



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Evaluating The Adoption Of Sustainability Accounting Practices In Zambia

(A Case Study of IDC Zambia Ltd)

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Abstract: Sustainability accounting (SA) has gained attention in recent years. The trend has become rampant in Zambia after signing the UN agreement agenda 2030. Despite being part of the agreement, SA adoption rate in Zambia has been low primarily due to the voluntary nature and the discretion exercised by management on year-end reports. The requirement by Security Exchange Commission to disclose the Environmental, Social and Governance (ESG) activities has not been enough to mirror the adoption rate in the country as there are a number of large organizations not listed whose activities affect the society and environment. This led to conducting the study with a specific focus on Industrial development corporation (IDC). The research objectives were to evaluate the current adoption levels of SA practices by companies under IDC and identifying factors affecting the application of SA by companies under IDC. Lastly, our interest was also to determine the strategies that IDC can adopt in order to enhance the SA practices. The overall results revealed a low level of disclosure, a situation that has been gradually improving from a sustainability reporting index of 0.39 in 2017 to 0.49 in 2022. The low levels of disclosure were attributed to several factors that included lack of knowledge, additional costs, time constraints and lack of government initiatives. We observed a significant positive correlation between the current level of adoption and the need to a mandatory adoption of sustainability accounting practice. The negative correlations indicated that higher levels of sustainability accounting practices corresponded with greater value creation for stakeholders.

Key Words: Sustainability accounting, Sustainability indicators, Disclosures, IDC and Stakeholders

1.0 INTRODUCTION

In an era where corporate responsibility and ethical practices such as transparent and accountability are paramount, relying solely on traditional financial reports is not sufficient, as financial reports primarily focuses on historical financial data (Ozili, 2022). This gap highlights the necessity of incorporating SA into traditional accounting practices (Alshehhi, Nobanee, & Khare, 2018). Despite the significant societal impact of social and environmental sustainability, these dimensions remain among the least researched pillars of sustainability. Cope et al. (2022). This study aims at evaluating the adoption and application of SAR practices in Zambia, specifically focusing on IDC (Z) Ltd, a prominent player in the local economy.

1.1 Background of the Study

The emerging trend of SA has been boosted by the resolution of 2015 UN General Assembly and the adoption of its 17 SDGs. Some organization such as the GRI, SASB and African Regional Partnership for Sustainability and SDG Reporting have come on board to support sustainability accounting and reporting. However, the adoption rate from inception has been low among the African countries compared to the industrialized and developed countries. It is only very recent that African countries announced the adoption of SARs. Nigeria, South Africa and Kenya were among the first Countries to announce their intention to mandatory adopt sustainability accounting and reporting in 2022. Zambia, through ZICA in a Circular no. 4/2023 announced its intention to fully adopt Sustainability Standards and Integrated Reporting Framework which will be in effect

by January 2026. Therefore, to evaluate the adoption of SARs in Zambia which is mainly practiced on voluntary basis, the research focused on IDC (Z) Ltd as it is one of the largest corporations involved in many sectors.

The requirement for SAR in Zambia is vital due to the environmental and social impact the organization creates from their business activities. In addition, the Ministry of green economy in Zambia has included green growth as a strategy to developing the Zambian economy, social welfare and the environment. The 8th National Development Plans prioritize sustainability agenda, urging companies to adopt practices that align with environmental, economic and social governance (ESG) principles. The stakeholder expectations demand transparency regarding corporate sustainability practices. By adopting sustainability accounting, companies like IDC group can align its operations with global sustainability goals, thereby enhancing its reputation and competitiveness in the market.

As highlighted by Cope et al. (2022), sustainability accounting not only enhances corporate transparency but also fosters investor trust, thereby attracting investment. To understand the sustainability accounting and reporting, three pillars have been highlighted below which are environmental sustainability, social sustainability and economical sustainability.

Environmental Sustainability: According to the US Environmental Protection Agency, a cost is clearly considered to be environmental when incurred in order to comply with environmental legislation as well as costs incurred to protect the environment. Such costs include environmental remediation, pollution, control equipment, as well as non-compliance sanctions even when not required by law. These investments and expenses are measured in monetary value (Ministry of the Environment, 2005). 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 resource, and mitigating environmental harm (Moldan, Janoušková and Hak, 2012).

Social Sustainability: By most accounts, social sustainability is a complex topic that crosses several disciplines leading to 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.

Economic sustainability: This involves making decisions and adopting business practices that promote long-term financial stability without compromising the environment (Bartlett, 2012; Situation, 2016; Guno and Agaton, 2022). It aims to achieve growth while avoiding harmful environmental trade-offs by creating operational systems that use natural resources at a sustainable rate.



