemporary business sector. In regards

to financial performance and resource management, sustainability refers to a company's willingness and ability to endure through time (Pham et al, 2021).

According to literature, much is known about the determinants and indicators of SR in mining, textiles, manufacturing, timber and other companies which are perceived to greatly impact the environment. However, information on sustainability reporting in relation to the banking industry in Sub-Saharan Africa is scanty and far-fetched. In cases where most studies are conducted, the banking sector is left out of the metrics.

Asthildur Hjaltadottir, a director at GRI, expressed similar sentiments at a training organized in Accra in April 2019, that “while sustainability reporting has become a mainstream activity of many large companies in the world, including banks and other financial institutions, this is a relatively unknown practice in Ghana and at this point in time GRI is not aware of any GRI reports that have been issued here” (Access Bank Ghana Website). Investors and policy officials are also paying more attention to ESG-related controversies. ESG scandals contain bad news or articles about dubious social behaviour or the disposal of ecologically hazardous trash. These stories bring attention to companies from the media and, as a result, worry investors and stakeholders. News or information that causes controversy may reflect doubts about the company's long-term viability, which could lower its value (Aouadi & Marsat, 2018; Naeem et al, 2022). This phenomenon gives credence to the study to find out what SR practices the banks undertake and how it affects their financial performance, since their indirect activity of financing such activities pose risks to sustainability.

Globally, business experts, government officials, and entrepreneurs are expressing growing concern about the necessity of managing corporate dependencies and how they affect ecosystems. As a result, sustainability reporting has lately garnered the due international attention in the corporate sector (Olafusi et.al, 2022; Uwaoma & Ordu, 2016). This indicates that stakeholder demand for greater transparency on a company's non-financial performance

has increased. They required to know how the actions of the corporations affected both their surroundings and themselves. In many nations, sustainability reporting, or SR, has become a strategic priority for businesses. According to Issiaka, (2022), companies in industrialized nations have started to include disclosures in their annual reports about sustainability linked to the environment, employee professional development, and community involvement. Evidence suggests that the number of businesses submitting sustainability reports using the Global Reporting Initiatives (GRI) framework has significantly increased. In contrast to emerging economies, reporting rates are discovered to be significantly higher in developed economies like the United States, France, Germany, Japan, the United Kingdom, and other European nations. Researchers have recently focused their attention on the shifting corporate enterprise behaviours toward the achievement of sustainable goals to investigate the relationship between SR and Firm Performance.

Further to the above reason, the banking sector has usually being overlooked when it comes to these parameters, notably, few studies have sought to establish a link between SR and performance of listed banks in the sub-region. This necessitated this study to find out the level of adherence to the GRI standard and to also establish whether there is a relationship between level of adherence and performance of the particular bank. The scanty information on sustainability reporting of listed banks in Sub-Saharan Africa makes it an enterprising proposition to conduct this study to find out how listed banks in the region have taken to the adoption of global SR such as the GRI Standards. Also, the relationship existing between banks' profitability and their SR would further enshrine the importance of SR in the operations of the banks.

1.2 Research Objectives

The general research motive is to examine the level of sustainability reporting by listed banks in Sub-Saharan Africa.

1.2.1 Specific Research Objectives

The study seeks to

1. Assess the level of adherence to sustainability reporting based on GRI Framework by listed banks in Sub-Saharan Africa.
2. Examine the relationship between adherences to GRI sustainability reporting Framework and financial performance of listed Sub-Saharan Africa banks with emphasis on their Return on Equity (ROE) and Market Capitalization (Tobins' Q)

1.3 Research Questions

The goal of the study is to find answers to the following research questions:

1. What level of adherence to sustainability reporting based on GRI Framework is done by listed banks in Sub-Saharan Africa?
2. What is the relationship between adherences to GRI sustainability reporting Framework and financial performance (ROE and Tobins' Q) of listed Sub-Saharan Africa banks?

1.4 Significance of the Study

This study has practical implications for theory, industry and academia. To theory, this study is unique in the context of most of the countries involved and opens a gateway for further studies in this area. Also, it contributes to theory because previous studies did not make use of the current GRI 2016 standards, at best the GRI 2013-G4 guidelines were used. Therefore,

this current study offers a new direction to assess sustainability reporting in the region using the current GRI standards.

To the Banking Industry, this study offers an opportunity to embrace the GRI Standards and initiate policies to integrate the standards and improve adherence to Sustainability Reporting. This study will assist investors who are interested in the sustainability criteria in assessing viability of banks. Policy makers and regulatory bodies can assess the strength of current levels of compliance and make important changes to improve upon their efficiency in the banking sector.

1.5 Brief Methodology

The data for the study is secondary data retrieved from published annual reports of listed banks in Ghana, Nigeria, Kenya, South Africa, Tanzania, Uganda, Zimbabwe, Malawi, Zambia and Botswana. The annual reports to be considered in the study cover the period between 2018 and 2020. This period of coverage is desirable because the GRI 2016 reporting framework was scheduled to begin implementation in 2018.

As stated earlier, the population of the study is listed banks in the listed countries above. The criteria for sampling will be; 1. Listed banks who have accounting year ending 31st December; 2. Listed banks who have complete set of annual reports available for the period between 2018 and 2020. Content analysis as used in other studies (Kumar and Prakash, 2019; Arthur et al., 2017) measures sustainability index. Qualitative content analysis involves a process of condensing raw data into themes based on valid inferences and interpretation.

Some studies (Arthur et al., (2017) and Barako et al., (2006) have argued that despite the significance of content analysis in analyzing qualitative data, its related problems such as word counts or sentences and dealing with pictures and charts have to be managed well in order not to compromise quality of the information.

The current study uses a GRI disclosure index to reveal the number of performance indicators disclosed in the report based on Economic, Environmental and Social issues outlined by the GRI standard. The indicators would be used to develop the sustainability index after careful content analysis of the annual reports of the sampled banks.

The second objective of the study seeks to find the relationship between sustainability reporting and financial performance of the listed banks. This would be examined regressing the SR index on the financial performance (ROE and Tobins' Q) of the listed banks.

1.6 Scope of the Study

The annual reports of the listed banks in Ghana, Nigeria, Kenya, South Africa, Tanzania, Uganda, Zimbabwe, Malawi, Zambia and Botswana from the period of 2018 to 2020 will be analyzed using a GRI Index on Economic, Environmental and Social Disclosures.

1.7 Limitation of the Study

The scope of the study was limited to the scheduled beginning of the GRI 2016 standards. This limited the study period to only three; from 2018 to 2020 financial years. The results of the study could be different if a longer scope is chosen for future study.

Also, the use of the content analysis approach for measurement of statistical variables has subjective tendencies. Independent experts with knowledge in this field are needed to confirm the findings of future research projects. To improve the quality of future research, the mixed method approach, which combines quantitative and qualitative approaches, might be used.

1.8 Organization of the Study

The study is arranged into five chapters. The first chapter provides background of the study, statement of the research problem, the research objectives and research questions to be answered, importance of the study, the study scope, limitations of the study and the organization of the study.

Chapter Two discusses relevant literature related to the study. Chapter Three details the research methods used in the study .Chapter four presents interpretation of processed data and discusses the of results of the study. Chapter Five details the summary of findings, conclusions and recommendations pertaining to the study.

KNUST



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews relevant literature on sustainability reporting. The literature review also discusses the conceptual, theoretical and empirical literature associated with the study. The conceptual framework of the study is also discussed.

2.1 Conceptual Literature Review

2.1.1 Sustainability Reporting

The concept of sustainability is assumed to have originated from the Brundtland Report by the United Nations World Commission on Environment and Development (UNWCED 1987; Yadava and Sinha, 2015). Sustainability reporting has been defined by World Business Council for Sustainable Development (WBCSD, 2002) as public reports issued by businesses and organizations to reveal the strategy of the business on economic, social and environmental activities to its stakeholders. In simple terms, SR seeks to describe the company's contribution and impacts on sustainable development. The term sustainability has been defined by (White, 2009) as “ensuring a better quality of life, now and for generations to come”.

According to (Mentes, 2020), these definitions subscribes to the three pillars of sustainability; thus environmental protection, economic development and social responsibility. As found by (Kuzey, 2016), disclosure of SR related issues enhances the accountability and transparency of the firm and puts the firm in a good spot light among its stakeholders.

According to (Luna Sotorrió and Fernández Sánchez, 2010; Romero et al., 2018), Sustainability reporting can be viewed from two angles; from the demand and supply angles.

The study posits that SR is on the demand side if the information involved can be used to

assess the social, environmental and economic impacts of the organization. SR is viewed from the supply side if it is seen as an agent to build trust and improve business systems and procedures, help companies achieve their goals and to reduce cost of compliance.

A sustainability report frequently includes non-financial information about a company. It contains the organismal governance model that has been accepted including its values, which are utilized to convey sustainability initiatives and impacts. It also indicates the organization's overall commitment to a sustainable global economy. The bulk of SR studies were conducted in developed economies, as opposed to developing and emerging ones. Studies on the frequency and scope of disclosures, factors of disclosure, signaling corporate repute, and worldwide comparability of disclosures are more common in the emerging economy (Hahn and Kühnen, 2013; Larrán-Jorge and Martnez, 2013; Odriozola and Baraibar-Diez, 2017; Moses et al., 2020).

2.1.1.1 Importance of Sustainability Reporting

No one can deny the importance of sustainability reporting, according to (Godha and Jain, 2015). Companies publish these reports for a number of reasons, but at their core, they are meant to be "vessels of transparency and responsibility."

Sustainability reporting benefits organizations in the following ways, according to (Godha and Jain, 2015): SR enshrines the relationship between financial and non-financial performance; shapes organizational strategy and business plans; improves risk and opportunity understanding; promotes reporting on environmental and social impacts; and helps to compare results of organizations and sectors internally and between organizations and sectors; benchmarks and assesses sustainability. It also aid voluntary disclosures and updates stakeholders on the genuine worth of the organization.

2.1.2 GRI Reporting Framework

From a historical viewpoint, there have been numerous transitions in the evolution and focus of SR (Fifka, 2012; Kolk, 2010). Traditional reports on finance in Western societies was occasionally supplemented by supplementary social reports in the 1970s. In the 1980s, environmental concerns such as carbon emissions and garbage generation began to take precedence over previous social reporting. By the end of the last century, reporting practice and research had increasingly begun to provide both the social and environmental dimensions in a single report, which was frequently released alongside conventional financial reports. This trend may be traced back to the Global Reporting Initiative's development of voluntary standard-setting (Kolk, 2010; Vormedal and Ruud, 2009; Hahn and Kuhnen, 2013).

GRI's sustainability reporting rules are the most comprehensive, broadly accepted, and commonly used model for environmental reporting in the world (Iredele, 2020). Furthermore, banks, like other businesses, engage in social initiatives that have an impact on its stockholders, employees, and the general public. The Global Reporting Initiative (GRI) rules from 2006 (GRI, 2006) require banks to guarantee that a business requesting a loan controls its pollution as a condition of the loan.

In the year 2000, the first GRI Guidelines were released. Their mission is to assist businesses in developing SR. Economic, Social and Environmental concerns are all taken into account in sustainability reports. The GRI aspires to establish their standards as a globally recognized framework for consistent sustainability reporting. The standard provides material SR on governance structures and processes, the organization's profile and handling of sustainability issues by management (Isaksson and Steimle, 2009).

(GRI) has made intellectual and practical efforts to promote SR in impoverished nations, according to Tauringana (2020). There are, however, obstacles, and developing countries such as those in the Sub-Saharan Africa continue to trail behind advanced countries when it comes to SR. GRI SR could assist to address the issue of "selective reporting," which some corporations employ to build a misleadingly positive public image by revealing only a portion of private information (Yang et al, 2019; Marquis et al, 2016).

2.1.2.1 Relationship between GRI SR and Financial Performance of Firms

The goal of financial institutions is to generate higher returns. To do this, financial institutions may take huge risks, such as speculative lending, which can lead to high asymmetric information and jeopardize the financial system's stability. The 2008 financial crisis, which began with financial institutions across the United States and spread globally, was a vivid example of this. Financial firms, particularly banks, are often required by regulators to follow tight corporate governance guidelines. Given the financial system's economic importance, this is unavoidable. Because of increased market integration, the banking sector must be more robust than before. Banking governance failures and banking sector deficiencies are among the key risk of financial crisis (Basel Committee on Banking and Finance).

According to (Mentes, 2020; Hinson et al., 2010), the banking sector's potential impact on the environment and other sustainability-related concerns may be overlooked at first glance, yet banking has the capacity to generate large negative externality through loans to diverse businesses. In comparison to other sectors like petrochemical, mining, and logging, the banking industry has relatively little or no significant environmental impact. Banks, on the other hand, "may be considered as enablers of industrial action that involves environmental damage," according to Thompson and Cowton (2004). This means that, while banks do not engage directly in destruction of the environment, they do provide loans to support chemical

and mining operations, and all other enterprises that may cause direct environmental harm - effectively making them environmentalists.

(Marquis et al., 2016) argues that GRI SR could assist to address the issue of "selective reporting," which some corporations employ to build a misleadingly positive public image by revealing only a portion of private information.

Positive significant associations between CSR performance metric and financial results such as return on assets exist in the long run, according to (Chen et al, 2015; Waddock and Graves 1997). According to the slack resources theory (Waddock and Graves 1997), organizations with a stronger financial status should have more resources to devote to enhancing corporate social performance. As a result, these businesses can attain a high level of CSR. In short, improved corporate financial performance frees up resources for organizations to engage in CSR activities and report on their CSR performance.

Moneva et al. (2007) found positive associations between CSR and financial results, as cited by (Oeyono et al, 2011). They looked at 52 publicly traded companies in Spain from six different sectors (petroleum and power, basic materials, industry, and construction, consumer goods, consumer services, finance and insurance, real estate, and technology) and evaluated their CSR performance using GRI guidelines. "Only 58 percent of enterprises issue SR, and only 63 percent follow GRI requirements," they discovered. Odemilin et al. (2010) investigated the relationship involving CSR and firm profitability (i.e. EPS) of 20 UK firms and discovered a weak but positive (14.7%) relationship between these variables. They suggested that "as consumers and investors become even more socially aware, corporate CSR practices may have an impact on the bottom line." Sustainable banking may give answers that are beyond oversight and regulation, and banking and financial organizations are recognizing this as an important component of their strategy (Sharma and Gupta, 2020).

2.2 Theoretical Literature Review

Prior research has primarily used legitimacy theory or stakeholder theory to explain sustainability reporting (Chelli, Richard, & Durocher, 2014; Owen, 2008; Romero et al, 2018).

