

**THE IMPACT OF SUSTAINABILITY ACCOUNTING AND REPORTI FIRM
VALUE-A CASE STUDY OF LISTED COMPANY’S ON LUSAKA SECURITIES
EXCHANGE (LuSE).**

BY

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**A Dissertation submitted to the University of Zambia in partial fulfilment of the
requirements for the award of the Degree of Master of Science in Accounting and
Finance**

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DECLARATION

I, Hilton Chinyonga, do hereby declare this work is my original work achieved through personal reading and research. This work has never been published or submitted to the University of Zambia or any other Universities. All sources of data used and literature on related works previously done by others which has been used in the production of this Dissertation have been duly acknowledged. If any omission has been made, it is not by choice but by error.

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APPROVAL

This Dissertation by Hilton Chinyonga is approved as in partial fulfillment of the requirements for the award of the Degree of Master of Science in accounting and Finance

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ABSTRACT

There is a growing interest among stakeholders in the subject of Sustainability Accounting and Reporting (SAR). Literature based on SAR has reviewed that there exists a relationship between SAR practices and firm value. However, this has not been confirmed or verified. The aim of this research was to investigate the impact of SAR on firm value, focusing on companies listed on the Lusaka Securities Exchange (LuSE). Overall, the objective of this research is to drive positive change, improve company performance, and ensure that companies operate in a socially, environmentally and economically responsible manner. This objective was achieved in three specific objectives firstly by examining the sustainability accounting and reporting practices among LuSE listed companies in Zambia, secondly by analyzing the relationship between SAR and firm value and lastly by identification of the key drivers to implementing SAR practices among LuSE listed companies. In doing so, the study adopted pragmatic philosophy and employed panel content analysis to examine the annual reports, separate sustainability reports and websites of the companies listed on LUSE, analyzing data from 2012 to 2022 financial reporting period. The results revealed that the overall average sustainability index for 22 listed firms from 2012 to 2022 was found to be 48%. Whilst the overall average environmental sustainability index was found to be 44% and the overall average social sustainability index was found to be 42%. The results found that level of sustainability accounting and reporting practices has been increasing over the time from the last decade, however there has been gaps with regard to smaller firm which are still struggling with board presence and financial stamina. It was also found that SAR has impact of sustainability reporting on firm value and overall firm performance. A weak correlation was observed which is also significant tested at 5% level was found with R squared of 0.32. Thus, the findings indicate that weak association between the dependent variable ROA and the independent variables that is Environmental and social sustainability indicators. With overall mean of 0.164 and SD= 0.169. Based on the model, it was determined that Environmental and social sustainability indicators played a pivotal role in firm value. These results show that corporate sustainability reporting index has positive and significant impact on firm performance in Zambia. Specification tests concluded that FEM was the best method to interpret the association between sustainability disclosure and firm value. Thus, the R2 value apparent in Table 2 under the FEM is 19.54 percent. The coefficient of SR shows a positive and statistically significant effect on Tobin's Q, under the FEM ($p < 0.01$) which implies SAR has a positive effect on Firm value. SAR had positive impact on ROA which in turn also had positive influence on firm value at the level of 0.01 and 0.1 respectively. The main drivers of SAR practices were firm size, media visibility and ownership structure are the most important drivers of the disclosure of sustainability reports, while corporate governance only seems to have an influence on the existence of audit or sustainability committees. Therefore, it was recommended that there is need to educate and improve SAR awareness among LuSE listed companies and beyond in order to achieve sustainable development.

KEY WORDS: *Sustainability, Sustainability accounting and reporting, Firm Value, Lusaka security exchange, environmental sustainability and social sustainability*

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DEDICATION

This research project is dedicated to my beautiful wife Suwilanji Nawakwi Chinyonga and Children for their encouragement, love and moral support throughout my studies at the University of Zambia. Above all, I dedicate it to God almighty for making it possible for me to complete this research.

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LIST OF ACRONYMS

AAA:	American Accounting Association
AICPA:	American Institute of Certified Public Accountants
ANOVA:	Analysis of Variance
CSR:	Corporate Social Responsibility
ESG:	Environmental Social and Governance
LuSE:	Lusaka Security Exchange
FV:	Firm Value
GRI:	Global Reporting Initiatives
ROA:	Return on Assets
SAR:	Sustainability Accounting and Reporting
SPSS:	Statistical Package for Social sciences
NATB:	National Breweries
REIZ:	Real Estate Investment Zambia
ZAMEFA:	Zambia Metal Fabricators
ZCCM:	Zambia Consolidated Copper Mine
WOB:	Web of Science
ISSB:	International Sustainability Standards Board
IFRS:	International Financial Reporting Standards

CHAPTER 1

INTRODUCTION

1.0 Introduction

In today's business world, preparation of traditional financial statements alone is not useful since it only focuses on financial data hence, the need to incorporate Sustainability accounting and Reporting (SAR) (Ozili, 2022; Alshehhi, Nobanee and Khare, 2018). The development of corporate environmental and social reports has led to the recent popularity of sustainability reporting (Jones et al., 2016; Uyar, 2016). The increase in sustainability awareness has helped to build and improve investor's trust since most investors tend to favor firms with better SAR for investment (Zyznarska-Dworshak, 2020; Ozili, 2022) Study have shown that social and environmental sustainability despite the impact they have on the society they are among the least researched on pillars of sustainability and further Cope et al., (2022) has shown that little is known about how this pillar related to firm value in business. Therefore, the purpose of this study was to assess the use SAR in Zambia focusing on LuSE listed companies in Zambia since LuSE is a key economic driver for private investments. The study assessed how the level of participation of SAR pillar focusing on Environmental and social sustainability and how they related to firm performance. This chapter therefore, presents the background to the study, the statement of the problem, research objectives and research questions, significance of the study as well as the scope of the study.

1.1 Background to the study

Accounting is the use of book-keeping records to prepare financial statements and assist in decision making (Ozili, 2022). The American Institute of Certified Public Accountants (AICPA) defined accounting in 1941 as the art of recording, classifying, summarizing and interpreting money, transactions and events that are at least partly financial in nature. With the growth of the economy, along with the changing role of accounting, its scope has also expanded (Ozili, 2022). In 1966, the American Accounting Association (AAA) defined accounting as "the process of identifying, measuring and communicating financial information that enables users of the information to make informed judgments and decisions." On the other hand, SAR is considered a sub category of financial accounting that focuses on the disclosure of nonfinancial information. SAR connects companies and strategies from a sustainable framework, publishing information in three-dimension namely

(environmentally, economically and socially) (Yondrichs *et al.*, 2021, 2021; Ozili, 2022). SAR stems from the need to ensure that accounting promotes the continuity of society and the environment (Ibid). This concern led to the early development of sustainability accounting (Gebel *et al.*, 2020; Ozili, 2022). The question arises, what does SAR have to do with accounting? Simply put, SAR requires companies to track and report on their environmental, social and economic metrics. This means that companies are now responsible for measuring and reporting non-financial information in addition to financial information. For example, a company can report on its greenhouse gas emissions, diversity and inclusion initiatives or practices (Thuc and Nguyen, 2020; Yondrichs *et al.*, 2021; Van Linh, Hung and Binh, 2022). Accounting professionals must create systems to collect, review, and report this information, just as they do with financial information (Ibid).

The concept of SAR has gained significant attention in recent years, as businesses are increasingly recognizing the importance of integrating environmental, social and economic (ESE) factors into their decision-making processes. SAR refers to the process of measuring and disclosing the social, environmental and economic impacts also known as the triple bottom line reporting of actions of an organization's economic activities. There is a rise in demand for information about a company's economic activities effects on environment and society that has led to the development of sustainability tools use in corporations (Ozili, 2022). SAR is a tool used by most organizations to become more sustainable. Some of the tools include Corporate Social Responsibility and the triple bottom line reporting also known as reporting on people, planet and profit (Elkinton, 1999). The triple bottom line report is the disclosure of information on how a company economic performance affects people, profit and the planet (Slaper, 2011). This involves collecting data on a range of sustainability issues, such as greenhouse gas emissions. water usage, labor practices, corporate social responsibilities, and any actions to build reputation with stakeholders. These show the role of financial information and shows how traditional accounting is extended by improving transparency and accountability by reporting on the triple bottom line. The purpose of SAR is to provide stakeholders, including investors, customers, employees and regulators, with transparent and credible information on a company's sustainability practices and performance. For example, organisations should" disclose information about the wage gap between employees and the Chief Executive Officer so that employees knows whether the CEO earns ten times more than an average employee, further organizations need to disclose its environmental activities so that communities know its environmental protection

activities” (Ozili, 2022) This information can be used to assess a company’s impact on the environment and society, as well as its ability to manage risks and opportunities related to SAR issues. The aim is to show how a company is contributing to sustainable development to help stakeholders make informed decisions (Khan, 2020). There are several forms of sustainability reporting approaches that companies can use to measure and report on them on their SAR performance. Some of the most common ones include Environmental Accounting, Social Accounting, Governance Accounting, Integrated Accounting and Sustainability Reporting Framework.

In quest to render and guarantee consistency in sustainability reporting, in 1997, the Global Reporting Initiative (GRI) was established to develop guidelines for sustainability reporting to ensure that environmental and social reports is comparable to financial reporting. This is achieved through developing reporting principles and information qualities similar to those used in corporate financial reporting (Roberts, 2007) The GRI framework has since become the most widely used standard for SAR. The GRI is an organization that provides a framework for sustainable reports and guidelines that can be used by various organizations and these guidelines are being widely used in providing sustainability reports (McCartney, 2022).

Historically SAR has only been linked with some sort of commitments by firms to environmental and social concerns as postulated by (Kedde, 2021) SAR include ‘‘matters of good corporate governance, innovation, reputation and competitive advantage. As the world seeks for a cleaner, more secure and sustainable business environment it is apparent that companies recognize Environmental, Social and Economic risk in order to manage them as a business strategy. With the rapid changing landscape for SAR reporting and increased demand for SAR disclosures. Regulators, Investors and other stakeholders are focusing on corporate disclosures regarding certain climate related, social and governance issues in SAR. Investors are now aware that corporate financial statements alone are not sufficient in determine a company access to capital, cost of capital and the likely environmental and social risk that may face. (Csiszko, 2022). In developing countries like Zambia, SAR are particularly important because these countries often face significant environmental and social challenges, such as poverty, climate change, and natural resource depletion. By measuring and reporting on their sustainability performance, organizations in Zambia can play a vital role in promoting sustainable development and address these challenges.

Environmental Sustainability

Environmental and social sustainability not only looks at the potential impacts resulting from an activity but also environmental and social risks to the activity (UN, 2012). Environmental sustainability is one of the pillars of sustainability that focuses on how we use raw materials to meet human needs and the damage this does to the environment (Cope et al., 2022). The rise in interest in environmental sustainability began with the acknowledgement that human economic activity harmed the natural resources, such as clean water, upon which we depend. Hence, environmental sustainability encourages recycling, reusing resources, and mitigating environmental harm (Moldan, Janoušková and Hak, 2012). Indeed, there is widespread benefit from environmental sustainability programs, which include energy systems, climate systems, terrestrial systems, carbon and nitrogen systems, aquatic systems, and human settlements and habitats knowing that it is vital to help the environment replenish, repair, and recover from human economic activities.

Social sustainability

Studies have revealed that both environmental and social sustainability have been hardly studied among the sustainability domain (Cope et al., 2022). It has been argued that from the last of the three sustainability domains, environmental and social sustainability are the least developed. This is, in part, due to its recent appearance. What is more, researchers disagree on its definition and domain. By most accounts, social sustainability is a complex topic that crosses several disciplines leading some researchers to define it quite broadly. For example, McKenzie (20216) defines it as a “life-enhancing condition within communities. More generally, Wanand (2015) assert that it is a process for promoting both physical and social wellbeing. To complicate matters, social sustainability is often measured in different ways, with some researchers concerned more with its effect on local and neighboring communities, rather than on broader communities. It is this need to better understand social sustainability and how environmental and social sustainability relates to firm value as well as sustainable development.

Firm Value

Firm value is a concept that refers to the actual worth of a company or its valuation. Firm value is a good indicator of a company’s financial performance. Firm value is mostly used as a measure to assess the overall financial health and performance of a company. It is a representation of investors perception to the success of a company and it is reflected in the

share price of the company (Untung, 2015) and it explains the combined value of all of a company's assets, including tangible and intangible assets, as well as its potential future earnings and cash flows. The objective of any business is to increase shareholder's wealth or firm value. A higher firm value means higher stock price and this is an indication of better financial performance of a company. The value of a company is all total assets minus liabilities and can be measured using many methods including Earnings per share, price to book valuation's, Tobin's Q, price earnings share etc. (Untung, 2015). Firm value is calculated taking into consideration factors such as market capitalization, debt levels, profitability and growth prospects (Dr. Prackasita, 2019).

Relationship Between SAR and Firm Value

A number of studies devoted to sustainability have been done on the relationship between sustainability and financial performance of firms. Recent studies have shown a positive relationship between sustainability and firm value (Swarnapali, 2018). Literature research has shown that companies practicing SAR seem to gain customer acceptance which leads to an organization's success and firm value creation, for example, researchers have reported in their findings that listing on the ESG index does influence higher firm value as measured by Tobin's Q (Aboud, 2018). As the subject of SAR gains prominence, sustainability scores of ESG ratings have equally been developed as a standardized method of measuring sustainability performance across the globe (Afrooz, 2019). It has now become common for business around the globe to engage in SAR activities and disclosures (Swarnapali, 2018).

Further studies have shown that there is a commonality between SAR and firm value as a result. Researchers are now paying much more attention to the potential linkage between SAR and firm value (Lawrence, 2017). Lawrence (2017) has concluded in his study as follows "Using the Dow Jones Sustainability Index that wealth maximization is associated with sustainability leadership". However, other researchers that have empirically examined the relationship between SAR and firm performance found no relationship between SAR and a firm performance (Woo Sung Kim, 2018). Another researcher has argued that firms that practice SAR are imposing an extra expense on firm thereby compromising shareholders wealth (Nyeadi, 2018).

This research examines the relationship between SAR and the financial performance of a company that is listed on the LuSE in the context of firm value creation. Listed Companies in Zambia are required to disclose their sustainability activities and Disclosure of such

information through SAR can be a motivating factor for more stakeholder acceptancy and long-term value creation.

Current Practices of Sustainability Accounting Reporting in Zambia.

In Zambia, LuSE is the principal stock exchange of Zambia founded in 1993 with technical assistance from the International Finance Corporation and the World Bank. (Marone, 2003). Listed firms on the LuSE are required to report on sustainability issues. The LuSE has adopted the GRI guidelines for sustainability reporting, which provide a framework for companies to report on their environmental, social and governance (ESG) performance. In addition, the Securities and Exchange Commission of Zambia (SES) has issued a directive requiring all listed companies on LuSE to include sustainability issues in their annual reports. This report aligns with global trends towards greater corporate transparency and accountability, and recognize the importance of SAR factors in assessing a company's long-term sustainability and performance. Further, the Zambia Institute of Chartered Accountants (ZICA) has developed a sustainability reporting framework to guide companies on how to report on their sustainability performance. The framework is based on international best practices and is designed to help companies identify and report on their environmental, social, and governance (ESG) impacts.