Figure 1: Model of sustainability framework

In developing countries like Zambia, SA 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. Therefore, IDC plays a significant role in the country's economy, with investments in various sectors. As a state-owned enterprise, the IDC Group is expected to adhere to high standards of corporate governance, transparency, and accountability (PMRC, 2020). Further, ZICA has developed a sustainability reporting framework to guide companies on how to report on their sustainability performance (ZICA, 2018). The Zambia Institute of Chartered Accountant's sustainability reporting Framework consist of four elements namely; Governance and Strategy, Environmental Performance, Social Performance and Economic performance. This demonstrates the readiness to fully adopt the Sustainability Accounting in Zambia. Although currently in its form, the framework has no provision to compel organizations to adopt SA factors in their reports. Nevertheless, Institution Investors have the option to consider voluntary standards and best practice of sustainability accounting and reporting with regards to integrating SA factors and other non-financial principals into Investment decisions (Sakuwaha, 2020). Despite these significant positive impact in Zambia, there is lack of consistence in reporting and most of the reported data available is only for the past few years. (Situation, 2016; 'Joint World Bank-IMF Debt Sustainability Analysis', 2019).

1.2 Statement of the problem

Zambia been a party to the agreement of UN 2030 agenda, is required to adhere to the sustainable way of conducting its economic activities. This can be measured by adopting sustainability accounting and reporting systems. Most developed and industrialized world adopted this practice in the 2000s such as Europe and the USA, however adoption rate in Africa and Zambia in particular has been low. The slow pace of adoption of sustainability accounting and reporting practices in Zambia can be attributed to several factors which needs to be understood and formulate strategies that answers to the challenges. Having a well-balanced and sustainable digital economy could be one of the strategies to be considered (Morgun T., et.al, 2021). Failure to adopt or late adoption may also create a significant risk as current global trends have indicated that sustainability accounting will become mandatory in several developing countries by 2024, highlighting the urgency for Zambia and IDC in particular to prepare for these impending changes (Thuc & Nguyen, 2020). In order to appreciate the levels of adoption and understanding the gaps that existing between full adoption and non-adoption, IDC as an important player in the Zambian economy provides a good study due to its size in the economy and the several sectors it operates in.

1.3 Research Questions

- i. What is the current level of sustainability accounting practices adopted by companies under IDC Zambia Ltd?
- ii. What factors affect the application of sustainability accounting by companies under IDC Zambia Ltd?
- iii. How can business strategies be implemented to enhance adoption of SA practices by companies under IDC Zambia Ltd

2.0 LITERATURE REVIEW

2.1 Definition of Sustainability

Sustainability is often defined as the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland Commission, 1987). This concept encompasses three core pillars: environmental, social, and economic sustainability, often referred to as the "triple bottom line" (Elkington, 1997). The ACCA defines sustainability as the process of managing the economic, social, and environmental impacts of an organization to contribute to its long-term viability and the well-being of the communities it serves. This involves creating value for stakeholders while minimizing negative impacts on the environment and society (ACCA, 2020).

2.2 Historical Context of Sustainability Accounting Practice

The roots of sustainability accounting can be traced back to environmental movements in the 1960s and 1970s, which emphasized the need for responsible resource management and conservation (Carson, 1962). Over the years, the concept has evolved to include broader social and economic dimensions, recognizing the interconnectedness of ecological health, social equity, and economic viability.

Early Awareness (1960s-1970s): The modern environmental movement began in the 1960s, with publications like Rachel Carson's *Silent Spring* (1962) raising awareness about ecological issues (Carson, 1962). Issues of corporate social Responsibility placed additional pressure on companies to be more conscious of their environment when conducting business. Companies started to recognize the importance of CSR, although most reporting was qualitative and sporadic (Carroll, 1999). *Emergence of Reporting Standards (1980s-1990s):* The first sustainability reports began to appear, with companies such as Ben & Jerry's and The Body Shop leading the way (Hahn & Kühnen, 2013). In 1997 the GRI was created with the aim to standardize framework for sustainability reporting, encouraging transparency and accountability (Global Reporting Initiative, 2020). Since then, GRI has become a leading standard for organizations to disclose their sustainability performance and impacts. *Integration into Financial Reporting (2000s):* The UN Global Compact was launched in 2000, it encouraged businesses to adopt sustainable and socially responsible policies (United Nations, 2000). Further, the Sustainability Accounting Standards Board (SASB) was founded in 2011, SASB developed industry-specific standards for sustainability accounting that align with financial reporting (SASB, 2020). The emergence of these boards' answers to many calls from stakeholder for more transparency and accountability.

Mainstream Adoption (2010s): The Increased Regulation by Governments and regulatory bodies began to mandate sustainability disclosures, reflecting a shift towards accountability (European Commission, 2014). The International Integrated Reporting Council (IIRC) was established in 2010 to promote integrated reporting, combining financial and sustainability information (IIRC, 2013). All these organizations ensured that sustainability reporting was introduced into the mainstream financial reporting framework on the global scale.