2.2.1 Stakeholder Theory

The business world was pushed to redefine its connection with stakeholders after the financial crisis of 2008. Stakeholders fought for corporate management to be more accountable and transparent. The corporate world cannot succeed unless it is aware of its society in which it operates (Maqbool and Zameer, 2018). Stakeholders are increasingly expecting companies to report their operations as well as the impact they have on the environment and society. Financial companies are no exception, and all stakeholders are pressuring them to become more transparent. "Any group or individual who is involved or affected by the accomplishment of an entity's objectives is a stakeholder (Freeman, 1984; Stocker et al, 2020).

According to (Freeman, 2017), stakeholders involved in a business are far more likely to participate and support the corporation's operations and plan, favorably effecting its sustainability and development (Stocker et al, 2020). Many various forms of stakeholder approach have been established throughout the years, according to a survey of stakeholder research from the previous decades. These three types of stakeholder theory are described by Donaldson and Preston (1995) as "descriptive/empirical stakeholder theory, instrumental stakeholder theory, and normative stakeholder theory" (Horisch et al, 2014). Diverse stakeholders are putting growing pressure on modern corporate entities to meet society's requirements and expectations.

The stakeholder hypothesis states that a corporation must reveal sustainability issues in order to maintain a long-term connection with its stakeholders (Freeman 1994). Micro-performance

comprises ethical matters that allow corporations to charge higher prices and sustain high staff, whereas macro-performance relates to environmental initiatives and reductions in social inequalities (Wu and Shen, 2013). The decrease of asymmetric information among stakeholders is the primary goal of corporate disclosure practices. This approach aids in reducing stakeholders' perceived confusion about the implications of the organization's decisions (Andrikopoulos et al. 2014; Gambetta et al, 2016).

Stakeholders want enterprises to act responsibly in terms of the environment and society, particularly major corporations with vast resources at their disposal. Sustainable development increases to shareholder value in a variety of ways, according to the data (Godha and Jain, 2015). The theory states that stakeholders are different and that each has their own set of business behaviors and accountability expectations that enterprises must meet. Jones (1995) developed "instrumental stakeholder theory," in which he contends that a company's performance is dependent on satisfying groups of stakeholders. As a result, management can increase the efficiency of businesses by meeting stakeholders' expectations (Orlitzky et al., 2003). A company's stakeholder interactions can be improved through lowering agency and transaction expenses (Bually et al, 2020).

Furthermore, banks, like other businesses, participate in social actions that have an impact on its stockholders, employees, and the general public. The Global Reporting Initiative's (GRI) 2006 rules require banks to check that a company requesting a loan controls its emissions as a condition of the loan. This study's sample banks are from nations that have not yet embraced the GRI principles. As a result, there is a lack of compliance with these reporting criteria in those countries (Bually et al, 2020).

Stakeholders have an interest in both financial and non-financial information about the company and its operations, according to (Marx, 2011), and will require SR that is factual, credible, and dependable – and that is totally independent assured (Ackers, 2009; O'Dwyer

and Owen, 2007; Wheeler and Elkington, 2002). According to (Herreman et al, 2015), the notion of sustainability emerged as a response to stakeholder expectations. Sustainability disclosure, frequently in the form of a report, is one of the most important strategies for engaging stakeholders. The pressure on businesses to provide information on sustainability increased as stakeholder expectations and demands rose. Stakeholders put pressure on businesses to be more transparent by publishing reports that detail their operations because they want them to reveal their business practices and the consequences such practices have on society and the environment. It is important to note at this point that some research indicates that reporting on sustainability is also beneficial to shareholders (Mentes, 2020).

According to Ioannou and Serafeim (2017), disclosure laws seem to have a favourable economic impact. A positive link has been shown between Tobin's Q and instrumented disclosure, as a result of the rule leading to increased disclosure. Additionally, the analysis indicates that rather than damaging value, the transparency law has had a positive impact on businesses. Additionally, the findings of a poll by Berns et al. (2009) highlight the significance of government engagement in sustainability, with 67% of participants believing that laws from the government had the most influence on their company's sustainability.

2.2.2 Legitimacy Theory

Legitimacy theory states that organizations have a social compact, stating that they would conduct in such a way that society will accept them as socially accountable (Romero et al, 2018; O'Donovan, 2002). This theory, as per (Agyei and Yankey, 2019), has an appeal over other theories in that it reveals techniques that organizations can use to validate their existence and that can be empirically evaluated (Deegan, 2002b). Organizational legitimacy, which is defined as a circumstance or practice in which a corporation's value system is compatible with the system of values of the larger social system in which the firm is a part, is at the heart of legitimacy theory (Gordon, 2001; Agyei and Yankey).

Legitimacy, according to Suchman (1995), is a widespread belief or assumption that an entity's acts are desirable, proper, or appropriate within a socially built system of norms, values, beliefs, and definitions. According to Cormier and Gordon (2001), there is a risk to the firm's legitimacy whenever there is disconnect between the firm's and society's value systems. As a result, any break of the social compact between the corporation and society, whether genuine or perceived, puts the firm's survival in jeopardy. Implicitly, businesses report on the environment because they strive to maintain their social contracts in order to ensure their survival. Consumers may diminish demand for the organization's products if this happens; manufacturing suppliers may stop supplying labor; and so on. According to Hogner's (1982) legitimacy theory, companies disclose CSR data in response to societal demands. According to the hypothesis, reporting CSR actions allows businesses to tell stakeholders about their sustainability and rationalize their activities in order to demonstrate their commitment to the communities' interests.

According to (Suieia et al, 2019), society is calling on banks to improve accountability and transparency in terms of responsible action, thus bank executives must get more involved in CSR disclosure in order to improve their corporate image and attract more investment (Scholtens, 2009). According to Loh et al. (2017), a sustainable report is linked to the company's non-financial report, which strategically communicates the company's primary environmental, economic, social, and governance issues. Sustainable businesses are concerned about their potential to provide more value to stakeholders, as well as eliminating information asymmetry and increasing transparency. According to the thesis, businesses may demonstrate to stakeholders that they are sustainable and that they are committed to the interests of the community by disclosing their CSR efforts. This is particularly true in situations where ideals and expectations in society diverge (Buallay, 2020; Patten and Crampton, 2004).

As a result, banks utilize CSR reporting to show that they are doing responsibly, which strengthens their credibility. According to Akano et al. (2013), CSR reporting activities are used to demonstrate to stakeholders that their actions and activities are desirable, to lessen public pressure, and to project a socially conscious image (Buallay, 2020; Hinson et al., 2010). According to Loh et al. (2017), a company's non-financial statement that strategically reveals the key elements pertaining to the environment, economy, society, and governance is linked to its sustainable report. Sustainable businesses prioritize increasing value to stakeholders, reducing information asymmetry, and increasing transparency in their operations. (2012) Zang. More advantages are produced by the CSR behaviour firm, including an increase in investor interest, a decrease in capital costs, a positive reputation, and improved financial performance (Suieua, 2019; Esteban-Sanchez et al., 2017).

Santis et al. (2016) used the sustainability index within the TBL paradigm to examine the relationship between sustainability and FP in Brazilian public firms between 2009 and 2013. They discovered that a significant factor influencing the relationship between FP and sustainable activities is the company's sector classification. Yoon et al. (2018) as cited by Siueua, (2019), examined this influence in developing nations, using Korea as a sample and an ESG score to evaluate the relationship between SR performance and business performance. Consistent with earlier research conducted in industrialized nations, they came to the conclusion that CSR policies have a positive and considerable impact on the FP, and that the attributes of the companies play a crucial role in determining the extent of the impact.

2.3 Empirical Literature Review

2.3.1 Sustainability Reporting Adherence

There is a wealth of studies on the banking industry's performance, according to Antoun et al. (2018). Bank profitability was the primary outcome variable in the majority of these studies. Although the banking industry's possible effects on the environment and other sustainability-

related concerns may initially be overlooked, the loans it extends to different industries have the potential to have a significant negative externality. According to Menten (2020), the banking industry has very little to no direct impact on the environment when compared with other industries like mining, forestry, and chemicals.

The financial services and banking sectors are responding to sustainability concerns more slowly than other sectors (Buallay, 2019; Jeucken, 2004). According to (Amidjaya and Wigado, 2019; Djadjadikerta and Trireksani, 2012), the practice of environmental and social disclosure in Indonesian firms is still in its infancy. The outcome demonstrates that most Indonesian firms still don't fully comprehend the importance of disclosing their corporate social and environmental impact. Ironically, getting public acclaim for their outstanding social behaviour is the entire goal of the disclosures. El Khoury et al, 2021, asserts that, the infrastructure, power, real estate, and banking sectors are ideally prepared to adopt and integrate sustainability reporting. As per Scholtens and van't Klooster (2019), the banking industry is significantly contributing to the MENAT region's financial stability. Due to the resulting economic gains, banks are now required to disclose their operations and create greater governance. In order to visualize justice, fairness, and transparency when establishing directions and methods to interact with various stakeholders, banks' corporate values serve as a stable framework (Ehrenhard and Fiorito 2018).

Global managers and stakeholders are becoming increasingly concerned about corporate governance disclosure as a result of growing economic integration and the expansion of multinational corporations (Buallay, 2022; Singh and Gaur, 2009). This disclosure influences stakeholders' decision-making and is a reaction to the institutional context. According to Buallay, (2022) and Popli et al. (2017), businesses are best positioned to slow the decline in their profitability when they coordinate how they react to shifts in the external environment.

Mentes (2020) cites Jeucken (2001) as refuting the notion that the concept of sustainable banking is a stationary term and asserting that banks go through four distinct stages. The four stages are: aggressive, preventative, defensive, and sustainable banking. Each step builds upon and encloses the one before it. In terms of sustainable development, the bank is an observer during the defensive banking stage. Rather of being a source of income, environmental care practices are viewed as cost centers and needless hassles. The second phase, known as preventative banking, sees banks focusing on and implementing small-scale cost reductions in areas like water and energy usage. Sustainability is taken into account as internal processes in this method. During the third phase, known as aggressive banking, banks endeavour to attain their objectives for sustainable development by establishing substitute markets and offerings, such as financing for sustainable energy and environmental investment funds. All banking operations and external-internal procedures are designed and implemented to ensure sustainability in the fourth stage of banking, known as sustainable banking.

2.3.2 The effect of sustainability reporting on financial performance

Pham et al, (2021) cites Montabon et al (2007)'s study of the link between sustainability management practices and business financial metrics including return on investment (ROI) and sales growth, sustainability has a favourable impact on financial performance. The study shows that numerous company performance measures are positively related with a broad variety of environmental management practices (EMPs).

Hussain et al. (2018) used sustainable disclosure indices that are environmental, social, and governance to examine the sustainability reports of the 100 best-performing US companies (ESG parameters). According to their research, no ESG metric has a meaningful relationship with financial performance as measured by both accounting performance (ROA and ROE) and market performance (Tobin's Q). According to Wang et al. (2016), there have been few

studies on the link between ESG and banking performance. Furthermore, developing-country banks are largely overlooked. Amidjaya and Wigado, 2019 in the study of SR in listed Indonesian banks assessed corporate governance, ownership structure and digital banking in relation to firm's profitability. The study found that SR in Indonesian listed banks was low; that corporate governance, foreign ownership and family ownership contributed to SR. Chen et al. looked studied the relationship between manufacturing companies' financial success and their Environmental Management Practices (EMP), as evidenced by their GRI reporting, in Sweden, China, and India (Chen et al., 2014). They discovered no significant relationship financial results and EMP (Belkhir, 2017).

Mentes, (2020) investigated the Turkish banking sector's sustainability reporting methods, which involved fifty-two (52) banks. The study's findings revealed that among reporting banks, the economic (EC) dimension metrics of SR reports have the highest disclosure rate. When compared to other aspects of sustainability reporting, the financial services sector (FS) supplements had the poorest disclosure rate among reporting banks. In Turkey, sustainability reporting banks account for over 75% of the banking sector. Santis et al. (2016) investigated the relationship between sustainability and financial performance in Brazilian public corporations from 2009 to 2013, using a sustainability index based on the TBL concept. They discovered that the company's industry classification had a significant impact on the link between sustainability activities and FP. Yoon et al. (2018) used Korea as a case study using an ESG score to analyze CSR and its impact on firm success in emerging countries. They found that CSR policies have a positive and significant influence on FP, and that company characteristics are important in determining the amount of the benefit.

(Kahn et al, 2011) investigated 12 commercial banks listed on the Dhaka stock exchange using GRI G3 principles in five main categories of sustainability, including labor practices and decent work, environment , product responsibility, human rights, and society. In terms of

the scope of reporting, the study's findings revealed that information about society is the most extensively covered. The disclosures on decent employment and labor practices, as well as environmental issues, follow. Furthermore, reporting on bank product responsibility and human rights information are limited. According to Salzmann (2005), there is a positive association between (ESG) elements and financial success; although, social issues have a significantly greater impact on financial performance than governance or environmental factors. According to Kwambo (2011), social disclosure has little effect on earnings per share. According to Moneva and Ortas, there was no relationship between CSR disclosure and stock returns (2008). Murray, Sinclair, Power, and Gray (2006) discovered no correlation between financial results and disclosure of social and environmental information. Return on asset is unconnected to the amount of sustainability reporting, according to Tang & Chan (2010). Hussain (2015) looked at the link between sustainability measures and financial performance from 2007 to 2011. Fixed effects model of regression revealed that the social and environmental aspects of sustainability have a significant and meaningful impact on a variety of financial performance measurements. Nosakhare, Che-Ahmad, and Mgbame (2015) employed a cross-sectional research technique to investigate the impact of accounting information on firm profitability in Nigeria. When company-specific characteristics are controlled in the regression analysis, the results demonstrate negative and positive associations with profitability.

Ndukwe and Nwakanma (2018) researched into the link between business financial performance and sustainable development methods. Ex-post facto research was used in this study. The study's data came from the annual financial reports of thirty-four publicly traded companies from various sectors of the Nigerian economy from 2011 to 2015. The sustainable development index was created using content analysis. The hypotheses in this study were

tested using multiple regression analysis approaches. Return on equity had a negative association with sustainability methods, according to the findings.

Margolis et al. (2007) evaluated studies that linked CSR to FP, concluding that most studies found a positive correlation between them. Platonova et al. (2016) found that banks are involved in CSR, and that CSR is statistically linked to profitability. They also found that banks with improved corporate governance and staff engagement performed better financially. Empirically, the relationship between Sustainability Reporting and Financial Performance could be neutral, negative, or positive. Overall, the findings imply that CSR participation is critical to a bank's profitability and competitiveness. Sustainability Reporting (GRI) is expected to be followed by listed banks in Sub-Saharan Africa.