The ZICA sustainability reporting Framework consist of five elements namely; Governance and Strategy, Environmental Performance, Social Performance and Economic performance. As a result of these developments, we can say that there is a growing awareness among listed firms in Zambia of the need to report on SAR, and this trend is expected to continue as investors and other stakeholders increasingly demand more information on a company's SAR performance (Marone, 2003). The LuSE issued a code of corporate governance (the LuSE Code), in 2005, which contains certain sustainability requirements based on SAR that listed companies can voluntarily comply with. In contrast, compliance with the specific requirements of the LuSE code concerning corporate governance is mandatory whereas compliance with sustainability reporting remains voluntary (Sakuwaha, 2020). Listing rules requires companies listed on LuSE to report in their annual reports on compliance with the LuSE Code and these requirements means disclosure of sustainability issues, principals and explanations to enable shareholders evaluate how the principal's sustainability are being implemented (Sakuwaha, 2020).

The Zambian regulatory framework currently has no provision to compel institutional investors to consider SAR factors in their reports. Nevertheless, Institution Investors have the option to consider voluntary standards and best practice of SAR with regard integrating SAR factors and other non-financial principals into Investment decisions (Sakuwaha, 2020). For most listed companies the standard of SAR disclosures is not consistent and leaves much to be desired and this can be attributed to the varying levels of compliance with the sustainability provisions in the LuSE Code (Sakuwaha, 2020).

There is now an observed a trend over the years on SAR in the annual reports for listed companies on LuSE which shows that SAR is focusing on Environmental, Social and Governance (ESG) issues though with varying standards of disclosure. Generally, most listed companies have now seen the need to have SAR disclosures and leveraging leadership as a key differentiator from competitors. As postulated by (Sakuwaha, 2020), "the world is moving towards a more standardized SAR disclosures and therefore the more reason why more research has to be done on this subject, it's an avoidable new emerging phenomenon that will be of particular interest to Investors as part of their SAR due diligence, It is against this background that Zambian listed companies may do well by tracking the variety of SAR reporting developments which should include guidelines by the new International Sustainability standards Board(ISSB) that was launched by the International Financial Reporting Standards(IFRS).

Practically in Zambia there are no specific ratings, indices or guidelines that can be used to benchmark adherence to SAR principals. Companies that are listed on LuSE may have to assess based on integrated sustainability reports standards that which fall under the 2005 corporate governance guidelines as a benchmark by referring compliance levels disclosed in the relevant Investee Company annual reports (Sakuwaha, 2020).

1.2 Problem Statement

Despite the increasing global recognition of SAR as a driver of firm value, there is no empirical evidence on its impact specifically in the context of Zambia (Banda, 2019). The relationship between SAR and firm value remains underexplored, hindering the ability of Zambian organizations to fully understand and leverage the potential benefits. Sustainability reporting has gained prominence in recent years, but its association with firm value remains an area of uncertainty and ongoing research. Studies argued that Investors tend to favor firms with better sustainability reporting when making investment decisions. Public awareness of corporate

social and environmental issues has also driven the need for firms to disclose their efforts and actions in this area. Investors consider sustainability information when making decisions, thus addressing these challenges will enhance the effectiveness of sustainability accounting and reporting, positively impacting firm value and stakeholder trust. Ensuring the accuracy and reliability of sustainability data is crucial. Inconsistent or unreliable data can mislead investors and stakeholders. Therefore, this study attempted to address this gap by investigating the impact of SAR especially environmental and social pillars on firm value in Zambia and identifying the key factors that contribute to this relationship. Empirical literature on sustainability disclosures shows no evidence of academic exploration of the issue in developing countries like India (Prasad, 2022). Further evidence has shown limited research on SAR in developing countries like Zambia (Mutale, 2019). In Zambia despite some recorded economic growth and a number of companies being listed on the LuSE the studies in this area are very limited (Sakuwaha, 2020). This is a source of concern in that Sustainable development goals (SDGs) and the Zambia's 8th National development plan cannot be achieved without improved knowledge on feedbacks between social and environmental sustainability which were hardly explored in previous studies. This calls for the need to shed more light on the importance of integrating sustainability into organization decision making processes aimed at attaining long term value. By addressing the current gaps in SAR in Zambia the study aims to shed more light on the importance of integrating sustainability into organization decision making processes aimed at attaining long term value.

1.3 Research Objectives

1.3.1 Main objective

To investigate the impact of SAR practices on firm value among the (LuSE listed companies in Zambia.

1.3.2 Specific objectives

1. To examine the level SAR practices among LuSE listed companies in Zambia.
2. To analyze the impact of SAR scores on firm value.
3. To identify the key drivers to implementing SAR practices in LuSE listed companies.

1.4 Research questions

1. What is the current level of SAR among listed companies in Zambia?
2. How does SAR scores impact firm value?
3. What are the key drivers and barriers that motivate companies implement SAR practices in LuSE listed companies?

1.5 Justification of the research

There is a growing interest globally among stakeholders on the importance of SAR issues. As a result, a number of research studies have been conducted in developed countries and a new trend is slowly emerging in developing countries though the concept has not been fully understood, more especially in less developed countries like Zambia who want to tap into the benefits associated with SAR to align with her ambitions for economic development that is substantiated with the formation of LuSE which has been identified as a vehicle for economic growth in Zambia. This current study therefore, will systematically synthesize knowledge gaps from recent assessments of LuSE listed companies. Evaluation of SAR levels, practices, adherence and the relationship between SAR practices and firm value would advance knowledge and understanding in the field of SAR in Zambia by providing empirical evidence from an emerging market context. The findings will help policy makers, investors and business organizations with a comprehensive understanding of their environment, social and economic impacts of the actions. The capital market participants will use sustainability information to make their investment decisions while managers may use it to communicate their ethical behaviour as exemplary citizens. Regulators can use sustainability information to ensure the integrity of managers' behaviour, and if necessary they can consider enforcing the regulations to neutralize managers' self-interested behavior. Social and environmental activists can disseminate their views among the business community and convince them of the importance of engaging in environmentally and socially responsible activities by encouraging more disclosures. The academics too can make use of the findings of this study to broaden their contribution towards corporate disclosure literature.

1.6 Scope of the research

This study focused on sustainability accounting and reporting practices with specific focus on companies that are listed on the LuSE in Zambia. The reason for the selection of listed companies was because listed companies are viewed as key to Zambia's economic growth in terms of private sector development. The research consists of analysis of annual reports that are required to be produced for listed companies. In doing so, the study adopted a pragmatic philosophy and employed panel content analysis to examine the annual reports, separate sustainability reports and websites of the companies listed on LuSE, analyzing data

from 2012 to 2022 financial reporting period. The selection of study focus is attributed the population size which is small with only 22 listed companies at the LuSE.

1.7 Dissertation Outline and Organization of the Study

The Dissertation has been outlined and presented in Six Chapters as follows:

Chapter One

In Chapter one the researcher has outlined an introduction about the study and the topic, the chapter has also given the background to the study; statement of the problem and aim of the study. The chapter has also given the general objective and three specific objectives the study and scope which was in terms of location of the study and target population, and a brief statement on the possible limitation that the study may have encountered.

Chapter Two

This chapter covered literature review which is looking at the existing studies and theories on the topic: The effect of sustainability accounting and reporting on businesses. The chapter has also cited what has been established and known in other sectors and studies on the topic of corporate governance

The chapter also reviewed other research done and publications on the wide range of topics covering sustainability accounting and reporting, environmental sustainability, corporate governance and reporting. This chapter reviewed and quoted other literature reviewed, studies undertaken in other geographical regions on the topic of sustainability accounting and reporting.

Chapter Three

The chapter has provided the Theoretical and Conceptual framework of the Studies on corporate governance. The chapter has also reviewed what has been established as causal or actual relationship between and among the following variables:

Chapter Four

This Chapter of the study has given an outline of the study on the Research Methodology and approach taken, the chapter also encompasses the research design, data collection, analysis and techniques used. The chapter has identified those both qualitative and quantitative methods of collecting and analyzing data using questionnaires as tools for data collection on targeted respondents. The chapter also outlines the pre-set broad questions on the topic. The chapter has also given an explanation on the sample size and sampling techniques used namely purposive and stratified methods.

Chapter Five

This chapter had reported on Data Presentations and Analysis and report on findings on the impact of sustainability accounting and reporting practices on firm value among the Lusaka stock exchange (LuSE) listed companies in Zambia. The chapter also discussed the findings predominantly as responded to the research questions formulated in chapter The chapter also gives meaning to the research findings; identify perceptions and brief interpretations of the findings.

Chapter Six

Finally, under this Chapter, the researcher gave a brief discussion on the study Conclusions that can be drawn from the study on the impact of sustainability accounting and reporting practices on firm value among the Lusaka stock exchange (LuSE) listed companies in Zambia. The researcher has also made recommendations derived from the interpreted data and suggested topics for future study.

1.8 Chapter Summary

This chapter discussed the background of empirical studies on sustainability accounting and reporting. The study also discussed the drivers of sustainability reporting among companies listed on LuSE. The importance of sustainability accounting and reporting was highlighted in the context of the research problem, its significance, aim, objectives, hypothesis, problem statement, research questions, and study design were all reviewed in this chapter. As a result, chapter one gave the reader a thorough introduction to the research.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter reviews both empirical literature studies and articles that are similar to this study and suitable to answer the research questions to enable the research objectives of this study attained. The chapter begins by empirical literature review where the study objectives have been arranged thematically. The literature review is therefore, limited to the objectives or variables under study.

2.2 Historical Background of SAR

The concept of SAR is not a new phenomenon but dates back to the late 1980's when companies were required to respond to environmental concerns caused by firms that affected other stakeholders. There is no universal definition of SAR, however many researchers refer to the United Nations 1987, Brunt and report "that calls for sustainable development that meets our need today without compromising the needs of those in future" (Brundtland, 1987). Research have reviewed that practices in SAR can align with emerging global investment and capital market opportunities and as such Research regarding SAR has grown up in recent past two decades (Afrooz, 2019). SAR refers to the practice of measuring, analyzing and reporting a company's social and environmental aspects. (Lamberton, 2005) has defined SAR as "Accounting that integrates social, environmental and economic facets of an organization's activities". SAR is considered a subcategory of financial accounting that focuses on disclosure of non-financial information about a firm's performance on Environmental, social and governance matters to stakeholders like potential investors, shareholders, customers, society, creditors, government institutions and others through publication in their annual report (Ozili, 2022).

The development of SAR concept was boosted by formation of the GRI in 2000 that provides periodically reviews guidance to companies to effectively implement SAR (Dave, 2016). The GRI main agenda is to help firms and stakeholders understand and communicate the impact of business economic activities on sustainable issues such as climate change, Human rights and corporate governance issues by integrating non-financial information such as environmental, Corporate Social and economic responsibilities in their reports (Dave, 2016). Research work on SAR continued to gain prominence since the year 2000 and since then SAR has gained sizeable insights into sustainability disclosures practices of firms

(Sharma, 2019). Sharma has argued that despite increase of studies on SAR little is known about the subject in general and within specific organizations and the benefits that come with economic, social and environmental issues and how to integrate sustainability with management control and decision making (Sharma, 2019). In addition to this most research work on sustainability accounting has been done in developed countries and very little in developing countries like Zambia and this makes it difficult to associate findings from developed regions to developing regions due to differences in external pressure that exist in such regions (Mutale, 2019).

2.3 Overview of the Social and Environmental impact of companies in Zambia

The impact of companies' activities on social and environmental issues varies depending on the specific industry and practices of each company. Zambian listed companies now recognized the importance of reporting on sustainability and most companies have particularly focused on social and ecological pillars. There is empirical evidence that most sustainability reports by companies in Zambia across different sectors such as energy, mining, consumer and infrastructure have concentrated on reporting on the social pillar as supported by the EY Zambia report which reported that 9% of companies listed measured and reported on social dimensions, 50% disclosed on emission metrics with the aim of reducing carbon emission and 21 percent of companies reported on governance dimensions (EY Zambia, 2022).

2.4 Disclosures and reports on SAR

One very interesting study on SAR was conducted by Josephine Ngulube in (2022). The study critically analyses the applicability of SAR to corporate governance in Zambia with the specific research objective to "analyze whether SAR laws are applicable in Zambia; to establish the extent of compliance with SAR and compare the adopted legal framework that addresses SAR in Zambia with Kenya". The study results "discovered that evidence exist that SAR is applicable to Zambian Corporate governance laws for Companies Listed on the Lusaka stock market (Ngulube, 2022).

Most papers found a positive relationship between stakeholder value creation and sustainability reporting. For example, Hahn and Kühnen (2013) found in their research that different stakeholders, such as suppliers, customers and authorities, have different social and environmental interests that determine the success of an organization. It has been found that sustainability reporting can help organizations improve transparency for their

stakeholders\ and thus satisfy their interests in sustainable development. Ong et al. (2016) found a positive relationship between stakeholder value and sustainability reporting. Sustainability\reporting has been found to effectively drive stakeholder management by improving organizational comparability.

Antonini et al. (2020) underline the sub-political role of the limits of sustainability reporting based on the characteristics of different computational techniques. This 2020 sustainability\reporting article defined the limits of the reporting type based on human rights, working conditions and supply chain social risks. For example, the analysis phase of the study identified risk-related frameworks based on partial political welfare and contained questionable

legitimacy within the boundaries of sustainable development reporting. According to the rule et al. (2016), CSR standards in Germany and the United States shaped organizations to implement sustainability initiatives leading to effective stakeholder management. Dabbicco (2019) found in his research that financial statements are not enough to satisfy the needs of all stakeholders and that reporting is a tool that helps organizations to satisfy the non-financial needs of their stakeholders. Organizations must take sustainability initiatives to protect the environment and community from internal and external stakeholders.

Del Mar et al. (2014), their research focused on analyzing how organizations communicate their sustainable practices to US stakeholders through sustainability reporting and how this helped them comply with all environmental regulations. The study (Aktas et al. 2013) showed the importance of users of financial information in analyzing decision-making processes and identifying changes in equity that can assist in making broad calculations of earnings and financial position. Users are the most important part of sustainability reporting when dealing with corporate governance, social and environmental aspects. This article explained the status of Turkish organizations in terms of global reporting initiatives and sustainability reporting. Information about the approach and profile of management are two important aspects at the implementation level of the sustainable performance reporting of an organization. Regarding the analysis of sustainability reporting, integrated practices in the reported areas are also managed and presented in detail. This decade explored historical retrospective perspectives on labor management through corporate control. Another topic concerns the improvement of sustainability reporting initiatives in relation to the launch of global reporting projects. Zinenko et al. (2015) showed how the social responsibility standard

(ISO 26000) is followed in different countries and how it improved the effectiveness of the organization's sustainability reporting. Another study looked at how various companies have tried to integrate sustainability information into their annual reports following international sustainability standards over the last two to three years to increase their value to stakeholders such as investors, customers and international clients. Marimon et al. (2012) found that global reporting initiatives led organizations to adopt sustainability initiatives by choosing the most appropriate option for sustainability reporting.