Current Trends and Future Directions (2020s) ESG Metrics: Environmental, Social, and Governance (ESG) metrics have become critical for investors, influencing capital allocation decisions (Eccles et al., 2014). This has been accelerated by many issues around digital Transformation: Advances in technology facilitate better data collection and reporting, enabling more accurate sustainability accounting (KPMG, 2020). Global Initiatives among others the Paris Agreement and the UN SDGs has pushed for comprehensive sustainability practices across industries (United Nations, 2015). The evolution of sustainability accounting reflects a broader societal shift towards recognizing the interdependence of economic, environmental, and social factors. As stakeholders demand greater transparency and accountability, sustainability accounting practices have continued to evolve, integrating deeper into corporate strategies and decision-making processes. This is evidenced by many countries adopting mandatory implementation of sustainability accounting and many countries including African countries announcing mandatory implementation by 2025 in line with the UN agenda 2030.

2.3 Sustainability Accounting in Business Context

It has been a trend for businesses to adopt sustainability practices especially for large and listed companies. Companies may adopt sustainability accounting standards in a particular accounting frame. The common frameworks that have supported sustainability accounting includes the GRI, GAAP and the SASB. These have set standards and principles used to measure the sustainability factors and involves integrating environmental, social, and governance (ESG) factors into traditional financial reporting (Schaltegger & Burritt, 2010). Companies are increasingly adopting sustainability practices not only to comply with regulations but also to enhance their reputation and stakeholder trust (Maughan, 2023). Despite the growing recognition of sustainability, organizations face numerous challenges in its implementation. These challenges include lack of standardized reporting frameworks, insufficient data availability, and resistance to change within organizational cultures (Zyznarska-Dworshak, 2020). Additionally, the complexity of measuring sustainability performance across different sectors and regions complicates the adoption of effective practices.

The benefits of adopting sustainability practices are manifold. Companies that embrace sustainability accounting often experience enhanced brand loyalty, improved operational efficiencies, and reduced risks associated with environmental liabilities (Santiago et al., 2019). Furthermore, sustainability initiatives can lead to cost savings through resource efficiency and waste reduction, ultimately contributing to long-term profitability. Recent global trends indicate a shift towards mandatory sustainability reporting and organizations are urged to prepare for these changes to return their competitive positions and meet stakeholder expectations.

2.4 Extent and Efforts of Adoption of Sustainability Accounting in Zambia

The extent of adoption varies across different sectors and company sizes. Many large corporations, especially those listed on the Lusaka Securities Exchange, have begun to implement sustainability accounting practices. These companies often adopt comprehensive reporting frameworks that align with international standards, such as the GAAP, GRI and the SASB (ZICA, 2020). However, the adoption rate among SMEs and privately owned companies is comparatively lower. Many SMEs face challenges related to limited resources, lack of awareness, and insufficient regulatory pressure, which hinder their ability to implement sustainability accounting practices effectively (PMRC, 2022).

Sector specific adoption in Zambia has been inconsistent as certain sectors are highly regulated compared to other sectors. Mining, agriculture and financial services sectors show a higher degree of sustainability reporting due to their significant environmental and social impacts. Companies in these industries are often under pressure from stakeholders to disclose their ESG performance (Guno & Agaton, 2022), while some sectors such as tourism and real estate show a slow or inconsistent adoption and implementation of sustainability accounting practices. ZICA has developed a sustainability reporting framework that provides guidelines for companies on how to report their ESG impacts. Other board and regulations such as the Securities and Exchange Commission (SEC) mandates sustainability reporting for listed companies, encouraging them to integrate ESG factors into their business strategies and reporting (SEC, 2021). The academic institutions are contributing to the discourse on sustainability accounting by conducting research and developing curricula that include sustainability practices. This is helping create a knowledgeable workforce that understands the importance of sustainability in business (Guno & Agaton, 2022).

2.5 Overview of IDC Zambia Ltd and sustainability accounting practice

The Industrial Development Corporation (IDC) is a state-owned enterprise established in January 2014, operating under the Minister of Finance and National Planning in accordance with the Minister of Finance (Incorporation) Act 349 of the Laws of Zambia. IDC operates across various sectors, including mining,

agriculture, forestry, manufacturing, banking, financial services, energy, infrastructure, transportation, communication, health, tourism, and real estate. Its primary objective is to create and maximize long-term shareholder value by actively investing in key economic sectors to foster industrialization and job creation. IDC shift to SA is likely influenced by increasing scrutiny from clients, investors, regulators, the Ministry of Finance and the public regarding sustainability indicators. However, there is lack of comprehensive literature documenting the extent of sustainability accounting practices among companies under it, highlighting an area for further research and exploration.

2.6 *Review of Similar Studies on Sustainability Accounting*

A survey by Katsuhiko (2002) revealed that only 18% of 257 companies listed on the Tokyo Stock Exchange published environmental reports, with 184 disclosing environmental accounting information. The primary benefits these companies identified was understanding environmental costs (84%), followed by improving their corporate image. Additionally, 58% followed guidelines from the Ministry of the Environment, while others adhered to corporate standards or were still in early implementation stages. Parker (1997) reported that many Australian companies lacked familiarity with costing issues related to sustainability, with environmental costs typically integrated into general accounting rather than tracked separately. Das et al. (2008) highlighted that the absence of environmental accounting in management education in India contributed to limited adoption of such practices among businesses. The European Union has implemented directives requiring large companies to disclose non-financial information, leading to widespread adoption of sustainability reporting practices (European Commission, 2014). The U.S. and Canada have seen significant growth in ESG reporting, driven by investor demand and the establishment of frameworks like SASB and the Task Force on Climate-related Financial Disclosures (TCFD) (TCFD, 2017). A case study by Huchzermeier (2019) examined Puma's creation of an "Environmental Profit and Loss account" to enhance business sustainability. Puma, a leading sportswear manufacturer, measured both detrimental and beneficial activities to the environment. The findings indicated that corporate decisions are increasingly based on their environmental impact and profitability, improving decision-making by identifying harmful and beneficial activities.