2.4 Hypothesis Formulation

The impact of SR and financial performance have been the focus of investigations, according to prior literature. According to some researchers (Platonova et al., 2016; Ameer and Othman, 2012; Amouzesh et al., 2011; Kahn et al., 2011; Kapoor & Sandhu, 2010), SR impacts favourably on financial performance. However, other studies found out the opposite view (for instance, Hussain et al., 2018; Inoue & Lee, 2011). Some studies found no connection between sustainability reporting and a company's financial performance (Pham et al., 2021; Aupperle et al., 1985). Therefore, the current study puts forth and test the following hypothesis in at 5% level of significance in order to find out these relationships. The decision rule is to reject the null hypothesis if the P-value is less than 0.05; otherwise we do not reject the null hypothesis.

H1: Listed banks in Sub-Saharan Africa do not adhere to Sustainability Reporting.

H2: There is no relationship between SR and financial performance (ROE) of listed banks in Sub-Saharan Africa.

H3: There is no relationship between SR and financial performance (Tobins' Q) of listed firms in Sub-Saharan Africa.

2.5 Conceptual Framework

Global Reporting Initiative (GRI) 2016 model is chosen as the conceptual framework of the study. From the Fig.1 below, the study seeks to find out whether listed banks in Sub-Saharan Africa report on specific disclosures; Economic (GRI 200), Environmental (GRI 300) and Social (GRI 400) and how these disclosures relate with their financial performance using ROE and Tobins' Q. The study further applies the following as measures as controlling factors; size of the firm (measured by logarithm of total assets), annual growth rate (measured by annual GDP), leverage of the banks and cost-to-income ratio of the banks.

For the purpose of this study, Economic topics chosen are Economic Performance (201); Market Presence (202); Indirect Economic Impacts (203); Procurement Practices (204); Anti-Corruption (205) and Anti-Competitive Behaviour (206). In all, a total of thirteen (13) disclosures are expected to be made in the Economic section.

With the nature of the banking sector; not all the disclosures are expected to be used in the study. The study seeks to limit the discussion to the energy consumption within and outside the organization, level of energy intensity and any reduction levels of the period of time. Therefore, Energy (302) and Biodiversity (304) disclosures are used. A total of eight (8) indicators are expected to be disclosed.

Indicators of Social topics spans through; Employment (401); Occupational Health and Safety (403); Training and Education (404); Diversity and Equal Opportunity (405); Non-Discrimination (406); Freedom of Association and Collective Bargaining (407); Child Labour (408); Forced or Compulsory Labour (409); Security Practices (410); Rights of Indigenous People (411); Human Rights Assessment (412); Local Communities (413);

Supplier Social Assessment (414); Public Policy (415); Customer Health and Safety (416); Customer Privacy (418) and Socioeconomic Compliance (419).

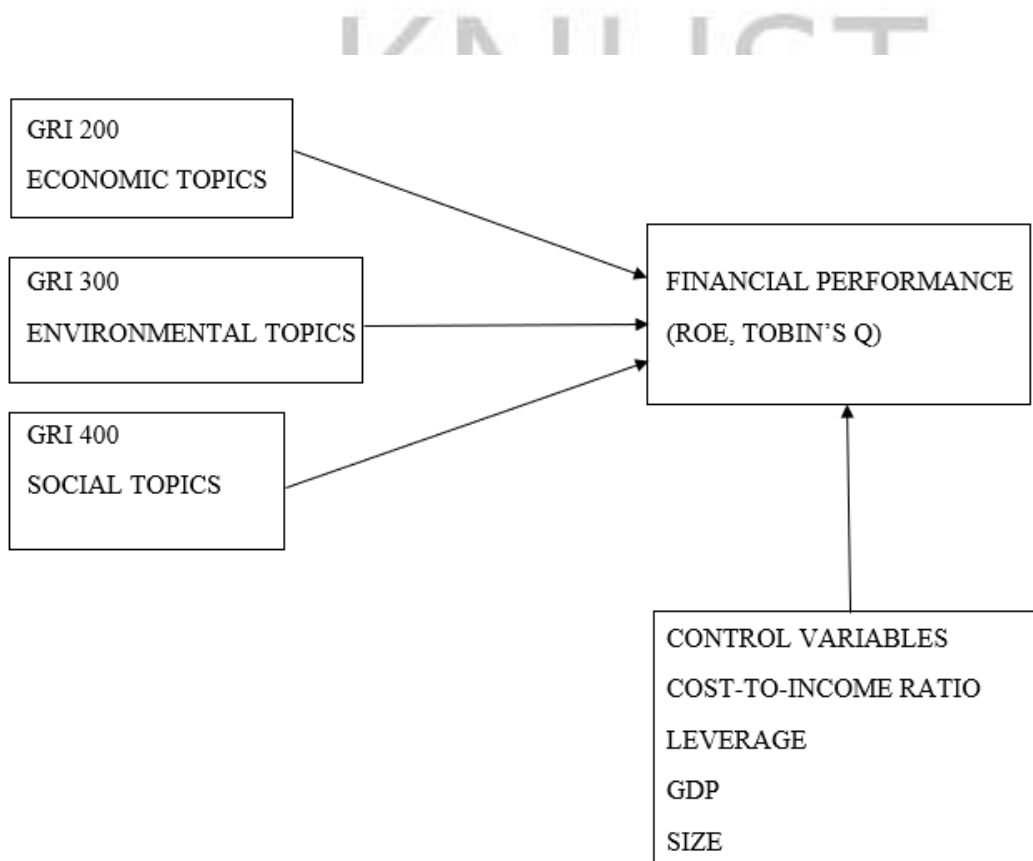


Figure 1 Conceptual Framework (Source: Author, 2022)

2.5 Summary of Chapter

In this chapter extant literature related to the study was examined. Various concepts and scholarly works undertaken in the study are examined to establish a basis for the current study. Most notable is the fact that, not much emphasis is placed on SR in the service industry, with the literature mostly based on manufacturing, mining and other industries. Also, the current study examines SR in relation to GRI 2016, thereby eliminating the gap created as a result of less research using the 2016 standard. Most of the reviewed literature centers on other previous editions of the standard.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on the research design, data collection, and the methods used in the study. It further discloses the variables applicable to the study will be measured to arrive at a very credible conclusion.

3.2 Research Design

According to (Arholu, 2019), the formation of decisions about the methodologies used in data collection, the types of sampling strategies and instruments, and how time and financial limitations might be dispensed with are all part of study design.

In order to report and characterize the patterns of SR as per GRI made in the annual reports of 54 banks chosen from ten Sub-Saharan African nations, the study uses a descriptive design. In order to statistically generalize the research findings, the study uses a quantitative technique (Ahorlu, 2019; Saunders, 2014). The research approach includes a quantitative examination of the content of the banks' 2018–2020 annual reports that contain specific environmental, social, and governance variables.

3.3 Population and Sampling

All banks listed on the stock markets in Sub-Saharan African countries constitute the research population. The annual reports of these banks between the periods of 2018 to 2020 will be analyzed to get the data for the study.

3.3.1 Research Sampling

In its inception, the study sought to conduct a census of all listed banks in Sub-Saharan Africa. We looked through the websites of the banks and

other online directories and eliminated a few banks because some of them did not fit the requirements to be included in the study.

Our inclusion and exclusion criteria focused on two requirements: firstly, a bank had to be listed; secondly, it needed to have released annual reports for the years 2018 through 2020. Some banks in certain countries had to be excluded since they failed to satisfy this requirement. Table 3.1 depicts clearly the banks and countries included in this study.

3.4 Data collection

The study examines sustainability reporting of listed banks and its association with profitability in ten (10) Sub-Saharan Africa countries. Secondary data in the form of annual reports were retrieved from the internet through the websites of the banks. These reports are important documents that represent companies in the public eye. (Hughes et al, 2001) favored the use of yearly reports to extract CSR data since they are more convenient.

Table 3.1

Country	Number of Banks	Percentage represented (%)
Bostwana	3	5.6
Ghana	9	16.6
Kenya	8	14.8
Malawi	5	9.25
Nigeria	13	24.1
South Africa	5	9.25
Tanzania	3	5.6
Uganda	3	5.6

Zambia	2	3.6
Zimbabwe	3	5.6
Total	54	100

Table 3.1 is a representation of the countries and the banks used in the sample size. The total banks involved in the study is fifty-four (54) and the focus of the study is assessed across a three (3) year period. That takes the total observations to one hundred and sixty-two (162). Nigeria is most represented in the sample with thirteen (13) listed banks, followed closely by Ghana with (9) listed banks. The country least represented in the sample is Zambia with two (2) listed banks.

3.5 Measurement of Variables

Three disclosure indicators; environmental, social, and corporate governance—were used to measure the independent variable, sustainability reporting (Mentes, 2020; Villiers et al., 2016). The SR index is the study's independent variable (SRI). SRI is a performance indicator for sustainability reporting. The independent variable is the Sustainable Reporting based on GRI indicators; Social, Economic and Environmental metrics. According to (Gambetta et al, 2016; Mohardt et al, 2002), a bank that has reported on a sustainability indicator earns a mark of one (1) and a zero (0) if it has not. Following (Mentes, 2020), we develop the GRI 2016 framework into an SR index and transform the total score in the various indicators into percentages.

Financial outcomes (ROE) and market performance (Tobin's Q) have been used to measure the dependent variables, or bank performance. Ultimately, this study makes use of two different kinds of control variables. Endogeneity frequently occurs in research reports with integrated reports. Three issues are brought about by endogeneity: simultaneity, reverse causality, and linked variables (Buallay, 2020; Larcker and Rusticus, 2010). Because

countries differ on the basis of technological prowess, intellectual property laws, economic growth, and location, we take into account macroeconomic characteristics as control variables (Buallay, 2020; Contractor et al., 2016). Therefore, the GDP's annual increase serves as one of our control variables. According to Bongini et al. (2018), macroeconomic activity has a major impact on bank performance. As a control factor, we employed the growth in GDP rate as a stand-in for economic activity, in accordance with the recognised relationship. In accordance with Singh et al. (2018), we also employed control factor unique to the banks such as total assets and leverage of these institutions.

To control for endogeneity, size of the bank measured market capitalization and efficiency of the bank measured as Cost-to-income ratio is applied (Buallay et. al, 2020). Large banks are expected to be environmentally and socially committed because they are scrutinized more rigorously and will be pressurized to build trust. Banking institutions, depositors and other stakeholders will be watching these institutions closely because their failure might have serious implications for the depositors, economy and other stakeholders. In studies by Adelopo et al. (2018) and Chen et al. (2015), the cost-to-income ratio was used to quantify the influence of efficiency on bank total profitability. As a result, we anticipate a negative link between increased cost-to-income ratios and bank profitability.

Table 3.2 Sustainability Reporting Index (SRI Index) Using the GRI 2016 Framework

Indicator	Acronym	Indexing
Economic (%)	EC	If the information about an item is given, each of the thirteen (13) indicators applicable to the study is valued at "1," otherwise "0." Scores from 0 to 13 are transformed into percentages.
Environmental (%)	ENV	If the information about an item is given, each of the eight

(8) indicators applicable to the study is valued at "1," otherwise "0."

Scores from 0 to 8 are transformed into percentages.

Social (%)	SO	If the information about an item is given, each of the seventeen (17) indicators applicable to the study is valued at "1," otherwise "0."
------------	-----------	---

Scores from 0 to 17 are transformed into percentages.

According to (GRI, 2016), the Economic (EN) indicator is a basic measure of how an organization has generated money for stakeholders is provided by information on the generation and supply of economic value. An economic portrait of an organization is also provided by a number of the economic value components created and distributed, which can be helpful for adjusting other performance metrics. It gives a valuable picture of the tangible monetary value contributed to local economies when presented in country-level detail.

The environmental (ENV) aspect of sustainability is concerned with how an organization affects ecosystems, the environment at large, as well as the air, water, and land. Environmental indicators measure how well inputs and outputs (such materials, water and energy and its relative emissions, waste, effluents) are impacted. Environmental dimension also measures compliance with environmental regulation and biodiversity (Mentes, 2020).

The social (SO) aspect of sustainability as per (GRI, 2016) is concerned with how an organization affects the social structures in which it functions. Included in this is how an organization approaches employment or the development of new jobs, namely how it approaches recruiting, recruitment, retention, and other related procedures, as well as the working conditions it offers. The working circumstances in a company's supplier chain are

also covered. The disclosures required by this dimension can reveal details regarding the effects on employment that a business manages.

3.5 Model Specification

The study estimates the following linear model to examine the association between sustainability reporting and bank performance:

$$PB_{itc} = \beta_0 + \beta_1(EES_{itc}) + \beta_2(Size_{itc}) + \beta_3(Eff_{itc}) + \varepsilon_{itc}$$

Where:

The financial performance of banks (PB) is measured using two models: ROE and Tobin's Q. ROE is the current stock price multiplied by the number of outstanding shares in bank (i), country (c), and period (t), while Tobin's Q is the current stock price multiplied by the number of outstanding shares in bank (i), country (c), and period (t). β_0 is the constant, while β_1 - β_4 are the control and independent variable coefficients. EES is an SR index that integrates the GRI Framework's Economic, Environmental, and Social indicators for bank (i), country (c), and a time (t). Size is a control variable that is measured as the natural logarithm of the bank's market capitalization in country (c), of bank (i) and over time (t). Eff is efficiency as assessed by the bank's cost income ratio (i), the country's cost to income ratio in country (c), and the period's cost to income ratio (t). Random error term is denoted by ε .

3.6 Summary of Chapter

The chapter discussed the methodology and approach to achieve the objectives of the study. The secondary source of data for the study was identified and sampling techniques was explained. Key variables were identified and how indicators of SR would be measured to answer research questions of the study. The model to assess the relationship between SR and financial performance has also been stated and explained.

KNUST



CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

The chapter presents results and discussion. The chapter has eight (8) sections. Section 4.1 presents summary statistics. Section 4.2 presents correlation matrix. Section 4.3 shows stationary test outcome. Section 4.5 and 4.6 present results for the level of adherence. Section 4.7 presents empirical results, and section 4.8 discusses the results.

4.2 Summary Statistics

Table 13 describes the parameters of the study variables based on mean, standard deviation, minimum and maximum values. The variables are GRI disclosures (economic, social, environment and their index (EES)), cost to income ratio, GDP, ROE, Tobin's q, bank size and leverage as shown in Table 4.2.