Study by Abeydeera et al. (2016). It was also observed that corporate offices and the context and culture of working hours contribute to the implementation of sustainable practices. The study identified that Buddhist practices play an important role in analyzing the possible implications of creating a better dimension for organizational development. Another study found that sustainability reporting can significantly affect organizational effective management (Bulay, 2019). It has been found that sustainability reporting can improve the image and well-being of an organization. It helps organizations to attract more customers\ in comparison, which in turn helps them to improve their performance. However, it is still important for organizations to develop the right culture that encourages every employee to use green practices and reduce the overall impact of the organization on the environment and society (Amran and Haniffa, 2011). Alabousi et al. (2019) found a positive relationship between financial management and sustainability reporting in organizations. However, in some cases this requires organizations to invest a significant amount in sustainability management and sustainability reporting, which indicates a negative relationship between the two factors.

The study by AI-Water et al. (2019) worked to integrate accounting information system (AIS) into sustainable development reporting methods through a particularly thought-provoking field of research. It explored the importance of systems integration and sustainability reporting to improve the financial performance of a specific organization in the hotel industry. At the same time, the report clearly explains that the economic results of the organization revolve around financial, social and environmental reporting. For example, an organization needs to obtain financial data to identify the importance of sustainability reporting. For example, the disclosure index helped researchers create a content analysis technique covering 84 indicators of different dimensions of sustainability reporting\economic, social and environmental factors.

Another 2019 study by Adedeji et al. (2019) discuss the relationship between sustainability initiatives and corporate governance in sustainable development reporting. These aspects play an important role in identifying the company's performance. This paper is no different from using the underlying theories of institutions, agencies and stakeholders to address sustainability

initiative, corporate governance and corporate performance tasks. In this area of research, the study identifies the participation of less developed countries in the organization and restructuring of the activities of non-economic and financial enterprises. This article also discussed the dimensions of sustainability reporting and initiatives in international and local markets simultaneously (Economics, Management and Sustainability, 2022).

Bellucci et al. (2019) showed the importance of stakeholder participation processes and sustainability reporting in dialogic accounting based on opportunity stakeholder analysis. It is also noted that this article used content analysis for 299\companies according to Global Reporting Initiatives guidelines. In 2020, Boiral and Heras-Saizarbitoria (2020) published a paper highlighting the importance of stakeholder accountability to ensure the adoption of sustainability reporting as it relates to hyper-reality reality. Previous researchers have also worked on various aspects of the sustainability reporting process in other industries such as tourism.

2.5 Financial Performance

Another challenge is that there exist anecdotal evidence of firms not disclosing fully their AR activities. Evidence in the results of Ernst & Yang survey whose results indicated that more than 60% of Investors consider SAR disclosures to be insufficient and the results unreliable and contradictory. The findings clearly suggest there is more unresolved issues surrounding issues of sustainability disclosures that demand more attention and this calls for further research on the subject matter (Tsang, 2022). This is also supported by a recent study that was conducted in Zambia to examine on Corporate Social Responsibility disclosures practices which showed that there is limited CSR disclosures by Mining Companies in Zambia (Phiri, 2017). Additional studies conducted to explore SAR activities in the Mining Industry which analyzed literature in the Journal of clear production for the period 2004 to 2013 showed that although sustainability reporting practices had evolved there progress was rather slow and some mining companies did not show any accountability of their firms economic activities impacted sustainability Reporting (Hess, 2014).

2.6 Adherence to SAR regulatory framework

Compliance with SAR has been ongoing on voluntary basis despite lack of legal framework’
’To support this researchers have identified laws which address issues of corporate governance in Zambia which include ‘.the company’s Act 26 in part V11,the Lusaka stock exchange code of corporate governance of 2005 (LuSE Code) for listed companies, the IODZ corporate governance code for small and medium enterprise and the Bank of Zambia corporate governance directory for financial institutions among these laws only the LuSE Code guidelines has integrated the concept of sustainability and it is also limited to Public listed companies (Ngulube, 2022).

2.7 Empirical Review and Literature Matrix

There are a number of methods and theories that are attributed to the study of SAR or consider issues on Environmental, Social and Governance (ESG) factors in the accounting literature of Sustainability Accounting. There is increase of knowledge in the accounting literature which has been supported by growth on theories associated with sustainability Accounting. Some of the theories that have been associated with Sustainability accounting and reporting include the legitimacy theory, the stakeholder’s theory, Agency theory, value creation theory, value destruction theory and Institutional theory. This study l explored and analyzed the perspectives legitimacy theory and the stakeholder’s theory with the objective to understand how these theories have been used in assessing the relationship between SAR disclosures and company performance (Dias, 2017). A study done by (Dias, 2017) used the Institutional, legitimacy and stakeholder’s theory understand research advancement in social and environmental Accounting. The Research concluded that legitimacy theory among others is the most dominant theory that has been used to promote research on sustainability accounting reporting studies though it is related to other theories. This view is supported by (Al-Amin, 2020) who reviewed that legitimacy theory is the most widely applied in the accounting literature. “The theory has its roots from the social contract theory that that holds that a social contract represents a set of expectations from the part of society on how a firm should operate in society which implies that society expects a business to operate in a certain manner”. Using the methodological approach concept of theory synthesis (Jacob Horish, 2020) holds that the stakeholder theory has been an influential approach in many areas of business studies.

Another research done by (Ting, 2021) looked at progress in the research of SAR. His study “reviewed that the theoretical basis on SAR research is centralized and diverse, mainly based on Institutional theory and Stakeholder’s theory: “A number of Research work has reviewed that the stakeholder theory offers a better alternative view of firm value creation as it helps to explain the relationship between sustainability accounting and firm value. This is because the stakeholder’s theory postulates” that for a company to be successful it must create value for various stakeholders such as customers, suppliers, employees, community, trade unions, political groupings, shareholders and banks among others (Tsang, 2022)

The legitimacy theory postulates that firms should function within the expected norms and boundaries of respective societies within which they operate and as such perceived as being legitimate (Dewiyanti, 2021). According to (Ngulube, 2022) “the legitimacy theory is the most widely used accounting theory that has been used in research work to explore SAR reporting practice of organizations”. This is supported by (Walsh, 2022) who postulates that an organization’s survival depends upon whether they conform to shareholders expectations and thereby establish its legitimacy. The Research approach used by Ngulube where both qualitative and quantitative approach commonly referred to as mixed method, and data collection approach included both primary and secondary. The use of mixed method model was justified because it enables a researcher to “integrate quantitative estimates of benefit and harm with more qualitative understanding from peoples” lives which in turn help determine effects of interventions and appropriateness. (Ngulube, 2022).

There are some familiar methodologies that have been used in SAR based on deductive and inductive reasoning as well as descriptive and comparative analysis (Zyznarska, 2020). Another similar research done by (Anifowose, 2016) used content analysis methodology to analyze published secondary data on SAR by organizations. Content analysis methodology was also used by (Nnamani, 2017) whose approach was collecting secondary data from financial statements of organization to investigate the effect of sustainability accounting and reporting on financial performance. The use of secondary data is also prominent in the research work done by (Ionel, 2012) in his empirical study to explain how disclosure of SAR varies across different entities in the petroleum industry. Further a quantitative research method was done (Ting, 2021) to investigate the practice of ESG using secondary data that was collected from the web of science (WOB) database.

2.7.1 The extent of Sustainability Accounting and Reporting practices

Sustainability reporting has grown in popularity over the last few decades because it requires organizations to improve their competitiveness by satisfying changing stakeholder interests. It is generally an outside-oriented approach to ensuring stakeholder value by making them aware that an organization is responsible for taking care of the environment, society, and community while generating its operating profit. Small-scale organizations struggle to meet society's demands and compete in the market. However, this paper contends that sustainability reporting is critical for managing organizational sustainability issues requiring strategic resource management. A study done in Bangladesh on the extent of sustainability reporting revealed that sustainability reporting in Bangladesh has been done on the banking sector (see, for example, Khan et al., 2009; Khan, 2010; Khan et al., 2011; Sobhani et al., 2012; Masud et al., 2018). Khan et al. (2009) conducted both content analysis and a survey to determine the extent of, and stakeholder perceptions about, CSR disclosures by 20 listed banking companies for the year 2004-2005. The study found the banking industry seemed to place a higher emphasis on human resource disclosure and social activities (such as donations) than work safety, employee rights and diversity. The survey part of the study also suggested that the users of CSR reports look for more disclosure, particularly in the areas of public health, safety and facilities for the community. This shows that there is indeed a gap in literature with regard to SAR practices as a whole.

A similar study has shown that though the adoption of SAR practices is still low in Zambia, many public sectors has adopted sustainable accounting and reporting practices. To date, the main research topics have addressed sustainable reporting practices however, not in the Zambian context (Goswami and Lodhia, 2014).

Kwakye, (2018) examined the perception of professional accountants and the intention to engage in Sustainability Accounting & Reporting (SAR). By relying on the Theory of Planned Behavior (TPB), a survey method of research was adopted, and a set of questionnaires was developed (based on existing studies) and administered to professional accountants. The results from the structural analysis demonstrate that only subjective norm and perceived behavioral control significantly influence a firm's intention to engage in SAR. By implication, the attitude of an accountant towards SAR does not affect the intention to engage in the practice and that the willingness to engage in SAR is primarily determined by resources availability and pressure from major stakeholders.

Furthermore, Che-Ku-Kassim et al. (2019) conducted a survey to examine environmental reporting practices of Malaysian local governments and drivers of such practices using legitimacy theory. The authors reveal that the majority of Malaysian local governments report environmental information using more than one reporting media. The prominently used reporting media are annual reports and website disclosures. The authors found that the primary reason for environmental reporting is the necessity to maintain and improve the organizational image in relation to the relevant public.

2.7.2 The relationship Between SAR and Firm Value.

A number of studies devoted to sustainability have been done on the relationship between sustainability and financial performance of firms. Recent studies have shown a positive relationship between sustainability and firm value (Swarnapali, 2018). It more research has shown that is practicing SAR sim to gain customer acceptance which leads to an organizations success and firm value creation, for example , researchers have reported in their findings that listing on the ESG index does influence higher firm value as measured by Tobin's Q (Aboud, 2018)As the subject of SAR gains prominence, sustainability scores of ESG ratings have equally been developed as standardized method of measuring sustainability performance across the globe (Afrooz, 2019).it has now become common for business around the globe to engage in SAR activities and disclosures (Swarnapali, 2018).

Further studies have shown that there is a commonality between CSR and SAR because CSR is a means of achieving sustainability as a result Schoolers are now paying much more attention to the potential linkage between sustainability reporting and market value (Lawrence.,

2017). Lawrence (2017) has concluded in his study as follows "Using the Dow Jones Sustainability Index that wealth maximization is associated with sustainability leadership" 'However, other schoolers that have empirically examined the relationship between SAR and Firm performance found no relationship between SAR and a firm performance (Woo Sung Kim, 2018)'. Another Schooler has argued that firms that practice SAR are imposing an extra expense on firm thereby compromising shareholders wealth (Nyeadi, 2018).

Research on SAR practices in Africa shows that companies have just started to embrace SAR reporting with some steady progress recorded in South Africa, however in Zambia SAR may not be seen as critical to the success of large firms in order to be compelled to report on sustainability (Muwowo, 2006) however Companies listed on the Lusaka Stock Exchange

are required to report on “all material activities that the company is involved in when this has material impact on the operations of the company” (Muwowo, 2006). Research on sustainability accounting has been both contradictory and inconclusive as shown by (Kam, 2017) who examined the needs of SAR and its impact on financial performance of listed companies. His findings have shown both positive and negative relationships between SAR disclosure practices and financial performance. Another challenge is that there exist anecdotal evidence of firms not disclosing fully their SAR activities. Evidence in the results of Ernst & Young survey whose results indicated that more than 60% of Investors consider SAR disclosures to be insufficient and the results unreliable and contradictory. The findings clearly suggest there is more unresolved issues surrounding issues of sustainability disclosures that demand more attention and this calls for further research on the subject matter (Tsang, 2022). This is also supported by a recent study that was conducted in Zambia to examine on Corporate Social Responsibility disclosures practices which showed that there is limited SAR disclosures by Mining Companies in Zambia (Phiri, 2017). Additional studies conducted to explore SAR in the Mining Industry which analyzed literature in the Journal of clear production for the period 2004 to 2013 showed that although sustainability reporting practices had evolved there progress was rather slow and some mining companies did not show any accountability of their firms economic activities impacted sustainability Reporting (Hess, 2014).

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shown that literature on investment practices that consider SAR factors is growing and mostly concentrated in developed markets. In His studies Abhayawansa has postulated that over 70% of investment worldwide considered SAR factors during the 2017 investment process and this was dominated by the United States (US) which alone increases by 42% to 17.1 trillion investment strategies in 2020. His findings have also indicated that investors consider SAR factors in assessing a firm's growth expectation. A Research done by (Hvidkjær, 2017). addressed the question on how SAR consideration affect the value of the investor's portfolio. His findings indicated "that the stock market with SAR rating exhibited high future returns with evidence strongest between 1991 to 2004 and in contrast Event studies showed that stock markets do not respond positively to certain SAR initiatives taken by firms". Research on SAR has been both contradictory and inconclusive as shown by (Kam, 2017) who examined the needs of SAR practices and its impact on firm value of listed companies, His findings have shown both positive and negative relationships between SAR disclosure practices and firm value.

Scholars use corporate social responsibility (CSR) and sustainability (and reporting) as interchangeable concepts (Montiel, 2008). The core underlying reason for SR is to convey to the public both the transparency and accountability of the firm in the conduct of its affairs (Godha & Jain, 2015). Engaging in sustainability activities can be a costly exercise for a firm (Bhatia & Tuli, 2015). Even though sustainability information disclosure may prove costly to a firm in the short-run, it provides many benefits over the long-run. By engaging in CSR activities, a firm enjoys a set of direct and indirect benefits. A firm benefit directly in the shape of cost and risk reduction, while indirectly in the way of competitive advantages. In a wider sense, firms turn out to be more attractive to investors by exhibiting CSR (Carroll & Shabana, 2010). Further, there is evidence that SR improves internal processes, engages stakeholders and persuades investors, all of which contribute to enhance shareholders' value in different ways (Godha & Jain, 2015).

