EFFECT OF INTEGRATED FINANCIAL REPORTING ON THEVALUE OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

JANE NYOKABI

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DECLARATION AND RECOMMENDATION

Declaration

This research project is my original work and has not been submitted for any degree qualification in any university, college or institution of higher learning for academic credit.

Signature …… Date 7th September 2023

Jane Nyokabi
CM16/0417/13

Recommendation

This research project has been submitted for examination with my recommendation as the university supervisor.

Signature …… Date 7th September 2023

Dr. Monica Wanjiru Muiru
Department of Accounting, Finance and Management Science
Faculty of Commerce
Egerton University

ABSTRACT

This research project investigated the effect of integrated financial reporting on the value of firms listed at the Nairobi Securities Exchange (NSE). The specific research objectives were: to determine the effect of financial capital reporting, manufactured capital reporting, intellectual capital reporting, human capital reporting, social capital reporting and environmental capital reporting on firm value of companies listed at the NSE, and to establish the moderating impact of firm size on the association between integrated financial reporting and value of NSE listed firms and to establish the joint effect of integrated financial reporting capitals on value of companies listed at the NSE. The study was based on four theories; signaling effect theory, agency theory, stakeholder theory and institution theory. The study adopted descriptive research design. The research used both primary data and secondary data. The secondary data was gotten from Capital Market Authority (CMA) Library, individual firm's annual financial reports and websites then captured in a data collection sheet. Data was obtained from a total of 62 firms listed at the NSE with data ranging from 1st January, 2016 to 31st December, 2020. To attain the research objectives and to test the hypothesis, regression analysis was utilized. The research instrument was imperilled to validity and reliability tests to guarantee that the instrument measures what it purports to measure and it can yield consistent results. Diagnostic tests were also conducted to guarantee that the regression analysis assumptions are not violated. Both simple linear and multiple linear regression model were utilized to test the effect of each independent variable on the dependent and the combined effect on the dependent variable respectively. The findings of this study may be important to inform on the usage and role of IFR, as well form policy that can be used by academics, investors and financial market regulators. The study further discovered that there was a positive and significant link between financial capital reporting and the value of firms listed at the NSE. The study further established that firm size had moderating effect on the link between integrated financial reporting and value of companies listed at the NSE. The study concludes that integrated financial reporting has positive relationship with value of firms listed at the NSE. The research thus recommended that the managements of firms listed at the NSE should strive to adopt the various integrated financial reporting in enhancing the value of their firms.

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LIST OF ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
CMA	Capital Markets Authority
CSR	Corporate Social Responsibility
EY	Ernest and Young
FiRe	Financial Reporting award
GRI	Global Reporting Initiative
ICPAK	Institute of Certified Public Accountants
IFR	Integrated Financial Reporting
IFRS	International Financial Reporting Standards
IIRC	International Integrated Reporting Council
IR	Integrated Report
ISA	International Standards on Auditing
NACOSTI	National Commission of Science, Technology and Innovation
NSE	Nairobi Securities Exchange
OLS	Ordinary Least Square
ROA	Return on Assets
ROE	Return on Equity
ROS	Return on Sales
SPSS	Statistical Package for Social Sciences
TSE	Thailand Stock Exchange
VIF	Variance Inflation Factors

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Firms cannot depend on financial reporting alone to stay competitive given the growing level of market uncertainty. Companies must provide investors with far more information so they can comprehend their investments clearly hence information on current performance, strategies and goals are vital to them (Ghani & Said, 2010). The criticisms surrounding financial reporting include the untimely nature of reporting involved, lack of critical information such as risks faced by the business, the historical reporting styles and how difficult it is to obtain information that is relevant to them. Because of these criticisms, the truthfulness and fairness of financial reports is always being questioned. This happens because these reports only give out financial information related to the company and leave out non-financial information regarding the same company which would be useful to track the historical long-term performance of the company (Garg & Basu, 2020). Similar findings were reached by Nishitani and Kaneko (2021) who concluded that the financial data provided in yearly reports solely is insufficient to provide a thorough knowledge of a company's commercial operations.

Integrated Financial Reporting (IFR), the most recent tool for combined corporate reporting, aims to address the problems with traditional financial and non-financial reporting while enhancing earlier developments that broaden the scope of information provided to stakeholders of corporations (Eccles *et al.*, 2015). Despite the existence of a number of frameworks for reporting corporate information for example the triple bottom line reporting, sufficiency economy philosophy reporting together with sustainable developmental reporting, such kinds of reporting have not been made compulsory for companies hence they are still able to decide which kind of information to give to stakeholders which will be beneficial for their use (Bebbington & Gray, 2001). In addition to this, making comparisons between companies that have chosen to report information of a non-financial nature can be difficult since each framework uses different indicators of performance measurement and disclosure. IFR would be helpful in identifying a solution to these issues as well as in boosting the realization of a long-term sustainable development viewpoint and permitting comparability of

nations throughout the world while reducing the likelihood of adverse effects on the reputation of businesses.

The global financial crisis and the need for high-quality reporting that incorporates both financial and non-financial information a prerequisite for effective risk management in the environmental and financial industries were two factors that impacted the development of the IFR idea (Abeysekera, 2010). A growing sense of awareness has arisen among corporations and investors on the linkage between stability in terms of finance and stability in the environment together with social sustainability, the desire to combine financial as well as non-financial information is constantly growing.

Integrated financial reporting was initiated by the IIRC established in 2010 from the Global Reporting Initiative (GRI) together with the Prince of Wales accounting for sustainability project (IIRC, 2012). The purpose of this system of reporting is to incorporate both financial and non-financial information in the annual accounts of companies. This would be done by providing a framework and spelling out guidelines for the same. The rewards for such a system would be the facilitation of newer business opportunities, improvement in the reputation of corporations, enhancing competitive advantage and mitigating the risks surrounding operational performance. The IIRC did a re-launch of the IFR framework outline in the year 2012 together with a sample of the International Reporting Framework. This sample outlined the meaning of the major elements and principles that the framework aimed to address such as the content and descriptions of the IFR. To operationalize the new framework, in 2013 the IIRC made a pronouncement to issue the intended document. As a result, the IFR system of reporting has been made obligatory in nations like South Africa and some European countries while voluntary in other countries such as Thailand (IIRC, 2018).

The IIRC (2013) states that the key element of IFR is integrated thinking. It is key because it considers how the elements that affect a company interact overtime to determine the value of that company by employing strategies to handle external risks and other factors from the external environment. Integrated thinking also helps a company to adopt a business model which will aid the company in fulfilling its business objectives. The IFR concept can be traced to the South African king report (King III) that addresses corporate governance matters and needs all firms to incorporate integrated thinking in making a connection between strategies, sustainability, risks and opportunities, and governance requirements annually in

their reports. The consequence of incorporating the IFR framework was an enhancement in business communiqué together in an improvement in the quality of reports made available to investors hence making the evaluation of companies more effective (Magarey, 2012). Because of this, the capital allocation decision that is made by investors has been made easier. This capital allocation decision is critical to the company's strategy and its current and future performance.

The IFR framework contains five principles outlining the structure, six elements of the content and six corporate capitals. Some of these principles that are found in the structure are; strategic focus, connectivity of information, future orientation, receptiveness and stakeholder inclusivity, clarity, reliability, and materiality. The concepts provide an overview of the model of the business, the context of operation and objectives and strategies required to meet the said objectives, governance structures, level of pay, and prospects for the future. For corporate capitals, IFR combines not only financial, though too manufactured, human, intellectual, natural, social and relationship capitals as well(Steyn, 2014). This study focused on the corporate capitals as the other IFR aspects such as governance has been widely researched (Garg & Basu, 2020).

Financial capital is broadly understood as the pool of organization available funds. This includes both debt and equity finance. This description of financial capital focuses on the source of funds, rather than its application which results in the acquisition of manufactured or other forms of capital (Eccles *et al.,* 2015). Manufactured capital is seen as human-created, production-oriented equipment and tools. A distinction is drawn between inventory (as a short-term asset) and plant and equipment (tangible capital). Although the identification of these items is generally agreed, their accounting treatment, particularly in terms of valuation, depreciation and taxation, is more contentious (Ghani & Said, 2010).

Intellectual capital is a key element in an organization's future earning potential, with a tight link and contingency between investment in R&D, innovation, human resources and external relationships, which can determine the organization's competitive advantage (IIRC, 2018). Human capital is usually thought of as an individual's capabilities, as well as the knowledge, skills, and experience of the company's workers and managers that are pertinent to the task at hand and the ability to add to this reservoir of knowledge, skills, and experience through

personal learning (Churet & Eccles, 2014). Social and environmental capital may include relationships within an organization, as well as those between an organization and its external stakeholders, depending on where social boundaries are drawn. Aspects of social and environmental capital in a business context include: the strength/ efficacy of supply chain relationships (establishing quality expectations, just-in-time delivery systems, and recycling programmes), community acceptance, government relations and relationships with competitors (IIRC, 2018).

According to Alves *et al*. (2023) firm value is a financial measure that indicates its value in the market. It is the sum of all claims made by investors, being, the secured and unsecured creditors, the preference and ordinary shareholders. The discounted cash flows from assets and future growth, which are discounted utilizing the cost of capital, can also be used to define the firm's value (Damodaran, 2002). Any company's strategic goal is to maximize shareholder wealth or the firm's value (Suttipun, 2017). According to Gao *et al.* (2022) explanation, a company gains value from its shareholders' earnings when its share price and dividend increase and surpass the return-risk-adjusted rate required for the stock market. According to Cohen and Simnett (2022) the creation of market value involves generating an investment yield (return) greater than the opportunity cost of capital.

According to Purwohandoko (2017) firm value is a metric that shows an enterprise's true economic value. It is the total of all claims made by all claimants, comprising shareholders (common and preferred) and creditors (unsecured and secured). According to Thakor (2014) when determining the value of private and public companies, various methods are used to measure firm value. Private company valuation is difficult to calculate and is subject to numerous assumptions. Comparable company analysis, equity valuation criteria, and discounted cash flow techniques are some of the various methodologies used to value private businesses. On the other hand, valuing a public corporation is simpler. The stock price, which indirectly represents the investment decision, financing, and asset management, is a common way to show the value of a company (Hermuningsih, 2013). The most common method for determining the market value of public corporations is Tobin Q. This measure compares a publicly traded company's market value to its book value (Sabrina *et al.*, 2018; Tailab, 2014). The other benefit of using this measurement, the challenges of estimating the rate of return or marginal cost is avoided.

Since its formation in 2020, the IIRC has had considerable growth around the globe with several countries making it a requirement to obtain listing in their stock exchange markets. These countries include Brazil, South Africa, India and many more (Cheng *et al.,* 2014). Phillips *et al.* (2011) noted that this kind of reporting is very comprehensive while making assessments regarding organization performance, disclosures on finance matters, social values, and strategies that permits the stakeholders to possess a comprehensive understanding of the overall firm performance. According to James (2014) using the IFR reporting system can help an organization run more efficiently overall, that will help it accomplish its mission and goals. A system like this will also help stakeholders understand how a company's performance affects both people and the environment. Additionally, it will help internal decision makers gain a comprehensive grasp of the relationships between different roles, as well as their nature and impacts.

By reading the annual reports of the firms listed on the Nairobi Stock Exchange (NSE) and other Capital Markets Authority (CMA) bulletins, prospective investors in Kenya can learn crucial information about the operations of the companies. Like other exchanges, NSE urges businesses to provide as much information as they can so that stock prices on the exchange mirror the most recent data (Mwangi & Mwiti, 2015). Since 2008, the exchange has placed a strong emphasis on corporate governance, even going so far as to penalize players that violate the rules of the market. Barako (2007) posits that participants in the NSE have increased the level of their disclosures and more so their voluntary disclosures over the years. The level of disclosure at the NSE is certain to increase as a result of the CMA's emphasis on tightening corporate governance regulations among market participants and the adoption of the IFR framework. Therefore, it is crucial to determine whether this change has an impact on the value of listed companies.

Quarterly, semi-annual, and yearly financial statements must be produced by firms that are listed on the NSE. The financial statements must be generated in accordance with IFRS and ISA rules, according to CMA standards. The Financial Reporting award (FiRe), which evaluates participant companies and recognizes the one that adheres most closely to the IFRS regulations, was established by the Institute of Certified Public Accountants (ICPAK) in collaboration with the CMA and NSE in order to promote adherence to the IFRS. The CMA

Guidelines also urge businesses to disclose more non-financial information that can be useful to investors and other important stakeholders (CMA, 2018).

Trans Century Ltd, Equity Group Holdings, Limuru Tea business Ltd, Barclays Bank of Kenya Ltd, and a number of other listed companies are just a few of the recent recipients of the FiRe award. These companies have included IFR in their reporting, according to an examination of their annual reports. There is a need to determine whether IFR is one of the elements impacting returns of listed firms because listed firms have varied in their financial performance. This study aims to determine whether using IFR significantly increases a firm's value.

1.2 Statement of the Problem

In addition to being essential for determining the firm's market value, industry value and the health of the economy are also improved by firm value. Scholars and financial professionals are concerned about the NSE's falling and highly variable firm value during the past ten years. According to Cytonn Report (2020) more than two-thirds of firms listed at the NSE lost value between the year 2015 and 2020. This represents approximately 43 companies. Not only is firm value essential for determining the firm's market value, but it also raises industry value and the health of the economy. Concern has been expressed among academics and financial professionals over the NSE's falling and highly variable firm value during the past ten years. Churet and Eccles (2014) hypothesize that IFR has a positive and significant influence on value of firms.

Published works focusing on how the content of IFR is analyzed are very minimal. These previous studies have only been conducted in many developed countries for example Australia, USA, New Zealand and countries from Europe (Jensen & Berg, 2012). Kenya is one of the emerging countries, although very few, if any, investigations have been conducted there. Different levels of sustainability and regulation as well as the absence of mature capital markets characterize these nations. Additionally, the idea of IFR is continually being developed, with less emphasis being focused on very particular applications and more on a broad application.

Research studies have been conducted on how IFR affects the value of firms though the research have produced conflicting results. Suttipun (2017) found that manufactured capital

reporting had a positive impact on corporate financial performance, while environmental capital reporting had a negative effect. These findings are in contrast with Adegboyegun *et al.* (2020) who discovered that IFR has no significant effect on financial performance. These differences can be attributed to the fact that the principles surrounding IFR may have different influences on the value of the firm. On one hand IFR can be useful to the stakeholders of a firm by meeting their demands and encouraging superior performance (Wild & van Staden, 2013). In contrast, adopting an IFR system may be costly to the firm hence lowering the performance of the firm and consequently its value (Churet & Eccles, 2014). Further, although there are previous studies on IFR and firm value, the previous studies did not operationalize IFR into its six capitals (financial, manufactured, intellectual, human, social and environmental) which is the gap the current study sought to fill. Kerongo *et al.* (2020) concluded that firm size has a moderating effect on value of listed firms at the NSE. This study also sought to confirm this assertion by investigate the moderating effect of firm size on the relationship between IFR and value of firms listed at the NSE.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of this study was to determine the effect of integrated financial reporting on value of firms listed at the NSE.

1.3.2 Specific Objectives

i. To determine the impact of financial capital reporting on value of firms listed at the NSE.
ii. To establish the effect of manufactured capital reporting on value of firms listed at the NSE.
iii. To establish the effect of intellectual capital reporting on value of companies listed at the NSE.
iv. To establish how human capital reporting affects value of companies listed at the NSE.
v. To establish the effect of environmental capital reporting on value of companies listed at the NSE.
vi. To establish the effect of social capital reporting on value of companies listed at the NSE.

vii. To establish the moderating effect of firm size on the relationship between integrated financial reporting and value of companies listed at the NSE.

viii. To determine the joint effect of the six capital reporting (financial, manufactured, intellectual, human, social and environmental) on value of companies listed at the NSE.

1.4 Research Hypotheses

The study tested the following research hypotheses:

H_{01}: Financial capital reporting has no significant effect on value of firms listed at the NSE.

H_{02}: Manufactured capital reporting has no significant effect on value of firms listed at the NSE.

H_{03}: Intellectual capital reporting has no significant effect on value of firms listed at the NSE.

H_{04}: Human capital reporting has no significant effect on value of firms listed at the NSE.

H_{05}: Environmental capital reporting has no significant effect on value of firms listed at the NSE.

H_{06}: Social capital reporting has no significant effect on value of firms listed at the NSE.

H_{07}: Firm size has no significant moderating effect on the relationship between integrated financial capital reporting and value of firms listed at the NSE.

H_{08}: Integrated financial capital reporting of the six capitals (financial, manufactured, intellectual, human, social and environmental) has no significant joint effect on value of firms listed at the NSE.

1.5 Significance of the Study

Policy makers may find the report useful in determining whether IFR adoption has successfully attained its value creation goal. Additionally, if the results of the financial reporting quality outcome fall short of expectations, policy makers may feel it necessary to improve financial reporting quality among listed corporations. Limited research on the effect of IFR in Kenya has been done. Therefore, this shows that there is a gap in knowledge that policy makers ought to know in order to initiate necessary reforms.

The results of the research will serve as a foundation for future research in the same subject by other academics, students, and researchers. Through conducting a study of the existing

literature to identify the research gaps, the findings will also be used by academics and scholars to identify other research fields on the related issues addressing the same issue.

The research is anticipated to improve management practice's knowledge on how to optimize financial reporting, which can result in higher performance. The study's conclusions will aid managers in concentrating on vital success variables for value within their firms, enhancing the efficiency of their institutions. By proving that IFR increases firm value, managers will need to pay closer attention to IFR elements if they want to increase shareholders' wealth, which is a firm's primary objective.