ROE has a mean of US\$ 175 billion and S.D of US\$ 116 billion, while the minimum and maximum values are a loss of US\$ 36 to US\$ 65 billion respectively. Tobin's Q has a mean of US\$ 857 and S.D of US\$ 285, with a minimum and a maximum Tobin's Q of US\$ 13 and 2 billion respectively. GDP has a mean of US\$ -02 billion and a standard deviation of .35 billion, while the minimum and maximum values are US\$-10 and US\$4 billion respectively. Meanwhile, the minimum and the maximum cost to income ratio are US\$0.9 and US\$3.7 respectively, and the mean and a standard deviation value are US\$634 and US\$296 respectively. Leverage ranged from US\$0.00 to US\$2.0, with a mean of US\$742 and standard deviation of US\$330.

The mean for environmental disclosure is 0.549 with a S.D of 0.490, and ranged from 0 to 1. This suggests that about 49% of the studied banks reports about 54.9% of environmental disclosure. Economic disclosure averages 0.981 with S.D of 0.13 with a range of 0 and 1,

indicating that only 13% of the banks have an average economic disclosure of 98.1%. Social disclosure has a mean of 0.549 and S.D of 0.490, while total disclosure of the bank's averages 0.693 and S.D of 0.24, indicating that, in all, only 24% of the banks reports an average disclosure of 69.3%.

Table 4.1: Summary Statistics

Variables	N	Mean	Std. Dev.	Min	Max
ROE	162	.175	.116	-.36	.65
Tobin's Q	162	.857	.285	.013	2.031
Economic	162	.981	.135	0	1
Social	162	.549	.490	0	1
Environmental	162	.549	.490	0	1
EES	162	.693	.284	.33	1
CIR	162	.634	.296	.009	3.73
Leverage	162	.742	.330	.000	2.032
Bank Size	162	7.133	1.343	4.885	10.510
GDP	162	-.002	.035	-.106	.042

Note: EES is an SR index that integrates the GRI Framework's Economic, Environmental, and social indicators for bank.

Source: Author's own construction from banks annual report and GRI

4.2 Correlation Matrix

Table for tests for multicollinearity problem (the situation where the regressors or explanatory variables are highly correlated). Null Hypothesis, H_0 : There is no perfect multicollinearity. That is, there are no perfect linear relationships among the explanatory variables. Alternative Hypothesis, H_1 : There is perfect multicollinearity.

Correlation coefficient of zero suggests no correlation; correlation coefficient of +1 suggest possible correlation between two variables (Hair et al. (2010). Correlation coefficient of 0 and 1 as: +10 to +29 indicates a weak correlation; +30 to +49 as correlated; and +50 as highly correlated (Sohne, 1988). According to Kennedy (2009), a correlation coefficient of (0.9) suggests multicollinearity between variables.

Table 14 indicates that GDP negatively correlates with social disclosure ($r = -.314, p < 0.10$), GDP negatively correlates with environmental disclosure ($r = -.189, p < 0.10$). Also, GDP has a negative correlation with the index of the disclosures ($r = -.273, p < 0.10$). Bank size negatively correlates with Tobin's Q. ($r = -.250, p < 0.10$), a negative with economic disclosure ($r = -.293, p < 0.10$), and positively correlates with leverage ($r = .143, p < 0.10$). Leverage positively correlates with Tobin's Q ($r = .698, p < 0.05$). Environmental disclosure positively correlates with social disclosure ($r = .476, p < 0.05$). None of the relationship shows a stronger correlation coefficient (0.90) thus, no serious multicollinearity problem (Kennedy, 2009).

Table 4.2: Correlation Matrix

Var.	ROE	TB'Q	Eco	Soc	Env	EES	CIR	Lev	Size	GDP
ROE	1									
TB'	-.025	1								
Q										
Eco	-.005	.005	1							
Soc	-.076	-.072	-.124	1						
Env	-.196*	.037	-.124	.476**	1					
EES	-.144	-.019	.011	.075**	.075**	1				
CIR	-.129	.086	.000	-.149	-.135	-.168*	1			
Lev	-.038	.698**	-.043	-.060	-.122	-.114	.010	1		
Size	.086	-.250*	-.293*	-.038	-.077	-.114	.004	.148*	1	
GDP	.032	-.090	.142	-.314*	-.189*	-.273*	-.014	-.082	-.071	1

Note: ROE is return on equity, Eco is economic disclosure, Soc is social disclosure, Env is environmental disclosure, EES is the index of the three disclosures, CIR is cost to income ratio, Lev is bank leverage. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Source: Author's own construction from banks annual report and GRI

4.3 Panel Unit Root

The study uses the Augmented Dickey Fuller Test (ADF) to check whether the data is stationary or not or to check the problem of autocorrelation. The null hypothesis H_0 suggests the variable is not stationary, or has got unit root, and Alternative hypothesis H_1 suggests the variable is stationary or has no unit root. To tackle the problem of autocorrelation, ADF has developed three equations for that. The equations are specified as;

$$\Delta Y_t = B_1 + ZY_{t-1} + e_{it} \text{----- Intercept only}$$

$$\Delta Y_t = B_1 + B_2t + ZY_{t-1} + a_{it} + e_{it} \text{----- Trend and Intercept}$$

$$\Delta Y_t = +ZY_{t-1} + a_{it} + e_{it} \text{----- No trend, no intercept}$$

The three models must be satisfied to come to a decision as to whether a variable has a unit root or not. The guideline there is that if the p-value is less than 5 percent, we can reject the

null hypothesis and accept the alternative hypothesis. But if the p-value is more than 5 percent, we cannot reject the null hypothesis. Fisher Chi-square Test and the Johansen Co-integration Test are used (to ensure that the variables are all differenced at the same level). In order to determine the appropriate lag length while running our cointegration test, the study employs the Schwarz Bayesian Information Criterion (SBIC). SBIC is not efficient but is generally consistent. The SBIC would serve as the default information criterion for the fixed effect panel data regression. Table 15 presents the stationarity tests of the variables. The variables show stationarity either at level or first difference.

Table 4.3: Panel Unit Root Test Results

Variables	Level			First Difference		
	Intercept	Intercept and Trend	No trend, no intercept	Intercept	Intercept and trend	No trend and no intercept
ADP**						
ROE	.275 (.276)	.264 (.554)	.221 (.184)	.288** (.011)	24.866 (.526)	111.040*** (.000)
TOB'Q	59.621*** (.002)	46.652 (.029)	44.421 (.108)	85.098*** (.000)	55.187*** (.001)	151.189*** (.000)
EES	.159*** (.001)	.591*** (.001)	14.491 (.992)	.638*** (.000)	.638*** (.000)	.013*** (.000)
ENV	.467* (.06)	.591*** (.000)	.491 (.998)	.074 (.794)	.636*** (.000)	.083*** (.000)
SOC	.142 (.0192)	.586 (.868)	.778 (.008)	.336** (.014)	.485** (.0034)	.235*** (.000)
ECO	.654** (.043)	.032 (.002)	.876* (.054)	.021 (.032)	.009 (.007)	.043 (.032)

Notes: *, **, *** denotes 10%, 5% and 1% significance level respectively.

Source: Author's computation with banks annual reports and GRI.

4.4 Level of Adherence to SR based on GRI 2016 Framework (Country by Country Analysis)

The first objective of the study is to assess the level of adherence to Sustainability Reporting based on the GRI 2016 Framework. To meet this objective, the average levels of reporting across the chosen period of study (2018 -2020) based on the Economic (EC), Environmental (ENV) and social indicators are summarized on a country-by-country basis.

Table 4.4 Sustainability Reporting of Listed Banks in Bostwana

Bank	Economic Index (EC %)	Environmental Index (ENV %)	Social Index (SO %)
ABC	77	11	52
ABSA	85	11	59
Standard Chartered	85	11	55
Mean	82	11	55
Median	85	11	55

In Bostwana, listed banks have a high reporting incidence of economic dimension with a mean score of 82% and moderate reporting of social dimensions which scored a mean of 55%. It is obvious from Table 4.4 that environmental reporting by listed banks in Bostwana are very low with average scoring of 11%. ABSA and Standard Chartered banks are leading in the economic dimensions with 85%. ABSA leads in the social dimensions with 56%.

Table 4.5 Sustainability Reporting of Listed Banks in Ghana

Bank	Economic Index (EC %)	Environmental Index (ENV %)	Social Index (SO %)
Access	62	11	38
ADB	69	11	38
CAL	67	70	48
Ecobank	85	67	60
GCB	69	11	38
Republic	85	22	52
Societe	85	22	53
Standard Chartered	77	22	53
Trust Bank	69	22	38
Mean	74	29	46
Median	69	22	48

From Table 4.5, there is a clearer indication that in Ghana, listed banks report on Economic dimensions of their operations the most with a score of 74%. Social dimensions of their activities seem to be fairly reported with a mean score of 46%. The least reported dimension is the environmental dimension which scored just 22% on the average. These results mimic the pattern of reporting the study found in Bostwana. The median scores also reflect the reporting of the banks and further emphasizes environmental dimensions as the least reported area in sustainability. Three banks, (Societe, Republic and Ecobank) lead the economic dimensions with 85% scoring rate each. CAL Bank is the only bank scoring 70% in the environmental dimensions followed closely by Ecobank which scored 67%.

Table 4.6 Sustainability Reporting of Listed Banks in Kenya

Bank	Economic Index (EC %)	Environmental Index (ENV %)	Social Index (SO %)
BK Group	67	66	59
Cooperative	85	67	55
Standard Chartered	85	78	60
DTB	85	67	60
Equity	85	55	56
I&M	85	55	55
KCB	85	77	60
Stanbic	85	77	60
Mean	83	68	58
Median	85	67	60

Comparing the mean scores on the economic dimensions between Bostwana, Kenya and Ghana, Kenya sits slightly ahead of these two other countries with 83% as against 74% and 82% for Ghana and Bostwana respectively. Kenyan banks reporting on the environmental dimensions also sits above the two other countries with 68%. Also, the social dimensions reporting in Kenya also is ahead of similar reporting commitments in Bostwana and Ghana. The median from the study related to Kenya is also quite impressive as compared to the previous two countries. In Kenya, 87% of the listed banks use in this study (seven out of eight) scored 85% in the economic dimensions whiles Standard Chartered Bank scored 78% as the highest in the country. 50% of the listed banks used in the study in Kenya scored 60% in the social dimensions.

Table 4.7 Sustainability Reporting of Listed Banks in Malawi

Bank	Economic Index (EC %)	Environmental Index (ENV %)	Social Index (SO %)
FDH	77	11	52
FMCBH	77	11	49
Standard	85	11	55
NBS	69	11	32
NBM	85	22	53
Mean	79	13	48
Median	77	11	52

From Table 4.7, it can be seen that Standard and NBM banks score highest in economic dimensions with 85% each, NBM tops the country in the environmental dimension, although the score is lowly 22%. This practically reflects low reporting in environmental dimensions in Malawian listed banks. Standard bank scored 53% as the highest in the social dimensions. Overall, the mean of the economic dimensions for the listed banks scored 79% representing a fairly reported dimension. Also, the environmental dimension also scored 13% on the average depicting lower reporting while social reporting scored 48% on the average for the five banks used in the study from Malawi. This means that social dimensions are not majorly reported on.

Table 4.8 Sustainability Reporting of Listed Banks in Nigeria

Bank	Economic Index (EC %)	Environmental Index (ENV %)	Social Index (SO %)
Access	85	77	62
FBN	85	67	60
Fidelity	85	67	60
Ecobank	85	67	60
FMCB	85	77	60
GTBank	85	77	61
Jaiz Bank	85	67	56
Stanbic ITC	85	67	60
Sterling	85	67	60
UBA	77	59	60
Union	85	67	60
Unity	77	22	53
Zenith	85	67	60
Mean	84	65	59
Median	85	67	60

In the study, Nigeria is the most represented in the chosen sample with (13) listed banks. 11 out of the 13 banks representing 85% of the sample scored 85% in the economic dimensions representing higher levels of reporting in this dimension. 3 out of the 13 banks scored 77% in the environmental dimensions with 8 other banks scoring 67% in the same dimension. In the social dimensions, at least 9 banks scored 60% with Access Bank topping the chart with 62%. This represents moderate reporting in this dimension. The overall average reporting on

economic dimensions stands at 84% representing a highly reported dimension in listed banks in Nigeria. The mean for environmental reporting scored 65% representing moderate reporting while social dimension scored the lowest with 60% as per the average. This finding is similar to the findings from Kenya where social dimensions scored lower than environmental dimensions. The economic dimensions seem to be the most reported area in the reporting framework.

Table 4.9 Sustainability Reporting of Listed Banks in South Africa

Bank	Economic Index (EC %)	Environmental Index (ENV %)	Social Index (SO %)
ABSA	85	77	62
Capitec	85	77	62
FirstRand	85	33	55
Nedbank	85	77	62
Standard	85	77	62
Mean	85	68	61
Median	85	77	62

From Table 4.9, 100% of the banks from South Africa used in the study (5 out of 5) scored 85% in the economic dimension, 4 out of the 5 banks scored 77% in the environmental dimension with FirstRand scoring the lowest with 33%. FirstRand scored the lowest in the social dimension with 55% while the other 4 banks all scored 62% in the dimension. Overall, the mean of 85% in the economic dimension represents high reporting across the listed banks in South Africa. The environmental dimension scored 68% on the average reflecting moderate reporting in the dimension in South Africa. The social dimensions scored

61% as the mean for all the banks representing moderate reporting although it is the least reported dimension as per the findings in South Africa. The median of the dimensions reflects the findings with economic dimensions scoring 85%, environmental dimensions recording 77% and social dimensions scoring 62%.

Table 4.10 Sustainability Reporting of Listed Banks in Tanzania

Bank	Economic Index (EC %)	Environmental Index (ENV %)	Social Index (SO %)
CRDB	85	77	62
Mandeleo	85	11	48
NMB	85	11	55
Mean	85	33	55
Median	85	11	55

From Table 4.10, 3 banks were used in the study from Tanzania, all the 3 banks scored 85% in the economic dimension representing high reporting levels. In the environmental dimension, CRDB scored the highest with 77% with the two other banks (Mandeleo and NMB) scoring a paltry 11% each representing poor reporting in the dimension. CRDB also scored the highest in the social index with 62%, with Mandeleo scoring 48% while NMB scored 55%. On the whole, the mean for the economic index is 85%, environmental index scored 33% and social index scored 55%. This means that economic index is the most reported dimension, social dimension is fairly reported whilst environmental dimension is the least reported with 33% in Tanzania.