2.7.3 The key drivers that motivate companies implement SAR

Businesses both big and small all play an important role in sustainable development not only for their significant contribution to Zambia's economy but also to account for their large share of total discharged pollutants. Despite the widely acknowledged importance and benefits of environmental management accounting (EMA), the level of adoption and implementation of SAR practice is still weak in many countries, especially in Africa and other developing countries. The review concluded that strict legislation and the availability

of flexible financing options for companies can promote the adoption of ESG companies. The establishment of SAR systems and auditing mechanisms can further increase the utilization of ESG by companies. Barriers to SAR adoption can be mitigated after careful consideration of the current situation in Companies. Documentation of significant barriers may help to form supportive policies which ultimately add to the efforts toward enhancement of the implementation of SAR (Javed F, Yusheng K, Iqbal N et al., 2022).

According to a study done by Juusola, K. and Srouji, R. (2023), on challenges associated with the implementation of SAR practices: a legitimacy perspective”, in context of (the Middle East and North Africa [MENA] region) and how sustainability professionals assess their legitimacy in this context. The study applied an exploratory qualitative design and a paradigm-type approach to organizational discourse analysis. It used a document analysis and eight expert interviews as data sources. The results of this study revealed that SAR faces considerable challenges in developing countries. To substantiate, four discourses on organizational sustainability in the region were identified, namely, the normative/pragmatic, compliance, restrictive and performative discourses. This result means that awareness of the challenges and mechanics of SAR practices is important for managers, policymakers and consumers, who typically lack in-depth understanding of such practices and so would benefit from being better able to assess companies’ sustainability performance. Holdway (2019) argues that social and environmental accountability by firms can be compromised by a lack of democracy within engagement and decision-making processes. This is particularly evident in potential conflict situations such as with unconventional gas extraction. A Causal Layered Analysis was applied in a workshop setting involving participants with diverse perspectives on unconventional gas extraction. Her findings suggest that Causal Layered Analysis enables access to multiple, complex and nuanced perspectives, and facilitates a deeper understanding of participants own views, and of differing views in relation to unconventional gas extraction. Holdway (2019) emphasizes that Causal Layered Analysis may well assist in moving firms and indeed civil society, closer to reaching social and environmental outcomes. Surma & Vondra (1990) in their survey, based on 125 large US corporations, observed that despite growing environmental concern at the time, only 14% of companies surveyed had formal environmental committees at administrative level. In addition, only 11% had environmental accounting policies, while less than one third of them had their policies published in their financial statements. Wilmshurst & Frost (1996), in a survey of Australia's top 500

companies, observed that although for the majority of respondents' environmental issues were important and considered in decision-making, there were few companies that provided them and integrate them in a formal way, so that they can clearly demonstrate the performance of their company in that area. Bebbington et al. (1994) in a survey of 1,000 leading companies in England, observed that accountants knew that environmental issues would affect their own future practices, but nevertheless did not apply an environmental accounting system or engage in environmental matters. Parker (1997) conducted a survey of environmental and costing issues in 11 Australian companies active in industrial sectors, such as construction, mining, petrochemical, energy and fertilizer. The results of the survey showed that sustainable managers were not familiar with the costing issues used in their business. The majority of companies were in the early stages of recognizing sustainable costs and sustainability accounting, while environmental costs were not calculated separately from other costs but were integrated into the general accounting system. According to Das et al. (2008), the lack of orientation may be the one that is responsible for the fact that environmental accounting is not included in the Page 18 of 68 management study program in India and therefore, the lack of basic environmental accounting knowledge may be one of them. reasons why businesses in India do not apply environmental policy practices.

2.8 Lessons Learnt from the Literature Review

There are a number of lessons to learn from this literature review. Firstly, the methods and theories that are attributed to the study of SAR and factors to consider in the accounting literature of Sustainability Accounting. There is increase of knowledge in the accounting literature which has been supported by growth on theories associated with SAR. Some of the theories that have been associated with SAR include the legitimacy theory, the stakeholder's theory, Agency theory, value creation theory, value destruction theory and Institutional theory. This literature explored the perspectives of legitimacy theory and the stakeholder's theory with the objective to understand how these theories and how they have been used in assessing the relationship between SAR disclosures and company firm value (Dias, 2017). A study done by (Dias, 2017) used the legitimacy and stakeholder's theory to understand research advancement in social and environmental Accounting. The Research concluded that legitimacy theory among others is the most dominant theory that has been used to promote research on SAR studies though it is related to other theories. This view is supported by (Al-Amin, 2020) who reviewed that legitimacy theory is the most widely applied in the accounting literature. "The theory has its roots from the social contract theory that that holds

that a social contract represents a set of expectations from the part of society on how a firm should operate in society which implies that society expects a business to operate in a certain manner". Using the methodological approach concept of theory synthesis (Jacob Horish, 2020) holds that the stakeholder theory has been an influential approach in many areas of business studies. Another research done by (Ting- Li, 2021) looked at progress in the research of SAR. His study "reviewed that the theoretical basis on SAR research is centralized and diverse, mainly based on Institutional theory and Stakeholder's theory. A number of Research work has reviewed that the stakeholder theory offers a better alternative view of firm value creation as it helps to explain the relationship between sustainability accounting and firm value. This is because the stakeholder's theory postulates" that for a company to be successfully must create value for various stakeholders such as customers, suppliers, employees, community, trade unions, political groupings, shareholders and banks among others (Tsang, 2022).

The legitimacy theory postulates that firms should function within the expected norms and boundaries of respective societies within which they operate and as such perceived as being legitimate (Dewiyanti, 2021). According to (Ngulube, 2022) "the legitimacy theory is the most widely used accounting theory that has been used in research work to explore CRS reporting practice of organizations". This is supported by (Walsh, 2022) who postulates that an organization's survival depends upon whether they conform to shareholders expectations and thereby establish its legitimacy. The Research approach used by Ngulube where both qualitative and quantitative approach commonly referred to as mixed method, and data collection approach included both primary and secondary. The use of mixed method model is justified because it enables a researcher to "integrate quantitative estimates of benefit and harm with more qualitative understanding from peoples" lives which in turn help determine effects of interventions and appropriateness. (Ngulube, 2022).

There are some familiar methodologies that have been used in sustainability accounting based on deductive and inductive reasoning as well as descriptive and comparative analysis (Zyznarska, 2020). another similar research done by (Anifowose, 2016) used content analysis methodology to analyze published secondary data on SAR by organizations. Content analysis methodology was also used by (Nnamani, 2017) whose approach was collecting secondary data from financial statements of organization to investigate the effect of sustainability accounting and reporting on financial performance. The use of secondary data is also prominent in the research work done by (Ionel-Alina, 2012) in his empirical study to explain

how disclosure of SAR varies across different entities in the petroleum industry. Further a quantitative research method was done (Ting- Li, 2021) to investigate the practice of SAR using secondary data that was collected from the web of science (WOB) database. Research on SAR in developing countries like Zambia is still at infancy stage and there is therefore need for more research in this field to increase knowledge and understanding and encourage Zambian companies to manage their company's environment impact, enhance their reputation, attract socially responsible investors, and improve their long-term financial performance and ultimately lead to increased firm value.

2.9. Knowledge Gaps

The previous studies focus has been primarily on developed nations and very little is known about how the public sector in developing nations manage and report their non-financial performance indicators. Although the issues of sustainability accounting and reporting has gained momentum over the last period, there is no data to show from the Zambian perspective.

Regional and global assessments periodically update what we know, and highlight what remains to be known, about the linkages between sustainability accounting and reporting (SAR) and firm value very little has been discussed. This current study therefore, will systematically synthesize knowledge gaps from recent assessments of LUSE listed companies and evaluate the level of practices, adherence and the relationship between SAR practices and firm value. This is so because Sustainable development goals (SDGs) and the Zambia's 8th National development plan cannot be achieved without improved knowledge on feedbacks between social and environmental sustainability which were hardly explored in previous studies. this calls for the need to shed more light on the importance of integrating sustainability into organization decision making processes aimed at attaining long term value.

2.10 Chapter Summary

This chapter reviewed the literature on the effect sustainability and reporting in company value. The review comprised the theoretical review where three theories were reviewed, empirical review that was reviewed according to the objectives of the study, the critique of the existing literature that the research will fill. The review was based on the research problem under study. Most of the literature that was reviewed found a positive relationship between sustainability, reporting and company performance.

CHAPTER 3: THEORETICAL AND CONCEPTUAL FRAMEWORK

3.1 Introduction

This chapter presents theories that formed the basis of the study in the theoretical framework. In the conceptual framework, a graphical representation of the general structure of the research is depicted to help understand the impact of sustainability accounting and reporting on firm value. The understanding of theories and concepts in this section is cardinal to better grasp the methods in chapter four and the analysis as well as interpretation of findings.

3.2 Theoretical Framework

A theoretical framework defines the main concept of a research, suggest the relationship between them that provides a structure for understanding and analyzing a specific topic of phenomenon. (Sarah, 2023).it is a set of interconnected concepts, theories and ideas that guide the research process and help explain the relationship between variables under study. The theoretical framework acts as a roadmap to research work as it provides a foundation to review existing theories and helps to form arguments that can be used in research work. There are a number of theories that researchers have used to explain the relationship between SAR and Firm value, among them are the stakeholder's theory, the legitimacy theory and institutional theory and the agency theory. In fact, it's a challenge to unify all empirical findings within one theoretical framework because SAR is a complex concept that cannot be explained by a single theory (Lawrence, 2017). However, in this research a combination of stakeholder theory and legitimacy theory were used to explore the relationship between SAR disclosure practices and firm value. Furthermore, this is research work is supported by a study done by (Freudenreich, 2020) who asserted that stakeholder theory is closely related to the legitimacy theory and the two theories are complimentary.

3.2.1The Legitimacy Theory

The legitimacy theory was developed by Dowling and Pfeffer in 1975 (Guthrie & Ward, 2006). The legitimacy theory is based on the study by (Suchman, 1995) who postulated that Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed systems of norms, values, beliefs and definitions. The legitimacy theory is one of the most cited theoretical frameworks within social, environmental, and sustainability accounting research. It is probably the most widely used theory to explain social, environmental, and sustainability disclosure (Campbell

et al. 2003). The use of legitimacy theory in sustainability-related accounting research derives from the concept of *organizational legitimacy*. According to Dowling and Pfeffer (1975), this is “a condition or status which exists when an entity’s value system is congruent with the value system of the larger social system of which the entity is a part. The theory suggest that organizations seek to maintain a positive image and reputation by aligning their actions and behaviors with societal expectations and norms. There is therefore need for organizations to maintain this relationship by engaging in activities and practices that are considered socially responsible and acceptable to their stakeholders, these activities can include corporate social responsibilities, community supporting activities, environmentally friendly activities as well as fair labor practices (Lawrence., 2017).

A number of researchers have used the legitimacy to demonstrate that compliance of institutional norms long established for a long time leads to institutional legitimacy (Tavares, 2018). This study is also supported by works done by (Wilmshurst, 2000) who used the legitimacy theory to analyze the link between the importance of reporting on specific factors in decision making and the disclosure of environmental practice. The results showed some correlation between the perceived factors and environmental reporting practices. The use of legitimacy theory is also supported by works done by (Startling, 2007) who postulated that managers recognize the potential contribution of sustainability reporting to the long-term financial performance of firms.

This research used the legitimacy theory to identify key variables that were considered and analyzed. These variables helped this research to identify and understand the measurable variables that companies use to assess sustainability performance as they seek to gain legitimacy and therefore firm value. Measurable variables in legitimacy theory typically refer to the factors that can be quantitatively measured and analyze to assess the level of legitimacy of an organization, the measurable variables used in this study include the following:

- Social and Environmental performance indicators: This is and in dependent variable That indicates the organizations performance in terms of social and environmental responsibility such as carbon emissions, ate management, employee diversity and community involvement and its impact on firm value.

- Compliance with regulations and standards: This is an independent variable that measured the extent to which an organization complies with relevant laws, regulations, and industry standards related to social and environmental practices and its impact on firm value
- Financial Performance: While financial performance is the dependent variable that represents revenue growth, and return on investment provide insights into the organization's overall performance and potentially affect its legitimacy.
- These variables are interconnected and have been applied in this research to understand how organizations navigate the complex landscape of legitimacy and societal expectations. These variables have been used to examine the relationship between legitimacy, stakeholder pressure, corporate social responsibility and disclosure practices to gain insights into the behavior and decision making of LuSE listed companies. This is supported by research done by (Ismail, 2014). It is also important to note that the choice of measurable variables may vary depending on the specific context and research objectives of a study on legitimacy theory (Ismail, 2014).

3.2.2 The Stakeholder Value Creation Theory

The stakeholder value creation theory also known as the stakeholder theory is a management concept that suggest that organizations should consider the interest and needs of all stakeholders, not just shareholders when making decisions and creating value for the firm (Freudenreich, 2020). According to this theory, stakeholders are individual or groups who are affected by or can be affect the organizations activities and outcomes. Stakeholders includes shareholders, employees, customers, suppliers, communities and the general environment in which the organization operates from. The theory argues that organizations should strive to create value for all these stakeholders not just prioritize the interest of shareholders only. The theory postulates that by organizations actively engaging other stakeholders and their interest they can succeed in becoming famous in the business ethics fields and therefore create long term value. Weiss, J.W. (2014) illustrates how stakeholder analysis can be complemented with issues management approaches to examine societal, organizational, and individual dilemmas. Several case studies are offered to illustrated uses of these methods. The political philosopher Charles Blatter has criticized stakeholder theory for assuming that the interests of the various stakeholders can be, at best, compromised or balanced against each other. Blattberg argues that this is a product of its emphasis on

negotiation as the chief mode of dialogue for dealing with conflicts between stakeholder interests. He recommends conversation instead and this leads him to defend what he calls a 'patriotic' conception of the corporation as an alternative to that associated with stakeholder theory. However, it has also been argued that stakeholder's theory provides the researcher with a framework that can be used to analyze the relationship between organizations and their respective stakeholders (Dumitru, 2015). The researcher argues that organizations should not only focus on maximizing shareholders wealth but also strive to create value for all stakeholders who include employees, customers, suppliers, shareholders, community and other entities like regulatory institutions. By integrating and engaging these stakeholders' organizations can create value not only for shareholders but also other stakeholders which may lead to long-term value creation and sustainable development.

A firm can create value by being socially responsible by paying attention to practices that have potential benefits to the organization and these are, improved labor relations and employee productivity, reducing the risk of litigations related to products/services, less pollution and fewer complaints on environmental issues, lower regulatory costs and better brand reputation. Corporate disclosure of SAR practices is instrumental for managing stakeholders' expectations and information needs. The stakeholder's theory "assumes that the interest of different stakeholders is joint and the process of value creation is best managed by managing stakeholder relationships" (Dumitru, 2015).