1.6 Scope of the Study

The study examined the effect of integrated reporting on value of firms listed at the NSE and focused on the 64 firms listed as at 31st December 2020. Primary as Well as secondary data were collected. The secondary data was collected for the last 5 years (January 2016 to December 2020). The choice of the period was informed by the fact that the practice of IFR have improved in the last five years. The primary data was obtained on the IFR components while the secondary data was on firm value and the moderating variables. The IFR components to be covered included; financial capital reporting, manufactured capital reporting, human capital reporting, intellectual capital reporting, social capital reporting and environmental capital reporting. The IFR components were the independent variables, firm size was the moderating variables whereas firm value was the dependent variable. To run the regression analysis, the secondary data for the five years was aggregated as an average and regressed against each IFR component.

1.7 Limitations of the Study

This research utilized both primary and secondary data. In order to reduce the number of probable outliers, the study adopted a structured questionnaire. However, this raised the challenge of skewed data collection since the projected respondents were limited with regard to how and the kind of information they were expected to divulge in their response. In this regard, the researcher ensured that the data collection tool facilitates collection of comprehensive data, which addresses study objectives with as little bias as possible.

Moreover, some of the projected respondents were skeptical about being participants in the study. The researcher addressed this shortcoming by seeking the necessary permit, consents

and approvals from the relevant authorities including but not limited to the University and the National Commission of Science, Technology and Innovation (NACOSTI). Moreover, ethical considerations were considered and respondents enlightened on the same. Such considerations included desisting from requiring the respondents to divulge their personal information particularly their names or where they work. Moreover, desisting from disseminating the collected data and study findings to third parties, this implies that the study would be used exclusively for academic purposes. Lastly, the researcher indicated the willingness to share the finding of the study with any interested respondents.

1.8 Operational Definition of Terms

Environmental Capital Reporting: This involves providing information relating to indispensable resources and benefits, essential for human survival and economic activity, provided by the ecosystem that the firm enjoys.

Financial Capital Reporting: This involves providing information relating to assets needed or owned by a company to provide goods or services, as measured in terms of money value.

Firm Size: Refers to how big or small an organization is as measured by its asset base.

Firm Value: This financial indicator shows how the market values the company as a whole. It is the sum of all investor claims, including those from preferred and common equity holders as well as secured and unsecured creditors.

Human Capital Reporting: Provision of information regarding the skills, knowledge, and experience possessed by an individual or population, viewed in terms of their value or cost to an organization or country.

Integrated Financial Reporting: Refers to a clear communication on the business model, strategies and governance structures that will support value creation for the investor in the short, medium and long term.

Intellectual Capital Reporting: Provision of information regarding the intangible assets that contribute to a company's bottom line. These assets include the expertise of employees, organizational processes, and sum of knowledge contained within the organization.

Manufactured Capital Reporting: This refers to offering information regarding the collection of physical, material and technological objects that are available to an organization

for use in the provision of services and therefore in fulfilling its purpose for examples, Buildings and Machineries.

Social Capital Reporting: Provision of information regarding the networks of relationships among people who live and work in a particular society, enabling that society to function effectively.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examine other researchers and scholars work regarding the study variables. This review gives in-depth information of what has been done, serves as a foundation for interpreting the research results and also helps to address the shortcomings of earlier studies. The section covers theoretical and empirical review of literature on IFR, firm value, their relationship and the conceptual framework which gives the conceptualized link between the study variables.

2.2 Theoretical Literature Review

Several theories attempt to explain the concept of integrated financial reporting. The study employed, signaling effect theory, agency theory, stakeholder theory and institutional theory.

2.2.1 Signaling Effect Theory

Signaling theory advanced by Ross (1977) is the anchor theory of the current study and it explains behavior where there is information provision between two parties like individuals and organizations. Business initiatives must communicate with possible investors via signals of worth and commitment, which reflect the firm's value. Potential investors can use the communication provided to help them make informed investment decisions (Busenitz *et al.,* 2005). Investors put their money where their mouth is, and the signaling mechanism is a key guide when making such major investment decisions, as noted by Bhattacharya and Dittmar (2001). According to Bouncken and Kraus (2019) financial ratios derived from financial statements can accurately anticipate future changes in earnings. The same data can also be used to forecast future returns, signals anticipated adjustments to analyst earnings projections and earnings forecast variation (Karaibrahimoglu & Gungormus, 2021).

A company's profitability would grow if signaling occurred within the organization, but they would suffer if accounting errors, a product recall, or a scandal were to surface. As a result, signaling may predict stronger future profitability or even a higher stock price for a company. However, it does not ensure that a bad thing will happen either before or after the results release (Bhattacharya & Dittmar, 2001). Testing of the signaling theory was documented by Amran *et al.* (2019). They asserted that stock prices tend to rise when a company issues its financial statements, announces an increase in dividend payouts when it posts positive results,

which increases its worth, and declines when it posts negative results since dividends are to be cut. The market participant's perception of organizational difficulties as a significant source of financial information helps to bridge the information gap that exists between investors, management, and regulators, among other stakeholders.

IFR requires firms to communicate with potential investors based on value and commitment signals, which indicate the worth of the enterprise. This is how the theory connected to this study works. Thus, earnings would suffer and the business's value may drop significantly if it turned out that the company had weak IFR and actually experienced a scandal, a product recall, or accounting errors.

2.2.2 Agency Theory

The developments in this theory were initiated by Meckling and Jensen (1976) and it asserts that owing management and firm ownership separation, there emerges agent-principal relationship demanding to be managed for better value creation (Karaibrahimoglu & Gungormus, 2021). The company may implement multiple growth strategies as a result of the opposing viewpoints held by its agents, the managers and shareholders, for a variety of grounds. For such companies to maintain a sound financial position, some agency costs must be incurred to balance the goals of management and owners. According to agency theory, the influence integrated reporting has on a company's value depends on the management strength of the company and the efficiency of its collective governance processes. According to the belief, managers' personal motivations are what drive businesses to expand. It shows how the information asymmetry prevents shareholders from easily accessing, assessing, and interpreting all documents and information relevant to opportunistic managerial activity.

Without effective governance practices, conflicts would arise as a result of managers seeking personal benefit (agency cost) while shareholders seek to maximize profit. However, shareholders can set up effective governance mechanisms, such as boards of directors, to prevent management from incurring excessive agency expenses, over-diversifying, and pursuing personal gain. Additionally, shareholders may pressure firms to fund new projects using debt rather than equity. Mole (2002) contends that factors such business size, liquidity, return on equity, and growth help explain firm performance decisions via the lens of agency theory.

According to agency theory, IFR can lessen disputes between corporate owners and managers by improving financial performance and resulting in higher profits for businesses, which may more than make up for the expense of integrated disclosures (García-Sánchez *et al.,* 2013). Nevertheless Connelly and Limpaphayom (2004) discovered that companies are more likely to regard voluntary reporting as a cost that lowers corporate earnings. As a result, these businesses will offer the least amount of IFR to meet the minimum standards. As a result, integrated financial reporting and corporate financial performance would often have a negative association (Bouncken & Kraus, 2019).

Agency theory has been used by scholars in research to monitor and link managerial action with principals (shareholders) (Amagoh *et al.,* 2009). Some researchers have pointed out that agency theory can be used to show that a positive link between size of the firm and quality financial reporting can be expected (Malmir *et al.,* 2014). Managers are expected to utilize the resources in their control to act in a manner that enhances citizens' welfare by ensuring financial reporting quality. In this study, agency theory is useful as it recognizes the need for governance mechanism to monitor the behavior of managers. IFR reduces the agency conflicts between managers and shareholders which can lead to firm value.

2.2.3 Stakeholder Theory

Stakeholders' theory was intended to be a managerial tool when it was first created. Yet it has since developed into a robust theory with a strong explanatory power (Freeman, 1984). The stakeholder theory emphasizes moral and ethical principles in the management of a corporation or other organizations. It is similar to a conceptual framework for corporate ethics and organizational management. The main determinant of company policy according to stakeholder theory is the equilibrium of stakeholder interests. The theory is an extension to the theory of implicit contracts and other types of contracts, such as finance and sales, and it has a significant impact on risk management that is emerging (Fontaine, 2006).

The theory, according to scholars, is crucial; they contend that the organization should be held internally and externally accountable because its operations have an impact on the environment. This theory is discredited on the grounds that it assumes a single-valued objective, which is where gains go to the stakeholders in a company (Jensen, 2003). According to Jensen (2003) there are other ways to gauge a company's performance in addition to the advantages received by stakeholders. These metrics cover interpersonal

relationships inside the organization, the flow of information from senior management to lower-level employees, and the working environment.

Stakeholder theory is pertinent to this research since it aims to fairly represent the various requirements of all the stakeholders. This is accomplished by building a network of connections with the firm's stakeholders, which include investors, suppliers, employees, regulators, and clients. This is one of the company's corporate objectives. In this research, managers of publicly traded companies should aim to increase a firm's worth. To accomplish this, they must make sure that all essential information is shared with all parties, both financial and non-financial.

2.2.4 Institutional Theory

This theory was founded by Meyer and Rowan (1977) to advance the role of institutions on their effectiveness to meet competing organizational demands. According to the theory, an organization's structure is a direct reflection of its institutional force, resource availability, and technical requirements (Palthe, 2014). The fundamental tenet is that organizational structures and practices are a direct reflection of or reaction to rules, beliefs, and traditions found both inside and outside the company. Standardized products, administrations, procedures, approaches, and programs serve as effective mythologies, and many associations embrace them ritualistically. However, efficiency and adherence to institutionalized standards can clash severely (Meyer & Rowan, 1977).

According to Ferreira *et al*. (2020) all organizational functions are created to operate in accordance with social expectations in order to enhance the welfare of society. This implies that, in terms of the organization's external legitimacy, its intricate and difficult to notice internal processes rank second. It is possible to argue that a company's operating procedures and kind of reporting are loosely related to how the company appears to outsiders.

This theory is significant because it demonstrates how institutional changes have interacted resulting in the emergence and development of financial reporting. An example resulting from institutional changes is integrated financial reporting. Financial legislations support IFR by enacting relevant legislations it. Institution theory has been utilized in this research in determining whether the adoption of IFR among listed firms has contributed significantly in value improvement.

2.3 Empirical Literature Review

The empirical literature contains literature on other studies in the area of IFR. Ideally, a research should not duplicate what other researchers have done but rather it should clearly identify a gap which it pursues to fill. This gap could be contextual, conceptual or methodological in nature. This section gives the empirical writings on IFR and firm value that is critiqued to build the research gap that the enquiry pursues to seal. The section is in order of the independent variables where previous empirical studies are deliberated.

2.3.1 Financial Capital Reporting and Firm Value

Cucari and Ghio (2023) explored the relationship between financial capital reporting and firm value in the Italian context. The research used a sample of 114 Italian listed firms from 2014 to 2021. The outcome depicted a significant positive link between financial capital reporting and firm value, as measured by Tobin's Q. Specifically, the study found that financial capital reporting was positively linked to firm value, and this relationship was stronger for firms with high levels of intangible assets. Furthermore, the study indicated that financial capital reporting was a more important determinant of firm value than other forms of non-financial disclosure. These findings suggest that financial capital reporting is a valuable tool for enhancing firm value in the Italian context, particularly for firms with high levels of intangible assets.

Kavalevskaya and Stacescu (2022) investigated the connection between financial capital reporting and firm value in the European context. The study employed a sample of 2,410 European firms from 2010 to 2019. The results indicated a positive and significant association between financial capital reporting and firm value. Specifically, the study found that firms that reported on financial capital had higher market valuations and higher profitability ratios than firms that did not report on financial capital. Furthermore, the study indicated that financial capital reporting had a greater impact on firm value than social and environmental reporting. These findings suggest that investors value the disclosure of financial capital information and that financial capital reporting can be a valuable tool for enhancing firm value in the European context.

Adegboyegun *et al.* (2020) focused on the influence of IFR on the performance of Nigerian firms in between 2009 and 2018. The population of this study was thirteen banks. The

dependent variable was profit after tax whereas the independent variables were IFR index, debt to equity ratio and total asset. The study used OLS and Panel Co-integration methodologies for analysis and discovered that while IFR has no substantial short-term effects on corporate performance, it significantly affects long-term company performance.

Albetairi *et al.* (2018) sought to investigate IFR effect on financial performance in Bahrain and selected five companies in the insurance industry for this study. Financial performance was in this case measured by ROA. Content, descriptive and linear regression analyses were utilized in the study to form an analysis of the data over a four-year period 2012 to 2015. The results of the research exhibited there was a disparity in the use of IFR among a variety of companies with each company having different disclosures on the same. The areas in which disclosures improved appeared to be in the external environmental assessment, overview of the organization, governance issues and outlook. Areas in which disclosures significantly decreased included areas which cover the risks faced and opportunities in the market. The study found out that the business model, strategy and resource allocation showed positive associations with Return on Assets (ROA), while risk, opportunities and performance elements showed negative but significant relationships with ROA.

King'wara (2015) explored financial reporting quality impact on firm value. In the research, a sample of publicly listed companies from 1994 to 2003 was chosen without include any banking or insurance firms. A comparison of the financial reporting quality before and after the adoption of IFRS revealed a significant relationship between the two and the firm's value. Information asymmetry between investors, management, regulators, and other stakeholders is lessened by the financial information that market participants view organizational challenges as a valuable resource. Firms listed in the banking and insurance industries were excluded, nevertheless.

Ferrero (2014) undertook global literature on the connection between firm value and financial reporting quality. Earnings quality, conservatism, and accruals quality were operationalized as measures of quality reporting, while the market to book ratio served as a measure of firm value. The study used a panel study design, and from 2002 to 2008, 1960 non-momentary listed businesses from 25 different countries were included in the sample size. Financial reporting quality and firm value were found to have a substantial positive association by regression analysis using the generalized method of moments.

Morris *et al.* (2012) undertook an Asian comparative examination of the arguments in favour of and against quality financial reporting and firm value. 262 enterprises from eight Asian nations were selected using a simple random sampling. Some of the chosen nations had implemented proper financial reporting, while the others had not. A customized 441-item checklist for effective financial reporting was used to gather secondary data. The research was conducted from 2002 to 2007. The study's findings showed that good financial reporting increased value, which varied not only over time but also between the countries under examination. Furthermore, the corporate information asymmetry was improved as a result of the disclosure levels implemented by institutions.

Owolabi and Iyoha (2012) investigated the factors that affect firm value in Africa. A closed-ended questionnaire used in the study was used to collect cross-sectional data amongst users and preparers of annual audited financial statements. 38 users and 58 yearly financial statement preparers were chosen via a purposeful sample method. Descriptive statistics were used to analyse the data, and on average, respondents reported outstanding performance since the adoption of high-quality financial reporting as a result of the supervision and enforcement of professional standards as well as the calibre of the current accounting education. Additionally, it was shown that adopting quality financial reporting had various advantages for company value, such as better management, better reporting and budgeting policies, better risk management policies, and lower operating costs.

Bình (2012) researched on non-mandatory disclosure of information of listed non-financial firms on the Vietnamese Exchange concluding presence of an agreement amongst analysts and managers on the fruits and hierarchy of voluntary disclosure items. The needs of financial specialists and the viewpoints of financial managers on exposure, however, differ significantly. He concluded that many topics in the sample organizations' annual reports were not sufficiently covered, and that corporate yearly reports should include more financial, prospective, and general corporate data to assist clients in making wise and practical decisions regarding business and speculation based on accurate and up-to-date information sources.

2.3.2 Manufactured Capital Reporting and Firm Value

Lai *et al.* (2023) explored the impact of manufactured capital reporting on firm value using a sample of 442 Taiwanese listed firms from 2014 to 2020. The results indicated a positive and

significant relationship between manufactured capital reporting and firm value, as measured by Tobin's Q. Furthermore, the research found that the positive link between manufactured capital reporting and firm value was stronger for firms with high levels of R&D expenditure. These findings suggest that manufactured capital reporting can be a valuable tool for enhancing firm value in the Taiwanese context, particularly for firms that invest heavily in R&D.

Navarro-Galera *et al.* (2021) used a sample of 110 Spanish listed firms from 2012 to 2018 to examine the association between manufactured capital reporting and firm value. The conclusions depicted positive significant link between manufactured capital reporting and firm value, as measured by Tobin's Q. Specifically, the study found that firms that reported on manufactured capital had higher market valuations and higher profitability ratios than firms that did not report on manufactured capital. These findings suggest that manufactured capital reporting can be a valuable tool for enhancing firm value in the Spanish context.

Wen *et al.* (2017) investigated the potential contribution to financial performance that would arise from the implementation of IFR among the top 50 companies listed in the Malaysian stock exchange from 2012 to 2015. The eight concepts drawn from the IIRC framework were investigated in connection with the adoption rate IFR. Included in this analysis is the overview of the whole organization, external environment, opportunities, model of the business, governance structures, opportunities and hindrances to performance, and they layout of performance presentation. From the data it was observed that listed companies in Malaysia reported a 50% compliance with all the elements with the exception of performance presentation. The analysis of the data revealed that four among all the elements had a profound positive relation to financial performance. The four are; governance, model adopted, opportunities & risks, and disclosure of performance.

Churet and Eccles (2014) utilized the Robecom SAM's proprietary database which contains a survey of over 2,000 companies on the annual corporate sustainability assessment to determine the usage and growth in the adoption of integrated reporting, and possible effects of its use on key indicators on quality of management and financial performance. The assessment begins with a report by the authors stating that even though only 12% of the companies in the database practiced this reporting, this represented a 50% rise in its use from 2011 up to 2012. The report also shows that a positive relationship exists between integrated

reporting and quality of management, which has been concluded by several studies to be very beneficial in indicating the efficiency of management in creating value in the long term. This relationship was significantly stronger in sectors such as healthcare with good infrastructure and medical equipment. Additionally, the authors indicate that the results found were only from the healthcare and the information technology sectors and not from the entire population.