Table 4.11 Sustainability Reporting of Listed Banks in Uganda

Bank	Economic Index (EC %)	Environmental Index (ENV %)	Social Index (SO %)
Baroda	85	22	53
DFCU	85	77	78
Stanbic	85	79	80
Mean	85	59	70
Median	85	77	78

From Table 4.11, a mean of 85% in the economic dimension for the overall sample of 3 listed banks in Uganda reflects high reporting in the dimension. The mean of 59% for the overall environmental dimension reflects fairly reporting in the dimension although Stanbic and DFCU banks posted impressive scores in the dimension with 79% and 77% respectively. Baroda scored the least in the dimension with 22%. The social dimension is also moderately reported with an overall mean of 70% with Stanbic reporting highest in the dimension with 80% score, followed closely by DFCU with 78% and Baroda reporting fairly with 52% although the lowest of the 3 banks used in the study.

Table 4.12 Sustainability Reporting of Listed Banks in Zambia

Bank	Economic Index (EC %)	Environmental Index (ENV %)	Social Index (SO %)
Standard Chartered	85	22	54
Zanaco	85	11	55
Mean	85	17	55

Zambia, Tanzania and Uganda as found by the study. The environmental dimension is also the least reported posting a mean of 33%.

4.5 Strength of SR in Sub-Saharan Africa, comparing country by country means

The data in table 4.14 seeks to assess the country-by-country strength in Sustainability Reporting by comparing their means from the various dimensions.

Table 4.14 Sustainability Reporting of Listed Banks in Sub-Saharan Africa

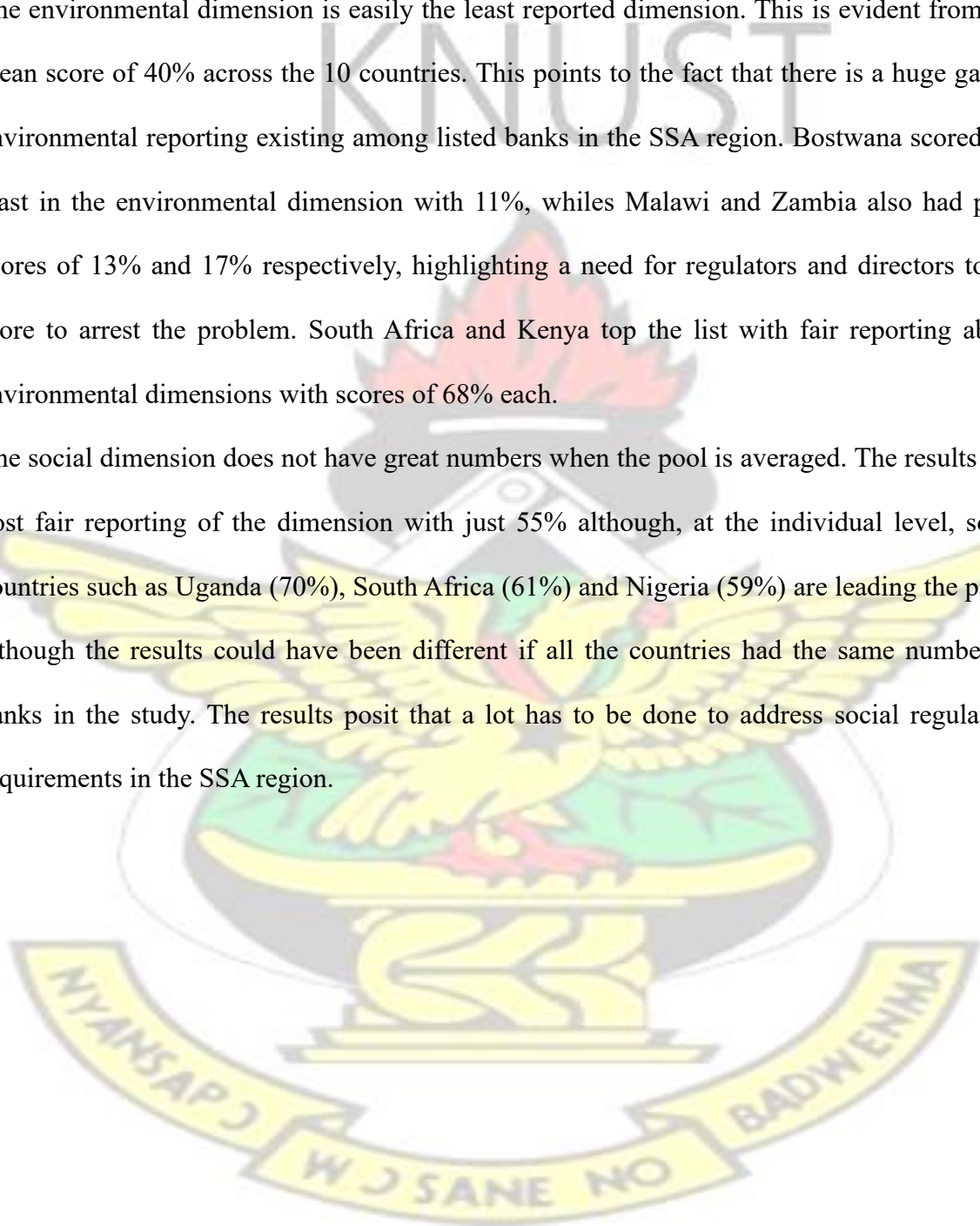
Country	Economic Index (EC %)	Environmental Index (ENV %)	Social Index (SO %)
Bostwana	82	11	55
Ghana	74	29	46
Kenya	83	68	58
Malawi	79	13	48
Nigeria	84	65	59
South Africa	85	68	61
Tanzania	85	33	55
Uganda	85	59	70
Zambia	85	17	55
Zimbabwe	67	33	53
Mean	81	40	56
Median	84	33	55

Table 4.14 clearly shows that 4 out of 10 countries have a mean score of 85% in the economic dimensions; these countries are South Africa, Tanzania, Uganda and Zambia. Nigeria had the next best score for economic dimensions with Kenya, Bostwana, Malawi,

Ghana and Zimbabwe following in that order. The overall mean for the sampled countries in economic dimensions scored 81%. This reflects high reporting in the economic dimension in Sub-Saharan Africa.

The environmental dimension is easily the least reported dimension. This is evident from the mean score of 40% across the 10 countries. This points to the fact that there is a huge gap in environmental reporting existing among listed banks in the SSA region. Botswana scored the least in the environmental dimension with 11%, while Malawi and Zambia also had poor scores of 13% and 17% respectively, highlighting a need for regulators and directors to do more to arrest the problem. South Africa and Kenya top the list with fair reporting about environmental dimensions with scores of 68% each.

The social dimension does not have great numbers when the pool is averaged. The results just post fair reporting of the dimension with just 55% although, at the individual level, some countries such as Uganda (70%), South Africa (61%) and Nigeria (59%) are leading the pack, although the results could have been different if all the countries had the same number of banks in the study. The results posit that a lot has to be done to address social regulatory requirements in the SSA region.



4.6 Strength of SR in Sub-Saharan Africa, region by region analysis

The table 4.15 is a region-by-region analysis of the strength of SR in Sub-Saharan Africa.

Table 4.15 Sustainability Reporting of Listed Banks in Sub-Saharan Africa (comparing regions)

Region	Country	Economic Index (EC %)	Environmental Index (ENV %)	Social Index (SO %)
West Africa	Ghana	74	29	46
	Nigeria	84	65	59
	Mean	79	47	53
	Median	79	47	53
South Africa	South Africa	85	68	61
	Bostwana	82	11	55
	Mean	84	40	58
	Median	84	40	58
East Africa	Kenya	83	68	58
	Malawi	79	13	48
	Tanzania	85	33	55
	Uganda	85	59	70
	Zambia	85	17	55
	Zimbabwe	67	33	53
	Mean	81	18	57
	Median	84	17	55

From Table 4.15, the West Africa region represented in the sample by Ghana and Nigeria, produced averages of 79, 47 and 53 (in percentage) in the disclosures of economic, environmental and social indicators respectively. This has followed a pattern in the results where there seems to be a lot of focus on economic reporting than other required disclosures. The social indicator is also not recording stronger scores in terms of reporting. The least reported indicator has been the environmental indicator.

The trend of reporting continues through the Southern African countries used in the study. The environmental indicator is the least disclosed. This pattern can be attributed the fact that the banks are indirectly involved in the environmentally oriented issues, thus, the banks on their own do not affect the environment, but some of their clients who operate accounts and balances with them may be involved. The social indicator is also fairly reported in East Africa while the most reported indicator is the economic indicator with 84%.

In analyzing the East Africa region, which contains 60% of the countries (6), used in the study, the trend does not change despite the changes in the number of countries. The mean score of the economic score is 84%, while the environmental indicator score was 17% representing poor reporting in the dimension. The social indicator is fairly reported at 55%, although not very satisfactory. The above analysis points to general low level of adherence to environmental indicators, with social indicators fairly adhered to. The most adhered in terms of the framework is the economic indicator. Listed banks in SSA have to recognize that the three indicators are all useful benchmarks of assessment and carve ways to blend their reporting of sustainability in future.

4.7 Empirical Results

Khan (2019), utilizing the content analysis method for data gathering, investigated the effects of corporate sustainability practices on the financial performance of enterprises in Pakistan's banking industry. The study revealed that increased sustainable financial reporting is associated with improved financial performance of Pakistani banks and that sustainable financial reporting has a beneficial impact on firm financial performance. Using a content analysis technique, Evangelinos and Skouloudis (2014) conducted a study to evaluate the degree of non-financial disclosure in Greece. The study's conclusions revealed that unsystematic patterns and diversity in non-financial disclosure are particularly noticeable in Greek enterprises and barely satisfy the regulatory framework's very minimal standards. In terms of non-financial reporting, Skouloudis et al. (2014) looked at Greek businesses in terms of their environmental and social responsibility. The findings indicated that while the majority of Greek corporations do not adhere to the country's regulatory framework for disclosure, a small number of Greek businesses do so and hold them accountable for their actions.

4.7.1 GRI Sustainability reporting Framework and Banks Performance (Tobin's Q)

This section presents the empirical results on the effect of sustainability reporting framework on Tobin's Q. The study controls for cost to income ratio, GDP, leverage and bank size. The results as showed in Table 16 shows an R-squared of (0.642) suggesting that about 64.2% variations in Tobin's Q can be explained jointly by the independent variables. The R-squared is more than 50% indicating that the model is nicely fitted. F-statistics is (37.15), and a corresponding p-value of (0.000) suggests that the independent variables can jointly influence the dependent variable which is GDP growth.

Environmental disclosure has a negative and significant (at 5%) effect on Tobin's Q. A unit increase in environmental disclosure decreases Tobin's Q by 4.922. Economic disclosure has a negative and significant (at 5%) effect on Tobin's Q. A unit increase in economic disclosure decreases Tobin's Q by 5.081. Further, social disclosure has a negative and significant (at 5) effect on Tobin's Q. The index of the three disclosures (economic, environmental and social) has a significant positive effect on Tobin's Q. A unit increase in the index increases Tobin's Q by 14.964.

Cost to income ratio has a significant (at 1%) and positive relationship with Tobin's Q. A percentage increase in cost to income ratio increases Tobin's Q by 8%. Further, the results show that leverage has a positive and significant (at 1%) effect on Tobin's Q. Unit increase in leverage increases Tobin's Q by 65%. Bank size has a negative and significant (at 1%) effect on Tobin's Q, while GDP has a negative but insignificant effect on Tobin's Q.

Table 4.16: Effect of GRI Sustainability reporting Framework and Banks Performance (TOBIN'S Q)

Variable	Coeff.	Std. Error	T-stats.	P-Value
Environmental	-4.922**	2.071	-2.38	.019
Economic	-5.081**	2.049	-2.48	.014
Social	-5.084**	2.072	-2.45	.015
EES	14.964**	6.186	2.42	.017
Cost-to-Income Ratio	.083***	.046	15.79	.000
Leverage	.658***	.041	15.79	.000
Bank Size	-.079***	.010	-7.46	.000

GDP	-503	.410	-1.23	.222
C	.991***	.157	6.31	.0000
Adj. R²	.642			
F. Stats	37.15			
Prob.	.000			

*Notes: *, **, *** denotes 10%, 5% and 1% significance level respectively.*

Source: Author's computation with banks annual reports and GRI.

4.7.2 GRI Sustainability reporting Framework and Banks Performance (ROE)

This section presents the empirical results on the effect of sustainability reporting framework on ROE. The results show that cost to income ratio has a negative and significant (at 5%) effect on ROE. A unit increase in cost to income ratio decreases ROE by 2.5%.

Table 4.17: Effect of GRI Sustainability reporting Framework and Banks Financial Performance (ROE)

Variable	Coeff.	Std. Error	T-stats.	P-Value
Environmental	-.835	1.403	-.60	.553
Economic	-.789	1.388	-.57	.570
Social	-.794	1.403	-.56	.572
EES	2.363	4.190	.56	.574
Leverage	-.025	.028	-.89	.376
Cost-to-Income Ratio	-.060*	.031	-1.95	.053

Bank Size	.007	.007	.97	.333
GDP	-.040	.278	-.14	.885
C	.215**	.106	2.02	.045
Adj. R²	.065			
F. Stats	1.33			
Prob.	.232			

*Notes: *, **, *** denotes 10%, 5% and 1% significance level respectively.*

Source: Author's computation with banks annual reports and GRI.

4.8 Discussion of Results

4.8.1 Level of Adherence to SR based on GRI 2016 Framework (Country by Country Analysis)

For regulators and banks in the SSA area and other emerging markets, the study's findings and the global trends in sustainability reporting have important regulatory and business consequences. The quality of the banking and financial markets, the growth of the capital markets, and the countries' interaction with global markets vary widely. In the study, there were not the same number of banks in each country. South Africa, Tanzania, Uganda, and Zambia are the four nations with a mean score of 85% in the economic parameters. Following Nigeria in order of economic dimension scores were Kenya, Botswana, Malawi, Ghana, and Zimbabwe. The average score across all economic parameters for the selected nations was 81%. This indicates Sub-Saharan Africa's high level of economic reporting. The least reported dimension is undoubtedly the environmental one. The average score of 40% across the 10 countries demonstrates this. This illustrates the significant environmental reporting gap that exists among listed banks in the SSA region.

Bostwana scored the lowest in the environmental category (11%), and Malawi and Zambia also performed poorly (13% and 17%, respectively), underscoring the need for regulators and directors to take additional action to stop the problem. With scores of 68% apiece, South Africa and Kenya are at the top of the list for fair reporting on environmental factors. When the pool is averaged, the social aspect does not have significant numbers. Although some nations, like Uganda (70%), South Africa (61%) and Nigeria (59%) are leading the pack at the individual level, the results could have been different if all the nations had the same number of banks included in the study. The results only post fair reporting of the dimension with just 55%.