This research has used the Stakeholder value creation theory to identify measurable variables or factors that were quantitatively assessed or evaluated to determine the extent to which firm value is created for different stakeholders (Jeffrey, 2013). The following measurable variables were considered:

- Financial performance: This was treated as a dependent variable used to assess revenue growth, profitability, return on capital and shareholder value
- Social and Environmental Impact: This an independent variable that indicates variability of variables such as carbon emissions, waste reduction, community involvement and social responsibility initiatives and how they impact firm value.
- Regulatory compliance: This is an independent variable Measured through level of adherence to relevant laws, regulations and industry standards and how it affects firm value
- Reputation and brand image: Measured through extensive literature review

- These variables have been used in this study to assess impact of sustainability disclosures on the financial performance of listed companies in Zambia

3.3 Summary of the theoretical Frameworks

The stakeholders value creation theory states that organizations should strive to create value not only for their shareholders but equally for their stakeholders, including employees, customers, suppliers and the general society. According to this theory, organizations that focus on creating value for all stakeholders will ultimately be more successful and sustainable.

The legitimacy theory, on the other hand, suggests that organizations need to maintain a certain level of legitimacy in order to gain and maintain the support of their stakeholders. Legitimacy refers to the perception that an organizations actions and behaviors are acceptable and appropriate within the societal and cultural norms within which it operates. Organizations that are seen as legitimate are more likely to receive support from stakeholders and have a better brand reputation and can achieve long term value.

Both theories emphasize the importance considering the interest and expectations of stakeholders in organization decision-making. The stakeholders value creation theory focuses on creating value for all stakeholders, while the legitimacy theory highlights the need for organizations to maintain legitimacy in order to gain stakeholder support. By incorporating these theories into their strategies and actions, organizations can enhance their relationships with stakeholders and improve their overall performance and sustainability.

3.4 Conceptual Framework

A conceptual framework is a theoretical structure or model that helps to organize and guide research or analysis in a prescribed field or discipline. It is a roadmap to research work that guides the researcher to define the scope of the study, identify key variables and their relationships, and provide a framework for interpreting and analyzing data This research conceptual framework is based on the Stakeholders value creation theoretical framework and legitimacy theory of accounting. The stakeholders and legitimacy theories have been used because they provide appropriate variables that have been applicable in this research to examine the relationship between SAR and firm value. The study developed conceptual variables of sustainability with full insight of the stake holder and legitimacy theories in mind. Thus, the independent variables measured in this study include; Social and environmental sustainability, and the dependent factor in this research is firm value which measured through annual returns over time.

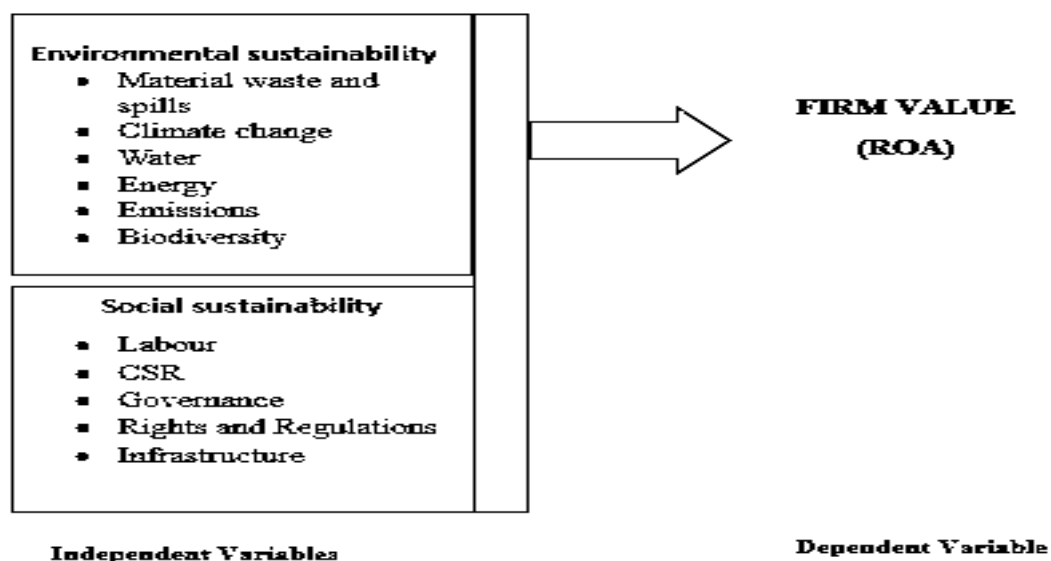


Figure 1: Conceptual framework:
Source: Authors own design, 2023

3.4.1 Hypothesis test development

3.4.2

Null Hypothesis (Ho): There is no significance difference between SAR and firm value

Alternative Hypothesis (H1): There is a significance difference between SAR and firm value

3.4.2 Operationalization of the Variables

Firms use GRI to examine the impact SAR on firm value. A firm’s adherence levels to SAR can be directly found in the GRI database that includes the GRI standards, G4, G3, and G3.1, citing and non-GRI which has now become one of the main variables used in testing the impact of sustainability reports on firm value (Nguyen, 2020). There is a variety of variables of factors under SAR that can be quantitatively assed or evaluated to determine the extent of value created for different stakeholders. For the purpose of this study the following variables were used to assess the impact of SAR on firm value. The measurable variables include:

Firm value: This variable measures metrics such as revenue growth, profitability, and return on Assets (ROA) return on capital and shareholder value. For this study ROA was used.

1. Environmental sustainability: This was measured using indicators such as carbon emissions, waste reduction, community involvement and social responsibility initiatives as well as the amount of funds allocated to such activities.
2. Social sustainability: This was measured through indicators such as level involvement in social responsibility initiatives, and disclosure of the mentioned activities. The variables were also measured through the number of resources allocated to such activities.

These measurable variables, helped this research to assess their performance in sustainability reporting and its impact on firm value. Further, in order to operationalize the study variables, the influence of SAR on firm value in this study was measured by a firm's compliance level to SAR variables as stated above. The strategy was to reveal a firm's compliance levels on sustainability so that it is likely that the higher a firm's compliance on sustainability the more it more is seen to be transparent and maintain sustainability

The use SAR and firm value relationships scores has become an important pillar of CSR in the development of strategies that affect a firm's financial performances, and by companies using SAR to disclosure of data covering business operations relating to environmental, and social and governance aspects of the business Firms progress relating to these three fields can be measured against benchmarks and targets. Identifying measurable variables is important for Firms who are interested in knowing whether SAR scores are related to better economic performance for all stakeholders including Investors, employees, and customers. The research addressed the impact of SAR disclosures on firm value by using above stated measurable variables.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

This chapter presents the methods employed in the study by providing a description and explanation of the procedures and methods used in conducting the study. It describes key methodologies such as the study design, population, samples, data collection procedures and instruments as well as data analysis and tools utilized.

4.2 Research design Method

The study adopted pragmatic philosophy employing panel content analysis to examine the annual reports, separate sustainability reports and websites of the companies listed on LUSE, analyzing data from 2012 to 2022 financial reporting period. As of February, 2022, there were 22 companies listed in the Lusaka Stock Exchange in at least industry 5 categories. For a company to be selected, the company must have either published annual reports and accounts that contain substantial evidence of sustainability performance indicators within the 10 years study period or a standalone sustainability report in either type (e.g., sustainability reports, corporate social responsibility reports, corporate social responsibility progress breports, integrated reports corporate environmental reports) in accordance with the GRI sustainability standards. Annual reports from 2022 to 2022 were used based on the fact that it is mandatorily required by law (e.g., Company and Industrial Acts) for companies to publish these reports every year, so those that did not published within the period under consideration in this research were excluded. The sustainability reports are published voluntarily by companies every year as a complement to annual reports to show how socially responsible the company is. Since it is not required by law in Zambia, some of the companies (22) did not publish sustainability reports, while about 3 did not have their sustainability reports published on their websites as a standalone report. The remainder were only about 19 companies. The top 19 companies selected were drawn from 5 industry classification of banking or financial sector, energy, Agri-forest, Manufacturing and Mining Sector as seen in the Table 1.

Number	Table 1: Industry classification of LuSE Listed Companies
1	Financial & services sector
2	Agri-forest sector
3	Mining sector
4	Manufacturing sector
5	Energy sector

4.3 Target Population

This study targeted all companies listed on LuSE. According to the LuSE website there are only 22 listed companies in Zambia as of 2023 (LuSE, 2023). The research population comprised of all 22 companies listed on the LuSE and in this research used the Annual reports from 2012 through to 2022 that were produced annually by firms listed on LuSE.

4.4 Sampling and Sample size

The census sampling approach was used in the sampling and collection of the primary and secondary data. This approach was suitable in this study because of the small population size which is manageable. Currently there are only 22 listed companies on the LuSE. This is a manageable population given that the data used is company's annual reports and the technique based only on document review analysis was used to analyze the data. The sample size was therefore 22.

4.5 Data collection

The data was collected by means of document analysis of annual and sectors reports. The stud used data from 2012 to 2022 and this time period was picked of convenience and data availability. The use of checklist tool for data collection has been echoed by Dr Neha Deo (2021) a statistician as one of the comprehensive tools for data collection. This method of data collection is also supported by (Frels, Sharma and Onwuegbuzie, no date; Gebel *et al.*, 2020, 2020) who argued that checklist method provides summarized central results and present core conclusions. Therefore, in the checklist the firm was given one (01) point if the that sustainability variables were present and reported on and zero (0) if absent.

4.6 Sustainability Reporting Scoring Metric and Firm Value measurement

To quantify the extent of sustainability reporting in annual reports by companies, key sustainability performance indicators provided by GRI framework were used. GRI has 79 performance indicators, out of which 79 the stud only picked indicators that were

significant to achieve the study objectives, majority of GRI indicators were left out to create a clear focus for the study. These indicators include disclosure of environmental initiative, disclosure of information on long term policy, etc. In line with Ching et al., (2014). Firms are awarded a score of one (1) for each of the sustainability information item disclosed, and a score of zero, if otherwise. By using the 'FIND' option, it was easy to trace the sustainability information in all the reports. Firm Value on the other hand was measured by Tobin's Q, which was defined as the ratio of the firm's market value to its accounting (book) value (Crisóstomo et al., 2011). To explain the firm value for sustainability information purpose, firm value was measured as the Tobin's Q. Notably, accounting, economic, finance literature recognize that Tobin's Q is the widely used proxy for firm value (Crisóstomo et al., 2011; Jo & Harjoto, 2011), which is a market-based indicator. The measure of firm value using Tobin's Q is preferred more, since it is less affected by managerial manipulation and different accounting methods compared to other accounting measures (Omar & Zallom, 2016). Thus, given that SAR is not the sole factor that influences firm value, another variable was incorporated as controls as suggested by previous studies. It regressed Tobin's Q on a range of variables corresponding to the hypothesis of Return of Assets (ROA) which is measured in terms asserts value of the firm (Jo& Harjoto, 2011).

4.7 Data reliability and validity

The data collected was reliable because it was collected from the annual reports produced by listed companies on LuSE. However, the validity of the data might not be fully guaranteed because of some extraneous variables especially that of history and selection bias. This is due to limited time of the research where it was feasible enough to institute control measures to improve the validity of the responses. Reliability in sustainability accounting and reporting refers to the consistency and accuracy of the data and information collected and reported in the research study. This study enhanced reliability conducting a pilot study and using the findings from pilot study to better data collection methods and ensure that an adequate sample size used to provide representative results. Further, the research used appropriate statistical techniques and analytical tools to analyses the collected data, seek feedback and input from other experts in the field. These measures enhanced the reliability of the research, leading to more accurate and credible findings in this field.

4.8 Pilot study

Pilot study is the study done prior to the main study and the main goal of conducting the pilot study is to test the reliability and validity of the of research instruments and methods as whole. It was important to conduct a pilot study before conducting the survey, because Peter (1994) stated that even the most careful instrument cannot guarantee to obtain 100% reliable data." Therefore, it was necessary to pre-test the survey instruments with a small sample size in a preliminary exercise to determine were there shortcomings so that they could be improved. A pilot study was conducted on 10 listed companies. This helped the researcher to identify the problems and possible research findings. The pilot study also helped determine whether the subjects of the observation device could produce the data needed for the study. Using simple random sampling, the researcher selected a sample of 10 listed companies, which was more than 10% of the study's sample size of 22 companies. According to Mugenda and Mugenda (2003), a sample equivalent to 10% of the research sample is sufficient for piloting research instruments. After responding to the devices, the researcher made the necessary corrections and adjustments to the data collection methods and instruments to increase their reliability.

4.9 Data analysis

The collected data from annual reports was then analyzed based on document review. This involved reading through the annual reports to understand the structure, content, and key sections such as financial statements, sustainability reporting and governance disclosures. The data collected was analyzed using, charts, tables, graphs, and regression and correlation analysis via Statistical and Analysis (SPSS) software version 26. Chisquare and panel data analysis were determining the nature and the degree of the relationship between the study variables (SAR and firm value). While regression analysis was utilized to establish the existing relationship between the dependent and independent variables (e.g., Social and Return on Assets trend) while accounting for individual and time effects.

4.10 Ethical Considerations

This research study was conducted within acceptable Ethical standards in terms of protecting the integrity of information in that the data that was collected was only used for the purpose of the study. Ethical issues that were considered included terms of access to data, and only data that was officially published on authorized websites was accessed, usage of data was only for the purpose of this study and there was transparency in the use of results of the study.

CHAPTER 5: RESULTS PRESENTATION

5.1 Introduction

This chapter presents the results of the research aimed at investigating the impact of sustainability accounting and reporting practices on firm value of the listed companies on the Lusaka stock exchange (LuSE) in Zambia. The listed companies included AECI, ATEL, BATA, BATZ, CEC, CHIL, MFIN/MAFS, NATB, PMDZ, ZMRE, PUMA, REIZ, SCZ, SHOPRITE, ZMBF, ZABR, ZAMEFA, ZNCO, ZCCM, ZFCO and ZSUG. The chapter is organized as follows; the levels of sustainability accounting and reporting among listed companies in Zambia, the relationship between sustainability accounting and reporting and firm value and the key drivers and barriers to implementing sustainability accounting and reporting practices in LuSE listed companies. The GRI framework indicator were used along with the 'FIND' option to trace the sustainability information in all the reports. Tables and graphs have been provided for easier illustration for the reader.

5.2 The extent of sustainability accounting and reporting practices among LuSE listed companies in Zambia

The information used in this research was exclusively taken from the official websites of the companies of the sampled banks, on the Bank of Zambia website, from the reports on transparency and publication requirements for 2012, 2013 2014, 2015 and through to 2022. The listed companies were grouped in terms of sectors for easy analysis.5.1 The levels of sustainability accounting and reporting among listed companies in Zambia. Table 1 shows the comparative levels of disclosure of sustainability practices by sector on the LUSE from 2012 to 2022. To establish the level and percentage of SAR disclosure the study used GRI framework performance indicators, supported by Ching et al., (2014). Were firms from various sectors awarded a score of one (1) for each of the sustainability information item

disclosed, and a score of zero, if otherwise? By using the ‘FIND’ option, it was easy to trace the sustainability information in all the reports.