While the adoption rate of SA in developed world is high, there has been uneven adoption across other region, with some countries lagging behind. In Latin America and Africa adoption of SA has been growing at a slow pace, particularly among companies looking to attract foreign investment or comply with international standards. However, challenges such as limited resources and regulatory frameworks persist (González & González, 2019).

2.7 *Critique of Existing Literature*

According to Passetti et al. (2017). Research examining the relationship between corporate sustainability and financial performance has gained traction, yet consensus remains elusive. Larrinaga et al. (2018) investigated the effects of mandatory sustainability accounting in Spain, concluding that such mandates may not be effective due to the complexities of organizational structures. It was found that 50% of the public entities did not comply with the requirements and regulations. Additionally, a study by Thuc and Nguyen (2020) explored the relationship between sustainability reporting and firm value among large German firms from 2013 to 2017. Using multiple regression analysis on 485 observations, the study found a significant negative relationship between sustainability reporting and firm value, highlighting the need for a reporting framework that enables organizations to allocate resources effectively for sustainable practices that benefit society and the environment.

2.8 *Lessons Learnt from the Literature Review*

The literature mostly used has been based on the research done on developed economies whose results may affect developing economies differently, hence the need to increase specific research on the topic on countries such as Zambia. A number of theories associated with SAR including the legitimacy theory, the stakeholder's theory, the triple bottom line theory and Institutional theory were used with the objective of understanding how they relate to the concept of SAR and explore benefits and challenges that comes with the implementation of SA. As the SA in Zambia is still developing, most research conducted lack clarity on how organizations can effectively integrate sustainability metrics into existing accounting frameworks. There is a need for comprehensive models that demonstrate practical integration strategies across various industries (Bartlett, 2012). In addition, more stakeholder engagement is needed to explore how different stakeholders influence sustainability reporting and decision-making processes.

The study also highlighted a number of barriers to adoption of SAR such as limited resource allocation, less training, and technology adoption. The voluntary nature also contributed to slow adoption as companies chose

not to adopt or chose some of the elements to report on. The study further highlighted that few comparative studies exist that examine sustainability accounting practices across different sectors or geographical regions.

2.9 Theoretical Framework

The researchers employed the legitimacy theory, stakeholder theory and the triple bottom line theory to explain the sustainability accounting concept and how it's currently been adopted in Zambia.

The legitimacy theory based on the study by (Suchman, 1995) 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 theory suggest that organizations seek to maintain a positive image and reputation by aligning their actions and behaviors with societal expectations and norms.

The Stakeholder Value Creation Theory, also known as Stakeholder Theory, stipulates that organizations should consider the interests and needs of all stakeholders such as employees, customers, suppliers, communities, and the environment when making decisions and creating value, rather than focusing solely on shareholders (Freudenreich, 2020). The theory advocates for organizations to create value for a diverse range of stakeholders. The Triple Bottom Line framework expands the traditional accounting focus on financial performance to include social and environmental dimensions. It advocates for measuring organizational success based on three pillars: People (social equity), Planet (environmental stewardship), and Profit (economic viability) (Ellington, 1997). The Application of SA practices grounded in TBL encourage organizations to report not just financial outcomes but also their social and environmental impacts.

2.10 Conceptual Framework

In this study, the dependent variable was the adoption of sustainability accounting practices done by IDC and is affected by how the independent variables are handle. From the literature review and the theoretical framework, the following were identified to be the independent variables that includes regulatory framework, stakeholder influence, organizational culture, leadership commitment and availability of resources:

- I.Regulatory framework: This includes government policies, laws, and regulations influencing sustainability accounting adoption.
- II.Influence of stakeholders such as investors, suppliers, NGOs and government on organizations to adopt SA practices is one of the major factors due to the growing need for organization to be seen to adopt the green way of doing business.
- III.Organizational Culture: This refers to shared values, beliefs, attitudes and behaviors that define a company's identity. The organization culture which includes the values, mission and vision may support or hinder sustainability accounting adoption.
- IV.Leadership Commitment: Role of top management in promoting and implementing sustainability accounting practices.
- V.Resource Availability: Availability of financial resources, human capital including experts in the area of SAR, and technological resources available such as the sustainability accounting system to support sustainability accounting adoption.