The above results indicates the variance in regulatory systems relating to the operation of banks. This implies that in some countries within Sub-Saharan Africa, GRI standards are considered very important than others within the banking sector. It is important that regulatory regimes concerning this standard are tightened to measure the make the impact that is being sought. This will also go a long way to harmonize operations within the sector and make it strong for future growth.

4.8.2 Effect of GRI Sustainability reporting Framework and Banks Performance

The results show that social, economic and environmental disclosures, individually, has a negative effect on banks performance measured with Tobin's Q. However, the index of the three disclosures has a positive effect on performance. The negative results of economic disclosure is consistent with prior studies (Kwambo, 2011; Murray et al, 2006, Tang and Chan, 2010). This results means that investors in bank's activities are not only interested in the economic outlays only, but consider other social performance of the bank to assess its viability. Therefore, banks are expected to be intentional about their social practices to enhance stakeholder confidence and increase investment.

Environmental and Social disclosure having a negative performance relationship with banks performance has been observed in other studies. Hussain (2015) examined the connection between sustainability metrics and financial performance in his empirical work, "Impact of Sustainability Performance on Financial Performance": An Empirical Study of Global Fortune (100) Firms performances between 2007 and 2011. According to the findings from fixed effect regression models, the influence of sustainability's social and environmental facets is still important and significant across many financial performance metrics. In a 2015 study, Nosakhare et al, used a cross-sectional research methodology to examine how environmental accounting affected corporate profitability in Nigeria. The results of when firm-specific characteristics are regulated by regression analysis, show both positive and negative significant associations with profitability. The current study results implies that banks are mostly overlooked when it comes to their involvement in environmental discussions. This can be attributed to the fact that, their activities do not necessarily impact the environment directly as compared to other sectors like the mining and industrialized sectors.

However, the index of the three disclosures, however, would increase bank performance as found by the study results. Other empirical investigations (Kansal et al., 2014; Ruhnke and Gabriel, 2013; Liu and Anbumozhi, 2009) support this positive relationship. Dissanayake et al. (2016) and Reverte (2009) do not discover any correlation between banks performance and SR. The disclosure of non-financial information (EES) demonstrates that such information has a considerable positive influence on a bank's market value. These results demonstrate how investors all other performance criteria when valuing a company. Banks and investors should be willing to pay for a commitment to improving their performance outcomes without anticipating, at the very least, a short-term advantage. Individual banks should carefully assess how much information about their environmental,

social and economic efforts should be made public in order to meet the assessment of stakeholders.

KNUST



CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter has five sections which details the summary of findings, conclusion and recommendations related to the study.

5.2 Summary of Findings

The evaluation of sustainability reports provides for a comparison of different companies' reporting procedures in relation to the context of sustainable development in its operations. This also aids corporations in promoting their brand image, while simultaneously providing important information on reporting methods and highlighting advances in the field of corporate responsibility. From the empirical research, it is obvious that listed banks in the Sub-Saharan Region can do more to improve their non-financial performance disclosures, especially the environmental and social disclosures where they fall short. Perhaps, there is much emphasis on economic disclosures since management is willing to portray their profit generating prowess to their shareholders and investors.

The first objective of the study is to find the level of adherence to GRI 2016 Framework by listed banks in SSA. This objective has been achieved by careful analysis of the countries' level of adherence and also country by country analysis. It is certain that the most reported or adhered dimension in the framework is the economic dimension. Almost all the banks got higher scores in the dimension. On the whole, there seems to be neglect for the environmental dimension. The overall country average of 40% in the SSA region by listed banks in the environmental dimension gives an idea of the tough task regulatory bodies' face to enforce the framework. The social dimension of the framework is fairly reported, posting countries'

overall average of 55%. Some countries (Uganda, South Africa and Nigeria) performed better on their own accord, but as a group, the reporting in the dimension is not ideal.

Economic, Social and Environmental disclosures on individual levels or standalone dimensions respectively have a negative relationship with performance of the listed banks. But their index (EES) have a positive relationship with performance. The implication is that, because of their beneficial impact, they should be accorded optimal consideration in the firms' disclosure requirements. EES indexes. These data suggest that social performance is factored into corporate valuation by investors. Banks, on the other hand, must not expect to profit from improved social performance. According to (Buallay et al, 2020), investors and banking firms should be prepared to spend on their commitment to enhancing their outcomes on social performance. Individual banks should consider the level of public disclosure about their Environmental, Economic and Social activities before doing so in order to meet the requirement of all stakeholders. Deciding to focus on a particular dimension above others will not bode well for the fortunes of the listed banks. An optimally balanced approach to these critical disclosures is seen as beneficial to the progress of the organization as found by the study.

5.3 Conclusion

This study sought to determine whether there was a correlation between listed banks' financial performance and sustainability reporting by examining the degree of sustainability reporting in Sub-Saharan Africa using the GRI 2016 framework. The method employed in this study was ex post facto study. The research population consists of all banks that are listed on the stock markets in the countries of Sub-Saharan Africa. To gather the data, the study employs annual country's data from the fifty-four (54) listed banks in ten (10) Sub-Saharan Africa countries from 2018-2020. Two conditions were the main focus of our

inclusion and exclusion criteria: a bank had to be listed and it had to have published annual reports for the years 2018 through 2020. The study applied the Ordinary Least Square Regression Method effect for the estimation. Following Buallay, (2020), the study applies country-specific factors and bank characteristics as control variables. The first covers cost-to-income ratio, leverage and bank size as determined by the natural logarithm of the bank's market capitalization. The GDP growth rate each year was used to assess the macroeconomic environment of the countries with the period. The study employed the Ordinary Least Square Regression Method for the estimation of the module.

The study finds that environmental disclosure decreases banks performance. The banks not directly involved in the environmental degrading activities is likely to score less points in the indicators and this could be the reason for this outcome. Similarly, the study finds that social disclosure decreases banks performance, and environmental disclosure also decreases banks performance. However, the study finds that an index of the three disclosures (i.e., environmental, social and economic) improves banks performance. Cost to income ratio and leverage has a positive effect on banks performance, while bank size has a negative effect on banks performance. The study concludes that the combination of the three disclosures would increase the performance of banks.

5.4 Recommendations

The study finds that the level of adherence to SR using the GRI framework is generally moderate. The study finds a bias towards reporting of economic dimensions since listed banks are aware that posting economic returns trigger more investments into their operations since they are seen as profitable in the sight of investors. Environmental disclosures are least documented and some level of social disclosures are adhered to. Given the results for the level of adherence the study recommends that, regulatory bodies in the banking sector

integrate SR in its compliance modules. It is suggested that banks should create a common reporting methodology for SR. The framework will act as a guide and checklist for the content of information that banks can publish. By adopting the framework, banks will be able to produce comprehensive SR which complies with international norms.

The study finds that the index of the environmental, economic and social disclosures would increase banks performance. Based on this findings, the study recommends that, banks should endeavor to be conscious of the environment by adopting measures that promote long-term sustainability. They should engage their clients to ensure that they are willing to chart through sustainable territory in their operations.

Finally, to have an informed community of stakeholder, our universities and other educational institutions should inculcate the sustainability concept in their curriculum. This will help the populace to appreciate SR and demand its accountability through local governments, NGO's and other stakeholder engagements.

5.5 Limitations and Suggestions for Further Studies

Since the current study only looks at the years between 2018 and 2020, it would be interesting to learn more about the phenomena if the study covered a much wider time frame. Studies that span many years may be done in the future.

Furthermore, not all of the study's participating nations had an equal number of banks, so future research might focus on a balanced number of banks.

REFERENCES

- Adusei, M. and Sarpong-Danquah, B., 2021. Institutional quality and the capital structure of microfinance institutions: The moderating role of board gender diversity. *Journal of Institutional Economics*, 17(4), pp.641-661.
- Ibrahim, Y.K., Mohammed, A.N., Agbi, S.E., Kaoje, N.A. and Abdulkarim, U.F., 2021. Sustainability reporting and financial performance of listed oil and gas firms in Nigeria. *Gusau Journal of Accounting and Finance*, 2(3), pp.17-17.
- Bilbao-Terol, A., Arenas-Parra, M., Alvarez-Otero, S. and Cañal-Fernández, V., 2019. Integrating corporate social responsibility and financial performance. *Management Decision*, 57(2), pp.324-348.
- Amidjaya, P.G. and Widagdo, A.K., 2020. Sustainability reporting in Indonesian listed banks: Do corporate governance, ownership structure and digital banking matter?. *Journal of Applied Accounting Research*, 21(2), pp.231-247.
- Zorio-Grima, A., Sierra-García, L. and Garcia-Benau, M.A., 2018. Sustainability reporting experience by universities: a causal configuration approach. *International Journal of Sustainability in Higher Education*, 19(2), pp.337-352.
- Attah-Botchwey, E., Soku, M.G. and Awadzie, D.M., 2022. Sustainability reporting and the financial performance of banks in Africa. *Journal of Business Economics and Finance*, 11(1), pp.43-57.
- Aydoğmuş, M., Gülay, G. And Ergun, K., 2022. Impact of ESG performance on firm value and profitability. *Borsa Istanbul Review*.
- Marx, B. and van Dyk, V., 2011. Sustainability reporting and assurance: An analysis of assurance practices in South Africa. *Meditari Accountancy Research*, 19(1/2), pp.39-55.

- Buallay, A., 2020. Sustainability reporting and firm's performance: Comparative study between manufacturing and banking sectors. *International Journal of Productivity and Performance Management*, 69(3), pp.431-445.
- Buallay, A., Fadel, S.M., Al-Ajmi, J.Y. and Saudagaran, S., 2020. Sustainability reporting and performance of MENA banks: is there a trade-off?. *Measuring Business Excellence*, 24(2), pp.197-221.
- Kuzey, C. and Uyar, A., 2017. Determinants of sustainability reporting and its impact on firm value: Evidence from the emerging market of Turkey. *Journal of cleaner production*, 143, pp.27-39.
- Chen, L., Feldmann, A. and Tang, O., 2015. The relationship between disclosures of corporate social performance and financial performance: Evidences from GRI reports in manufacturing industry. *International Journal of Production Economics*, 170, pp.445-456.
- Arthur, C.L., Wu, J., Yago, M. and Zhang, J., 2017. Investigating performance indicators disclosure in sustainability reports of large mining companies in Ghana. *Corporate Governance: The International Journal of Business in Society*, 17(4), pp.643-660.
- Dissanayake, D., Tilt, C. and Qian, W., 2019. Factors influencing sustainability reporting by Sri Lankan companies. *Pacific Accounting Review*, 31(1), pp.84-109.
- Welbeck, E.E., 2017. The influence of institutional environment on corporate responsibility disclosures in Ghana. *Meditari Accountancy Research*, 25(2), pp.216-240.
- El Khoury, R., Nasrallah, N. and Alareeni, B., 2023. ESG and financial performance of banks in the MENAT region: concavity–convexity patterns. *Journal of Sustainable Finance & Investment*, 13(1), pp.406-430.

- Gambetta, N., García-Benau, M.A. and Zorio-Grima, A., 2017. Corporate social responsibility and bank risk profile: evidence from Europe. *Service Business*, 11, pp.517-542.
- Balabanis, G., Phillips, H.C. and Lyall, J., 1998. Corporate social responsibility and economic performance in the top British companies: are they linked?. *European business review*, 98(1), pp.25-44.
- Godha, A. and Jain, P., 2015. Sustainability reporting trend in Indian companies as per GRI framework: a comparative study. *South Asian Journal of Business and Management Cases*, 4(1), pp.62-73.
- Iredele, O.O., 2020. Measuring performance in corporate environmental reporting in Nigeria. *Measuring Business Excellence*, 24(2), pp.183-195.
- Isiaka, A.S., 2022. Voluntary Sustainability Reporting and Financial Performance: Evidence from Global Reporting Initiative (GRI) Disclosures in Africa. Available at SSRN 4175704.
- Jain, A., Islam, M.A., Keneley, M. and Kansal, M., 2022. Social contagion and the institutionalisation of GRI-based sustainability reporting practices. *Meditari Accountancy Research*, 30(5), pp.1291-1308.
- Kosiba, J.P., Boateng, H., Okoe, A.F. and Hinson, R., 2020. Trust and customer engagement in the banking sector in Ghana. *The Service industries journal*, 40(13-14), pp.960-973.
- Oeyono, J., Samy, M. and Bampton, R., 2011. An examination of corporate social responsibility and financial performance: A study of the top 50 Indonesian listed corporations. *Journal of Global Responsibility*, 2(1), pp.100-112.
- Belkhir, L., Bernard, S. and Abdelgadir, S., 2017. Does GRI reporting impact environmental sustainability? A cross-industry analysis of CO2 emissions performance between

- GRI-reporting and non-reporting companies. *Management of Environmental Quality: An International Journal*, 28(2), pp.138-155.
- Khan, H.U.Z., Azizul Islam, M., Kayeser Fatima, J. and Ahmed, K., 2011. Corporate sustainability reporting of major commercial banks in line with GRI: Bangladesh evidence. *Social responsibility journal*, 7(3), pp.347-362.
- Dibia, N.O. and Nwaigwe, N.G., 2017. Corporate sustainability reporting and firm profitability: A survey of selected quoted companies in Nigeria. *Journal of finance, banking and investment*, 4(2), pp.136-147.
- Olafusi, T.A., Olorunwa, R.A., Festus, A.F. And Ajibade, A.T., 2022. Sustainability Reporting And Financial Performance Of Deposit Money Banks Listed On Nigerian Stock Exchange. *Academy Of Accounting And Financial Studies Journal*, 26(4), Pp.1-17.
- Pham, D.C., Do, T.N.A., Doan, T.N., Nguyen, T.X.H. and Pham, T.K.Y., 2021. The impact of sustainability practices on financial performance: empirical evidence from Sweden. *Cogent Business & Management*, 8(1), p.1912526.
- Aggarwal, P. and Singh, A.K., 2019. CSR and sustainability reporting practices in India: An in-depth content analysis of top-listed companies. *Social Responsibility Journal*, 15(8), pp.1033-1053.
- Romero, S., Ruiz, S. and Fernandez-Feijoo, B., 2019. Sustainability reporting and stakeholder engagement in Spain: Different instruments, different quality. *Business strategy and the Environment*, 28(1), pp.221-232.
- Reverte, C., 2009. Determinants of corporate social responsibility disclosure ratings by Spanish listed firms. *Journal of business ethics*, 88, pp.351-366.