2.3.3 Intellectual Capital Reporting and Firm Value

Cano-Rodriguez *et al.* (2022) investigated the relationship between intellectual capital disclosure and firm value in Chile, an emerging economy. The study used a sample of 69 Chilean listed firms from 2012 to 2018. The results indicated a positive and significant relationship between intellectual capital disclosure and firm value, as measured by Tobin's Q. Furthermore, the study found that the positive relationship between intellectual capital disclosure and firm value was stronger for firms that were more research-intensive and had higher levels of intangible assets. These findings suggest that intellectual capital reporting can be a valuable tool for enhancing firm value in emerging economies, particularly for firms with high levels of research and intangible assets.

Uusitalo *et al.* (2021) used a sample of 118 Finnish listed firms from 2011 to 2017 to examine the link between intellectual capital disclosure and the value of firms. The results showed a positive and significant association between intellectual capital disclosure and firm value, as measured by Tobin's Q. Specifically, the study found that firms that disclosed more information about their intellectual capital had higher market valuations and higher profitability ratios than firms that disclosed less information. These findings suggest that intellectual capital reporting can be a valuable tool for enhancing firm value in the Finnish context.

Suttipun (2017) focused on the level and extent of IFR in the annual reports of companies listed in the Thailand Stock Exchange (TSE). The specific objective was to test the diverse levels of IFR between TSE100 companies and Non-TSE100 companies, and between companies awarded for Corporate Social Responsibility (CSR) and those companies which were not awarded for the same together with the effect of IFR on financial performance. A random sample of 150 companies listed from the TSE was selected. The study utilized content analysis to determine the extent and level of IFR in annual reports between 2012 and

2015. The findings showed that on average, a total of 603.59 words of IFR were used by companies in their annual reports. The commonest form of IFR in this case was intellectual capital reporting while the least was environmental capital reporting. Significant differences in IFR between TSE100 and non-TSE100 firms, and between CSR award and non-CSR award companies were identified. Manufactured capital reporting and holding a CSR award had a positive effect on corporate financial performance, while the corporate financial performance showed a negative correlation to environmental capital reporting.

Ponnu and Okoth (2009) examined voluntary disclosure under themes of environment, community involvement, product, consumer and human resource management themes of Corporate Social Responsibility (CSR) disclosures. They examined the annual reports and websites of companies listed on the NSE for their disclosure policies. They discovered that corporations listed on the Exchange paid little attention to CSR disclosures, with community development being the main voluntary theme disclosed.

Cormier and Magnan (2003) analyses the impact of voluntary disclosed environmental information reporting on the link between a company's earnings and its stock market value, with focus on Canada, France and Germany. The model that was developed used a market to book value, which is a function of equity, earnings and a proxy, for environmental reports, with 37 items with a score from 1 to 3. The sample was formed up from 223 companies with a total of 1.125 observations, for period 1992-1998. The results of the investigation revealed that disclosure on environmental matters was highest in Canada, then in Germany and lastly in France.

2.3.4 Human Capital Reporting and Firm Value

Scholtz *et al.* (2023) explored the association between human capital disclosure and firm value in South Africa. The research used a sample of 77 South African listed firms from 2013 to 2020. The results indicated a positive and significant relationship between human capital disclosure and firm value, as measured by Tobin's Q. Furthermore, the research found that the positive link between human capital disclosure and firm value was stronger for firms that had higher levels of intangible assets. These findings suggest that human capital reporting can be a valuable tool for enhancing firm value in South Africa, particularly for firms with high levels of intangible assets.

Ntim *et al.* (2022) used a sample of 157 UK listed firms from 2014 to 2020 to investigate the relationship between human capital disclosure and firm value. The results showed a positive and significant association between human capital disclosure and firm value, as measured by Tobin's Q. Specifically, the study found that firms that disclosed more information about their human capital had higher market valuations and higher profitability ratios than firms that disclosed less information. These findings suggest that human capital reporting can be a valuable tool for enhancing firm value in the UK context.

Hurghis (2015) studied if financial performance influences the extent to which an integrated report is prepared and issued in accordance with IIRC framework. To answer the objective of the study the correlation between a disclosure index and financial performance (measured using return on assets and earnings per share) was tested, on a sample from the companies participating at IIRC Pilot Programme, between 2012 and 2014. The results highlight that financial performance of the company from the IIRC Pilot Programme, did not influence the extent to which the issued integrated financial report, is in accordance with the IIRC Framework. Nevertheless, issuing an integrated financial report should not depend on the financial performance of the company because it is a voluntarily practice and it is also very flexible.

García-Sánchez *et al.* (2013) conducted an examination on the corporate characteristics that influence the sustainability of integrated financial reporting of a total of 1590 international companies selected from around the globe from 2008 to 2010. Logistic regression and panel data analysis were employed for the analysis of the data. Mentioning agency theory, signaling theory, political costs theory, and proprietary costs theory, their study indicated that the nature of the industry had a negative correlation to the development of IFR. Additionally, their study showed that bigger companies with superior returns were more likely to utilize IFR in comparison to smaller companies with lower returns since they have a significant political visibility and face higher agency costs.

Wild and van Staden (2013) studied the extent of adoption of IFR on a total of 58 companies within the database. The aim was to establish how characteristics of corporations such as industry, size, profitability level, country and auditor affect the level of IFR. Their results showed that many of the companies address selected capitals in their annual financial reports such as human, financial, social and natural capitals. Others such as manufactured and

intellectual capitals were not sufficiently covered. From the study conducted, it was clear that a negative relationship exists between the industry type and the level of IFR, but no relationship was established between the IFR level and the remaining corporate elements under investigation.

2.3.5 Social and Environmental Capital Reporting and Firm Value

Su *et al.* (2023) investigated the relationship between environmental, social, and governance (ESG) disclosure and firm value in China. The study used a sample of 452 Chinese listed firms from 2014 to 2020. The results indicated a positive and significant relationship between ESG disclosure and firm value, as measured by Tobin's Q. Furthermore, the study found that the positive relationship between ESG disclosure and firm value was stronger for firms in industries that were more sensitive to environmental and social issues. These findings suggest that social and environmental capital reporting, as a part of ESG disclosure, can be a valuable tool for enhancing firm value in China, particularly for firms in environmentally and socially sensitive industries.

Dhiman *et al.* (2022) used a sample of 40 Indian companies from 2014 to 2020 to examine the relationship between social and environmental reporting and firm value. The results showed a positive and significant association between social and environmental reporting and firm value, as measured by market capitalization. Specifically, the study found that firms that disclosed more information about their social and environmental performance had higher market valuations and higher profitability ratios than firms that disclosed less information. These findings suggest that social and environmental capital reporting can be a valuable tool for enhancing firm value in the Indian context.

In their study Atkins and Maroun (2015) investigate the initial reactions of the institutional investing community in South Africa to the initial integrated report sets produced by businesses listed on the Johannesburg Securities Exchange. The investors' opinions on South African integrated reporting were first evaluated using interpretive thematic analysis to identify themes and guiding concepts. The traditional annual report of South African listed firms is considered as being improved upon by the new reporting system. In order to provide a better understanding of organizational sustainability, there was often a greater emphasis on non-financial measurements and evidence of an effort to integrate financial and metrics. However, the reports' length, repetition, and check-box methodology reduce their

effectiveness and jeopardize the growth of an integrated way of thinking. The study was only able to investigate the opinions of one particular stakeholder group at one particular period. The study was conducted prior to South African preparers implementing the International Integrated Reporting Council's framework for integrated reporting, which is also brought to the reader's knowledge.

Mwiti (2014) examined how stock market returns of NSE listed firms are impacted by non-mandatory disclosures and found a strong, significantly positive relationship between non-mandatory disclosure and stock returns. Thus, firms can increase stock returns by increasing their voluntary disclosure owing to the ability of voluntary disclosure to act as a corporate governance tool. The study confirmed the empirical evidence of Kothari (2004) that increased disclosures reduce a firm’s cost of capital by reducing information asymmetry and transaction costs.

2.4 Summary of Literature Review and Research Gaps

The chapter has addressed the literature reviewed in an attempt to determine the influence of integrated financial reporting on value of listed firms at the NSE basing its theoretical framework on four theories: Agency theory by Meckling and Jensen (1976) asserts that the effect integrated financial reporting has on value of firms is a function of the ability of a firm's management and collective governance mechanisms effectiveness. According to the theory, managers' personal motivations are what drive businesses to expand. According to Freeman's (1984) stakeholder theory, the company should be held internally and externally accountable because its operations have an impact on the outside world. To increase the welfare of society, all organizational functions are created to operate in accordance with social expectations. This implies that, in terms of the organization's external legitimacy, its intricate and difficult to notice internal processes rank second. Based on the type of reporting used and the organizational procedures, it is arguable that a company could lose its external image.

There have only been a small number of research conducted thus far because IFR was only introduced in 2010 (Jensen *et al.*, 2012). For instance Garca-Benau *et al.* (2013) discovered that businesses in cultural systems with stronger collectivist and feminist values are more likely to offer IFR as such systems place an emphasis on good corporate governance, ethics, and resolving sustainability issues.

These previous studies have mostly been conducted in the developed countries, USA, Australia, New Zealand, South Africa and countries from Europe (Higgi *et al.*, 2014) however few studies have been conducted in the developing countries, Kenya being one of them. Different levels of sustainability and regulation as well as the absence of mature capital markets characterize these nations. Additionally, the idea of IFR is continually being developed, with less emphasis being placed on strict particular metrics and more on broad measures.

A few studies have been conducted on how IFR and the value of firms relate studies have produced mixed results (Wild & van Staden, 2013). This could be attributed to the fact that the principles surrounding IFR may have different influences on the value of the firm. On one hand IFR can be useful to the stakeholders of a firm by meeting their demands and encouraging improved performance. Alternatively, adopting an IFR system may be costly to the firm hence lowering the performance of the firm and consequently its value. Most of the previous studies however focused on integrated financial reporting components and not its six corporate capitals that are the current research focus.

2.5 Conceptual Framework

A conceptual framework helps to link the research variables diagrammatically (Khan, 2008). The independent variable is integrated financial reporting components as characterized by financial capital reporting, intellectual capital reporting, human capital reporting, social capital reporting, manufactured capital reporting and environmental capital reporting while firm value was the dependent variable as measured by Tobin Q. The moderating variable was firm size that is expected to have a moderating effect on value of firms. Firm size was operationalized as the natural logarithm of total assets.

Independent Variables **Dependent Variable**

Integrated Financial Reporting

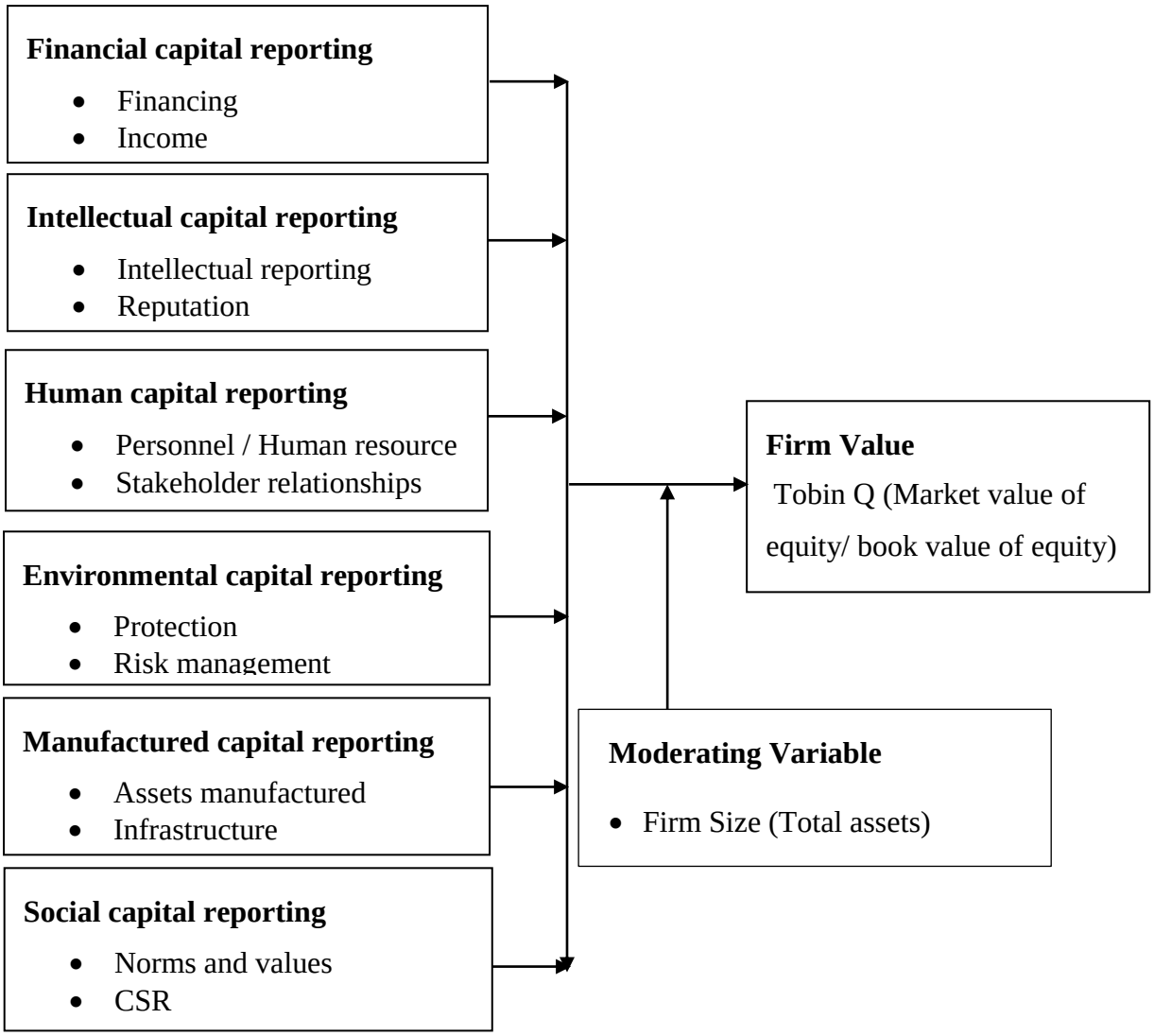

Figure 2.1: Conceptual framework

The hypothesized relationship as illustrated in figure 2.1 assumes that increasing or reducing the level of financial capital reporting, intellectual capital reporting, human capital reporting, manufactured capital reporting, social capital reporting and environmental capital reporting will rise or decrease the financial performance of the business and hence its value, ensuing in a rise or decrease in wealth to the business owners. With different correlations between company size and firm value, that connection is also dependent on the moderating variable.

The signaling effect theory hypothesize that a relationship exist between IFR and firm value as reporting whether financial or non-financial signals to the stakeholder's about the

happenings of the company and this directly affects the bottom line of the firm which is financial performance and ultimately the value of a firm. In regards to operationalization of the variables, IFR has six core capitals that were utilized in this study.

Financial capital reporting has been operationalized in terms of financing and income generated. Human capital reporting has been operationalized in terms of personnel or human resource and stakeholder relationships. Manufactured capital reporting has been operationalized in terms of assets manufactured by the firm or assets owned by the firm. Intellectual capital reporting has been operationalized in terms of intellectual property and reputation. Social capital reporting has been operationalized in terms of norms and values and corporate social responsibility. Environmental capital reporting has been operationalized in terms of environmental protection and environmental risk management. Firm value which is the dependent variable was represented by Tobin Q due to its wide applicability in previous literature. Firm size was operationalized as total assets owned by a firm.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter starts with a discussion on the research design of the study. It then discusses the population of the study, data collection method and data analysis.

3.2 Research Design

Research design refers to a detailed outline on how the research took place. It specifies the methods and procedures that were used to collect and analyze data (Khan, 2008). A descriptive research design was used in finding out the effects of IFR on the NSE listed firms' value. Descriptive research design is a statistical method that quantitatively synthesizes the empirical evidence of a specific field of research. Cooper and Schindler (2008) notes that descriptive research design has become widely accepted in the field of finance and economics since it is proving to be very useful in policy evaluations. According to Burns and Groves (2017) descriptive technique gives accurate information of persons, events or situations.

In order to learn as much as possible about the entire population being studied in regard to the impact of IFR on the value of enterprises listed at the NSE, a descriptive research design is mostly used. Since raw data from publicly traded companies was used in this investigation, it is pertinent. Researchers who need assistance researching and analyzing the interrelationships of several aspects involved, and for whom it is challenging to comprehend the individual factors without taking into account their relationships with one another, will find descriptive designs to be of special benefit (Khan, 2008).

3.3 Population

As per Burns and Groves (2017) population is the number of all of the observations of interest within a particular collection such as people or events as described by an investigator. The research population comprised of the entire 64 firms listed as at 31st December 2020 (see Appendix IV). Since the number of listed firms in Kenya was relatively small, sampling was not done. The current study therefore used a census design where all the 64 listed firms were selected.

3.4 Data Collection Methods

Data collection is the procedure of obtaining and measuring information in order to be able to answer questions that prompted the undertaking of the research (Khan, 2008). The study utilized both primary and secondary data to determine impact of IFR on value of firms listed at the NSE. Secondary data refers to the information that has been collected by other individuals (Cooper & Schindler, 2008). A questionnaire was given to each listed firm via Google forms. The questionnaire was categorized into two parts. Part 1 covered the demographic information while part 2 covered the specific objectives. The respondents were the chief finance officers or their representatives as they were expected to be more familiar with the concept of IFR. Secondary data was gotten from NSE website, CMA library and the specific institution Integrated Financial Reports found on their websites. For the purpose of this study, the secondary data was obtained for 5 years duration, spanning between years 2016 – 2020. The last 5 years was selected as this was the period which have seen most firms adopt IFR. The primary data was on the independent variables while secondary data was on the dependent variable.

