Corporate Environmental Reporting Disclosure and Financial Performance of Manufacturing Companies Listed on Nairobi Securities Exchange

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DECLARATION

This Thesis is my original work prepared with no other than the indicated sources and support and has not been presented elsewhere for a degree or any other award.

Signed…………………………. Date……………………………

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CERTIFICATION

The undersigned certify that they have read and hereby recommend for acceptance of Masinde Muliro University of Science and Technology of a Proposal entitled, **'*Corporate Environmental Reporting Disclosure and Financial Performance of Manufacturing Companies Listed on Nairobi Securities Exchange'***.

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ABSTRACT

Conventional accounting systems are limiting since they fail to directly address corporate environmental reporting. Environmental Sustainability has become a major pillar of today's business activities. One of the accounting information goals is helping users in predicting the returns on their investment. The main purpose of the study was to determine corporate environmental reporting disclosure and financial performance of manufacturing companies listed on the NSE. The study objectives found out the effects of quantity of disclosure of corporate environmental reporting and disclosure, content of corporate environmental reporting and disclosure, research and development of corporate environmental reporting and disclosure and to identify the effect of industry practice of corporate environmental reporting and disclosure on financial performance of manufacturing firms listed in the Nairobi Securities Exchange. The study tested the null hypothesis on the significant relationship between quantity of disclosure, content, research and development, industry practice of corporate responsibility and financial performance of manufacturing firms listed in the NSE. This study employed a descriptive and causal research design to selects manufacturing companies listed in NSE. The study was carried out in manufacturing companies listed in Nairobi Security exchange (NSE). The target population was 32 respondents. The study employed census survey to select the 32 respondents including the management and finance heads. The study used questionnaires secondary data collection schedule to collect data. Questionnaires captured independent variables as secondary tool captured dependent variable. Descriptive statistics involved frequencies and percentages while inferential statistics based on Pearson correlation and simple linear regression analysis. Data was presented by use of charts. The findings were that quantity of disclosure had a significant effect on financial performance among listed manufacturing firms at NSE (t-statistic=9.971, p-value=0.012< 0.05). Content and quality had a significant effect on financial performance among listed manufacturing firms at NSE (t-statistic=2.302, p-value=0.037< 0.05). Research and development had a significant effect on financial performance among listed manufacturing firms at NSE (t-statistic=5.202, p-value=0.000<0.015). Industry practice had a significant effect on financial performance among listed manufacturing firms at NSE (t-statistic=10.357, p-value=0.021<0.05). The study recommended that manufacturing companies should disclose information to enable trust since accountability will easily be achieved through quantity of information disclosed. Manufacturing companies should report information objectively by capturing the content of information and display it in the best quality form as much as possible. Manufacturing companies needs growth hence use of research and design will increase the scope of financial growth through innovation and new disclosure trends that will lead to prosperity. Manufacturing companies should employ industry practice trends especially compliance to keep them within the law and achieve financial performance.

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ABBREVIATIONS AND ACRONYMS

CMA: Capital Market Authority

GRI: Global Reporting Initiative

NSE: Nairobi Security exchange

UK: United Kingdom

USA: United States of America

OPERATIONAL DEFINITION OF TERMS

Environmental Accounting: Environmental accounting is a specific branch of accounting within the broader area of accounting, which focuses on the reporting and assessment of the effects of an organization's operations on the natural environment. From an operational standpoint, the key factors encompassed are quantity, content, research and development, and industrial methods.

Financial Performance: The subjective evaluation of a company's ability to effectively utilize assets derived from its core business operations in order to produce income. This is achieved by means of operationalization, which is measured through indicators like as return on assets, return on equity, and return on investment.

Disclosure: It's related to or utilizing a material that serves as a detectable indicator. Operationally, the key performance indicators under consideration are Return on Investment (ROI), Return on Equity (ROE), and Return on Assets (ROA).

Quantity: It is a quality that may be quantified and contrasted using greater-than, lesser-than, or equal-to statements, as well as numerical values. Operationally, the factors that are considered include the scope of the issues addressed, the average word count per issue, and the overall size of the report.