- Hahn, R. and Kühnen, M., 2013. Determinants of sustainability reporting: A review of results, trends, theory, and opportunities in an expanding field of research. *Journal of cleaner production*, 59, pp.5-21.
- Ruhnke, K. and Gabriel, A., 2013. Determinants of voluntary assurance on sustainability reports: an empirical analysis. *Journal of Business Economics*, 83(9), pp.1063-1091.
- Al-Malkawi, H.A.N. and Javaid, S., 2018. Corporate social responsibility and financial performance in Saudi Arabia: Evidence from Zakat contribution. *Managerial Finance*, 44(6), pp.648-664.
- Agyei, S.K. and Yankey, B., 2019. Environmental reporting practices and performance of timber firms in Ghana: Perceptions of practitioners. *Journal of Accounting in Emerging Economies*, 9(2), pp.268-286.
- Sarpong-Danquah, B., Gyimah, P., Afriyie, R.O. and Asiamah, A., 2018. Corporate governance and firm performance: An empirical analysis of manufacturing listed firms in Ghana. *Accounting and Finance Research*, 7(3), pp.111-118.
- Sarpong-Danquah, B., Oko-Bensa-Agyekum, K. and Opoku, E., 2022. Corporate governance and the performance of manufacturing firms in Ghana: Does ownership structure matter?. *Cogent Business & Management*, 9(1), p.2101323.
- Sharma, G. and Gupta, S., 2020. Modelling the impact of corporate sustainability on economic performance with reference to Indian financial industry. *World Review of Entrepreneurship, Management and Sustainable Development*, 16(3), pp.317-328.
- Siueia, T.T., Wang, J. and Deladem, T.G., 2019. Corporate Social Responsibility and financial performance: A comparative study in the Sub-Saharan Africa banking sector. *Journal of Cleaner Production*, 226, pp.658-668.

- Yadava, R.N. and Sinha, B., 2016. Scoring sustainability reports using GRI 2011 guidelines for assessing environmental, economic, and social dimensions of leading public and private Indian companies. *Journal of Business Ethics*, 138, pp.549-558.
- Yang, Y., Orzes, G., Jia, F. and Chen, L., 2021. Does GRI sustainability reporting pay off? An empirical investigation of publicly listed firms in China. *Business & Society*, 60(7), pp.1738-1772.
- YuSheng, K. and Ibrahim, M., 2019. Service innovation, service delivery and customer satisfaction and loyalty in the banking sector of Ghana. *International journal of bank marketing*, 37(5), pp.1215-1233.



APPENDIX 1

ABBREVIATIONS

SR – Sustainability Reporting

CSR – Corporate Sustainability Reporting

GRI – Global Reporting Initiative

SRI – Sustainability Reporting Index

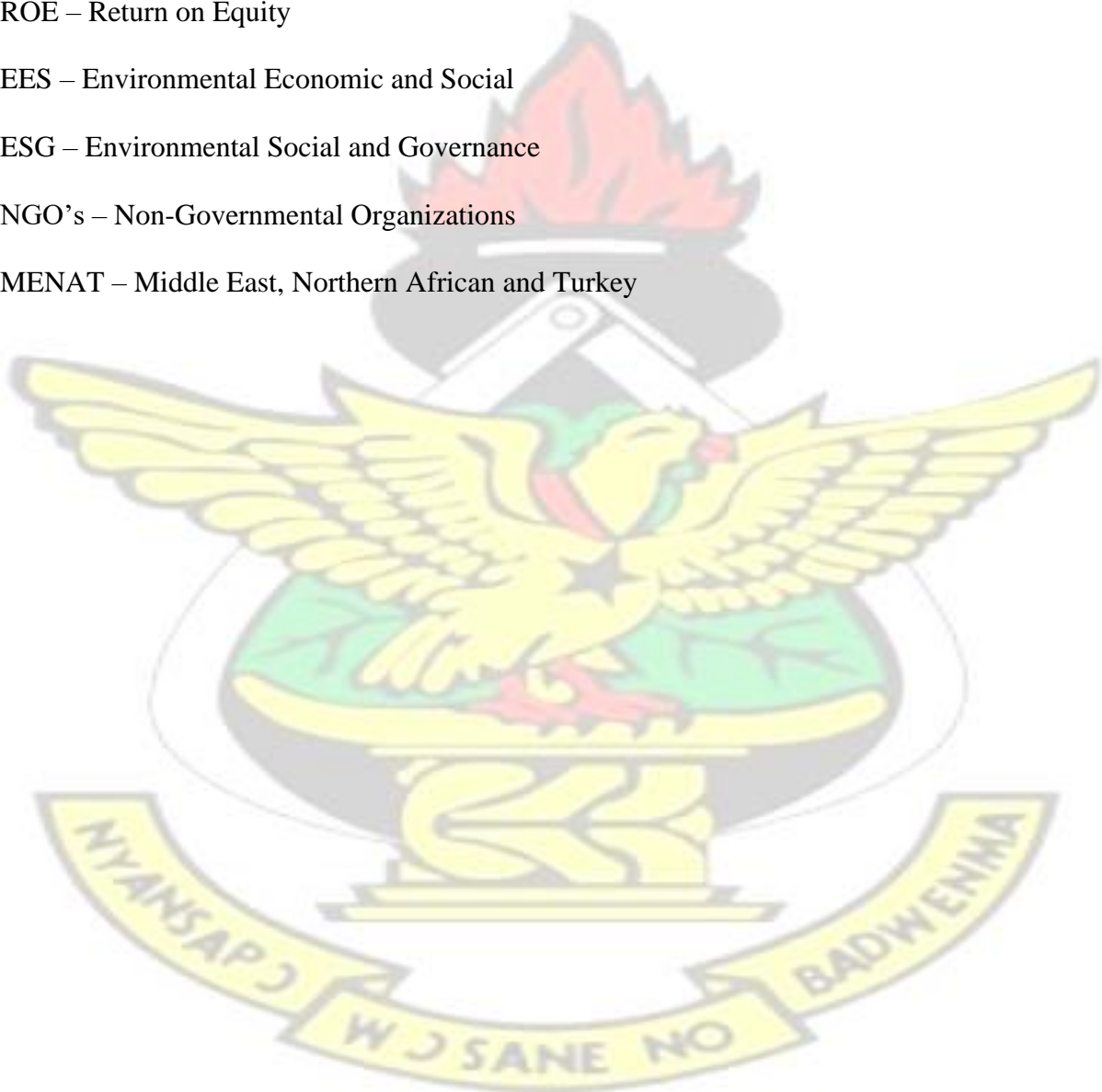
ROE – Return on Equity

EES – Environmental Economic and Social

ESG – Environmental Social and Governance

NGO's – Non-Governmental Organizations

MENAT – Middle East, Northern African and Turkey



KNUST

APPENDIX 2

Data Collection

Country ID	Bank	bank_id	Year	Economic	Environmental	Social	EES	ROE	Tobins Q	Cost-to-Income Ratio	Leverage	Total Assets	GDP
1	ABC	1	2018	0.77	0.11	0.52	0.47	0.126	0.906277	0.734	0.906173445	9127384	0.017
1	ABC	1	2019	0.77	0.11	0.52	0.47	0.12	0.896678	0.743	0.896574136	9114519	0.011
1	ABC	1	2020	0.77	0.11	0.52	0.47	0.1	0.885414	0.769	0.885300063	8841269	-0.106
1	ABSA	2	2018	0.85	0.11	0.59	0.52	0.23	0.884027	0.55	0.883911848	17021358	0.017
1	ABSA	2	2019	0.85	0.11	0.59	0.52	0.236	0.883484	0.57	0.883367625	18818900	0.011
1	ABSA	2	2020	0.85	0.11	0.59	0.52	0.12	0.888988	0.6	0.888876441	20709299	-0.106
1	Stanchart	3	2018	0.85	0.11	0.55	0.5	0.0485	0.930348	0.97	0.930278075	16505511	0.017
1	Stanchart	3	2019	0.85	0.11	0.55	0.5	0.05	0.92758	0.86	0.927512439	15687395	0.011
1	Stanchart	3	2020	0.85	0.11	0.55	0.5	0.047	0.926795	0.87	0.926716435	14062198	-0.106
2	Access	4	2018	0.62	0.11	0.38	0.37	0.35	0.821768	0.803	0.821589798	3540941	0.039
2	Access	4	201	0.62	0.11	0.38	0.3	0.27	0.82957	0.43	0.82940332	4711698	0.042

			9				7		4		8		
2	Access	4	2020	0.62	0.11	0.38	0.37	0.31	0.819521	0.373	0.819340813	5823778	-0.016
2	ADB	5	2018	0.69	0.11	0.38	0.39	0.026	0.822352	0.912	0.822173823	3597395	0.039
2	ADB	5	2019	0.69	0.11	0.38	0.39	0.0187	0.826857	0.92	0.826683464	4577659	0.042
2	ADB	5	2020	0.69	0.11	0.38	0.39	0.0769	0.851329	0.78	0.851180256	5715794	-0.016
2	CAL	6	2018	0.69	0.76	0.67	0.71	0.197	0.858679	0.442	0.85856597	5405856	0.039
2	CAL	6	2019	0.69	0.67	0.38	0.58	0.178	0.863588	0.448	0.863508945	7039780	0.042
2	CAL	6	2020	0.69	0.67	0.38	0.58	0.189	0.859364	0.461	0.859309678	7903415	-0.016
2	Ecobank	7	2018	0.85	0.67	0.59	0.70	0.28	0.874493	0.615	0.874367493	10457596	0.039
2	Ecobank	7	2019	0.85	0.67	0.59	0.70	0.25	0.866329	0.458	0.866195408	13197574	0.042
2	Ecobank	7	2020	0.85	0.67	0.62	0.71	0.26	0.84757	0.479	0.847416961	15882414	-0.016
2	GCB	8	2018	0.69	0.11	0.38	0.39	0.25	0.875385	0.605	0.875372765	10635051	0.039
2	GCB	8	2019	0.69	0.11	0.38	0.39	0.27	0.866963	0.591	0.866949468	12416741	0.042
2	GCB	8	2020	0.69	0.11	0.38	0.39	0.22	0.866288	0.638	0.866274845	15324656	-0.016
2	Republic	9	2018	0.85	0.22	0.52	0.53	0.061	0.826027	0.6765	0.825853363	2857988	0.039
2	Republic	9	2019	0.85	0.22	0.52	0.53	0.146	0.832827	0.701	0.832661003	3326242	0.042
2	Republic	9	2020	0.85	0.22	0.52	0.53	0.093	0.83342	0.764	0.83325936	3647785	-0.016

			0				3		5		2		
2	Societe	10	2018	0.85	0.22	0.52	0.53	0.088	0.795479	0.85	0.795478866	3431356392	0.039
2	Societe	10	2019	0.85	0.22	0.52	0.53	0.16	0.819537	0.65	0.819536945	4443909209	0.042
2	Societe	10	2020	0.85	0.22	0.52	0.53	0.16	0.819051	0.59	0.819050332	5115206352	-0.016
2	Stanchart	11	2018	0.77	0.22	0.52	0.50	0.21	0.824411	0.4	0.824235532	5961495	0.039
2	Stanchart	11	2019	0.77	0.22	0.52	0.50	0.255	0.846994	0.39	0.846841069	7618622	0.042
2	Stanchart	11	2020	0.77	0.22	0.55	0.51	0.326	0.817555	0.3	0.817372568	8031674	-0.016
2	TBL	12	2018	0.69	0.22	0.38	0.43	0.18	0.895743	0.803	0.895638375	6623105	0.039
2	TBL	12	2019	0.69	0.22	0.38	0.43	0.17	0.895747	0.77	0.895643017	7397550	0.042
2	TBL	12	2020	0.69	0.22	0.38	0.43	0.19	0.910119	0.247	0.910029494	8762416	-0.016
3	BK Group	13	2018	0.69	0.6	0.59	0.63	0.172	0.778089	0.481	0.778088924	877401364	0.032
3	BK Group	13	2019	0.69	0.6	0.59	0.63	0.18	0.783323	0.422	0.783322367	1019075587	0.028
3	BK Group	13	2020	0.77	0.77	0.59	0.71	0.16	0.801117	0.325	0.801117233	1304004486	-0.025
3	Co-operative	14	2018	0.85	0.67	0.55	0.69	0.183	0.833824	0.546	0.833807185	408303625	0.032
3	Co-operative	14	2019	0.85	0.67	0.55	0.69	0.189	0.829559	0.52	0.829533443	449616472	0.028
3	Co-operative	14	2020	0.85	0.67	0.55	0.69	0.127	0.828583	0.581	0.828565813	496822949	-0.025
3	Stanchart	15	201	0.85	0.77	0.59	0.7	0.19	1.00006	0.52	0.84075365	284691	0.032

			8				4		5		9		
3	Stanchart	15	201 9	0.85	0.77	0.59	0.7 4	0.19	0.99997 6	0.56	0.84379445 2	302294	0.028
3	Stanchart	15	202 0	0.85	0.79	0.62	0.7 5	0.11	0.99998 1	0.59	0.84590315 9	325873	-0.025
3	DTB	16	201 8	0.85	0.67	0.59	0.7 0	0.131	0.83068 4	0.44	0.83051447	281515703	0.032
3	DTB	16	201 9	0.85	0.67	0.59	0.7 0	0.053 8	0.81915 8	0.4658	0.81896859 8	287250595	0.028
3	DTB	16	202 0	0.85	0.67	0.62	0.7 1	0.120 6	0.82709 9	0.491	0.82692573 4	312189185	-0.025
3	Equity	17	201 8	0.85	0.55	0.55	0.6 5	0.287	0.99999 4	0.535	0.83439196 1	573384	0.032
3	Equity	17	201 9	0.85	0.55	0.55	0.6 5	0.22	0.99998 5	0.51	0.83408047 1	673682	0.028
3	Equity	17	202 0	0.85	0.55	0.59	0.6 6	0.153	0.99999 7	0.485	0.86342039 6	1015093	-0.025
3	I&M	18	201 8	0.85	0.55	0.52	0.6 4	0.17	0.12340 3	0.37	0.12252516 2	29130849	0.032
3	I&M	18	201 9	0.85	0.55	0.55	0.6 5	0.19	0.07163 3	0.4	0.07070247 5	27893974	0.028
3	I&M	18	202 0	0.85	0.55	0.59	0.6 6	0.12	0.06836 2	0.41	0.06742943	29150417	-0.025
3	KCB	19	201 8	0.85	0.77	0.59	0.7 4	0.22	0.99987 2	0.483	0.01022186 4	76894	0.032
3	KCB	19	201 9	0.85	0.77	0.59	0.7 4	0.2	0.99979 1	0.459	5.71762E-05	87449	0.028
3	KCB	19	202 0	0.85	0.77	0.63	0.7 5	0.144	0.99986 4	0.454	0.04424562 1	81703	-0.025
3	Stanbic	20	201 8	0.85	0.77	0.59	0.7 4	0.143	0.87700 4	0.502	0.87688077 9	280953012	0.032
3	Stanbic	20	201	0.85	0.77	0.59	0.7	0.136	0.99999	0.562	0.86697343	292731	0.028