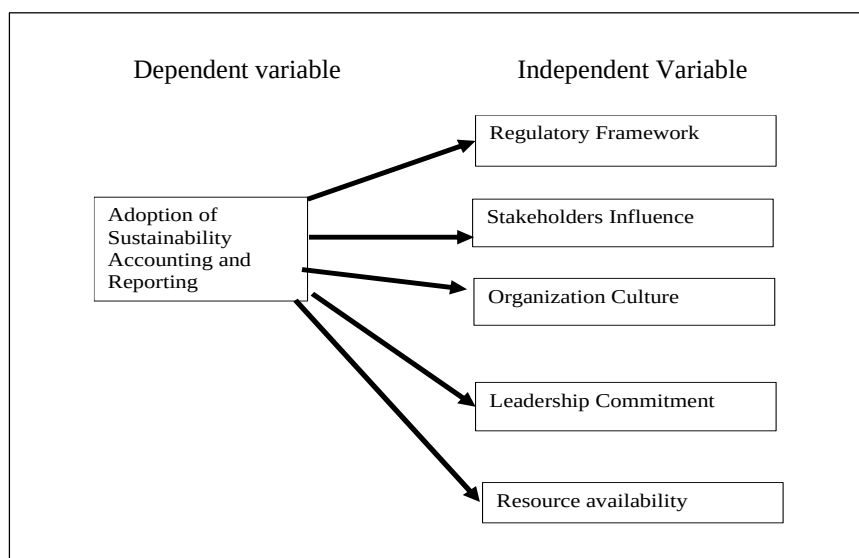


Figure 2: Conceptual Framework, Source: Author (2024)

3.0 RESEARCH METHODS

3.1 Philosophy, approach, design, sample size and data source

This was a non-probability research design that employed both qualitative and quantitative data. This approach was also used in the study on environmental factors' moderating effects on intangible organizational resources and performance of insurance brokers in Zambia (Ilukena M., et.al, 2023). The study adopted pragmatic philosophy employing panel data to examine the annual reports, sustainability reports and websites of the companies under IDC group analyzing data from 2014 to 2022 financial reporting periods.

The study used 26 companies that incorporated the sustainability reports in their end of year report. The 26 companies selected were drawn from 9 industry classification of Mining, Agriculture & Forestry, Manufacturing, Banking & Financial Services, Energy & Infrastructure, Transportation & Communication, Health and Tourism & Real Estate sector. The primary data was obtained from a sample of 141 respondents determined by using the Tare Yamane's model.

$$n = \frac{N}{1 + Ne^2} = \frac{218}{1 + 218(0.05)^2} = 141 \text{ respondent}$$

The 141 respondents included executives, managers and employees whose working positions are in the accounting and finance department of their business entity.

3.2 Data Collection Method

The non-probability sampling approach was used in the collection of data. The researcher obtained primary data from the respondents using a structured questionnaire. Secondary data which refers to published and unpublished works of others was obtained from online information such as the companies' website and other internet sources. Other sources such as journals, newspapers, human resource data and reports were also obtained in order to gather sufficient information.

3.3 Data Analysis

The data collected was analyzed using, charts, tables, graphs, and regression and correlation analysis via Statistical and Analysis (SPSS) software version 26. Chi-square and panel data analysis were used to determine the nature and the degree of the relationship between the study variables while regression analysis was utilized to establish the existing relationship between the dependent and independent variables. The data was summarized using frequency tables and graphs which was a better way of presenting the results.

4.0 RESULTS

4.1 Results from demography

The study has 84.40% response rate and 15.60% of the respondents did not meet or finish the questionnaire. The response rate above 60% was regarded as good, therefore, the response rate of 84% is accepted for this study. The results presented a higher number of respondents been male consisting of 61% while the female respondent was lower at 39%. The results further showed the age distribution of the respondents and indicated the various age group involved in the study. The study revealed that the majority of the respondents age ranged between 30 and 49 years representing almost 55% of the respondents. It was also observed that the minority age group were the youngest with the age between 18 to 29 years and also the oldest group with the age above 60 years representing 16.80% and 8.40% respectively. The age distribution was vital to the study as it helped understand the trends or patterns observed in the implementation of sustainability accounting by the sample.

The results also showed a majority of 60% of the respondent to be junior employees followed by 22% of respondents who were managers. The minority were the executives representing 18% of the research sample. The distribution is very important to the study as it was helpful in examining the trends or pattern on the implementation of policies. The level of education distribution showed a diversity of education background for the respondents. The results revealed that an overwhelming majority of 74 respondents representing 62% of the sample had undergraduate degree qualifications, this was followed by 36 respondents who represented 30% of the sample and having Master's degree qualifications. Finally, the minority of 8% consists of respondents with doctoral degree qualifications. The results further indicated that 32% of the sample and the majority possessed work experience in the field of accounting of the period between 10 and 14 years. This was followed by a group with above 15 years at 24% of the proportion. The other group representing 24% of the sample had work experience of 5 to 9 years. The minority of 20% consisted of respondents with 0 to 4 years work experience.

4.2 Results showing the extent of adoption of SAR practices by IDC

Table 1 shows the comparative levels of disclosure of SAR by sector from 2017 to 2022. To establish the level and percentage of SAR disclosure, the study used GRI framework performance indicators, supported by Ching et al., (2014). Companies from various sectors were awarded a score of one (1) for each of the sustainability information item disclosed in their reports and a score of zero, if no disclosure was found. By using the 'FIND' option, it was easy to trace the sustainability information in all the reports.