As indicated by Table 1 below, the finance and mining sectors from the sample had the highest levels of disclosure at 91% and 82% respectively while manufacturing and Energy sectors from the study showed the lowest levels of disclosure of 71% and 76%. Over disclosures of sustainability practices have increased gradually with the financial sector disclosures increasing from a decade ago when the lowest was at 30% but has exponentially risen to 91%. However, growth in the Agri-sector was slow but gradual from 59% a decade ago to 79%. The overall average sustainability index from 2012 to 2022 was found to be 48%.

Table 2; Disclosure of sustainability practices by sector among LuSE listed companies

Categories	2012	2014	2016	2018	2020	2022
Financial & services sector	30	71%	37%	76%	88%	91%
Agri-forest sector	59%	74%	62%	76%	71%	79%
Mining sector	32%	86%	29%	79%	74%	82%
Manufacturing sector	33%	86%	32%	91%	81%	71%
Energy sector	34%	70%	34%	75%	63%	76%

Source: Authors’ calculations based on research results.

5.2.1 Sustainability disclosure pattern of public limited listed companies in Zambia

Table 2 below shows by components the overall sustainability disclosure pattern of public limited listed companies in Zambia. It shows that environmental disclosure is more prominently reported on than social sustainability indicators. All the companies included in the sample make higher disclosure and show more compliance for environmental disclosure patterns. The table shows that environmental disclosure is increasing steadily from 2012 to 2022. Accordingly, the sustainability reporting index is also an increasing trend, as in 2012; sustainability reporting indices are 0.37 and 0.47 in 2022. The overall average environmental sustainability index was found to be 44% and the overall average social sustainability index was found to be 42%.

Table 3 Description and measurement of variables

Sustainability reporting level						
	2012	2014	2016	2018	2020	2022
ENI	0.38	0.42	0.44	0.45	0.46	0.49
SOI	0.39	0.38	0.41	0.43	0.44	0.47

Note. ENI = environmental indicators; SOI = social indicators

5.2.2 Levels of disclosure of social responsibility practices

According to table 3 level of disclosure of social responsibility practices among LuSE listed firms was found to be gradually increasing in all item factors of social responsibility. However, disclosure was found to be relatively high in rights and regulations, infrastructure and labor.

On the other hand, the disclosure was found to be low on corporate strategy and CSR. All in all, the disclosure of social responsibility was deemed to be good.

Table 4 Levels of disclosure of social responsibility practices

<i>Social Responsibilities</i>	<i>2012</i>	<i>2014</i>	<i>2016</i>	<i>2018</i>	<i>2020</i>	<i>2022</i>
<i>Corporate strategy</i>	<i>10%</i>	<i>8%</i>	<i>10%</i>	<i>52%</i>	<i>13%</i>	<i>53%</i>
<i>CSR</i>	<i>5%</i>	<i>10%</i>	<i>10%</i>	<i>61%</i>	<i>26%</i>	<i>69%</i>
<i>Rights and Regulations</i>	<i>0%</i>	<i>0%</i>	<i>0%</i>	<i>90%</i>	<i>0%</i>	<i>90%</i>
<i>Labour</i>	<i>50%</i>	<i>40%</i>	<i>50%</i>	<i>63%</i>	<i>38%</i>	<i>70%</i>
<i>Infrastructure</i>	<i>35%</i>	<i>30%</i>	<i>38%</i>	<i>88%</i>	<i>63%</i>	<i>88%</i>

Source: Authors' calculations based on research results

5.2.3 The disclosure of Environmental sustainability practices

Table 4 reflects the levels of disclosure of environmental performance by sector of companies listed on LuSE for 2012 and 2020.

Table 4 shows that companies performed quite well in terms of disclosure on Environmental sustainability performance based on indicators among LuSE listed companies. The study found

that most LuSE listed companies had relatively low levels of environmental sustaining activities a decade ago with some inconsistent improvements in recent years.

Table 4. Comparative levels of disclosure of environmental

	2012	2014	2016	2018	2020	2022
Material waste and spills	8%	13%	48%	9%	65%	72%
Climate change	4%	4%	42%	4%	57%	60%
Water	9%	9%	52%	9%	65%	68%
Energy	20%	9%	52%	9%	65%	62%
Emissions -	5%	9%	48%	9%	61%	52%
Biodiversity	3%	4%	26%	4%	30%	

Source: Authors' calculations based on research results

5.3 The impact of sustainability accounting and reporting on firm value.

5.3.1 Trends in ROA from all five sector of firms listed companies

To determine how sustainability and accountability affects firm value, the research analyzed the firms return on assets ratios for all the businesses listed on LUSE by sectors. The study utilized average return of assets per sector each year to come up with trend. The retain assets ratio for the year 2012 to 2022 were computed for all five selected grouped sectors as depicted in figure 2; Financial and services sector, Agri-forest sector, mining sector, Manufacturing sector and Energy sector and were all above 5%. The ratio greater than 5% is considered good.

In the simplest form ROA ration measures how effective a company's asset can generate revenue. With this ratio, the firm is able to know what it can do with what it has in its possession in long run it also acts an indicator for the firm value. From the observation the trend in ROA has been increasing from 2012 to 2022.

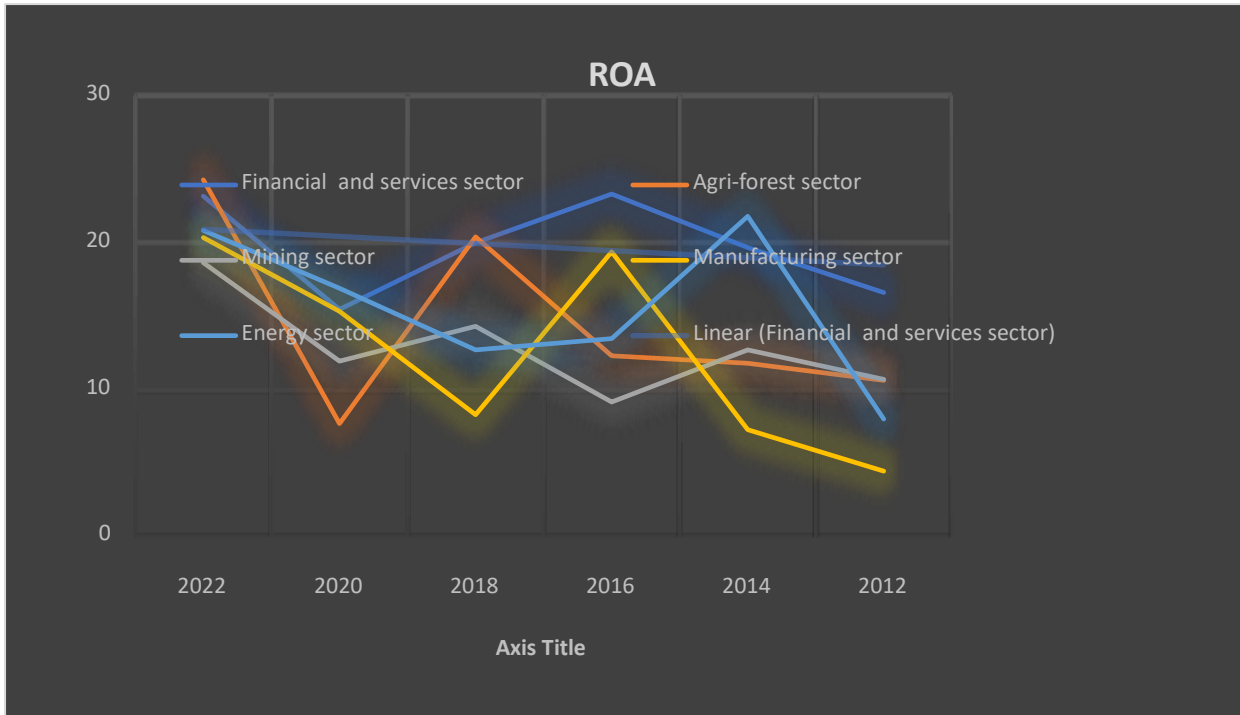


Figure 2: Trends in ROA from all five sector of firms listed companies

5.3. Relationship between environmental and social sustainability and firm value (ROA).

Overall regression model was significant, [0.001], $P < 0.05$, $R^2 = 0.032$. We reject the null hypothesis and accept the alternative hypothesis since the overall F- test is less than the significant level. Since the p-value is less than the significance level, the data provide sufficient evidence to conclude that your regression model fits the data better than the model with no independent variables. This finding means that the independent variables in the model improve the fit. Hence, the study has determined that sustainability accounting and reporting has an impact on firm value.

Table 5: Summary of the chi-square Analysis on the relationship between environmental and social sustainability and firm value (ROA)

Table 5: Likelihood Ratio Tests			
Effect	Model Criteria	Fitting	Likelihood Ratio Tests

	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	101.674 ^a	.000	0	-.
ENI	191.675	90.001	1	.000
SOI	128.713	27.039	29	.570

Intercept: Return on Assets (ROA)

Key. Dependent variable: ROA= Return on assets. ENI = environmental indicators; SOI = social indicators

5.3.1 Results of Descriptive Statistics and Correlation Analysis

Variables with continuous values were winsorized at the top and bottom one percent (1%) of their distribution, to diminish the effects of extreme values in OLS regression. Descriptive statistics of the variables used in the estimation of model (1) are presented in Panel A of Table 6. Tobin's Q as the proxy of firm value has a mean value of 0.91. The median and standard deviation for Tobin's Q is 0.69 and 0.70 and for ROA 0.07 and 0.22 respectively. The mean and standard deviation for SR is 0.63 and 0.48 respectively. The mean values for the rest of the variables are 22.02, 0.40, 0.09 and 2.95 for FSZ, ROA and firm age, respectively. The highest variance inflation factor (VIF) value of 1.216 suggests that collinearity among variables is very low, indicating that there is no chance of a multicollinearity issue. This argument was reinforced by the tolerance values as well. The tolerance values of all the variables were very high (> 0. 823). The Pearson correlation among the variables is shown in Panel B of Table 6. As hypothesized, SAR has a significant association with the firm value. The result confirmed there is a positive association between SR and firm valuation in Zambian LuSE listed firms, suggesting that firms that act in socially responsible ways are more likely to have a premium value. This finding was further validated by the regression analysis results (Table 6). It also shows that all the control variables have significant correlations with the dependent variable at the alpha level of 0.01

Table 6. Results of Descriptive Statistics and Correlation Analysis

Panel A: Descriptive Statistics

	Mean	Median	Standard Deviation	<u>Tolerance</u>	VIF
Tobin's Q	0.91	0.69	0.70	0.934	1.071
SR	0.63	0.07	0.48	0.862	1.160
ROA	0.09	0.09	0.11		

Panel B: Correlation Matrix

	<u>Tobin's Q</u>	SR	<u>ROA</u>		
Tobin's Q	1				
SR	.170**	1			
ROA	.198**	.175**	.227**	.097**	1

Note: N =880; *, ** indicate statistical significance at the 0.05 and 0.01 level respectively (2tailed tests).

Furthermore, panel regression was used to determine whether the SAR significantly influenced firm value by analyzing the results of the multiple regression models, which were summarized and tabulated. To control the unobserved heterogeneity in the data, problems relating to the estimation of fixed and random effects were incorporated. A recent study conducted by Pantzalis and Park (2017) noted that previous researchers had struggled to find good instrumental variables as a potential solution to the endogeneity problem; therefore, in their study they suggested fixed effects panel regression. From this it is clear that the key advantage of the fixed effects model (FEM) is in controlling the possible effects of unobservable variables by using dummies, in the case of panel data analysis. As a result, both the FEM and random effects model (REM) are used to test the formulated hypothesis regarding corporate SAR and firm value. At the same time, the Hausman test was employed to select the appropriate specification between FEM and REM. The specification tests concluded that FEM was the best method to interpret the association between sustainability disclosure and firm value. Thus, the R2 value apparent in Table 2 under the FEM is 19.54 percent. As depicted in the table 7, the coefficient of SR shows a positive and statistically significant effect on Tobin's Q, under the FEM ($p < 0.01$). The finding was in line with the prediction, and so hypothesis was accepted. Where control variables are concerned. ROA had positive influence on firm value at the level of 0.01 and 0.1 respectively (Table 7).

Table 7: Panel Data Analysis Results – Relationship between SAR LuSE and Tobin’s Q

	Pooled OLS		Fixed Effects	
	Coefficient	P (Sig)	Coefficient	P (Sig)
Observations	880		880	
No. of groups			220	
Intercept	2.065	0.000	6.570	0.000
SAR	0.306	0.000	0.205	0.000
ROA	1.393	0.000	0.590	0.000
R ² - overall	0.3386		0.1954	
F-test				
χ ²			12.11	
Prob.			0.0000	
Hausman test				
χ ²			43.80	
Prob.			0.0000	

5.4. The drivers that motivate companies implementing sustainability accounting and reporting practices in LuSE listed companies

The further desk review was conducted to determine some of the drivers that motivate companies implementing sustainability accounting and reporting practices in LuSE listed companies. 48 studies were analyzed and several factors were identified as key drivers of the implementing SAR practices in LuSE listed. However, studies were excluded if they examined determinants of sustainability reporting but did not analyze SAR reporting as a dependent variable (LuSE).

The following are the item Drivers, based on the extensive literature review:

Profitability: Listed companies with higher and good profitability were more likely to implement sustainability reporting than companies with low profitability, SAR implementation was seen as an extra cost to the business hence some companies tried to avoid it.

Capital structure: Capital structure refers to the mix of various forms of external funds also known capital, used to finance a business, this includes shareholder equity, debt and preferred stock. Therefore, Businesses with high capital structures are more inclined to

implement sustainability accounting and reporting framework since it helps them to better run their companies.

Media visibility; Media visibility is a medium for transparency of firm information with its aim of being recognized by the public (Humanities & Ghozali, 2018) and communicating with investors (OuYang et al., 2017). One of the past studies stated that media visibility is an external determinant which is consistently found to have a significant positive impact on SR disclosure (Dienes et al., 2016). This is aligned with research by Gavana et al. (2017) which stated that media visibility increases corporate voluntary disclosure and shows that media visibility significantly impacts SR

Corporate governance structure: Corporate governance refers the whole set of measures taken within the social entity that is an enterprise to favor the economic agents to take part in the productive process, in order to generate some organizational surplus, and to set up a fair distribution between the partners, taking into consideration what they have brought to the organization (Maati, 1999). In other terms it can be defined as the system by which companies are directed and controlled". From these definitions it may be stated more generally that different systems of corporate governance will embody what are considered to be legitimate lines of accountability by defining the nature of the relationship between the company and key corporate constituencies. So, by definition just it can be seen that firms with established governance are more likely to implement sustainability accounting and reporting framework than firms without an independent board no existing board.

Ownership structure: Companies with good and large ownership structures were able to report on their sustainability accounting, sole and family held enterprise tend not to avoid SAR implementation, hence ownership structures play a major role in the implementation of SAR framework.