Research and development (**R&D**): It's the efforts a company makes to create new items and enhance existing ones. Implemented via measures such as the regularity of proactive reporting, the breadth of reputational protection, and the magnitude of business pressure.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Environmental reporting and disclosure refers to the practice of providing information regarding the effects of an organization's operations on the natural environment. These operations encompass trash management, recycling, carbon management, emissions reduction, pollution control, wetland preservation, and wildlife conservation, among other endeavors. There has been a growing demand for this information from many parties. The aforementioned phenomenon has resulted in a heightened level of corporate environmental reporting and transparency, as evidenced by the work of Lewis, Walls, and Dowell (2014). Climate change, clean technology, the concept of 'going green', and sustainability are subjects that hold significant importance for boards and management teams across many organizations. There is a growing recognition of the necessity to include sustainability goals into their operational strategy. Corporate environmental reporting and transparency has emerged as a significant cornerstone of contemporary company operations. There has been a growing recognition among stakeholders regarding the significance of sustainable company development as a means to enhance long-term financial performance.

The primary objective of accounting information is to facilitate the ability of information users to forecast the potential returns on their investments. According to Kraft and Baraloto (2014), the financial information disclosed by management has an impact on the stock returns of an investor's portfolio in the stock market. Moreover, investors utilize the financial information in order to assess the rate of return. Investors allocate their investments to various economic entities based on the information available to them. In order to effectively communicate with investors and enhance their understanding of stocks, management teams must develop strategies and policies that ensure concise and comprehensive disclosure of information to the capital markets. This approach enables investors to leverage their knowledge and make informed decisions regarding their investments.

The inclusion of disclosures holds significant importance in effectively resolving the challenges associated with corporate environmental reporting. The available empirical research indicates that the act of disclosing information contributes to an increased level of knowledge regarding environmental accounting. This heightened awareness serves to reduce risk and provide greater protection for investors. Additionally, it also results in a decrease in the cost of capital for enterprises (Crowther, 2018). The presence of agency problems in corporate business structures has led to concerns among investors, with environmental accounting being a significant contributing factor. The potential impact of heightened disclosures on stock prices is a subject that may attract attention from the investment community and other stakeholders, including policymakers and regulators. The significance of disclosures extends beyond their level, encompassing their type as well. The management is considered to possess a high level of awareness of the company as a result of their responsibilities in overseeing the operations of the organization. The principal or owners depend on the information that is made available to them in order to assess the performance of the organization, which includes their main goal of maximizing wealth (Epstein, 2018).

Financial performance is the degree to which financial objectives have been attained, as measured by an evaluation of a company's policies and activities from a monetary standpoint (Braam, Weerd, Hauck &Huijbregts, 2016). Financial performance refers to the evaluation of a company's financial well-being and is commonly employed to facilitate comparisons between organizations operating within different industries. Maximizing shareholder returns is an important goal for any company, and financial performance is a good indicator of whether or not this goal is being realized (Belal, 2016). Two primary methods of achieving shareholder objectives are through an increase in share price and the payout of dividends. While it is not always the case that a growth in the value of securities is solely attributed to greater performance, empirical research has consistently demonstrated a positive correlation between financial performance and securities (Crowther, 2018). The shift in market value of securities can be attributed, in part, to the company's consistent performance, which contributes to its positive reputation.

Hąbek and Wolniak (2016) have proposed that the effectiveness of corporate environmental reporting can be evaluated by quantitatively assessing the amount of information disclosed. The quantification of information can be conducted on a categorical or company-specific basis through the enumeration of data-related elements, such as word count, sentence count, and page count (Hąbek & Wolniak, 2016). One approach to accomplish this task is by the utilization of content analysis, which can be facilitated by either computer assistance or human coding. The latter method offers the advantage of enabling a quantitative evaluation of the dependability attained (Midin, Joseph, & Mohamed, 2017).

According to Amran, Lee, and Devi (2014), it has been argued that this factor is crucial in guaranteeing the efficacy of environmental reporting. Numerous subsequent research in the field of corporate environmental disclosure have utilized the Wiseman index as a tool for assessing the degree or caliber of environmental disclosure (Hąbek & Wolniak, 2016). In their study, Amran Lee and Devi (2014) conducted an analysis on the correlation between the pollution performance of corporations and the disclosure of pollution-related information in their annual reports and 10-K reports submitted to the Securities and Exchange Commission.