3.5 Validity and Reliability of the Research Instruments

Validity of a research instrument is the ability of the instrument to measure well what it purports to measure (Cooper & Schindler, 2008). It refers to how well the data collection and data analysis of the research captures the reality being studied. For this study the content validity was chosen based on the questionnaire being administered. Content validity has been defined as the measure of how representative a research project is at face value and whether it appears to be a good project. The data must be unbiased and relevant to the characteristic being measured. To determine the content validity of the research instrument, the researcher sought for the assistance from the supervisor and other lecturers in the department of Accounting Finance and Management. This is a panel of experts that is familiar in the way this type of validity could be assessed. The experts have the knowledge to examine the items and determine what the specific item is intended to measure. For the validity of the questionnaire to be demonstrated, the researcher ensured that all the items in the questionnaire are based on the objectives of the study and are written in clear and precise words to avoid ambiguity and confusion among respondents. In addition, construct validity was tested using Kaiser-Meyer-Olkin (KMO) and factor analysis. KMO was used to statistically test the validity of the responses and determine whether they were valid based on

their values. For a data set to be considered legitimate and adequate for statistical analysis, KMO must be greater than 0.5 (Field, 2013).

Khan (2008) holds that reliability is a measure of the extent with which research instruments are able to yield consistent results after each repeated trial. In attempt to determine the reliability of the adopted research instruments, a pilot study was conducted to enable proper revision of the research instruments and for the researcher to identify sensitive and redundant items in the research instruments so as to properly seek the required research data. A pilot study was carried out in 6 firms listed at the Dar es Salaam Securities Exchange. The six firms were arrived at using simple random sampling. Reliability of the questionnaires was done using the Cronbach's alpha coefficient (α), where the reliability threshold was be 0.7, that is, $\alpha \geq 0.7$. The choice of Cronbach's alpha coefficient is premised on the fact that the questionnaire had items on a Likert scale.

3.6 Data Analysis and Presentation

Data was screened for completeness and variables with missing or incomplete data deleted. The rationale of data cleaning is to make sure outliers, which often compromise the authenticity and reliability of study results, are reduced. Version 24 of the Statistical Package for Social Sciences (SPSS) tool was used to analyze data. Data analysis encompassed exploration of descriptive and inferential statistics. The descriptive statistics showed the measure of central tendencies and dispersion using mean, standard deviation, maximum and minimum. A written explanation was provided to interpret data, draw conclusions and make recommendations. The inferential statistics was utilized in showing the relationship between the variables. Pearson correlation was used in determining the independent variable strength on the dependent variable. Regression (Simple and multiple) analysis was used to establish the effect of the independent variable on dependent variable. The regression analysis was also used to test the hypothesis at 95% confidence level (level of significance a= .05). A significance level of below 0.05 led to rejection of the null hypothesis. Simple regression was used for objective one to six while multiple regression was used for the combined effect in objective eight and the moderating effect in objective seven. The multiple regression was used because it can accommodate more than two independent variables to predict the dependent variable. Tables, pie charts, and graphs were used to display the data that had been analyzed.

3.7 Model Specification

The study used simple linear regression model to establish the effect of each independent variable on value of NSE listed firms while a multiple regression model was used to test the combined effect of the seven independent variables on the dependent variable. The hypothesis was tested on a 0.05 significance level. Studies by Wild and van Staden (2013) have used regression analysis while studying relationships among variables.

The first objective was to determine the effect of financial capital reporting on value of firms listed at the NSE. The simple linear regression was as indicated below:

$$Y = \alpha + \beta_1 X_1 + \varepsilon_t \quad \text{..... 3.1}$$

Where

Y= Firm value

α = Constant

β_1= Variable coefficient

X_1= Financial capital reporting

ε_t = Error term

The second objective was to investigate the effect of manufactured capital reporting on value of firms listed at the NSE. The simple linear regression was as indicated below:

$$Y = \alpha + \beta_2 X_2 + \varepsilon_t \quad \text{..... 3.2}$$

Where

Y= Firm value

α = Constant

β_2= Variable coefficient

X_2= Manufactured capital reporting

ε_t = Error term

The third objective was to investigate the effect of intellectual capital reporting on value of companies listed at the NSE. The simple linear regression was as indicated below:

$$Y = \alpha + \beta_3 X_3 + \varepsilon_t \quad \text{..... 3.3}$$

Where

Y= Firm value

α = Constant

β_3= Variable coefficient

X_3= Intellectual capital reporting

ε_t = Error term

The fourth objective was to establish how human capital reporting influence value of companies listed at the NSE. The simple linear regression was as indicated below:

$$Y = \alpha + \beta_4 X_4 + \varepsilon_t \quad \text{3.4}$$

Where

Y= Firm value

α = Constant

β_4= Variable coefficient

X_4= Human capital reporting

ε_t = Error term

The fifth objective was to investigate the effect of environmental capital reporting on value of companies listed at the NSE. The simple linear regression was as indicated below:

$$Y = \alpha + \beta_5 X_5 + \varepsilon_t \quad \text{3.5}$$

Where

Y= Firm value

α = Constant

β_5= Variable coefficient

X_5= Environmental capital reporting

ε_t = Error term

The sixth objective was to investigate the effect of social capital reporting on value of companies listed at the NSE. The simple linear regression was as indicated below:

$$Y = \alpha + \beta_6 X_6 + \varepsilon_t \ldots\ldots 3.6$$

Where

Y= Firm value

α = Constant

β_5= Variable coefficient

X_5= Social capital reporting

ε_t = Error term

The seventh objective was to examine the moderating firm size effect on the association between integrated financial reporting capitals and value of NSE listed firms. The multiple linear regression was as indicated below:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 M + \beta_8 X_1 M + \beta_9 X_2 M + \beta_3 X_3 M + \beta_4 X_4 M + \beta_5 X_5 M + \beta_6 X_6 M + \varepsilon_t \ldots\ldots 3.7$$

Where

Y= Firm value

α = Constant

β_1= Variable coefficient

X_1= Financial capital reporting

X_2= Manufactured capital reporting

X_3= Intellectual capital reporting

X_4= Human capital reporting

X_5= Environmental capital reporting

X_6= Social capital reporting

M= Moderating variable (firm size)

ε_t = Error term

The eighth objective was to examine the joint effect of integrated financial reporting of the six capitals (financial, manufactured, intellectual, human, social and environmental) on value of companies listed at the NSE. The multiple linear regression was as indicated below:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3.8$$

Where

Y= Firm value

α = Constant

β_1= Variable coefficient

X_1= Financial capital reporting

X_2= Manufactured capital reporting

X_3= Intellectual capital reporting

X_4= Human capital reporting

X_5= Environmental capital reporting

X_6= Social capital reporting

ε_t = Error term

All the variables have to be standardized using the moderating variable (M). The interaction terms (β_7 to β_{13}) have to be calculated using the compute function as expressed in models 3.7. If β_7 to β_{13} are significant, moderation effects exist in the relationship. If only one is significant, moderation effect only exists in one of the relationships and if all β_7 to$\beta_{13}$are insignificant, no moderation effect exists and M becomes just another independent variable.

3.8 Diagnostic Tests

Diagnostic tests were also carried out to ensure that the rules of regression analysis were not violated. The diagnostic tests carried were namely; normality test, Multicollinearity test and autocorrelation test. The normality assumption assumes that, the data is normally distributed and the assumption was determined using the KS test and Shapiro Wilk test. In the case where one of the variables was not normally distributed, it was transformed and standardized using the logarithmic transformation method.

Multicollinearity on the contrary refers to the correlation amongst the variables and was assessed using the correlation matrix and the Variance Inflation Factor (VIF) where a VIF of more than 10 was an indication of Multicollinearity. Multicollinearity variable was released from the research and a new metric chosen and replaced with the variable that's how co-linearity.

3.9Measurement of Study Variables

Variable	Type	Measure	Data
Firm value	Dependent	Tobin Q	Secondary data
Financial capital reporting	Independent	Likert scale	Primary data
Manufactured capital reporting	Independent	Likert scale	Primary data
Intellectual capital reporting	Independent	Likert scale	Primary data
Human capital reporting	Independent	Likert scale	Primary data
Environmental capital reporting	Independent	Likert scale	Primary data
Social capital reporting	Independent	Likert scale	Primary data
Firm size	Moderating	Log total assets	Secondary data

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

The purpose of this study was to determine the effect of integrated financial reporting on value of firms listed at the NSE. Specifically the study sought to: determine the effect of financial capital reporting on value of NSE listed firms listed, establish the impact of manufactured capital reporting on value of firms listed at the NSE, determine the effect of intellectual capital reporting on value of NSE listed firms, establish how human capital reporting influence on NSE listed firms value, establish the effect of environmental capital reporting on value of companies listed at the NSE, establish the effect of social capital reporting on value of companies listed at the NSE, establish the moderating effect of firm size on the association between integrated financial reporting and value of companies listed at the NSE and determine the joint effect of the six capital reporting (financial, manufactured, intellectual, human, social and environmental) on value of companies listed at the NSE.

This chapter covers the analysis of the effect of integrated financial reporting on value of firms listed at the NSE. Research findings of the study are also discussed. Also provided are the findings implications for the eight study objectives. This chapter covers data analysis, presentation of research instruments' return rate, interpretation and discussion of the research conclusions. In quantitative analysis, descriptive as well as inferential statistics were applied. For descriptive analysis purpose, the field results were systematized in frequency distribution tables, percentages, means and standard deviations. The research conclusions were exhibited in tables and graphs and in textual forms in attempts to manifest a better logical and meaningful picture of the data collected by the researcher.

4.2 Response Rate

The researcher aimed at establishing respondent research instrument rate of return. As per Kothari (2004), instrument return rate refers to the proportion of the research instruments that were fully filled up and returned back to the researcher after administration to respondents. In this study, a total of 64 questionnaires were administered to the 64 sample respondent.

Table 4.1: Response Rate

Response	Filled	%
Returned	62	97
Unreturned	2	3
Total Administered	64	100

On the basis of the outcomes in Table 4.1, the 62 questionnaires were dully filled and returned translating into a 97% response rate which was considered excellent for research analysis. According to Bailey *et al*. (2000) a 50% response rate and above is sufficient, whereas if a response rate is more than 70% is considered very good. Therefore, since the response rate for this study was 97% it was adequate for analysis. After data coding and cleaning, some questionnaires had certain areas that had not been filled predominantly those major research variables where midpoint in the scale was assigned as the response to those particular items as recommended (Gillham, 2008). Table 4.1 shows the response rate for the study.

4.3 Pilot Test

Pilot test for the questionnaire was performed in order to validate the research instruments and to identify the major problems that would be encountered during the actual research study. In this research a total of six (6) respondents that constitute 10% of the sample size were chosen from chief finance officers of Dar es Salaam Securities Exchange listed firms which are also listed at the Nairobi Security Exchange. As per Kothari and Garg (2004) pilot sample ought to constitute at least 10% of the study sample. These findings were used to determine the validity and reliability of the instruments, as well as to see if the respondents clearly understood the questions and if any were unclear.

4.3.1 Reliability Test

The consistency of the measurements made from one instrument administration to the next is referred to as reliability (Taber, 2013). When data were gathered using samples from the same population in more than one study, reliable results were routinely attained. Following the pilot study, a reliability coefficient for the questionnaire was created using the Social Sciences Statistics Package (SPSS). Cronbach's Alpha was used to assess the research instrument's internal consistency.

Creswell and Creswell (2017) define reliability as a situation in which the outcomes of a second interview after administering a questionnaire to a respondent twice are similar to those of the first interview. This research took into account a Cronbach alpha coefficient of 0.7 or above for this to be achieved from the test data. For prediction tests or the supposition of construct measurements, a reliability level of 0.70 is approved as sufficient (Shemwell *et al.*, 2015). Consequently, the research values of 0.7 as an acceptable criterion. In other words, numbers over 0.7 shows dependability while values below showed that the research tool was not reliable. The reliability was determined using the alpha formula of Cronbach by use of SPSS. Table 4.2 offers relilabilit test results.

Table 4.2: Reliability Test Results

Variable	Number of Items	α>0.7	Comments
Financial Capital Reporting	4	0.832	Reliable
Manufactured Capital Reporting	4	0.752	Reliable
Intellectual Capital Reporting	4	0.835	Reliable
Human Capital Reporting	4	0.903	Reliable
Environmental Capital Reporting	4	0.810	Reliable
Social Capital Reporting	4	0.732	Reliable

Table 4.2results depicts that the Cronbach's alpha for entire the research variables were above the minimum 0.7 acceptable value. On the basis of theconclusions, the variablefinancial capital reporting possesseda 0.832>0.70 value, the variable manufactured capital reporting with four items had a cronbach value of 0.752>0.70, the variable intellectual capital reporting with four items had a cronbach value of 0.835>0.70, the variable human capital reporting with four items had a cronbach value of 0.903>0.7, the variable environmental capital reporting with four indicators had cronbach's alpha of 0.810>0.70 and finally the variable social capital reporting also with four items had a cronbach's alpha of 0.732>0.70. These findings showed that every variable investigated had high levels of internal consistency, making them reliable and suited for data collection.

4.3.2 Validity Test

Validity is a metric that establishes how well an instrument achieves its goal. As per Creswell (2009) a valid study is one that the conclusions can be generalized to subjects and circumstances other than the precise ones studied. This is determined by close examination

and meticulously creating instruments with research objectives focus (Creswell, 2009). Thus, the questionnaires were given to a group of specialists who analyzed the statements and questions to ascertain how well they matched the sub-sectional study objectives. This helped to establish the validity of the tools. In this research, both content and construct validity were utilized.

The questionnaires' content validity was examined by experts and supervisors, who also exposed the questionnaire to a thorough review by supervisors in charge of proposal development. Furthermore, KMO and Bartlett's Test was used to assess construct validity. Kaiser-Meyer-Olkin (KMO), which was used to determine if the responses were legitimate based on their values, was used to statistically test the validity of the responses. For a data set to be considered legitimate and appropriate for statistical analysis, KMO had to be more than 0.5 (Field, 2013). The results of the KMO and Bartlett's Test of Sphericity (significance) were computed and presented for the questionnaire as shown in Table 4.3.

Table 4.3: Validity Test via KMO and Bartlett's Test

Variable	KMO	Significance
Financial Capital Reporting	.508	.000
Manufactured Capital Reporting	.642	.000
Intellectual Capital Reporting	.632	.000
Human Capital Reporting	.803	.000
Environmental Capital Reporting	.525	.002
Social Capital Reporting	.748	.000

Table 4.3's findings show that all variables had KMO statistics over 0.5 at the critical threshold of significance, which was established at 0.5 (Field, 2013). The Sphericality test of Bartlett was significant (0.00, at p.05) for all the study's variables in addition to the KMO test. Thus, for purposes of additional statistical analysis, these results offered excellent validation of the research variables.

4.4 Descriptive Analysis

To show the characteristics of the data in a study, descriptive statistics are utilized. This is due to the fact that they offer concise descriptions of the sample and the measurements. Every quantitative study of data simply starts with descriptive analysis, which contains the mean

and standard deviation (Trochim & Donnelly, 2001). This section contains descriptive analysis for the variables of financial capital reporting, manufactured capital reporting, intellectual capital reporting, human capital reporting, environmental capital reporting, social capital reporting, firm size and value of firm. A 1 to 5 Likert scale (1-Never, 2-Rarely, 3-Sometimes, 4-Often, 5- Always) was presented for respondents' response.

4.4.1 Financial Capital Reporting

This first objective of the study was to determine the effect of financial capital reporting on value of firms listed at the NSE. Financial capital is broadly understood as the pool of funds available to an organization. This includes both debt and equity finance. The researcher aimed to have the respondents designate their own opinion concerning financial capital reporting impact on value of firms. Each statement was meant to capture an individual's voluntary conviction, determination and mind-set with regards to the effect of financial capital reporting on value of firms. Table 4.4 shows the descriptive analysis results on financial capital reporting.

Table 4.4: Descriptive Analysis on Financial Capital Reporting

Statement	Never	Rarely	Sometimes	Often	Always	Mean	Std. Dev.
The firm provides a breakdown of how its long term projects are financed	1.60	1.60	7.80	64.10	25.00	4.094	0.729
The firm provides information on how its short term projects are financed	4.70	17.20	14.10	48.40	15.60	3.531	1.098
The firm provides a breakdown of its financing mix	0.00	1.60	29.70	46.90	21.90	3.891	0.758
The firm provides a trend of its earnings per share over a period of time	1.60	1.60	35.90	42.20	18.80	3.750	0.836
Overall						**3.816**	**0.855**

On the basis of Table 4.4 outcomes, majority of the research participants (64.10%) indicated that their firms were providing breakdown of how their long term projects are financed often, while 25.00% were certain that their firms were always providing the breakdown. The results also show that most of the firms often provided information on how their short term projects were being financed as indicated by 48.40% of the study participants. Further, majority of the respondents (46.90%) were positive that their firms were often providing a breakdown of their financing mix.

Finally, most of the firms (42.20%) were providing trends of their earnings per share over a period of time as indicated by most of the respondents. The responses had an overall mean and standard deviation of 3.816 and 0.855 respectively. These results imply that most of the firms listed at the NSE often adopt financial capital reporting practices. According to Eccles, Krzus and Ribot (2015),financial capital reporting focuses on the source of funds, rather than its application which results in the acquisition of manufactured or other forms of capital which is in agreement with the above findings.

4.4.2 Manufactured Capital Reporting

This second objective of the research was to determine manufactured capital reporting effect on value of firms listed at the NSE. The researcher aimed at having the respondents designate their own opinion concerning the effect of manufactured capital reporting on value of firms. Every statement was destined to capture an individual's voluntary conviction, fortitude and mind-set pertaining to the effect of manufactured capital reporting on value of firms. Table 4.5 shows the descriptive analysis results on manufactured capital reporting.