			9				4		3		3		
3	Stanbic	20	2020	0.85	0.77	0.62	0.75	0.13	0.99994	0.512	0.868782565	318982	-0.025
4	FDH	21	2018	0.77	0.11	0.52	0.47	0.35	0.104075	0.65	0.103985649	152768908	0.017
4	FDH	21	2019	0.77	0.11	0.48	0.45	0.54	0.911726	0.667	0.911637954	180419023	0.027
4	FDH	21	2020	0.77	0.11	0.55	0.48	0.59	0.883479	0.5311	0.882302655	235218415	-0.018
4	FMCBH	22	2018	0.77	0.11	0.48	0.45	0.158	0.133284	0.728	0.133282953	137353087	0.017
4	FMCBH	22	2019	0.77	0.11	0.48	0.45	0.103	0.213235	0.902	0.213233835	146730263	0.027
4	FMCBH	22	2020	0.77	0.11	0.52	0.47	0.076	0.204685	0.626	0.204684569	150558775	-0.018
4	Standard	23	2018	0.85	0.11	0.55	0.50	0.14	0.999999	0.63	0.789411301	357721	0.017
4	Standard	23	2019	0.85	0.11	0.55	0.50	0.18	0.999997	0.58	0.774635999	375264	0.027
4	Standard	23	2020	0.85	0.11	0.55	0.50	0.22	0.999806	0.57	0.786580229	479576	-0.018
4	NBS	24	2018	0.69	0.11	0.31	0.37	0.12	0.906099	0.93	0.906005331	123008816	0.017
4	NBS	24	2019	0.69	0.11	0.31	0.37	0.34	0.908328	0.79	0.908235781	159224261	0.027
4	NBS	24	2020	0.69	0.11	0.34	0.38	0.37	0.912137	0.68	0.91204897	218255553	-0.018
4	NBM	25	2018	0.86	0.22	0.52	0.53	0.216	0.999998	0.603	0.779219118	390917	0.017
4	NBM	25	2019	0.85	0.22	0.52	0.53	0.18	0.999995	0.576	0.774119477	435934	0.027
4	NBM	25	2020	0.85	0.22	0.55	0.55	0.17	0.999999	0.55	0.783519075	533368	-0.018

			0				4		5		1		
5	Access	26	2018	0.85	0.77	0.62	0.75	0.123	0.888915	0.658	0.88891456	3968114609	-0.0007
5	Access	26	2019	0.85	0.77	0.62	0.75	0.143	0.91447	0.601	0.914469997	6307588216	0.0004
5	Access	26	2020	0.85	0.77	0.62	0.75	0.211	0.914243	0.602	0.914242963	7624979718	-0.043
5	FBN	27	2018	0.85	0.67	0.59	0.70	0.099	1.000229	0.637	0.030097217	270324	0.0007
5	FBN	27	2019	0.85	0.67	0.59	0.70	0.124	0.999663	0.697	0.033793668	276176	0.0004
5	FBN	27	2020	0.85	0.67	0.62	0.71	0.126	0.999617	0.686	0.045764961	300623	-0.043
5	Fidelity	28	2018	0.85	0.67	0.59	0.70	0.1065	0.999991	0.711	0.886959752	1719883	0.0007
5	Fidelity	28	2019	0.85	0.67	0.59	0.70	0.1654	1.000024	0.734	0.889297113	2114037	0.0004
5	Fidelity	28	2020	0.85	0.67	0.62	0.71	0.1824	1.000024	0.651	0.900827294	2758148	-0.043
5	Ecobank	29	2018	0.85	0.67	0.59	0.70	0.38	1.01327	0.77	0.873529126	1956830	0.0007
5	Ecobank	29	2019	0.85	0.67	0.59	0.70	0.375	1.000015	0.87	0.867270371	1991040	0.0004
5	Ecobank	29	2020	0.85	0.67	0.62	0.71	0.278	0.999968	0.89	0.863392619	2186712	-0.043
5	FCMB	30	2018	0.85	0.77	0.59	0.74	0.1234	0.013684	0.623	0.012696414	132792066	0.0007
5	FCMB	30	2019	0.85	0.77	0.59	0.74	0.097	0.016507	0.694	0.015522771	134019820	0.0004
5	FCMB	30	2020	0.85	0.77	0.62	0.75	0.0923	0.019483	0.654	0.018500627	134719755	-0.043
5	GT Bank	31	201	0.85	0.77	0.59	0.7	0.309	0.81130	0.371	0.81130388	2712521494	-

			8				4		4		8		0.0007
5	GT Bank	31	2019	0.85	0.77	0.59	0.74	0.19	0.804378	0.361	0.804378113	3097248495	-0.0004
5	GT Bank	31	2020	0.85	0.77	0.66	0.76	0.261	0.827061	0.382	0.827060942	4061543605	-0.043
5	JAIZ	32	2018	0.85	0.67	0.55	0.69	0.0685	0.879256	0.872	0.518801095	108462458	0.0007
5	JAIZ	32	2019	0.85	0.67	0.55	0.69	0.1357	0.90712	0.8021	0.562742556	167273406	0.0004
5	JAIZ	32	2020	0.85	0.67	0.59	0.70	0.1718	0.923683	0.7604	0.49152643	233596177	-0.043
5	Stanbic IBTC	33	2018	0.85	0.67	0.59	0.70	0.31	0.999863	0.529	0.053190307	107952	0.0007
5	Stanbic IBTC	33	2019	0.85	0.67	0.59	0.70	0.248	0.999894	0.504	0.035472787	126886	0.0004
5	Stanbic IBTC	33	2020	0.85	0.67	0.62	0.71	0.219	0.999712	0.498	0.061408692	147243	-0.043
5	Sterling	34	2018	0.85	0.67	0.59	0.70	0.095	1.000019	0.009	0.909576232	1085876	0.0007
5	Sterling	34	2019	0.85	0.67	0.59	0.70	0.098	0.999882	0.806	0.897617264	1165509	0.0004
5	Sterling	34	2020	0.85	0.67	0.62	0.71	0.088	0.99994	0.785	0.89437757	1281830	-0.043
5	UBA	35	2018	0.77	0.44	0.59	0.60	0.18	0.999973	0.61	0.898477573	3591305	0.0007
5	UBA	35	2019	0.77	0.67	0.59	0.60	0.162	1.000025	0.627	0.892053002	4136493	0.0004
5	UBA	35	2020	0.77	0.67	0.62	0.60	0.172	0.999992	0.613	0.908226704	5207833	-0.043
5	Union	36	2018	0.85	0.67	0.59	0.70	0.039	0.999953	0.79	0.848910781	1324297	0.0007
5	Union	36	201	0.85	0.67	0.59	0.70	0.037	0.99999	0.741	0.86493735	1711739	-

			9				0				3		0.0004
5	Union	36	2020	0.85	0.67	0.62	0.71	0.039	0.999966	0.94	0.880641328	2073758	-0.043
5	Unity	37	2018	0.77	0.22	0.52	0.50	0	2.031644	0.94	2.032676072	235976190	0.0007
5	Unity	37	2019	0.77	0.22	0.52	0.50	0.153	1.950616	0.843	1.951557476	293052070	0.0004
5	Unity	37	2020	0.77	0.22	0.55	0.51	0.092	1.559193	0.91	1.559752883	492020329	-0.043
5	Zenith	38	2018	0.85	0.67	0.59	0.70	0.238	0.999994	0.493	0.863779741	4955445	0.0007
5	Zenith	38	2019	0.85	0.67	0.59	0.70	0.238	0.999964	0.488	0.856672578	5435073	0.0004
5	Zenith	38	2020	0.85	0.67	0.62	0.71	0.224	0.999996	0.5	0.872949663	7124987	-0.043
6	ABSA	39	2018	0.85	0.77	0.62	0.75	0.168	0.912302	0.577	0.912214364	1285552	0.001
6	ABSA	39	2019	0.85	0.77	0.62	0.75	0.158	0.912709	0.58	0.912627806	1394494	-0.012
6	ABSA	39	2020	0.85	0.77	0.62	0.75	0.072	0.91655	0.56	0.916416115	1525964	-0.076
6	Capitec	40	2018	0.85	0.77	0.62	0.75	0.27	0.998729	0.36	0.784657877	84721	0.001
6	Capitec	40	2019	0.85	0.77	0.62	0.75	0.28	1.000676	0.39	0.784163779	100428	-0.012
6	Capitec	40	2020	0.85	0.77	0.62	0.75	0.28	0.998128	0.41	0.8099028	134568	-0.076
6	FirstRand	41	2018	0.85	0.33	0.55	0.58	0.23	0.999955	0.512	0.914638818	1532289	0.001
6	FirstRand	41	2019	0.85	0.33	0.55	0.58	0.228	1.000368	0.516	0.913368706	1669062	-0.012
6	FirstRand	41	2020	0.85	0.33	0.55	0.5	0.129	0.99971	0.529	0.92114356	1926539	-0.076

			0				8		3		4		
6	Nedbank	42	2018	0.85	0.77	0.62	0.75	0.166	0.92144	0.589	0.921361475	971623	0.001
6	Nedbank	42	2019	0.85	0.77	0.62	0.75	0.15	0.923462	0.565	0.923385598	1143349	-0.012
6	Nedbank	42	2020	0.85	0.77	0.62	0.75	0.062	0.927612	0.581	0.927539029	1228137	-0.076
6	Stanbank	43	2018	0.85	0.77	0.62	0.75	0.18	0.906503	0.57	0.906409705	2126962	0.001
6	Stanbank	43	2019	0.85	0.77	0.62	0.75	0.168	0.908035	0.564	0.907942955	2275589	-0.012
6	Stanbank	43	2020	0.85	0.77	0.62	0.75	0.089	0.915096	0.718	0.915011015	2532940	-0.076
7	CRDB	44	2018	0.85	0.77	0.62	0.75	0.088	1.00002	0.659	0.872722512	5919350	0.024
7	CRDB	44	2019	0.85	0.77	0.62	0.75	0.138	0.999962	0.644	0.867038022	6425288	0.027
7	CRDB	44	2020	0.85	0.77	0.62	0.75	0.168	1.000002	0.616	0.858054915	6941445	-0.01
7	Mandeleo	45	2018	0.85	0.11	0.48	0.48	0.057	0.793619	0.9057	0.793411969	66521274	0.024
7	Mandeleo	45	2019	0.85	0.11	0.48	0.48	0.031	0.820681	0.9155	0.820502131	76143851	0.027
7	Mandeleo	45	2020	0.85	0.11	0.48	0.48	0.32	0.829455	0.8989	0.829284095	86679381	-0.01
7	NMB	46	2018	0.85	0.11	0.55	0.5	0.11	0.99999	0.59	0.848080192	5680984	0.024
7	NMB	46	2019	0.85	0.11	0.55	0.5	0.15	0.999984	0.6	0.848989011	6417427	0.027
7	NMB	46	2020	0.85	0.11	0.55	0.5	0.18	1.000015	0.51	0.839743395	7058336	-0.01
8	Baroda	47	201	0.85	0.22	0.52	0.5	0.217	0.99989	0.3375	0.16309416	753767	0.024

			8				3	9	1		6		
8	Baroda	47	201 9	0.85	0.22	0.52	0.5 3	0.119	0.99976 4	0.571	0.16928421 3	816095	0.027
8	Baroda	47	202 0	0.85	0.22	0.55	0.5 4	0.19	0.99991 9	3.73	0.30495525 3	880621	-0.004
8	DFCU	48	201 8	0.85	0.77	0.78	0.8 0	0.12	0.8213	0.66	0.82112113 5	2915582	0.024
8	DFCU	48	201 9	0.85	0.77	0.78	0.8 0	0.14	0.10963 1	0.61	0.10873932 3	252880	0.027
8	DFCU	48	202 0	0.85	0.77	0.78	0.8 0	0.004	0.09753 5	0.63	0.09663155 8	249225	-0.004
8	Stanbic	49	201 8	0.85	0.8	0.8	0.8 2	0.235	0.82284 7	0.513	0.82266989	5393058960	0.024
8	Stanbic	49	201 9	0.85	0.8	0.8	0.8 2	0.25	0.01757 3	0.49	0.01659010 4	935033715	0.027
8	Stanbic	49	202 0	0.85	0.77	0.8	0.8 1	0.18	0.1192	0.51	0.11831803 1	1062160589	-0.004
9	Stanchart	50	201 8	0.85	0.22	0.55	0.5 4	0.02	0.93710 5	0.58	0.93704806 1	9746340	0.01
9	Stanchart	50	201 9	0.85	0.22	0.55	0.5 4	0.37	0.93294 2	0.67	0.93288197 3	11067444	-0.015
9	Stanchart	50	202 0	0.85	0.22	0.55	0.5 4	-0.06	0.94292 7	0.78	0.94287572 1	14186875	-0.056
9	Zanaco	51	201 8	0.85	0.11	0.55	0.5 0	-0.2	0.92871 5	0.8	0.92864412 7	9654342	0.01
9	Zanaco	51	201 9	0.85	0.11	0.55	0.5 0	0.15	0.92098 7	0.7924	0.92090772 6	11895966	-0.015
9	Zanaco	51	202 0	0.85	0.11	0.55	0.5 0	0.29	0.93739 9	0.836	0.93733683	19377363	-0.056
10	CBZ	52	201 8	0.77	0.11	0.41	0.4 3	0.231	0.87109 8	0.597	0.87109828 5	2449932760	0.034
10	CBZ	52	201	0.77	0.11	0.41	0.4	0.131	0.84195	0.4	0.84195264	79992791	-0.075

			9				3		3		5		
10	CBZ	52	2020	0.77	0.11	0.41	0.43	0.335	0.814279	0.382	0.814279183	94882126	-0.076
10	FBC	53	2018	0.38	0.67	0.62	0.56	0.25	0.839573	0.62	0.839572979	1113976719	0.034
10	FBC	53	2019	0.38	0.67	0.62	0.56	-0.36	0.854296	0.64	0.854289412	27138057383	-0.075
10	FBC	53	2020	0.38	0.67	0.62	0.56	0.65	0.842926	0.64	0.842925523	32401836446	-0.076
10	ZBF	54	2018	0.85	0.11	0.55	0.50	0.2059	0.259931	1.08	0.259930278	129936698	0.034
10	ZBF	54	2019	0.85	0.11	0.55	0.50	0.3302	0.579462	0.61	0.579461893	15635720544	-0.075
10	ZBF	54	2020	0.85	0.11	0.55	0.50	0.4554	0.576465	0.84	0.576464376	18977407123	-0.076