Disclosure of sustainability accounting practices by sector

Table 1: Disclosure of sustainability accounting practices by sector among listed companies

Categories	2017	2018	2019	2020	2021	2022
Financial services sector	30%	51%	57%	76%	88%	91%
Agri-forest sector	39%	47%	62%	76%	71%	79%
Mining sector	32%	76%	79%	79%	74%	82%
Manufacturing sector	33%	66%	72%	91%	81%	71%
Energy & Infrastructure sector	34%	70%	34%	75%	65%	76%
Transportation and Communication	37%	37%	62%	72%	67%	68%
Tourism, and Real Estate	33%	49%	57%	62%	68%	72%

Source: Authors' calculations based on research results – March 2024

4.3 Descriptive SA measurement variables

Table 2 below highlights components of SA that were considered for disclosure. These were the environmental, social and economic indicators. The table also showed that the sustainability reporting index increasing gradually from 2017 indices of 0.37 to 0.47 indices in 2022.

Table 2: Description SA measurement variables

Sustainability reporting levels						
	2017	2018	2019	2020	2021	2022
ENI	0.39	0.46	0.43	0.48	0.48	0.49
SOI	0.29	0.38	0.41	0.39	0.4	0.44
EOI	0.36	0.36	0.41	0.44	0.42	0.41

Note. ENI = environmental indicators; SOI = social indicators | EoI: Economic indicators

Source: Authors' calculations based on research results – March 2024

4.4 Levels of Disclosure on Social Sustainability Practices

Table 3 below shows the level of disclosure on social sustainability practices by the research sample. The table further revealed the components under social sustainability and the trend. The factors were gradually increasing in all factors of social sustainability. 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. Nevertheless, the disclosure of social sustainability was deemed to be good.

Table 3: Levels of disclosure of social sustainability practices

Social Sustainability	2017	2018	2019	2020	2021	2022
Corporate strategy	10%	8%	10%	42%	43%	53%
CSR	5%	10%	10%	51%	56%	69%
Rights & Regulations	0%	0%	0%	60%	67%	75%
Labor	50%	52%	51%	63%	68%	70%
Infrastructure	45%	40%	48%	58%	63%	78%

Source: Authors' calculations based on research results – March 2024

4.5 Levels of disclosure on Environmental sustainability practices

Table 4 below further reveals factors that were considered for this study under the environmental sustainability. The results shows that companies performed quite bad in the early years from 2017 showing records below 20% and a gradual increase in disclosure on Environmental sustainability performance.

Table 41: Levels of disclosure of environmental

Disclosure of environmental factors	2017	2018	2019	2020	2021	2022
Material waste and spills	8%	13%	48%	59%	65%	72%
Climate change	4%	14%	42%	54%	57%	60%
Water	9%	19%	52%	49%	65%	68%
Energy	19%	9%	42%	59%	65%	62%
Emissions	5%	19%	48%	52%	61%	63%
Biodiversity	3%	14%	46%	54%	60%	67%

Source: Authors' calculations based on research results – March 2024

4.6 Disclosure of economic sustainability practices

Table 5 below shows that companies performed quite well in recording disclosure factors on economic sustainability indicators such as the auditors' opinion, financial highlights, going concern status and value added & it's distribution, all being above 70% from the year 2017 to 2022. However, the percentages on the same were low on government assistance and policies, practices and support for locally based supplies, all recording percentages below 50%.

Table 5: Disclosure levels of economic sustainability practices

Economic sustainability items	2017	2018	2019	2020	2021	2022
Favorable auditors' opinion	77%	80%	82%	80%	90%	100%
Financial highlights	93%	100%	100%	96%	100%	100%
Going concern status	78%	100%	100%	75%	82%	100%
Value added and its distribution	71%	91%	78%	70%	77%	78%
Significant financial assistance from government	9%	22%	28%	9%	30%	38%
Policies, practices and support for locally based supplies	4%	30%	34%	40%	48%	48%

Source: Authors' calculations based on research results

4.7 Challenges affecting the adoption and application of sustainability accounting

The survey also revealed lack of knowledge 65%, additional cost involved 80%, time constraints 70%, lack of awareness and education on SARs 60% and lack of initiatives from government 65% to be the main challenges affecting the application of sustainability accounting.