Table 4.5: Descriptive Analysis on Manufactured Capital Reporting

Statement	Never	Rarely	Sometimes	Often	Always	Mean	Std. dev.
The firms' annual report outlines use of ecological products in manufacturing	3.10	12.50	26.60	40.60	17.20	3.563	1.022
The firms' annual report usually outlines the value of equipment owned by the firm	1.60	3.10	31.30	46.90	17.20	3.750	0.836
The firms' annual report outlines the infrastructure owned by the firm	1.60	17.20	31.30	29.70	20.30	3.500	1.054
The firms' annual report reports assets manufactured by the firm	3.10	12.50	18.80	35.90	29.70	3.766	1.109
Overall						**3.645**	**1.005**

It is evident from the results that most (40.60%) of the firms often had their annual report outline use of ecological products in manufacturing, this was affirmed by a mean response and standard deviation of 3.563 and 1.022 respectively. The results also reveal that most of the participants (46.90%) were confident that their firms' annual reports usually outlined the value of equipment owned by the firm. Further, most (31.30%) of the firms sometimes had their annual reports outline the infrastructure owned by the firm.

Finally, most of the firms (35.90%) often had their annual reports contain assets manufactured by the firm. In overall, the responses had an average mean and standard deviation of 3.645 and 1.005respectivelly. This implies that most of the study participants agreed that their firms were engaged in manufactured capital reporting often and their responses did not deviate from the mean response. According to Eccles *et al*. (2015) manufactured capital is seen as human-created, production-oriented equipment and tools where a distinction is drawn between inventory (as a short term asset) and plant and equipment (tangible capital).

4.4.3 Intellectual Capital Reporting

This third research objective was to establish the effect of intellectual capital reporting on value of companies listed at the NSE. The researcher sought to have the respondents indicate their own opinion regarding the effect of intellectual capital reporting on value of firms. Every statement was meant to capture a person's voluntary conviction, determination and mind-set with regards to the effect of intellectual capital reporting on value of firms. Table 4.6 displays the descriptive analysis results on intellectual capital reporting.

Table 4.6: Descriptive Analysis on Intellectual Capital Reporting

Statement	Never	Rarely	Sometimes	Often	Always	Mean	Std. Dev.
The firm annual report has a section on organization reputation	0.00	1.60	3.10	45.30	50.00	4.438	0.639
The firms' annual report has a separate section that describes external outcomes such as brand loyalty	0.00	1.60	21.90	56.30	20.30	3.953	0.700
The firms' annual report has a section on intellectual property	0.00	0.00	7.80	28.10	64.10	4.563	0.639
The firms' annual report has a separate section that describes external outcomes such as customer satisfaction	0.00	0.00	21.90	35.90	42.20	4.203	0.780
Overall						**4.289**	**0.690**

On the Table 4.6 outcome basis, the results designated that most of the firms (50%) always had their annual reports contain sections on organization reputation as was also confirmed by a 4.438 mean response and 0.639 standard deviation correspondingly. It is also evident that most of the respondents (56.30%) agreed that their firms' annual reports often contained separate sections that describe external outcomes such as brand loyalty. Similarly, most of the firms (64.10%) studies revealed that their annual reports had sections on intellectual property.

Finally, majority of the respondents (42.20%) indicated that their firms' annual reports had sections on intellectual property. This agrees with the assertions by The IIRC (2013) that, integrated thinking helps a company to adopt a business model which will aid the company in fulfilling its business objectives and also help the firm address corporate governance matters and needs all firms to incorporate integrated thinking in making a connection between strategies, sustainability, risks and opportunities, and governance requirements annually in their reports.

4.4.4 Human Capital Reporting

This fourth research objective was establishing how human capital reporting influence value of companies listed at the NSE. The researcher pursued having the respondents designate their own opinion concerning the effect of human capital reporting on value of firms. Every assertion was meant to capture an individual's voluntary conviction, determination and mind-set with regarding to the effect of human capital reporting on value of firms. Table 4.7 depicts the descriptive analysis outcomes on human capital reporting.

Table 4.7: Descriptive Analysis on Human Capital Reporting

Statement	Never	Rarely	Sometimes	Often	Always	Mean	Std. Dev.
The firms' annual report has a separate section of management report dedicated to Human resource	1.60	3.10	7.80	45.30	42.20	4.234	0.850
The firms' annual report has a separate section that describes internal outcomes such as employee morale	0.00	4.70	29.70	20.30	45.30	4.063	0.974
The firms' annual report has a separate section that describes director's remuneration	0.00	4.70	15.60	42.20	37.50	4.125	0.845
The firms' annual report has a separate section that describes stakeholders' relationships	0.00	4.70	20.30	18.80	56.30	4.266	0.947
Overall						**4.172**	**0.904**

It is evident from the table that most of the firms (45.30%) often had annual reports that contained separate sections of management report dedicated to Human Resource. The results also show that most of the firms (45.30%) always had their annual reports contain separate sections that describe internal outcomes such as employee morale as also affirmed by a mean of 4.063 and standard deviation of 0.974. Lastly, it is evident that most of the firms listed at the NSE (56.30%) always their annual reports with separate sections that describes stakeholders' relationships.

In overall, the responses possessed a 4.172 mean and 0.904 standard deviation individually. This infers that most of the firms actually often used human capital reporting. These findings are supported by the conclusion made by Churet and Eccles (2014) that, human capital is generally consist of the individual's capabilities, and the knowledge, skills and

experience of the company's employees and managers, as they are relevant to the task at hand, as well as the capacity to add to this reservoir of knowledge, skills, and experience through individual learning.

4.4.5 Environmental Capital Reporting

This fifth research objective was establishing the effect of environmental capital reporting on value of companies listed at the NSE. The researcher sought to have the respondents specify their own opinion concerning the effect of environmental capital reporting on value of firms. Every assertion was meant to capture a person's voluntary conviction, determination and mind-set with regarding to the effect of environmental capital reporting on value of firms. Table 4.8depicts the descriptive analysis results on environmental capital reporting.

Table 4.8: Descriptive Analysis on Environmental Capital Reporting

Statement	Never	Rarely	Sometimes	Often	Always	Mean	Std. Dev.
The firms' annual report has a separate section of management report dedicated to charity and social responsibility.	0.00	0.00	4.70	54.70	40.60	4.359	0.574
The firms' annual report has a separate section showing corporate commitment to environmental protection	0.00	6.30	7.80	39.10	46.90	4.266	0.859
The firms' annual report has a separate section explaining environmental partnerships	0.00	0.00	10.90	40.60	48.40	4.375	0.678
The firms' annual report has a separate section showing environmental risk management	1.60	7.80	18.80	39.10	32.80	3.938	0.990
Overall						**4.234**	**0.775**

The results show that most (54.70%) of the firms often had their annual reports containing separate sections of management report dedicated to charity and social responsibility. Additionally, most (46.90%) of the firms always had their annual report include separate sections showing corporate commitment to environmental protection. Further, most of the firms (48.40%) had in their annual report separate sections explaining environmental partnerships.

Finally, it is evident that most (39.10%) of the firms listed at the NSE had in their annual reports separate sections showing environmental risk management. The findings possessed overall mean and standard deviation of 4.234 and 0.775 correspondingly. This infers that most of the firms listed at the NSE often implement environmental capital reporting. The results above agree with the assertions by IIRC (2018) that aspects of environmental capital in a business context include: the strength/ efficacy of supply chain relationships (establishing quality expectations, just-in-time delivery systems, and recycling programmes), community acceptance, government relations and relationships with competitors.

4.4.6 Social Capital Reporting

This sixth objective of the study was to establish the effect of social capital reporting on value of companies listed at the NSE. The researcher pursued having the respondents designate their own view concerning the effect of social capital reporting on value of firms. Each statement was meant to capture an individual's voluntary conviction, determination and mind-set with regards to the effect of social capital reporting on value of firms. Table 4.9 displays the descriptive analysis results on social capital reporting.

Table 4.9: Descriptive Analysis on Social Capital Reporting

Statement	Never	Rarely	Sometimes	Often	Always	Mean	Std. Dev.
The firm annual reports have a section for shared norms and values in the company	1.60	3.10	12.50	45.30	37.50	4.141	0.870
The annual report has a separate section of management report dedicated to charity and social responsibility	3.10	3.10	17.20	42.20	34.40%	4.016	0.968
The firms' annual report has a separate section dedicated to a firm's social license to operate	1.60	0.00%	28.10	45.30	25.00	3.922	0.822
The firms' annual report has a separate section of CSR covering social disclosures	3.10	4.70	21.90	35.90	34.40	3.938	1.022
Overall						**4.004**	**0.921**

Based on the results in Table 4.9, most of the firms (45.30%) often had in their annual reports sections for shared norms and values in the company. Similarly, most of the firms (42.20%) often had in their annual reports separate sections of management report dedicated to charity and social responsibility. Further most (45.30%) of the firms' annual reports often contained separate sections dedicated to a firm's social license to operate. Moreover, most (35.90%) of the respondents indicated that their firms' annual report often had separate sections of CSR covering social disclosures. The overall mean and standard deviation of the response on the variable was 4.004 and 0.921 respectively. This is a clear indication that most of the firms listed at the NSE often include sections on their annual reports on social capital reporting. These results are supported by the argument of Mwiti (2014) that firms can increase stock

returns by increasing their voluntary disclosure owing to the ability of voluntary disclosure to act as a corporate governance tool.

4.4.7 Firm Size

This seventh research objective was to establish the moderating effect of firm size on the relationship between integrated financial reporting and value of NSE listed firms. Table 4.10 shows the descriptive analysis results on firm size.

Table 4.10: Descriptive Analysis on Firm Size

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Firm size	62	0.4	10	7.3778	1.81929

On the basis of Table 4.10 outcomes, the minimum firm size of the firms measured in terms of the firm's total assets was 0.4 whereas the maximum firm size value was 10. The mean firm size value was 7.3778 with 1.81929 standard deviation.

4.4.8 Value of Firm

The dependent variable in this research is value of the firm which was assessed in terms of Tobin Q given by dividing Market value of equity by book value of equity. Table4.11 shows the descriptive analysis results on value of the firm.

Table 4.11: Descriptive Analysis on Value of the Firm

	N	Minimum	Maximum	Mean	Std. Deviation
Firm Value	62	0.1	1	0.6384	0.23783

On the basis of Table 4.11 outcomes, the minimum firm value calculated in terms of Tobin Q (Market value of equity/ book value of equity) was 0.1, whereas the maximum firm value was 1. The mean firm value was discovered to be 0.6384 with 0.23783 standard deviation.

4.5 Correlation Analysis

Correlation denote the association between two (or more) quantitative variables. This analysis examines the intensity or extent of a connection between the variables as well as the direction of the association. It is basically predicated on the assumption of a straight-line linear relationship between the quantitative variables. A correlation study yields a correlation coefficient, which has a range of values from -1 to +1. When two variables have a correlation coefficient of 1, they are perfectly related in a positive (linear) way, when they have a

correlation coefficient of 1, they are perfectly related in a negative (linear) way, and when they have a correlation coefficient of 0, they are not related in a linear way (Gogtay & Thatte, 2017).

Correlation analysis was performed in ascertaining the link between the research independent variables of financial capital reporting, manufactured capital reporting, intellectual capital reporting, human capital reporting, environmental capital reporting, social capital reporting, firm size and the dependent variable value of firm. Utilizing SPSS, a Pearson correlation was created for each of the variables. To determine whether there was interdependence between independent factors and whether the independent variables were connected to the dependent variable, the correlation coefficient was calculated. According to academics, correlation coefficients larger than 0.5 are considered strong, 0.3-0.5 are considered moderate, and less than 0.3 are considered weak (Heale & Twycross, 2015). Table 4.12 displays the correlation's findings.

Table 4.12: Correlation Matrix

		Firm Value	Financial Capital	Manufactured Capital	Intellectual Capital	Human Capital	Environmental Capital	Social Capital	Firm size
Firm Value	Pearson Correlation	1.000							
Financial Capital	Pearson Correlation	.561**	1.000						
Manufactured Capital	Pearson Correlation	.631**	.580**	1.000					
Intellectual Capital	Pearson Correlation	.518**	0.144	.357**	1.000				
Human Capital	Pearson Correlation	.515**	.287*	.408**	.283*	1.000			
Environmental Capital	Pearson Correlation	.434**	.275*	.355**	.388**	.272*	1.000		
Social Capital	Pearson Correlation	.299*	0.159	.267*	0.161	0.074	.371**	1.000	
Firm size	Pearson Correlation	.626**	.368**	.472**	0.227	.318*	0.019	0.176	1.000

Results in table 4.12 revealed presence of a positive significant association between financial capital reporting and firm value (r=0.560, P-value=0.000<0.05). Secondly the results depict that there existed a positive and significant link between manufactured capital reporting and firm value (r=0.631, P-value=0.000<0.05). The results further revealed that there was a positive and significant association between intellectual capital reporting and firm value (r=0.518, P-value=0.000<0.05). Moreover, there was a positive and significant association between human capital reporting and firm value (r=0.515, P-value=0.000<0.05). The correlation results further indicate that there existed a positive and significant association between environmental capital reporting and firm value (r=0.434, P-value=0.00<0.05). Similarly, the study established a positive and significant association between social capital reporting and firm value (r=0.299, P-value=0.017<0.05). Finally, the study found out that there was a positive and significant association between the moderating variable firm size and firm value (r=0.626, P-value=0.000<0.05).

The above results concur with King'wara (2015) results that investigated the effect of financial reporting quality on firm value and found that financial reporting quality had a significant effect on value of the firm. The results are also in support of the conclusion made by Churet and Eccles (2014) that, there exists a positive relationship between integrated reporting and quality of management, which has been concluded by several studies to be very beneficial in indicating the efficiency of management in creating value in the long term. Moreover, the results are consistent with the assertions by Ponnu and Okoth (2009) that CSR disclosures receive only modest attention amongst companies listed on the Exchange with the major theme disclosed voluntarily being community development.

4.6 Diagnostic Tests

4.6.1 Test for Normality of Data

Normality describes whether the data is well modelled and has normal distribution. By examining the graph and determining whether the distribution significantly departed from a bell-shaped normal distribution, it is possible to determine how far the data deviates from the Gaussian distribution. It determines the probability that a random variable will have a normal distribution. It is a determination of the data's normalcy in statistical tests. According to Singh and Masuku (2014), if the tests are not normal, the data will likely contain outliers,

various modes, wrong measuring equipment, incorrect distributions, zero or infinite bounds, and insufficient collections. The dependent variable has to be regularly distributed in order to fit a linear model. All of the dependent variables underwent a test for normalcy using the Kolmogorov-Smirnov and Shapiro-Wilk methods, and the results are shown in Table 4.13.

Table 4.13: Test for Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Firm Value	.130	62	.109	.950	62	.212

As shown in Table 4.13, the Shapiro-Wilk and Kolmogorov tests both yielded p-values greater than 0.05, indicating that the dependent variable was normally distributed.

4.6.2 Test for Multicollinearity

Whenever two or more predictor variables in a multiple regression model have a high degree of correlation, multicollinearity occurs. If there are one or more precise linear relationships between some of the variables in a set, the set of variables is perfectly multi-collinear. Values greater than 0.2 for the variable's tolerance and less than 10 for the VIF value indicate that multicollinearity does not exist. Table 4.14 presents the findings.

Table 4.14: Multicollinearity Test Using Tolerance and VIF

Variable	**Collinearity Statistics Tolerance**	**VIF**
Financial Capital Reporting	0.629	2.591
Manufactured Capital Reporting	0.49	2.64
Intellectual Capital Reporting	0.756	2.722
Human Capital Reporting	0.767	2.503
Environmental Capital Reporting	0.647	2.546
Social Capital Reporting	0.816	2.826
Firm Size	0.682	3.466

The findings in Table 4.14 demonstrate that there was no multicollinearity among the variables, which included financial capital reporting, manufactured capital reporting, intellectual capital reporting, human capital reporting, environmental capital reporting, social capital reporting, and firm size. All of the variables had tolerance values >0.2 and VIF values 10, suggesting that they were independent.

4.6.3 Test of Heteroscedasticity

Breusch-Pagan can be utilized to compare the alternative hypothesis, which states that the error variances are not constant, to the null hypothesis, which states that the error variance remains constant. If p-value > 0.05, the null hypothesis is rejected, and Breusch-Pagan tests the null hypothesis that heteroscedasticity is not present. The alternative theory is that heteroscedasticity does affect the data. Table 4.15 presents the findings.

Table 4.15: Heteroscedasticity Results

Variables	**Fitted values of firm value**
Chi2 (1)	0.29
Prob> chiz	0.5278

Findings in Table 4.15 indicate that there is no heteroscedasticity in the data because the probability chi-square value was 0.5278>0.05.

4.7 Regression Analysis

Regression analysis was done to establish integrated financial reporting impact on value of firms listed at the NSE. Regression analysis was also conducted to show the moderating effect of firm size on the association between integrated financial reporting on value of firms listed at the NSE. Regression analysis, according to Wan (2013), facilitates the creation of an equation describing the statistical relationship between one or more predictor variables and the response variable. To determine how each independent variable related to the valuation of the firms listed on the NSE, linear regressions were conducted for each independent variable. For the purpose of determining the overall impact of the study variables on the company value, multiple regression analysis was also carried out.

R squared was used to determine how well the model fit the data in order to grasp and comprehend the results of the regression study. Because it indicates the percentage of a variable's variance that can be predicted from another, the coefficient of determination, or R2, was utilized in this investigation. It is a metric that makes it possible to decide how relevant specific variables can be when extrapolating predictions from a certain model. The proportion of the variation that was explained to the overall variation is known as the coefficient of determination. The strength of the linear relationship between x and y is shown by the coefficient of determination, which is such that 0R2 100. Regression model summary tables, analysis of variance (ANOVA) tables, and beta coefficients tables were used to present the results of the regression analysis.

4.7.1 Regression Analysis on Financial Capital Reporting and Value of Firm

A regression analysis was conducted in this study to determine the link between the financial capital reporting and value of firms listed at the NSE. The regression model on the link between financial capital reporting and value of firms listed at the NSE is shown in Tables 4.16, 4.17 and 4.18.