Firm size: In Zambia the main source of corporate capital comes from third parties or creditors who are mostly attracted to firm size and performance perception. Firms with a high financial leverage will tend to disclose more information to creditors, suppliers, and investors with the aim of creating greater confidence in all stakeholders and give assurance to creditors that the firm can meet its financial obligations as they fall due and has the capacity to increase opportunities and get a good investment from financial markets (Nguyen & Nguyen, 2020). Leverage is used by firms to fund their operations. Firms that have a high level of leverage

are more likely to allow firms to violate credit agreements, so that firms could report sustainability reports to persuade and get credit loans from stakeholders.

Firm age: Companies that have been established or operated for a long time usually disclose information about the company's social and environmental activities (Fahad & Nidheesh, 2020). When a firm has a great and big reputation, the firm experiences greater pressure in maintaining its strong reputation, like fulfilling the demands of stakeholders by expressing and engaging in their social responsibility activities (Yu & Liang, 2020).

CHAPTER 6: DISCUSSION

6.1 Introduction

This chapter presents a discussion of the results. It begins by discussing the levels of SAR among LuSE listed companies, the impact of SAR on firm value and lastly discusses the drivers to the implementing sustainability accounting and reporting practices in LuSE listed company's characteristics and focuses on the study objectives. For better understanding of the presentation and ease of emphasis, the discussion has been separated into three segments with each segment focused on one predictor variable and the predicted variable. The present study fulfilled its original objectives satisfactorily by providing answers to the research questions that prompted this thesis and provided an insight into the sustainable accounting

behavior of companies and the application of the principles of sustainability accounting among LUSE listed companies in Zambia.

6.2 Discussion of the Key Findings

The low levels of disclosure among small companies could have been due to failure to fully report sustainable activities rather than to a lack of the activities themselves. The overall average sustainability index from 2012 to 2022 was found to be 48%. Whilst the overall average environmental sustainability index was found to be 44% and the overall average social sustainability index was found to be 42%. The results obtained in this study were found to be slightly higher than the UN reported Zambia's sustainability index of 41% standing at number 3 in Africa. Though there was a difference, the differences are too minimal as such it was attributed to time differences between which the study were done and some of the modalities that each study used. From the result of the study, it was revealed that an increase in environmental sustainability activities of listed companies would have a positive and significant effect on the firm value. overall average environmental sustainability index was found to be 44%. This implies that environmental reporting issues are considered a vital component of sustainability reporting among listed firms. Thus, the increasing need for organizations to voluntarily disclose in their annual report's activities carried out between them and the society. If the listed firms have high environmental impact on its society, it will in turn have positive effect on its performance and also its assets which will ultimately impact higher sustainability reporting. This finding is in line with the findings of Roy and Gosh (2011); Aliyu (2018); Olayinka and Oluwamayowa (2014); Khaveh, Nikhasemi, Haque and Yousefi (2012) but disagree with the findings from Sejati & Prastiwi (2015) which stated that the reason for the insignificant effect of the disclosure of sustainability reports on firm value may be that investors are more interested in buying shares of companies that generate expected profits and do not care about the disclosure of sustainability reports.

Regarding the impact of sustainability, that is environmental and social sustainability, the study utilized average return of assets ratio per sector for the year 2012 to 2022 from all five selected sectors under LuSE listed companies. The ROA for Financial and services sector, Agri-forest sector, mining sector, Manufacturing sector and Energy sector and were all above 5%. The ratio greater than 5% is considered good. In the simplest form ROA ration measures how effective a company's asset can generate revenue. With this ratio, the firm is able to know what it can do with what it has in its possession in long run and it also acts as an

indicator for the firm value. From the observation the trend in ROA has been increasing from 2012 to 2022. Overall regression model was significant, $[0.001]$, $P < 0.05$, $R^2 = 0.032$, and since the p value was less than the significance level, the data provide sufficient evidence to conclude that the regression model fits the data better than the model with no independent variables. This finding means that the independent variables in the model improve the fit. Hence, the study has determined that sustainability accounting and reporting has an impact on firm value. Based on the model, it was determined that Environmental and social sustainability indicators played a pivotal role in firm value. These results show that corporate sustainability reporting index was positive and had a significant impact on firm performance in Zambia. The current findings go hand in hand with the literature (Cheung et al., 2010; De Villiers and Marques, 2016; Jo and Harjoto, 2011; Kuzey and Uyar, 2017; Lo and Sheu, 2007; Yu and Zhao, 2015), which provides ample evidence of a significant positive relationship between SAR and firm value. In addition, the results of this study support the theory of added value, according to which a company's participation in SAR brings added value to that company. If a company behaves in a socially commendable manner, society's perception of the company would be much more favorable, and as a result, the company is likely to be rewarded with a high value in the capital markets. In other words, a company's ethical reputation could be considered an intangible asset that shapes the market price of a company's stock while rewarding capital market investors. This is because the sustainable investor is interested in aggregating their ratings and transferring them to the company either as a financial reward or as a penalty. Overall, these results indicate that companies that disclose sustainability information have higher firm value and this has led to most listed companies to consider sustainability disclosure as a value-related practice. Interestingly, this finding by Crisostomo et al. (2011) who reported a significant negative effect of SAR on firm value. The findings related to the control variable are also consistent with the findings of Kuzey and Uyar (2017), Lo and Sheu (2007), and Yu and Zhao (2015). Similar studies in this respect have documented a positive relationship while investigating firm financial performance and corporate sustainability as suggested by Hillman and Keim (2001) and AlTuwaijri et al. (2004). These previous studies support the results given in the univariate and multivariate regression analysis for the positive association between corporate sustainability and firm performance. These results are also in accordance with instrumental stakeholders' theory stating that a firm can effectively benefit financially if it deals with the entire stakeholder's relationship in an effective manner (Donaldson & Preston, 1995). Jones

(1995), in this respect, also states that sustainability practices lead to competitive advantage by minimizing the transaction costs and agency costs as well.

The study determined that firm size, media visibility and ownership structure are the most important drivers of the disclosure of sustainability reports, while corporate governance only seems to have an influence on the existence of audit or sustainability committees. In contrast, other determinants such as profitability, capital structure, firm age or board composition as an indicator of corporate governance do not show a clear tendency. These results are also in accordance with findings of Kaur and Lodhia (2019) who suggest that the effectiveness of stakeholder engagement can be undermined by certain difficulties and challenges faced by an organization. These include limited resources, lack of commitment from internal stakeholders, political factors, heterogeneous concerns, inadequate representation and unwillingness to engage. As is common with many other studies, particularly those conducted in emerging and developing markets is that the results should be considered with caution. This is because the measure of SAR variable represents only whether the particular firm discloses sustainability information or not, without providing an adequate insight into the quality of the reporting. Thus, the results reported in this study may not suffice to confirm the causality. However, this measurement issue is not a specific issue encountered by just this study. In fact, it is a common issue faced by many other international researchers as well. Moreover, the scope of the current study was limited only to the listed companies in Sri Lanka. This limits the generalizability of the study results to all companies (non-listed companies) in the country. As for the implications of this study, the researchers believe that the knowledge gained from the findings will be useful to many parties including capital market participants, managers, regulators, social and environmental activists and academics.

CHAPTER 6: CONCLUSION AND RECOMENDATIONS

7.1 Introduction

This chapter provides conclusion in the study of the Impact of SA) on Firm Value-A Case Study of Listed Company's on LuSE. Thus, the chapter sums up the research by providing a conclusion of the findings, providing recommendations as well as recommendation for further studies.

7.2 Conclusion

From the findings, it can be concluded that there are reporting patterns emerging across and within the companies listed on the LuSE. The level of disclosures of sustainability practices was found to be relatively high compared from the decades ago. The overall average sustainability index from 2012 to 2022 was found to be 48%. The overall average environmental sustainability index was found to be 44% and the overall average social sustainability index was found to be 42%. This shows that the practices of SAR have been increasing though somehow inconsistently. This suggests that, while companies might seem to be following the LuSE Index guidelines for sustainability reporting to the letter, there could still be gaps in the definitions and lack of understanding of the criteria and the procedures for reporting. The results revealed that largest firms from various sectors chose to report more on environmental, than on social sustainability. This study revealed that non-economic disclosure of information based on regression model used in this study has significant impact on firm performance. The findings revealed that environmental disclosure indicators and social disclosure indicators are the influencing factors for explaining firm performance. Therefore, environmental and social disclosure leads to stakeholder's trust building. LuSE Listed companies in Zambia may use findings of this study to attract ethical investors and to legitimize their activities in society. This study also shows that traditional indicators for financial reporting may not accurately assess firm value. Stakeholders should also consider corporate sustainability reports for the accurate assessment of firm's value; it also helps to achieve the larger goal of sustainable development. The integration of sustainability reporting in a firm's corporate strategy helps it to attain a sustainable competitive advantage. Government needs to be belligerent and efficient in coping with the challenges being faced in the process of sustainability reporting in Zambia, to ensure the

trust of all stakeholders and make the sustainability reporting system of listed firms more adequate and reliable.

7.3 Study Limitation

The major limitations of the findings were that sustainability accounting and reporting face considerable challenges in the developing countries like Zambia. Some countries are yet full disclosure of sustainability especially on social and environmental aspect. Hence some listed firm did not have some data on SAR. While companies might seem to be following the LuSE index guidelines for sustainability reporting to the latter, there were still be some gaps in the definitions and lack of understanding of the criteria and the procedures for reporting. The results reviewed that the largest firms from various sectors chose to report more on financial and economic pillars than environmental, and social sustainability. However, despite this limitation the researcher managed to gather enough data for the comprehensive results and valid conclusion.

7.4 Study Recommendations

- Sustainability reporting can increase the trust and confidence of an organization's stakeholders, as well as the legitimacy of its operations (IoD, 2009, p. 10). The satisfactory reporting on ESG categories across the selected market sectors suggests that overall investor trust and confidence could be reinforced by the companies' good reporting practices. In the Governance category the indirect impacts are not reported on extensively both across and within the identified sectors. To this the study recommends that;
- Firms choose the right framework that suits their industry in order to improve their sustainability reporting credibility. A framework provides them with guidelines, indicators and standards to measure and disclose your ESG impacts and achievements.
- Strengthen the monitoring and performance measurement frameworks, monitoring and measuring the performance is a key part of robust sustainability reporting.
- Firms should strive to understand their company's and stakeholders' needs, it is important to first make sure firm's sustainability report is focusing on those issues which are most important to your stakeholders and business.

7.5 Recommendations for Further studies

Therefore, based on the study findings and limitation of this study, the researcher recommends that there should be further studies to discuss following:

- To determine if the difference in disclosure levels was due to inexistence of sustainable activities or lack of reporting skills in the LUSE.
- The influence of the integrated reporting initiative on sustainability reporting and the role of accounting and accountants in this regard;
- Accounting study for specific environmental issues such as Carbon, Water, Waste and Biodiversity and the implications for sustainability.
- Accounting study for specific social issues such as health and safety, product responsibility, labor, gender, diversity, human rights, equity, modern slavery and the implications for sustainability.
- A study to establish institutional differences if any Zambia and South Africa determine whether they are the causes of the differences in sustainability reporting practices between two countries listed companies.

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APPENDICES Appendix I: PROJECT TIMELINE AND BUDGET

Time Period	Week 1	Week 2 - 3	Week 4	Week 5	Week 6	Week 7	Week 8
Proposal Defense							
Chapter 1 – 3							
Design Questionnaire & Interview Questions							
Review/Validation of Questionnaires							
Administer Questionnaire/							
Collection of Questionnaires							
Data Preparation, Analysis & Conclusion							
Proof-read							
Submit final report							

APPENDIXIB: BUDGET

Item	Amount in Kwacha
Transport Fuel	K2,000
Contingency	K1000
Printing	K3,500
Internet services	K2, 500
Total	K9,000

THE UNIVERSITY ZAMBIAN

GRADUATE SCHOOL OF BUSINESS

APPENDIX II: Introductory Letter

Title: Impact of Sustainability Accounting and Reporting (SAR) on Firm Value-A Case Study of Listed Company on Lusaka Stock Exchange (LUSE).

Dear Respondent,

I am Hilton CHinyonga a student at the University of Zambia studying **Masters of Science in Accounts and Finance** at the graduate School of Business. I am conducting a study aimed at establishing the effect of quality management practices in Construction project in organizations. As such you have been identified as a key informant to participate in this research. You are therefore, requested to provide answers to questions contained in this questionnaire. However, be assured that the findings of this research are purely for academic purposes. Thus, your response will be treated with the greatest level of confidentiality.

The research findings will be of benefit to policy makers and will help our Government with information needed to boost sustainability accounting and reporting not just among LUSE listed companies but all companies countrywide.

Thank you in anticipation

Signature.....

Hilton Chinyonga

+260 963468444

APPENDIX III: OBSERVATION CHECKLIST

TOPIC: Impact of Sustainability Accounting and Reporting (SAR) on Firm Value: A Case Study of Listed Company on Lusaka Stock Exchange (LUSE).

DEAR RESPONDENT:

I am in my final year of a Master's degree program at the University of Zambia. My academic program allows me to conduct an academic research thesis on the aforementioned subject. As a respondent to this questionnaire, you were chosen at random. Please respond to the questions as frankly, openly, and honestly as possible. Since your response will have no effect on you, it will be my duty to handle all comments with the utmost discretion. Thank you in advance for your eagerness.

INSTRUCTIONS

1. Please answer each question by ticking in the provided space []
2. You are requested to tick only one option per question.
3. You should fill in the spaces where you are required to give an explanation.

SECTION A: SUSTAINABILITY ACCOUNTING AND REPORTING PRACTICES IN ZAMBIA

Kindly tick which of the following as is a sustainability accounting and reporting practice

SERVICES		Tick (x)
1.1	Financial performance	
1.2	Customer Satisfaction	
1.3	Employee satisfaction and engagement	
1.4	Social and environmental impact	
1.5	Regulatory compliance	

1.6		
1.7		
1.8		
1.9		
1.10		

SECTION C: FACTORS THAT INFLUENCE THE IMPLEMENTATION OF SUSTAINABILITY PRACTICES AMONG LUSE LISTED COMPANIES IN ZAMBIA.

To what extent do the following factors influence the financial performance of a company listed on the LuSE

1=Very High 2=High 3=Medium 4=Low 5=Very low

Factors		Very High	High	Medium	Low	Very Low
1.1	Financial performance					
1.2	Customer Satisfaction					
1.3	Employee satisfaction and engagement					
1.4	Social and environmental impact					
1.5	Regulatory compliance					
1.6						
1.7						

1.8						
1.9						

THANK YOU

APPENDIX V: ETHICAL APPROVAL LETTER



**THE UNIVERSITY OF ZAMBIA
DIRECTORATE OF RESEARCH AND GRADUATE STUDIES**

Great East Road Campus | P.O. Box 32379 | Lusaka 10101 | Tel: (+260-211-290 256/291 777) Fax: (+260-211-290 290/233 952) | E-mail: director@unz.zm | Website: www.unz.zm

APPROVAL OF STUDY

IORG No. 6095376
HSSREC IRB No. 09806464
REF NO. HSSREC-2023- SEPT -050

6th October, 2023

Mr. Hilton Chinyonga
The University of Zambia
P.O. Box 32379
LUSAKA

Dear Mr. Chinyonga

RE: "IMPACT OF SUSTAINABILITY ACCOUNTING AND REPORTING (SAR) ON FIRM VALUE - A CASE STUDY OF LISTED COMPANY ON LUSAKA STOCK EXCHANGE (LuSE)".