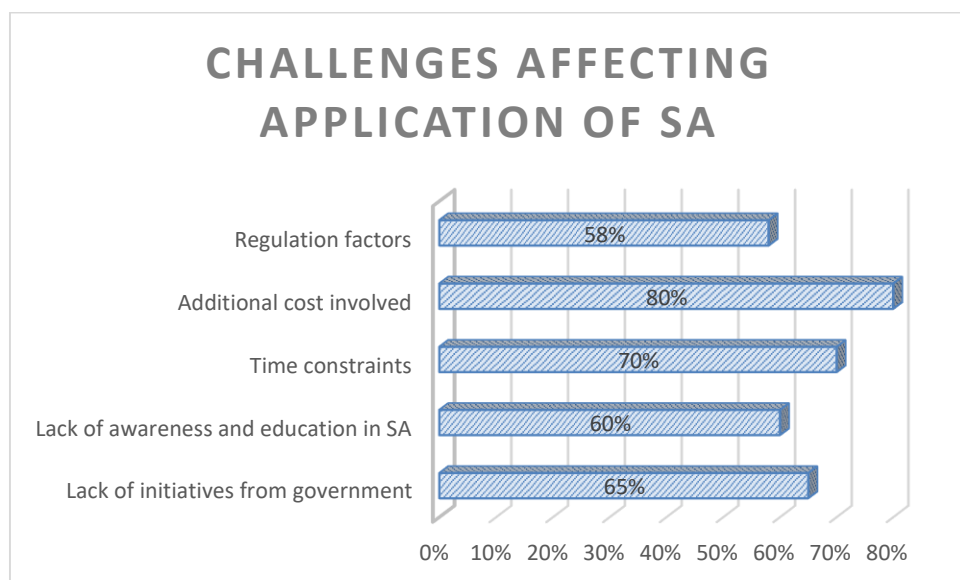


Figure 1 Key challenges affecting the application of sustainability accounting (SA)

Lack of initiatives from government	65%
Lack of awareness and education in SA	60%
Time constraints	70%
Additional cost involved	80%
Regulation factors	58%

Descriptive Statistics

Table 6: Tests of Normality

Levels	Komogorov-Smirnov	Df	Sig	Shapiros Wilkons test	Df	Sig
	Statistics			Statistics		
Existing situation	0.14	100	<0.000	0.949	100	0.001
Reasons	0.157	100	<0.000	0.947	100	0.001
Need	0.17	100	<0.000	0.929	100	<0.000
Benefits	0.138	100	<0.000	0.945	100	<0.000

Source: Primary survey data, July 2024

4.8 Lilliefors Significance Correction

As indicated in table 6 above, all the variables level of significance is less than 0,05. Hence the need to conduct a Spearman's correlation test whose results showed that there was statistically significant correlation between the current operating conditions and the need of the adoption of SA and its benefits. There were two negative correlations, which meant that the higher the level of the adoption of sustainability accounting, the more benefits and needs will be covered, so the less of them will remain uncovered. Moreover, there is statistically significant correlation between the need of the adoption of SA and its benefits.

5.0 DISCUSSION

The majority of the respondent were aged between 30 and 39 years at 31% followed by the age group of 40 to 49 years. It was expected that by the time one reaches the age group above, they would have obtained sufficient work experience in accounting and finance fields. This is supplemented by data obtained above were over 80% of the

respondent had sufficient work experience of 5 years and above. This was helpful to the study, according to the reliability of our research results (Singh, 2022; Maughan, 2023). However, a good number of junior employees would need leadership commitment for the sustainability accounting to be adopted and implemented. The study also showed a positive trend towards the adoption and implementation of integrated reporting. The results showed that besides the economic sustainability factors, there were variation on reporting on environmental and social factors. This would point to the non-existence of vigorous regulation and policies that encouraged uniformity in reporting as the practice is currently voluntary. However, the general observation in recent years disclosure on environment, social and economy improved from 2017 to 2022. A number of factors were attributed to this improvement and includes:

- I.Regulatory; deliberate policies by the regulatory body in Zambia for accountants. ZICA in a circular no. 4/2023 announced that Zambia will fully adopt sustainability accounting and reporting by 2025 and reporting will begin in January 2026.
- II.Education and awareness; a number of universities and colleges are now offering training in Sustainability Accounting.
- III.Global framework; the global institution such as GRI, SASB, and others that have provided a way for local institutions such as Ministry of Green economy and ZICA to formulate policies aimed at fully adopting the SARs.

The study had also revealed a positive correction between implementing the SARs and the benefits accrued to the business which was earlier researched on by Chanda (Chanda, 2022) such as enhancing organizational reputation, identifying areas for improvement, reduced risk of compliance and increased stakeholder satisfaction through transparency reporting (Santiago et al., 2019; Maughan, 2023). The sustainability reporting index also increased over the years, from 0.39 in 2017 to 0.49 in 2022 by 10 basis points while social sustainability disclosure increased mainly in rights and regulations, infrastructure and labor.

The results also showed challenges that poses a risk of failure to implement the sustainability accounting. The challenges include environmental climate change, social challenges such as poverty, lack of infrastructure, lack of education and regulatory framework (GRI 2020), (UN 2015). The fact that disclosure was still voluntary at the time of the study meant that management may easily choose element to report on and appear to be in conformity to the current trend.