Table 4.16: Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.561a	0.314	0.303	0.1985

As it is presented in Table 4.16, the coefficient of determination R Square is 0.314 and R is 0.561 at a .000 significance level. This implies that the variable financial capital reporting explains 31.4% of the variation in value of firms listed at the NSE. The remaining 68.6% of the variation in value of the firm is determined by other variables not part of the current research model. Table 4.17 depicts the variance analysis results.

Table 4.17: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.12	1	1.12	28.436	.000[b]
	Residual	2.443	62	0.039		
	Total	3.563	63			

The Table 4.17 ANOVA outcomes depict that the model used was statistically significant in explanation the effect of financial capital reporting on value of firms listed at the NSE and it is indicated by a p-value of 0.000. The regression coefficient result is presented in Table 4.18.

Table 4.18: Regression Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.160	0.093		1.712	0.092
Financial capital reporting	0.119	0.022	0.561	5.333	0.000

The final model then became;

Y= 0.160+ 0.119X_1

Where;

Y denotes the Value of firm

X_1 denotes financial capital reporting

The regression coefficient results in Table 4.18 show that financial capital reporting positively and significantly affects value of firms listed at the NSE (β=0.119, p=0.000<.0.05). The gradient coefficient demonstrates how much a change in the independent variable changes the dependent variable when both variables are changed by a unit. This is a change in value of firm due to a unit change in financial capital reporting. This infers that a unit improvement in financial capital reporting by the firm results in enhancement in value of the firm by 0.119 units. This is in agreement with the conclusions of a research by Albetairi *et al.* (2018) who found that the business model, strategy and resource allocation had positive associations with Return on Assets.

4.7.2 Regression Analysis on Manufactured Capital Reporting and Value of Firm

A regression analysis was conducted in this study to determine the connection between the manufactured capital reporting and value of NSE listed firms. The regression model on the association between manufactured capital reporting and value of firms listed at the NSE is shown in Tables 4.19, 4.20 and 4.21.

Table 4.19: Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.631a	0.398	0.389	0.18597

As it is presented in Table 4.19, the coefficient of determination R Square is 0.398 and R is 0.631 at a .000 significance level. This implies that the variable manufactured capital reporting explains 39.8% of the variation in value of firms listed at the NSE. The remaining 60.2% of the variation in value of the firm is determined by other factors not part of the current study model. The analysis of variance results is displayed in Table 4.20.

Table 4.20: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1.419	1	1.419	41.032	.000[b]
Residual	2.144	62	0.035		
Total	3.563	63			

The results of ANOVA in Table 4.20exhibit that the model used was statistically significant in explaining the effect of manufactured capital reporting on value of firms listed at the NSE and it is indicated by a p-value of 0.000. The regression coefficient result for the same is presented in Table 4.21.

Table 4.21: Regression Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.221	0.069		3.203	0.002
Manufactured capital reporting	0.110	0.017	0.631	6.406	0.000

The final model then became;

$Y= 0.221+ 0.110X_2$

Where;

Y denotes the Value of the firm

X_2 denotes manufactured capital reporting

The regression coefficient results in Table 4.21 show that manufactured capital reporting had positive significant effect on value of firms listed at the NSE ($\beta=0.110$, $p=0.000<.0.05$). The gradient coefficient demonstrates how much a change in the independent variable changes the dependent variable when both variables are changed by a unit. This is a change in value of

firm due to a unit change in manufactured capital reporting. This implies that a unit improvement in manufactured capital reporting by the firm leads to an improvement in value of the firm by 0.110 units. This is consistent with the findings of a study by Churet and Eccles (2014) which revealed a positive relationship between integrated reporting and quality of management; the relationship was significantly stronger in sectors such as healthcare.

4.7.3 Regression Analysis on Intellectual Capital Reporting and Value of Firm

A regression analysis was conducted to determine the relationship between the intellectual capital reporting and value of NSE listed firms. The regression model on the relationship between intellectual capital reporting and value of firms listed at the NSE is shown in Tables 4.22, 4.23 and 4.24.

Table 4.22: Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.518a	0.268	0.256	0.20511

As it is presented in Table 4.22, the coefficient of determination R Square is 0.268 and R is 0.518 at a .000 significance level. This implies that the variable intellectual capital reporting is responsible for 26.8% of the variation in value of firms listed at the NSE. The remaining 73.2% of the variation in value of the firm is determined by other factors not part of the current study model. The analysis of variance results is shown in Table 4.23.

Table 4.23: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	0.955	1	0.955	22.704	.000[b]
Residual	2.608	62	0.042		
Total	3.563	63			

The ANOVA results in Table 4.23 show that the model used was statistically significant in explaining the effect of intellectual capital reporting on value of firms listed at the NSE and it is indicated by a p-value of 0.000. The regression coefficient result for the same is presented in Table 4.24.

Table 4.24: Regression Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.060	0.124		0.483	0.631
Intellectual capital reporting	0.135	0.028	0.518	4.765	0.000

The final model then became;

$Y= 0.060+ 0.135X_3$

Where;

Y denotes the Value of the firm

X_3 denotes Intellectual capital reporting

The regression coefficient results in Table 4.24 show that intellectual capital reporting had positive and significant effect on value of firms listed at the NSE ($\beta=0.135$, $p=0.000<.0.05$). The gradient coefficient demonstrates how much a change in the independent variable changes the dependent variable when both variables are changed by a unit. This is a change in value of firm due to a unit change in intellectual capital reporting. This implies that a unit improvement in intellectual capital reporting by the firm results into an improvement in value of the firm by 0.135 units. These outcomes concur with Suttipun (2017) who found that on average, a total of 603.59 words of IFR were used by companies in their annual reports and that the commonest form of IFR in this case was intellectual capital reporting while the least was environmental capital reporting.

4.7.4 Regression Analysis on Human Capital Reporting and Value of Firm

A regression analysis was conducted to determine the connection between the human capital reporting and value of firms listed at the NSE. The regression model on the relationship between human capital reporting and value of firms listed at the NSE is shown in Tables 4.25, 4.26 and 4.27.

Table 4.25: Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.515a	0.265	0.253	0.20551

As it is presented in Table 4.25, the coefficient of determination R Square is 0.265 and R is 0.515 at a .000 significance level. This implies that the variable human capital reporting is responsible for 26.5% of the variation in value of firms listed at the NSE. The remaining 73.5% of the variation in value of the firm is determined by other factors not part of the current study model. Table 4.26 shows the analysis of variance results.

Table 4.26: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	0.945	1	0.945	22.372	.000[b]
Residual	2.619	62	0.042		
Total	3.563	63			

The ANOVA results in Table 4.26 show that the model used was statistically significant in explaining the effect of human capital reporting on value of firms listed at the NSE and it is indicated by a p-value of 0.000<0.05. The regression coefficient result for the same is presented in Table 4.27.

Table 4.27: Regression Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.227	0.091		2.499	0.015
Human Capital Reporting	0.101	0.021	0.515	4.73	0.000

The final model then became;

$Y= 0.227+ 0.101X_4$

Where;

Y denotes the Value of the firm

X_4 denotes Human capital reporting

The regression coefficient results in Table 4.27 depict human capital reporting had a positive and significant effect on the value of NSE listed firms ($\beta=0.101$, $p=0.000<.0.05$). The gradient coefficient demonstrates the degree to which a change in the independent variable changes the dependent variable by a unit. This is a change in value of firm due to a unit change in human capital reporting. This implies that a unit improvement in human capital reporting by the firm results into an improvement in value of the firm by 0.101 units. These outcome concur with the conclusion made by Wild and van Staden (2013) that, many of the companies address selected capitals in their annual financial reports such as human, financial, social and natural capitals, while others such as manufactured and intellectual capitals were not sufficiently covered.

4.7.5 Regression Analysis on Environmental Capital Reporting and Value of Firm

A regression analysis was conducted in this study to determine the connection between the environmental capital reporting and value of firms listed at the NSE. The regression model on the relationship between environmental capital reporting and value of firms listed at the NSE is shown in Tables 4.28, 4.29 and 4.30.

Table 4.28: Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.434a	0.188	0.175	0.21602

As it is presented in Table 4.28, the coefficient of determination R Square is 0.188 and R is 0.434 at a .000 significance level. This implies that the variable environmental capital reporting is accounts for 18.8 % of the variation in value of firms listed at the NSE. The remaining 81.2% of the variation in value of the firm is determined by other variables. Table 4.29 shows the analysis of variance results.

Table 4.29: ANOVA

Model	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Regression	0.67	1	0.67	14.365	.000[b]
Residual	2.893	62	0.047		
Total	3.563	63			

The results of ANOVA in Table 4.29 show that the model used was statistically significant in explaining the effect of environmental capital reporting on value of firms listed at the NSE and it is indicated by a p-value of 0.000<0.05. The regression coefficient result for the same is presented in Table 4.30.

Table 4.30: Regression Coefficient

Model	**Unstandardized Coefficients**		**StandardizedT Coefficients**		**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	0.246	0.107		2.305	0.025
Environmental capital reporting	0.095	0.025	0.434	3.79	0.000

The final model then became;

$Y= 0.246+ 0.095X_5$

Where;

Y denotes the Value of the firm

X_5 denotes environmental capital reporting

The regression coefficient results in Table 4.30 exhibit environmental capital reporting had a positive and significant effect on the value of firms listed at the NSE (β=0.095, p=0.000<.0.05). The gradient coefficient demonstrates the degree to which a change in the independent variable changes the dependent variable by a unit. This is a change in value of firm due to a unit change in environmental capital reporting. This implies that a unit improvement in environmental capital reporting by the firm results into an improvement in value of the firm by 0.095 units.

These results agree with the conclusion made by Mwiti (2014) who examined how stock market returns of NSE listed firms are impacted by non-mandatory disclosures and found a strong and significant positive relationship between non-mandatory disclosure and stock returns. The study concluded that firms can increase stock returns by increasing their voluntary disclosure owing to the ability of voluntary disclosure to act as a corporate governance tool. The study also verifies the empirical evidence of Kothari (2004) that increased disclosures reduce a firm's cost of capital by reducing information asymmetry and transaction costs.

4.7.6 Regression Analysis on Social Capital Reporting and Value of Firm

A regression analysis was conducted in this study to determine the relationship between the social capital reporting and value of firms listed at the NSE. The regression model on the relationship between social capital reporting and value of firms listed at the NSE is shown in Tables 4.31, 4.32 and 4.33.

Table 4.31: Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.299a	0.089	0.074	0.2288

As it is presented in Table 4.31, the coefficient of determination R Square is 0.089 and R is 0.299 at a .000 significance level. This implies that the variable social capital reporting can

only explain 8.9 % of the variation in value of firms listed at the NSE. Table 4.32 shows the analysis of variance results.

Table 4.32: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	0.318	1	0.318	6.068	.017[b]
Residual	3.246	62	0.052		
Total	3.563	63			

The ANOVA results in Table 4.32 show that the model used was statistically significant in explaining the effect of social capital reporting on value of firms listed at the NSE and it is indicated by a p-value of 0.000<0.05. The regression coefficient result for the same is presented in Table 4.33.

Table 4.33: Regression Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.336	0.126		2.66	0.01
Social capital reporting	0.072	0.029	0.299	2.463	0.017

The final model then became;

$Y= 0.336+ 0.072X_6$

Where;

Y denotes the Value of the firm

X_6 denotes social capital reporting

The regression coefficient results in Table 4.30 show that social capital reporting had a positive and significant effect on the value of firms listed at the NSE (β=0.072, p=0.017<.0.05). The gradient coefficient shows the extent to which a unit change in the independent variable causes a change in the dependent variable. This is a change in value of firm due to a unit change in social capital reporting. This implies that a unit improvement in social capital reporting by the firm results into an improvement in value of the firm by 0.072 units. These outcomes concur with the findings made by Oluwagbemiga (2014) that voluntary disclosure is measurably critical in clarifying financial specialists' choice and

execution of recorded organizations in Nigeria. He additionally inferred that there was an abnormal state of voluntary disclosure in these organizations which prompted their elite and made it simple for financial specialists to settle on choices whether to put resources into the organizations or not.

4.7.7 Moderating Effect of Firm Size

The seventhresearch objective was to establish the moderating effect of firm size on the association between integrated financial reporting and value of companies listed at the NSE. All the independent variables were moderated by the variable firm size to give a composite variables. Table 4.34 shows the model summary of the moderating model.

Table 4.34: Model Fitness for the Moderating Effect of Firm Size

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.833a	0.694	0.662	0.13835

To determine how well the model fit the data after moderation, the R squared was utilized. According to Table 4.34's data, the R squared following firm size moderation was 0.694, which was greater than the R squared for the unmoderated effect, which was 0.630. This implies that firm size moderates the connection between integrated financial reporting and value of companies listed at the NSE, and explain 69.4% of the variations in value of companies listed at the NSE. Table 4.35 shows the ANOVA for the moderating effect of firm size.

Table 4.35: ANOVA for the Moderating effect of Firm Size

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	2.472	6	0.412	21.531	.000[b]
Residual	1.091	57	0.019		
Total	3.563	63			

The results in Table 4.35 confirm that the regression model of moderating effect of firm size on the relationship between integrated financial reporting and value of companies listed at the NSE index is significant and supported by F=21.531, p<0.000) and since p-value was 0.00 which is less than 0.05. The results affirm the importance of firm size in enhancing the value of firms listed at the NSE. Table 4.36show the regression coefficients analysis for the moderating effect of firm size.

Table 4.36: Regression of Coefficients after Moderation

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.452	.067		21.533	.000
Financial Capital Reporting	.055	.012	.326	4.607	.000
Manufactured Capital Reporting	.047	.009	.290	5.238	.000
Intellectual Capital Reporting	.038	.010	.229	3.816	.000
Human Capital Reporting	.026	.011	.158	2.459	.015
Environmental Capital Reporting	.016	.005	.086	3.315	.001
Social Capital Reporting	0.076	0.059	0.213	1.289	0.203

Based on the results in Table 4.36, financial capital reporting was significant after moderation with p-value 0.000<0.05. This implies that firm size moderates the relationship between financial capital reporting and value of firms listed at the NSE. The results also show that manufactured capital reporting was significant after moderation with p-value 0.000<0.05. This implies that firm size moderates the relationship between the manufactured capital reporting and value of firms.

The results further show that intellectual capital reporting was significant after moderation with p-value 0.000<0.05. This implies that firm size moderates the relationship between the intellectual capital reporting and value of firms listed at the NSE. The results in addition show that human capital reporting was significant after moderation with p-value 0.015<0.05. This implies that firm size moderates the relationship between human capital reporting and value of firms listed at the NSE. The results also show that environmental capital reporting was significant after moderation by firm size with a p-value of 0.001<0.05, implying that firm size moderates the relationship between environmental capital reporting and value of firms listed at the NSE. Finally, the results show that social capital reporting was insignificant after moderation with p-value 0.203>0.05. In addition to this the value of R squared increased from 63 percent before moderation to 69.4 percent after moderation. This implies that firm

size moderates the relationship between integrated financial reporting and value of companies listed at the NSE.

4.7.8 Multiple Linear Regression Analysis

The eighth research objective was to determine the joint effect of the six capital reporting (financial, manufactured, intellectual, human, social and environmental) on value of companies listed at the NSE. The overall regression analysis was done between all the independent variables (financial, manufactured, intellectual, human, social and environmental) and value of firms. Multiple linear regression analysis, according to Mugenda and Mugenda (2003), aids in the creation of an equation that describes the statistical relationship between additional predictor factors and the response variable. Table 4.37 provides a summary of the entire model.

Table 4.37: Overall Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.794a	0.630	0.591	0.15214

The model fitness results in Table 4.37 show that all the six capital reporting variables (financial, manufactured, intellectual, human, social and environmental) were satisfactory variables in explaining value of firms listed at the NSE. This is backed by coefficient of determination also known as the R square of 0.630, implying that financial capital reporting, manufactured capital reporting, intellectual capital reporting, human capital reporting, environmental capital reporting and social capital reporting jointly explain 63.0% of the variations in the dependent variable, which in this case is value of the firms listed at NSE. This further points to the fact that joint effect of the six variables is higher than their individual effects on the value of firms listed at the NSE. The results also imply that the remaining 37 percent of the change in value of the firm can be explained by other variables not part of the current study. Table 4.38 shows the overall analysis of variance results.

Table 4.38: Overall Analysis of Variance (ANOVA)

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	2.244	6	0.374	16.16	.000[b]
Residual	1.319	57	0.023		
Total	3.563	63			

Table 4.38 specify statistical significance of overall model. More, the outcomes infer that financial capital reporting, manufactured capital reporting, intellectual capital reporting, human capital reporting, environmental capital reporting and social capital reporting are good predictors of value of the firm among firms listed at NSE. This was backed by a 16.16 F statistic and the reported p value (0.000) that was below the conventional 0.05 probability. It is thus evident that financial capital reporting, manufactured capital reporting, intellectual capital reporting, human capital reporting, environmental capital reporting and social capital reporting had significant combined effect on the value of firms listed at the NSE. Table 4.39 shows regression coefficients analysis of the overall model.

Table 4.39: Multiple Regression of Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-0.434	0.131		-3.317	0.002
Financial Capital Reporting	0.063	0.021	0.296	2.953	0.005
Manufactured Capital Reporting	0.036	0.019	0.207	1.873	0.066
Intellectual Capital Reporting	0.076	0.024	0.293	3.191	0.002
Human Capital Reporting	0.047	0.018	0.238	2.634	0.011
Environmental Capital Reporting	0.013	0.021	0.06	0.619	0.538
Social Capital Reporting	0.026	0.021	0.109	1.239	0.220

The regression model was;

$Y = -0.434 + 0.063X_1 + 0.036X_2 + 0.076X_3 + 0.047X_4 + 0.013X_5 + 0.026X_6$

Where: Y = Value of the Firm

X_1 =Financial Capital Reporting

X_2 = Manufactured Capital Reporting

X_3 = Intellectual Capital Reporting

X_4 = Human Capital Reporting

X_5 = Environmental Capital Reporting

X_6 = Social Capital Reporting

Regression coefficients in Table 4.39 show that there was a positive and significant relationship between financial capital reporting and the value of firms listed at the NSE (β =.036, p=0.005<0.05). The results also show that there was a positive but insignificant relationship between manufactured capital reporting and value of firms listed at NSE (β =.063, p=0.066>0.05). It is further evident from the results that intellectual capital reporting had a positive and significant effect on the value of firms listed at the NSE (β =.076, p=0.002<0.05). Moreover, the results show that there existed a positive and significant relationship between human capital reporting and value of firms listed at the NSE (β =.047, p=0.011<0.05). In addition, environmental capital reporting had positive but insignificant effect on value of firms listed at the NSE (β =.013, p=0.538>0.05).