Reference is made to your submission of the protocol captioned above.

The HSSREC resolved to approve this study and your participation as Principal Investigator for a period of one year.

Specific conditions will apply to this approval. As Principal Investigator it is your responsibility to ensure that the contents of this letter are adhered to. If these are not adhered to, the approval may be suspended. Should the study be suspended, study sponsors and other regulatory authorities will be informed.

REVIEW TYPE	ORDINARY REVIEW	APPROVAL NO. HSSREC-2023- SEPT-050
Approval and Expiry Date	Approval Date: 6 th October, 2023	Expiry Date: 7 th October, 2024
Protocol Version and Date	Version - Nil	7 th October, 2024
Information Sheet, Consent Forms and Dates	<input type="checkbox"/> English.	To be provided
Consent form ID and Date	Version - Nil	To be provided
Recruitment Materials	Nil	Nil
Other Study Documents	- Questionnaire - Interview Guide	
Number of Participants Approved for Study		

Conditions of Approval

- No participant may be involved in any study procedure prior to the study approval or after the expiration date.
- All unanticipated or Serious Adverse Events (SAEs) must be reported to HSSREC within 5 days.
- All protocol modifications must be approved by HSSREC prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address.
- All protocol deviations must be reported to HSSREC within 5 working days.
- All recruitment materials must be approved by HSSREC prior to being used.
- Principal investigators are responsible for initiating Continuing Review proceedings. HSSREC will only approve a study for a period of 12 months.
- It is the responsibility of the PI to renew his/her ethics approval through a renewal application to HSSREC.
- Where the PI desires to extend the study after expiry of the study period, documents for study extension must be received by HSSREC at least 30 days before the expiry date. This is for the purpose of facilitating the review

process. Documents received within 30 days after expiry will be labelled "late submissions" and will incur a penalty fee of K500.00. No study shall be renewed whose documents are submitted for renewal 30 days after expiry of the certificate.

- Every 6 (six) months a progress report form supplied by The University of Zambia Humanities and Social Sciences Research Ethics Committee as an IRB must be filled in and submitted to us. There is a penalty of K500.00 for failure to submit the report.
- When closing a project, the PI is responsible for notifying, in writing or using the Research Ethics and Management Online (REMO), both HSSREC and the National Health Research Authority (NHRA) when ethics certification is no longer required for a project.
- In order to close an approved study, a Closing Report must be submitted in writing or through the REMO system. A Closing Report should be filed when data collection has ended and the study team will no longer be using human participants or animals or secondary data or have any direct or indirect contact with the research participants or animals for the study.
- Filing a closing report (rather than just letting your approval lapse) is important as it assists HSSREC in efficiently tracking and reporting on projects. Note that some funding agencies and sponsors require a notice of closure from the IRB which had approved the study and can only be generated after the Closing Report has been filed.
- A reprint of this letter shall be done at a fee.
- All protocol modifications must be approved by HSSREC by way of an application for an amendment prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address or methodology and methods. Many modifications entail minimal risk adjustments to a protocol and/or consent form and can be made on an Expedited basis (via the IRB Chair). Some examples are: format changes, correcting spelling errors, adding key personnel, minor changes to questionnaires, recruiting and changes, and so forth. Other, more substantive changes, especially those that may alter the risk-benefit ratio, may require Full Board review. In all cases, except where noted above regarding subject safety, any changes to any protocol document or procedure must first be approved by HSSREC before they can be implemented.

Should you have any questions regarding anything indicated in this letter, please do not hesitate to get in touch with us at the above indicated address.

On behalf of HSSREC, we would like to wish you all the success as you carry out your study.

Yours faithfully,



Dr. J. I. Ziwa

DR. J. I. Ziwa
CHAIRPERSON

THE UNIVERSITY OF ZAMBIA HUMANITIES AND
SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE - IRB

111: Director, Directorate of Research and Graduate Studies
Assistant Director (Research), Directorate of Research and Graduate Studies
Assistant Registrar (Research), Directorate of Research and Graduate Studies

THE UNIVERSITY OF ZAMBIA
DIRECTORATE OF RESEARCH AND GRADUATE STUDIES
HSSREC FORM 1b

HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS

COMMITTEE

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P O Box 32379 Fax: +260-211-

Lusaka,

Zambia

E-mail drgs@unza.zm

APPENDIX V: PARTICIPANT INFORMATION SHEET

(This template is for research interventions that use questionnaires, in depth interviews or focus group discussions)

(language used throughout form should be at the level of a Grade 8 student)

Notes to Researchers:

1. Please note that this is a template developed by HSSREC to assist the Principal Investigator in the design of their informed consent forms (ICFs). It is important that Principal Investigators adapt their own ICFs to the outline and requirements of their particular study by replacing words in red.
2. The informed consent form consists of two parts: the information sheet and the consent certificate.
3. Do not be concerned by the length of this template. It is long only because it contains guidance and explanations which are for you and which you will not include in the informed consent forms that you develop and provide to participants in your research.
4. This template includes examples of key questions that may be asked at the end of each section that could ensure the

understanding of the information being provided, especially if the research study is complex. These are just examples, and suggestions, and the investigators will have to modify the questions depending upon their study.

5. In this template:

- square brackets indicate where specific information is to be inserted
- bold lettering indicates sections or wording which should be included
- standard lettering is used for explanations to researchers only and must not be included in your consent forms. The explanation is provided in black, and examples are provided in red in italics. Suggested questions to elucidate understanding are given in black in italics.

Hilton Chinyonga. Ministry of Community Development and Social Services.

This Informed Consent Form has two parts:

- Information Sheet (to share information about the study with you)
- Certificate of Consent (for signatures if you choose to participate)

You will be given a copy of the full Informed Consent Form

Part I: Information Sheet

Introduction

Dear respondents, my name is Hilton Chinyonga a final year student pursuing a Master's degree at the University of Zambia. My program of study requires me to carry out an academic research study on the above topic. You have been randomly selected as a respondent to this questionnaire. Please may you answer the questions as freely, honestly and sincerely as possible. Your response will not have any bearing on you, it will be my responsibility therefore to treat all responses with maximum confidentiality. Thanking you in advance for your anticipation.

Purpose of the research

Sustainability accounting and reporting is the process of measuring and disclosing the social, environmental and economic impacts of an organization's activities. The purpose of this study is to provide organizations with a comprehensive knowledge and understanding of their environment, social and economic impacts. This will enable them to make informed decisions and take actions that promote sustainable development and long-term value creation.

Type of Research Intervention

This research will be conducted using published company annual reports and therefore may not need any participant involvement.

Participant Selection

There are no participants to be selected in this study. Data will be collected online from published company annual reports.

Voluntary Participation

There are no participants to be selected in this study. Data will be collected online from published company annual reports.

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Procedures

There are no participants to be selected in this study. Data will be collected online from published company annual reports.

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Duration

The research will over a period of 30 days. During this time, data will be collected from the official websites of listed companies and each document or annual report will be reviewed with focus on sustainability practices and indicators.,

Uses of information

The information collected from the company annual reports will be used to advance knowledge in the field of sustainability accounting and reporting.

Risks

The risk is low because the data to be used is already in public domain.

Benefits

They will be benefits attributed to stakeholders will gain knowledge and understanding in the field of sustainability development

Reimbursements

Confidentiality

All information collected will be used to advance knowledge and understanding in the field of sustainability development.

Who to Contact

This proposal or protocol has been reviewed and approved by HSSREC which is a committee whose task it is to make sure that research participants are protected from harm. If you wish to find about more about the IRB, contact:

Dr. Jason Mwanza Chairperson, Humanities and Social Sciences, Research Ethics Committee,

University of Zambia
P O Box 32379
LUSAKA

OR

Professor. Henry M. Sichingabula Director, Directorate of Research and Graduate Studies,

University of Zambia
P O Box 32379
LUSAKA

State if also it has been reviewed by a primary ethics committee by indicating an organization which may have reviewed the proposal. This primary ethics committee may be another university's ethics committee or a REC or IRB in another country) or an organization which is funding/sponsoring/supporting the study. Having granted ethical

approval by a primary ethics committee in another country does not preclude obtaining ethics approval in a study country.

"Approval to conduct this research has been provided by the University of Zambia, in accordance with its ethics review and approval procedures. Any person considering participation in this research project, or agreeing to participate, may raise any questions or issues with the researchers at any time.

In addition, if you are/ or any person is not satisfied with the response of researchers may raise ethics issues or concerns, and may make any complaints about this research project by contacting the HSSREC on the address stated above.

All research participants are entitled to retain a copy of any Participant Information Form and/or Participant Consent Form relating to this research project."

Part II: Certificate of Informed Consent

This section must be written in the first person. It should include a few brief statements about the research and be followed by a statement similar the one in bold below. If the participant is illiterate but gives oral consent, a witness must sign. A researcher or the person going over the informed consent must sign each consent.

Because the certificate is an integral part of the informed consent and not a standalone document, the layout or design of the form should reflect this. The certificate of consent should avoid statements that have "I understand...." phrases. The understanding should perhaps be better tested through targeted questions during the reading of the information sheet (some examples of questions are given above), or through the questions being asked at the end of the reading of the information sheet, if the potential participant is reading the information sheet him/herself.

I have been invited to participate in a research concerning sustainability accounting and reporting among firms listed on LuSE in Zambia.

(This section is mandatory)

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study.

Print Name of Participant _____
_____ Date _____

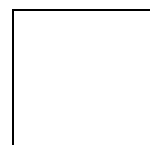
Signature of Participant
Day/month/year

If illiterate ¹

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Print name of witness _____

Thumb print of participant Signature of witness



_____ Date _____

Day/month/year

If vulnerable or incapacitated like pregnant women, children, people with mental illness, people with disabilities, prisoners and minority groups form instance, the investigator must ensure that there is a well-educated and motivated surrogate or proxy decision maker. When comprehension is an issue the research plan should include means of testing the participants' understanding of the important information prior to enrollment.

Statement by the researcher/person taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands.

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

¹ A literate witness must sign (if possible, this person should be selected by the participant and should have no connection to the research team). Participants who are illiterate should include their thumb print as well.

A copy of this ICF has been provided to the participant. Print
Name of Researcher/person taking the
consent_____

Signature of Researcher /person taking the
consent_____

Date _____
Day/month/year

CONTACTS FOR QUESTIONS (Names, addresses and phone numbers of
the following):

1. Principal Investigator (Must be a local person and a Zambian).

Names: Hilton Chinyonga

Phone: 0963468444

E mail: tonychinyonga@yahoo.co.uk

Physical address: 16514/m/c Lilayi

APPENDI VI: RESEARCH RAW DATA

Firm	Respondent Gender	Education	Title	Firm Age	Awareness	CR	NBRNC H	RO A	LD R
FNB	2.00	2.00	Front end operation manager	4.00	1.00	1.00	1.00	1.00	1.00
Stanbic bank	1.00	3.00	senior accountant	4.00	1.00	2.00	1.00	1.00	2.00
ZANAC O	2.00	2.00	operations manager	5.00	1.00	1.00	1.00	1.00	1.00
IBZ	1.00	3.00	Branch manager	2.00	1.00	1.00	1.00	1.00	1.00
SCB	2.00	2.00	Teller	3.00	1.00	1.00	2.00	1.00	1.00
ZANAC O	1.00	2.00	Branch manager	3.00	1.00	1.00	1.00	1.00	1.00
Stanbic bank	1.00	2.00	senior engineer	4.00	1.00	1.00	1.00	2.00	1.00
FNB	2.00	2.00	Director	5.00	1.00	1.00	1.00	1.00	1.00
SCB	2.00	2.00	manager	3.00	1.00	2.00	1.00	1.00	1.00
IBZ	1.00	3.00	accountant	4.00	1.00	1.00	1.00	1.00	1.00

Data based on Observations

YEAR	ENI	HSI	SOI	ENI
AECI	1	1	1	0
ATEL	1	1	1	1
BATA	1	0	0	0

BATZ	1	1	0	0
CEC	1	1	1	1
CHIL	1	0	1	1
FIN/MAFS	1	0	1	1
NATB	1	1	0	0
PMDZ	0	1	0	0
ZMRE,	1	0	0	0
PUMA	1	0	0	1
REIZ	0	1	1	0
SCZ	1	1	0	0
SHOPRITE	0	1	0	1
ZMBF	1	0	1	0
ZABR	1	0	1	1
ZAMEFA	1	0	0	1
ZNCO	0	1	1	0
ZCCM	1	0	0	1
ZFCO	1	0	1	1

Raw Data Firms commitment to SAR in terms of financial spending

YEAR	ENI	HSI	SOI	ENI	SRI RATIO
AECI	157.86	3.56	301	2.34	5.25
ATEL	133.02	13.35	280	2.74	5.79
BATA	182.53	6.09446298	236	4.15	11.38
BATZ	9886.06	48799.1414	248	3.89	6.88
CEC	82.757945	2525.7587	246	4.31	5.57
CHIL	311.44	11.05	768	4.48	19.48

FIN/MAFS	211.345721	6.956949	1649.97723	4.7	12.18
NATB	215.33053	15.487758	2455.60171	3.5	12.66
PMDZ	858.66	24.97	3188	4.1	12.14
ZMRE,	2800.2672	72.362238	4827	3.91	20.62
PUMA	1585.76517	167.8354	4106	4.99	13.67
REIZ	875	43.78	5273	4.73	18.62
SCZ	1419	195.7	6302	4.91	12.69
SHOPRITE	1148	149.101834	9409	5.2	17.61
ZMBF	2079.15495	68.7121227	9399	5.28	32.11
ZABR	275.907714	38.0706202	10484.3183	5.55	15.25
ZAMEFA	318.885294	1101.54293	10271.4065	6.47	15.51
ZNCO	116.900214	742.597048	5849	10.99	17.33
ZCCM	105.15	276.48	5813	9.92	13.39
ZFCO	852.24	1198.4	6222.65469	10.02	10.07

source: LUSE, 2022

Financial spending by categories: ENI = environmental indicators; HSI = health and safety indicators; SOI = social indicators; SRI = sustainability reporting index.

AVERAGE ROA FOR FIVE SECTORS FROM 2012 TO 2022

Year	Financial and services sector	Agri-forest sector	Mining sector	Manufacturing sector	Energy sector
2022	23.20501	24.30633	18.66345	20.37029	20.86382
2020	15.47984	7.701649	11.95811	15.36323	16.90824
2018	20.00719	20.40849	14.32976	8.298801	12.70817
2016	23.33541	12.31123	9.16958	19.39623	13.50387
2014	19.69219	11.78992	12.73076	7.279039	21.8182
2012	16.61148	10.62797	10.70208	4.46137	8.011612