5.1 The extent of adoption and practices of Sustainability Accounting

To establish the level and percentage of SA disclosure the study used GRI framework performance indicators, supported by Ching et al., (2014). The low level of disclosure among the sample in the early 2017 were mainly a matter of choice by management as they would choose what to report on in their reports. It was gathered that an increase in environmental sustainability reports of listed companies increased as it was a requirement by the regulators and most of the stakeholders have a keen interest in the subject. The results had also highlighted challenges affecting the application of sustainability accounting on the sample. The results showed a mean of 4 to above the average questions and median 3. This indicated that most respondents believe that lack of knowledge, additional cost involved, time constraints, lack of awareness and education in SA were the main challenges affecting the application of sustainability accounting. This is also in agreement with (Daher and Bashatweh 2018) although knowledge and awareness about SA and Time constraints statistical results were not statistically significant ($p > 0.05$). This outcome is contrary to the outcome from (Schaltegger and Burritt, 2010; Bartlett, 2012; Guno and Agaton, 2022; Singh, 2022; Maughan, 2023) who argued that Awareness and knowledge about the subject play a significant role in the absorption of an idea. The disagreement may be due to contextual difference and the methodological approach used to collect and analyze the data.

5.2 Discussion of results based on the independent variables

- i.Regulatory framework: There was inconsistency in the disclosure of sustainability indicators among the sample. This was attributed to lack of guidelines that demands uniformity and consistency as reporting and disclosure was still practiced on a voluntary basis.
- ii.Stakeholder pressure: There were various groups that exerted influence on the SA performance of the sample. By using the Mendelow's stakeholder model, stakeholders would be classified based on their level of interest and influence. This would eventually lead to certain information been reported on and otherwise.
- iii.Organizational culture: The companies that showed early adoption and implementation of SA indicated that organization culture was a matter of strategy to differentiate the business from their competitors. The results showed that management reports from financial services, mining and energy sectors clearly stipulated the values that governed their behavior.
- iv.Leadership commitment: The study results did not cover the leadership commitment and their involvement in

ensuring that sustainability accounting is implemented.

- v. Resource availability: The resource availability in this context meant human capital. The results showed quite adequate human capital to carry out the traditional accounting functions such as financial accounting and reporting, management accounting and treasury functions. However, there was no sufficient data to indicate enough human capital to carry out sustainability. This could be an area that needs further investigating as the matter of environment, social and economy may be diverse and may needs experts.

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

The following were conclusion made from this study: Firstly, the results confirmed that IDC had adopted integrated reporting by using the GRI framework performance indicators as the basis of reporting. However, several factors affected the extent of disclosures. It was gathered that the SA practices were done on a voluntary basis from 2017 to 2022 which contributed to the variation on the reports as well as the depth of disclosures.

Secondly, the stakeholder influence played a vital role in the adoption and implementation of SARs by IDC. As the corporation have footprints in almost all sectors in Zambia, a number of stakeholders ranging from low interest to high interest and from low power to high power. This was confirmed by the over whelming response by the respondent who indicated that they needed to disclose information on ESGs as it was a requirement in certain sectors. Investors who are risk sensitive were keen to see SARs so as to safeguard their investments. In additional, there has been a growing number of NGOs in the country that have been advocating for more sustainable ways for conducting business and pressure increases on the companies to keep the informed all the time in-line with Mendelow's stakeholder matrix.

Thirdly, results revealed that there was inadequate resource to handle SA issues. This implied few human capitals dedicated to gather and analyze information about the companies' engagements in environment, social and governance issues. This alone is a complex subject requiring certain level of expertise. The research also indicating challenges that affected disclosures such as luck of a comprehensive reporting framework which could harmonize the reports as the choice was left to management to choose which accounting standards to adopt. The high cost involved in gathering data and analyzing was other factor that contributed to the variation in SAs. Lack of government support was one of the factors as government policies take long to implement, Zambia for example signed the UN agenda 2030 in September 2015 but only announce in September, 2023 (ZICA circular no. 4/2023) that it will be mandatory for in Zambia to adopt and implement SA by companies by end of 2025. Specific challenges affecting the application of sustainability accounting by IDC included lack of sufficient knowledge in the area of sustainability accounting, additional costs, time constraints, lack of awareness and education, and lack of government initiatives.

6.2 Study recommendation

Study Recommendations: Below are some of the recommendations proposed by the researchers:

- Adoption of SA is still in its infant stage; it would be ideal for regulators such as Zambia Institute of Chartered Accountant to make SA mandatory based on the size of the organization in terms of revenue generation or number of employees the entity has employed. This speaks to the availability of resources
- IDC as the parent entity needs to strengthen the monitoring of performance factors of key sustainability indicators for companies operating under its umbrella.
- Using the size of investment in the Zambian economy, IDC could advocate for local reporting framework that addresses the local challenges from ZICA unlike relying on foreign institutions such as the GRI and GAAP whose standards would not well align with Zambian economic condition.
- As regulator of accounting profession in Zambia, ZICA should consider formulating and giving guidelines on the implementation of SA that will bring uniformity and consistency in the accounting and reporting of sustainability issues. The guidelines and standards issued by ZICA should be relatively easy to implement and less costly for organization.
- There should be more studies on the sustainability accounting and reporting at an early stage of education just as it is for financial accounting and reporting which is done at an early stage in secondary school level and early tertiary education.

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