Finally, the results show that social capital reporting had a positive but insignificant effect on value of firms listed at the NSE (β =.026, p=0.220>0.05). The results are consisted with studies byAlbetairi *et al.* (2018) who found that the business model, strategy and resource allocation had positive associations with Return on Assets;Churet and Eccles (2014) which revealed a positive relationship between integrated reporting and quality of management; the relationship was significantly stronger in sectors such as healthcare;Suttipun (2017) who found that on average, a total of 603.59 words of IFR were used by companies in their annual reports and that the commonest form of IFR in this case was intellectual capital reporting while the least was environmental capital reporting and the study by Oluwagbemiga (2014) that voluntary disclosure is measurably critical in clarifying financial specialists' choice and execution of recorded organizations in Nigeria.

4.8 Hypotheses Testing

Hypotheses were tested using multiple linear regression analysis as represented in Table 4.39.

The first hypothesis tested was:

H_{01}: *Financial capital reporting has no significant effect on value of firms listed at the NSE.*

The decision to either accept or reject the null hypothesis was based on p-value. If the p-value is less than 0.05, the H_{01} is rejected but if it is greater than 0.05, then H_{01} is not rejected. Therefore, the null hypothesis was that financial capital reporting has no significant effect on value of firms listed at the NSE. Results in Table 4.39 revealed a p-value<0.05. The null hypothesis was therefore rejected and the alternative hypothesis adopted that, financial capital reporting has significant effect on value of firms listed at the NSE.

The second hypothesis tested was:

H_{02}: *Manufactured capital reporting has no significant effect on value of firms listed at the NSE.*

The decision to either accept or reject the null hypothesis was based on p-value. If the p-value is less than 0.05, the H_{02} is rejected but if it is greater than 0.05, then H_{02} is not rejected. Therefore, the null hypothesis was that manufactured capital reporting has no significant effect on value of firms listed at the NSE. Results in Table 4.39 revealed a p-value>0.05. The null hypothesis was therefore not rejected and the conclusion was, manufactured capital reporting has no significant effect on value of firms listed at the NSE.

The third hypothesis tested was:

H_{03}: *Intellectual capital reporting has no significant effect on value of firms listed at the NSE.*

The decision to either accept or reject the null hypothesis was based on p-value. If the p-value is less than 0.05, the H_{03} is rejected but if it is greater than 0.05, then H_{03} is not rejected. Therefore, the null hypothesis was that intellectual capital reporting has no significant effect on value of firms listed at the NSE. Results in Table 4.39 revealed a p-value<0.05. The null hypothesis was therefore rejected and the alternative hypothesis adopted that, intellectual capital reporting has significant effect on value of firms listed at the NSE.

The fourth hypothesis tested was:

H_{04}: *Human capital reporting has no significant effect on value of firms listed at the NSE.*

The decision to either accept or reject the null hypothesis was based on p-value. If the p-value is less than 0.05, the H_{04} is rejected but if it is greater than 0.05, then H_{04} is not rejected. Therefore, the null hypothesis was that human capital reporting has no significant effect on value of firms listed at the NSE. Results in Table 4.39 revealed a p-value<0.05. The null hypothesis was therefore rejected and the alternative hypothesis adopted that, human capital reporting has significant effect on value of firms listed at the NSE.

The fifth hypothesis tested was:

***H_{05}**: Environmental capital reporting has no significant effect on value of firms listed at the NSE.*

The decision to either accept or reject the null hypothesis was based on p-value. If the p-value is less than 0.05, the H_{05} is rejected but if it is greater than 0.05, then H_{05} is not rejected. Therefore, the null hypothesis was that environmental capital reporting has no significant effect on value of firms listed at the NSE. Results in Table 4.39 revealed a p-value>0.05. The null hypothesis was therefore not rejected and the conclusion was, environmental capital reporting has no significant effect on value of firms listed at the NSE.

The sixth hypothesis tested was:

***H_{06}**: Social capital reporting has no significant effect on value of firms listed at the NSE.*

The decision to either accept or reject the null hypothesis was based on p-value. If the p-value is less than 0.05, the H_{06} is rejected but if it is greater than 0.05, then H_{06} is not rejected. Therefore, the null hypothesis was that social capital reporting has no significant effect on value of firms listed at the NSE. Results in Table 4.39 revealed a p-value>0.05. The null hypothesis was therefore not rejected and the conclusion was, social capital reporting has no significant effect on value of firms listed at the NSE.

The seventh hypothesis tested was:

***H_{07}**: Firm size has no significant moderating effect on the relationship between integrated financial capital reporting and value of firms listed at the NSE.*

The decision to either accept or reject the null hypothesis was based on p-value. If the p-value is less than 0.05, the H_{08} is rejected but if it is greater than 0.05, then H_{08} is not rejected. Therefore, the null hypothesis was firm size has no significant moderating effect on the relationship between integrated financial capital reporting and value of firms listed at the

NSE. The ANOVA results in Table 4.36 revealed a p-value<0.05. The null hypothesis was therefore rejected and the alternative hypothesis adopted that, firm size has no significant moderating effect on the relationship between integrated financial capital reporting and value of firms listed at the NSE.

The eighth hypothesis tested was:

***H_{08}**: Integrated financial capital reporting of the six capitals (financial, manufactured, intellectual, human, social and environmental) has no significant joint effect on value of firms listed at the NSE.*

Tp-value was used to determine whether to accept or reject the null hypothesis. If the p-value is below 0.05, the H_{07} is rejected but if it is greater than 0.05, then H_{07} is not rejected. Therefore, the null hypothesis was that integrated financial capital reporting of the six capitals (financial, manufactured, intellectual, human, social and environmental) has no significant joint effect on value of firms listed at the NSE. The ANOVA results in Table 4.38 revealed a p-value<0.05. The null hypothesis was thus rejected and the alternative hypothesis adopted that, integrated financial capital reporting of the six capitals (financial, manufactured, intellectual, human, social and environmental) has no significant joint effect on value of firms listed at the NSE.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter offers summary of findings, conclusions and recommendations based on literature review, study objectives and results of the tested hypotheses.

5.2 Summary of Findings

The purpose of the study was to determine the effect of integrated financial reporting on value of firms listed at the NSE. Specifically the study sought to: determine the effect of financial capital reporting on value of firms listed at the NSE, establish the effect of manufactured capital reporting on value of firms listed at the NSE, determine the effect of intellectual capital reporting on value of companies listed at the NSE, establish how human capital reporting influence value of companies listed at the NSE, establish the effect of environmental capital reporting on value of companies listed at the NSE, establish the effect of social capital reporting on value of companies listed at the NSE, establish the moderating effect of firm size on the relationship between integrated financial reporting and value of companies listed at the NSE and determine the joint effect of the six capital reporting (financial, manufactured, intellectual, human, social and environmental) on value of companies listed at the NSE. The quantitative data collected was analyzed with the aid of SPSS using descriptive and inferential statistics. The results were presented on the basis of the specific objectives. The study, a total of 64 questionnaires were administered to the 64 sample respondent and all the 62 questionnaires were dully filled and returned translating into a response rate of 97% which was considered excellent for research analysis.

5.2.1 Financial Capital Reporting and Value of Firm

The first objective of the study was to determine the effect of financial capital reporting on value of firms listed at the NSE. The descriptive results revealed that majority of the study the firms (64.10%) were providing breakdown of how their long term projects are financed often. The study also found that most of the firms often provided information on how their short term projects were being financed as indicated by 48.40% of the research participants. Further, majority of the respondents (46.90%) were positive that their firms were often providing a breakdown of their financing mix. The study moreover established that most of the firms (42.20%) were providing trends of their earnings per share over a period of time as

indicated by most of the respondents. These results imply that most of the firms listed at the NSE often adopt financial capital reporting practices. According to Eccles, Krzus and Ribot (2015),financial capital reporting focuses on the source of funds, rather than its application which results in the acquisition of manufactured or other forms of capital which is in agreement with the above findings.

Regression analysis results revealing positive and significant link between financial capital reporting and firm value ($r=0.560$, P-value=0.000<0.05). Additionally, regression analysis was performed to establish the association between the study variables and the findings revealed that financial capital reporting was able to explain 31.4% of the NSE listed firm value variation and it was significant in impacting NSE listed firm value. The research further established that financial capital reporting positive significant impact on NSE listed firm value ($\beta=0.119$, $p=0.000<.0.05$). Finally, the hypothesis test results revealed that financial capital reporting had significant effect on value of firms listed at the NSE.

5.2.2 Manufactured Capital Reporting and Value of Firm

The second research objective was establishing the effect of manufactured capital reporting on value of firms listed at the NSE. Based on the descriptive analysis results, most (40.60%) of the firms often had their annual report outline use of ecological products in manufacturing, this was affirmed by a mean response and standard deviation of 3.563 and 1.022 respectively. The study also established that most of the participants (46.90%) were confident that their firms' annual reports usually outlined the value of equipment owned by the firm. Further, most (31.30%) of the firms sometimes had their annual reports outline the infrastructure owned by the firm. Most of the firms (35.90%) often had their annual reports contain assets manufactured by the firm. The responses were consistent with assertions by According to Eccles *et al.* (2015) that, manufactured capital is seen as human-created, production-oriented equipment and tools where a distinction is drawn between inventory (as a short term asset) and plant and equipment (tangible capital).

Correlation analysis results exposed that there existed a positive significant link between manufactured capital reporting and firm value ($r=0.631$, P-value=0.000<0.05). In addition, regression analysis results revealed that manufactured capital reporting could explain 39.8% of the variation in value of firms listed at the NSE, with the other 60.2% of the variation in

value of the firm being determined by other factors not part of the current study model. The study found out that manufactured capital reporting had positively and significant effect on value of firms listed at the NSE (β=0.110, p=0.000<.0.05), implying that a unit improvement in manufactured capital reporting by the firm yields enhancement in value of the firm by 0.110 units. Finally, the null hypothesis was not rejected and the supposition was that manufactured capital reporting had no significant effect on value of firms listed at the NSE.

5.2.3 Intellectual Capital Reporting and Value of Firm

The third research objective determining intellectual capital reporting impact on value of companies listed at the NSE. The research established that most of the firms (50%) always had their annual reports containing sections on organization reputation. The study also found out that most of firms (56.30%) often had in their annual reports separate sections that describe external outcomes such as brand loyalty. Similarly, the study established that most of the firms (64.10%) studies revealed that their annual reports had sections on intellectual property. Furthermore, majority of the respondents (42.20%) indicated that their firms' annual reports had sections on intellectual property. This agreed with the proclamations by The IIRC (2013) that, integrated thinking helps a company to adopt a business model which will aid the company in fulfilling its business objectives and also help the firm address corporate governance matters and requires all companies to incorporate integrated thinking in making a connection between strategies, sustainability, risks and opportunities, and governance requirements annually in their reports.

In addition to the descriptive analysis, correlation analysis results showed that there was a positive and significant link between intellectual capital reporting and firm value (r=0.518, P-value=0.000<0.05). Regression analysis results also affirmed that variable intellectual capital reporting was responsible for only 26.8% of the variation in value of firms listed at the NSE. Intellectual capital reporting had positive and significant effect on value of firms listed at the NSE (β=0.135, p=0.000<.0.05), implying that a unit improvement in intellectual capital reporting by the firm results into an enhancement in value of the firm by 0.135 units. The null hypothesis was that intellectual capital reporting has no significant effect on value of firms listed at the NSE. Based on the study findings, the null hypothesis rejection and the alternate hypothesis assumed that, intellectual capital reporting has significant effect on value of firms listed at the NSE.

5.2.4 Human Capital Reporting and Value of Firm

The fourth research objective was to establish how human capital reporting influence value of companies listed at the NSE. The study found that most of the firms (45.30%) often had annual reports that contained separate sections of management report dedicated to human resource. The results also show that most of the firms (45.30%) always had their annual reports contain separate sections that describe internal outcomes such as employee morale and that their annual reports contain separate sections that describes director's remuneration. Finally, it is evident that most of the firms listed at the NSE (56.30%) always their annual reports with separate sections that describes stakeholders' relationships.

In overall, the responses had a 4.172 mean and 0.904 standard deviation correspondingly. This implies that most of the firms actually often used human capital reporting. These findings are supported by the conclusion made by Churet and Eccles (2014) that, human capital is usually entail individual's capabilities, and the knowledge, skills and experience of the firm's workers and administrators, as they are pertinent to the task at hand, as well as the capacity to add to this reservoir of knowledge, skills, and experience via individual learning.

Correlation analysis results revealed that there was a positive and significant association between human capital reporting and firm value ($r=0.515$, P-value=$0.000<0.05$). In addition, regression analysis results indicated that human capital reporting is responsible for 26.5% of the variation in value of firms listed at the NSE and that human capital reporting had a positive and significant effect on the value of firms listed at the NSE ($\beta=0.101$, $p=0.000<.0.05$). The hypothesis testing results revealed that the null hypothesis had to be rejected and the alternative hypothesis adopted that, human capital reporting has significant effect on value of firms listed at the NSE.

5.2.5 Environmental Capital Reporting and Value of Firm

The fifth research objective was to determine the effect of environmental capital reporting on value of companies listed at the NSE. Descriptive analysis revealed that most (54.70%) of the firms often had their annual reports containing separate sections of management report dedicated to charity and social responsibility. Additionally, most (46.90%) of the firms always had their annual report include separate sections showing corporate commitment to

environmental protection. Further, most of the firms (48.40%) had in their annual report separate sections explaining environmental partnerships.

Finally, it was evident that most (39.10%) of the NSE listed firms had in their annual reports separate sections showing environmental risk management. Overall, the results' means and standard deviations were 4.234 and 0.775, correspondingly. This infers that most of the firms listed at the NSE often implement environmental capital reporting. The results above are in agreement with the assertions by IIRC (2018) that aspects of environmental capital in a business context include: the strength/ efficacy of supply chain relationships (establishing quality expectations, just-in-time delivery systems, and recycling programmes), community acceptance, government relations and relationships with competitors.

Correlation analysis discovered positive and significant association between environmental capital reporting and firm value ($r=0.434$, P-value=0.00<0.05). On the other hand, regression analysis results revealed that environmental capital reporting is accounts for 18.8 % of the variation in value of firms listed at the NSE, and that that environmental capital reporting had a positive and significant effect on the value of firms listed at the NSE ($\beta=0.095$, $p=0.000<.0.05$). The null hypothesis was that environmental capital reporting has no significant effect on value of firms listed at the NSE. Based on the results, the null hypothesis was not rejected and the conclusion was, environmental capital reporting has no significant effect on value of firms listed at the NSE.

5.2.6 Social Capital Reporting and Value of Firm

The sixth objective of the study was to establish the effect of social capital reporting on value of companies listed at the NSE. Descriptive analysis results revealed that most of the firms (45.30%) often had in their annual reports sections for shared norms and values in the company. Similarly, most of the firms (42.20%) often had in their annual reports separate sections of management report dedicated to charity and social responsibility. Further most (45.30%) of the firms' annual reports often contained separate sections dedicated to a firm's social license to operate. Moreover, most (35.90%) of the respondents indicated that their firms' annual report often had separate sections of CSR covering social disclosures. The overall mean and standard deviation of the response on the variable was 4.004 and 0.921 respectively. This is a clear indication that most of the firms listed at the NSE often include sections on their annual reports on social capital reporting. These results are supported by the

argument of Mwiti (2014) that firms can rise stock returns by increasing their voluntary disclosure owing to the ability of voluntary disclosure to act as a corporate governance tool.

In addition to the descriptive analysis, correlation analysis results discovered positive and significant association between social capital reporting and firm value (r=0.299, P-value=0.017<0.05). Regression analysis results indicated that the coefficient of determination R Square was 0.089 and R is 0.299 at a .000 significance level. This implied that the variable social capital reporting could explain 8.9 % of the variation in value of firms listed at the NSE. The results also revealed that social capital reporting had a positive and significant effect on the value of firms listed at the NSE (β=0.072, p=0.017<.0.05). The null hypothesis was that social capital reporting has no significant effect on value of firms listed at the NSE and based on the results, the null hypothesis was not rejected and the conclusion was, social capital reporting has no significant effect on value of firms listed at the NSE.

5.2.7 Moderating Effect of Firm Size

The seventh research objective was to determine the moderating effect of firm size on the relationship between integrated financial reporting and value of companies listed at the NSE. The descriptive statistics results discovered that the minimum firm size of the firms measured in terms of the firm's total assets was 0.4 while the maximum firm size value was 10. The mean firm size value was 7.3778 with standard deviation of 1.81929. The study established that the R squared after moderation by firm size was 0.694 which was found to be higher than the non-moderated effect whose R square was 0.630, implying that firm size moderated the relationship between integrated financial reporting and value of companies listed at the NSE, and explain 69.4% of the variations in value of NSE listed firms.

The results further showed that intellectual capital reporting was significant after moderation with p-value 0.000<0.05. This implies that firm size moderate the relationship between the intellectual capital reporting and value of firms listed at the NSE. The results in addition showed that human capital reporting was significant after moderation with p-value 0.015<0.05. This implies that firm size moderates the relationship between human capital reporting and value of firms listed at the NSE. The results also showed that environmental capital reporting was significant after moderation by firm size with a p-value of 0.001<0.05 ,implying that firm size moderates the connection between environmental capital reporting and value of firms listed at the NSE. Finally, the results showed that social capital reporting

was insignificant after moderation with p-value 0.203>0.05. In addition to this the value of R squared rose from 63 percent before moderation to 69.4 percent after moderation. This infers that firm size moderate the connection between integrated financial reporting and value of NSE listed firms.

5.2.8 Joint Effect on Value of Firm

The eighth research objective was to establish the joint impact of the six capital reporting (financial, manufactured, intellectual, human, social and environmental) on value of companies listed at the NSE. The results revealed that all the six capital reporting variables (financial, manufactured, intellectual, human, social and environmental) were satisfactory variables in explaining value of firms listed at the NSE. This was supported by coefficient of determination also known as the R square of 0.630, implying that financial capital reporting, manufactured capital reporting, intellectual capital reporting, human capital reporting, environmental capital reporting and social capital reporting jointly explain 63.0% of the variations in the dependent variable, which in this case is value of the firms listed at NSE.

This further points to the fact that joint effect of the six variables is higher than their individual effects on the value of firms listed at the NSE. The null hypothesis was that integrated financial capital reporting of the six capitals (financial, manufactured, intellectual, human, social and environmental) has no significant joint effect on value of firms listed at the NSE. The ANOVA results in Table 4.39 discovered a p-value<0.05. The null hypothesis was thus rejected and the alternative hypothesis adopted that, integrated financial capital reporting of the six capitals (financial, manufactured, intellectual, human, social and environmental) has no significant joint effect on value of firms listed at the NSE.

5.3 Conclusion

Based on the research results, a number of conclusions can be derived; the research settles that majority of the study the firms listed at NSE provide breakdown of how their long-term projects are financed often, most of the firms listed at the NSE often provided information on how their short-term projects were being financed. The research too discovered that majority of the listed firms at the NSE often provide a breakdown of their financing mix. The study moreover concludes that most of the firms listed are providing trends of their earnings per share over a period of time as indicated by most of the respondents. The study further concludes that most of the firms listed at the NSE often adopt financial capital reporting

practices and that financial capital reporting focuses on the source of funds, rather than its application which results in the acquisition of manufactured or other forms of capital which is in agreement with the above findings.

On the basis of the research conclusions, this research concludes that the integrated financial reporting used in this study have positive connection with value of NSE listed firms. The research concludes a positive and significant association between financial capital reporting and the value of firms listed at the NSE exists. The study also concludes that there is a positive but insignificant connection between manufactured capital reporting and value of NSE listed firms. It is further resolved that intellectual capital reporting have a positive and significant effect on the value of firms listed at the NSE. Moreover, the study concludes that there exists a positive and significant relationship between human capital reporting and value of firms listed at the NSE. Environmental capital reporting has positive but insignificant effect on value of NSE listed firms. The research further discovered that social capital reporting has a positive but insignificant effect on value of firms listed at the NSE.

Integrated reporting with its unique blend of capital reporting and traditional reporting allows companies that are willing to be flexible and to embrace integrated thinking to take on opportunities that continue to create value for the company. Basically, integrated reporting is an attempt by these companies to address the evolving needs of the growing number of stakeholders. Increased data and implementation of this method of reporting will demonstrate whether the integrated reporting model currently satisfies these stakeholders' needs. The study further concludes that much as there are multiple frameworks for reporting corporate information for example the triple bottom line reporting, sufficiency economy philosophy reporting together with sustainable developmental reporting, such kinds of reporting have not been made compulsory for companies hence they are still able to decide which kind of information to give to stakeholders which will be beneficial for their use.

On the basis of the research findings, the research accomplishes that the rewards of integrated financial reporting in a firm is that it enhances facilitation of newer business opportunities, improvement in the reputation of corporations, enhancing competitive advantage and mitigating the risks surrounding operational performance. The study finally concludes that firm size moderates the connection between integrated financial reporting and value of companies listed at the NSE. Even though integrated reported reporting demands a significant

amount of time, money and effort, there appears to be minimal financial benefit for companies that have adopted integrated reporting.

5.4 Recommendations

On the basis of the research discoveries and conclusion, the research acclaims that the managements of firms listed at the NSE ought to endeavor adopt the various integrated financial reporting in enhancing the value of their firms. The study suggests that companies may not be utilizing fully the synergies that come with the adoption of this reporting phenomenon. It may also be that Integrated Reporting is not assisting companies in generating any long-term value. A key recommendation of the study is that firms should incorporate the information needs of all the major stakeholders in their annual reports.

The study found out that adoption of integrating reporting improves firm value. It is therefore suggested that the managements of the listed firms should effectively implement integrated financial reporting to enhance their value. Further the research acclaims that firms ought to adopt financial capital reporting since it is essential in the effective functioning of the market economy, enabling shareholders and investors to assess the performance of a business across all aspects of activity, establish its value and exercise effective oversight. For capitalism to succeed, financial capital reporting system must be as dynamic as the financial markets themselves. And it can be if those preparing reports recognize the true potential of those reports.

5.5 Suggestion for Further Studies

The study successfully analyzed the impact of integrated financial reporting on value of firms listed at the NSE with a focus on financial capital reporting, manufactured capital reporting, intellectual capital reporting, human capital reporting, environmental capital reporting and social capital reporting on NSE listed firms' value. Further research in the other sectors is recommended using other integrated reporting practices.

This research too offers future studies foundation on level of adoption of integrated reporting and how they affect value of the firms since there are less prior research conducted in this area. A mediating variable, such as laws and regulations, must be taken into account when other researchers undertake future study.

The result of this study is unable to support the existing theory. There are some factors among others are the sustainability reporting that is still voluntary, so the information delivered is still varied. Firm value measure using Tobin's Q tends to use financial information, so the measurement of corporate governance and corporate sustainability tend to deliver qualitative information. The suggestion for the next study is to dig whether the implementation of governance implementation and activities related to corporate sustainability disclosure has been delivered in the form of qualitative information.

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APPENDICES

Appendix A: Introduction Letter

November 2021

Jane Nyokabi

Masters Student- MBA

Egerton University

Dear sir/madam,

RE: REQUEST FOR RESEARCH DATA

I am a student at Egerton University where I am pursuing a degree in Masters of Business Administration. I am required to submit as part of my evaluation, a research on **"EFFECT OF INTEGRATED FINANCIAL REPORTING ON VALUE OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE".**

To achieve this, your organization is selected to create data essential for this research. Your identity will not appear in the report; this information will only be used for academic purposes. You can have access to the study's results upon request.

Your assistance and cooperation will be highly appreciated.

Thank you in advance.

JANE NYOKABI

MASTERS STUDENT – RESEARCHER

EGERTON UNIVERSITY

Appendix B: Questionnaire

EFFECT OF INTEGRATED FINANCIAL REPORTING ON VALUE OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

Data collected in this survey is intended for academic purposes only and will be used in partial fulfillment of a master's research project to examine the effect of integrated financial reporting on value of firms listed at the NSE. All information gathered will be handled with the strictest of confidentiality. There are 7 sections.

Section One: General Information

Please tick the most appropriate

1. Sector

Agriculture	[ ]
Automobile and accessories	[ ]
Banking	[ ]
Commercial and service	[ ]
Construction and allied	[ ]
Energy and petroleum	[ ]
Insurance	[ ]
Investment	[ ]
Investment services	[ ]
Manufacturing and allied	[ ]
Telecommunication and technology	[ ]

Section Two: Integrated Financial Reporting

a) Financial Capital Reporting

To what extent do you concur with the following statements concerning financial capital reporting in your firm? Use the following scale: **1-Never, 2-Rarely, 3-Sometimes, 4-Often, 5- Always.**

STATEMENT	1	2	3	4	5
The firm provides a breakdown of how its long term projects are financed					
The firm provides information on how its short term projects are financed					
The firm provides a breakdown of its financing mix					
The firm provides a trend of its earnings per share over a period of time					

b) Manufactured Capital Reporting

In what extent do you concur with the following statements pertaining manufactured capital reporting in your firm? Use the following scale: **1-Never, 2-Rarely, 3-Sometimes, 4-Often, 5- Always.**

STATEMENT	1	2	3	4	5
The firms' annual report outlines use of ecological products in manufacturing					
The firms' annual report usually outlines the value of equipment owned by the firm					
The firms' annual report outlines the infrastructure owned by the firm					
The firms' annual report reports assets manufactured by the firm					

c) Human Capital Reporting

To what extent do you concur with the following statements pertaining human capital reporting in your firm? Use the following scale: **1-Never, 2-Rarely, 3-Sometimes, 4-Often, 5- Always.**

STATEMENT	1	2	3	4	5
The firms' annual report has a separate section of management report dedicated to Human Resource					
The firms' annual report has a separate section that describes internal outcomes such as employee morale					
The firms' annual report has a separate section that describes director's remuneration					
The firms' annual report has a separate section that describes stakeholders' relationships					

d) Intellectual Capital Reporting

To what extent do you concur with the following statements pertaining intellectual capital reporting in your firm? Use the following scale: **1-Never, 2-Rarely done, 3-Sometimes, 4-Often, 5- Always.**

STATEMENT	1	2	3	4	5
The firm annual report has a section on organization reputation					
The firms' annual report has a separate section that describes external outcomes such as brand loyalty					
The firms' annual report has a section on intellectual					

property					
The firms' annual report has a separate section that describes external outcomes such as customer satisfaction					

e) Social Capital Reporting

To what extent do you agree with the following statements regarding social capital reporting in your firm? Use the following scale: **1-Never, 2-Rarely done, 3-Sometimes, 4-Often, 5- Always.**

STATEMENT	1	2	3	4	5
The firm annual reports have a section for shared norms and values in the company					
The annual report has a separate section of management report dedicated to charity and social responsibility					
The firms' annual report has a separate section dedicated to a firm's social license to operate					
The firms' annual report has a separate section of CSR covering social disclosures					

f) Environmental Capital Reporting

To what extent do you agree with the following statements regarding environmental capital reporting in your firm? Use the following scale: **1-Never, 2-Rarely, 3-Sometimes, 4-Often, 5- Always**

STATEMENT	**1**	**2**	**3**	**4**	**5**
The firms' annual report has a separate section of management report dedicated to charity and social responsibility.					
The firms' annual report has a separate section showing corporate commitment to environmental protection					
The firms' annual report has a separate section explaining environmental partnerships					
The firms' annual report has a separate section showing environmental risk management					

End of questionnaire

Thank you very much for your participation

Appendix C: Secondary Data Capture Form

Year	Book value of equity	Market value of equity	Total assets
2016			
2017			
2018			
2019			
2020			

Appendix D: Firms Listed in the Nairobi Securities Exchange

AGRICULTURAL

Eagads Ltd

Kapchorua Tea Co. Ltd

Kakuzi

Rea Vipingo Plantations Ltd

Limuru Tea Co. Ltd

Williamson Tea Kenya Ltd

Sasini Ltd

AUTOMOBILES AND ACCESSORIES

Car and General (K) Ltd

BANKING

Barclays Bank Ltd

I &M Holdings Ltd

Stanbic Holdings Plc

Diamond Trust Bank Ltd

KCB Group Ltd

HF Group Ltd

National Bank of Kenya Ltd

Standard Chartered Bank Ltd

NIC Group PLC

The Co-operative Bank of Kenya Ltd

Equity Group Holdings

BK Group PLC

COMMERCIAL AND SERVICES

Express Ltd

Kenya Airways Ltd

Nation Media Group

Sameer Africa PLC

Standard Group Ltd

Scangroup Ltd

Uchumi Supermarket Ltd

TPS Eastern Africa (Serena) Ltd

Longhorn Publishers Ltd

Deacons (East Africa) Plc

Nairobi Business Ventures Ltd

CONSTRUCTION AND ALLIED

Athi River Mining

Bamburi Cement Ltd

Crown Paints Kenya PLC

E.A.Cables Ltd

E.A.Portland Cement Ltd

ENERGY AND PETROLEUM

KenolKobil Ltd

Total Kenya Ltd

KenGen Ltd

Kenya Power & Lighting Co Ltd

Umeme Ltd

INSURANCE

Jubilee Holdings Ltd

Sanlam Kenya PLC

Kenya Re-Insurance Corporation Ltd

Liberty Kenya Holdings Ltd

Britam Holdings Ltd

CIC Insurance Group Ltd

INVESTMENT

Olympia Capital Holdings ltd

Centum Investment Co Ltd

Trans-Century Ltd

Home Afrika Ltd

Kurwitu Ventures

INVESTMENT SERVICES

Nairobi Securities Exchange Ltd

MANUFACTURING AND ALLIED

B.O.C Kenya Ltd

British American Tobacco Kenya Ltd

Carbacid Investments Ltd

East African Breweries Ltd

Mumias Sugar Co. Ltd

Unga Group Ltd

Eveready East Africa Ltd

Kenya Orchards Ltd

Flame Tree Group Holdings Ltd

TELECOMMUNICATION AND TECHNOLOGY

Safaricom PLC

REAL ESTATE INVESTMENT TRUST

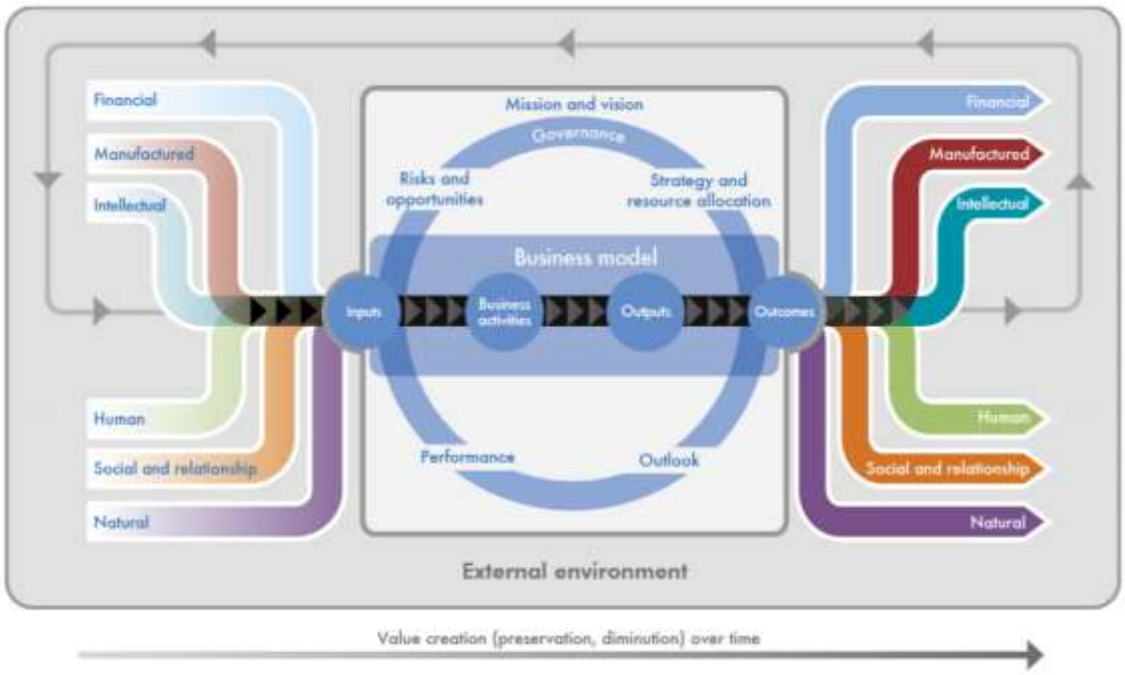
Stanlib Fahari I-REIT

EXCHANGE TRADED FUND

New Gold Issuer (RP) Ltd

Source: NSE (2020)

Appendix E: Integrated Reporting Framework



Source: IIRC (2013)

Appendix F: Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **957158**

Date of Issue: **08/November/2022**

RESEARCH LICENSE

This is to Certify that Ms.. Jane Nyokabi Gathoni of Egerton University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: EFFECT OF INTEGRATED FINANCIAL REPORTING ON THE VALUE OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE for the period ending : 08/November/2023.

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Appendix G: Journal Publication

Research Journal of Business and Finance
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Effect of Integrated Financial Reporting on the Value of Firms listed at the Nairobi Securities Exchange

Effect of Integrated Financial Reporting on the Value of Firms listed at the Nairobi Securities Exchange

Jane Nyokabi Gathoni & Monica Wanjiru Muiru
Egerton University, Kenya

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Abstract
This study investigated the influence of IFR on the value of firms listed at the Nairobi Stock Exchange (NSE). The study used financial capital reporting, manufactured capital reporting, intellectual capital reporting, human capital reporting, social, and environmental capital reporting as independent variables, firm size as a moderating variable, and firm value and dependent variable. The study used both primary data and secondary data. The secondary data was obtained from individual firms' annual financial reports and websites then captured in a data collection sheet. Data were obtained from a total of 64 firms listed at the NSE with data ranging from January 1, 2016, to December 31, 2020. Multiple linear regression model was used to test the combined effect on the dependent variable. The study found that there was a positive and significant relationship between financial capital reporting and the value of firms listed at the NSE; there was insignificant relationship between manufactured capital reporting and value of firms listed at the NSE; intellectual capital reporting had a positive and significant effect on the value of firms listed at the NSE; there existed a positive and significant relationship between human capital reporting and the value of firms listed at the NSE; environmental capital reporting had insignificant effect on value of firms listed at the NSE; social capital reporting had insignificant effect on the value of firms listed at the NSE. The study further established that firm size had moderating effect on the relationship between integrated financial reporting and the value of companies listed at the NSE. The study concludes that integrated financial reporting has a positive relationship with the value of firms listed at the NSE. The study thus recommended that the management of firms listed at the NSE should strive to adopt the various integrated financial reporting in enhancing the value of their firms.

Introduction

With the increase in uncertainty in the market environment, companies cannot rely on financial reporting alone to remain competitive. Investors require much more information