Guthrie and Parker (2015) have provided a definition of research and development as a criterion for evaluating the extent of literature on social and environmental disclosure. Several perspectives pertaining to these issues have been assessed. Scholars have made efforts to elucidate the underlying factors that drive corporations to engage in voluntary disclosure of social and environmental information (Guthrie & Parker, 2015). The extent of voluntary disclosure is primarily contingent upon the volition of managerial decision-makers. According to Ne et al. (2015), organizations may employ disclosure methods as a means to address public pressures and mitigate the need for more disclosure rules.

Adams (2014) noted industrial processes as a different metric for corporate environmental accounting. Previous research has indicated the importance of considering the intricate nature of both external and internal factors that may influence organizations' decision to publish information regarding their social responsibility (Adams, 2014). An emerging perspective on corporate social and environmental disclosure, as proposed by advocates of reporting (GRI, 2016; KPMG, 20017) and researchers (Friedman & Miles, 2014; Toms, 2015; Hasseldine et al., 2016), posits that it can be seen as both a result of and a component within reputation risk management procedures (Bebbington et al., 2017). Despite the widespread presence of corporate reputation, it has received limited scholarly attention (Fombrun, 2015).

Internationally, the practice of corporate environmental reporting and disclosure is no longer perceived as a costly burden aimed at maintaining the informational requirements of stakeholders. This development appears to represent progress due to its distinct advantages for numerous corporate entities. The primary factor driving the adoption of Corporate Environmental Reporting and Disclosure, in accordance with the principles set forth by the Global Reporting Initiative (GRI), is the main contributing factor for around 80% of the top corporations in 40 countries worldwide. The G8 and G20 countries are at the forefront of implementing changes aimed at enhancing transparency and disclosure practices. The movement initiated by Transparency International in the oil and gas industry has experienced significant advancements in both mandated and voluntary disclosure practices. Although the newer legislations may have a relatively slower initial impact, it is expected that their effectiveness would eventually improve. The act of a corporation revealing important financial information allows its stakeholders to identify challenges in advance, rather than after they have caused significant damage (Crowther, 2018).

There has been a scarcity of research undertaken at the regional level to evaluate the impact of social and environmental information on the value of firms and their performance in African nations. In relation to emerging markets, scholarly research has examined the social and environmental practices (Hrebicek, Soukopova, Stencil & Trenz, 2014). Nevertheless, the aforementioned research focused solely on investigating the factors that influence the dissemination of social and environmental information, or on analyzing the patterns of disclosure within particular sectors. Despite the presence of numerous environmentally sensitive activities and abundant natural resources such as gold, bauxite, manganese, diamond, and cotton, environmental disclosure studies in the African continent have not received sufficient research attention. However, it is not unexpected, considering that research on several current challenges in Africa is still developing. Furthermore, in contrast to industrialized nations, the majority of developing countries have historically prioritized environmental concerns to a lesser extent. Given the prevailing context whereby the environmental performance of numerous countries in Africa is notably worse in comparison to industrialized nations, it is imperative to underscore the necessity of evaluating the environmental reporting procedures adopted by enterprises across the African continent.

The practice of corporate environmental reporting and disclosure is gaining increasing popularity within the local context of Kenya, leading to its adoption by listed companies in the country. The heightened level of societal awareness can be evidenced by factors such as improved education levels, the phenomenon of global warming and climate change, the quick advancements in technology, and the growing desire for information (Tschopp & Nastanski, 2014). As a result, stakeholders are increasingly seeking additional information from corporations, thereby compelling companies to engage in sustainable reporting in a proactive manner. The practice of corporate environmental reporting and disclosure among Kenyan enterprises is entirely discretionary. From the year 2010 forward, some publicly traded firms in Kenya have commenced the incorporation of sustainability information into their annual reports. The incorporation of sustainability initiatives into the operational strategies of corporations is a recently established reporting practice in Kenya. However, there has been a notable surge in the adoption of such practices among listed firms. Nevertheless, the efficacy of the practice remains uncertain. Prior research has mostly examined the impact of organizations' characteristics and the extent of their sustainability disclosure. However, this study takes a distinct approach by analyzing the many themes of sustainability disclosure and their influence on financial performance.

In a study conducted by Kagai (2016), an examination was undertaken in Kenya to investigate the relationship between Corporate Environmental Reporting (CER) and Corporate Financial Performance (CEP).The findings of this study indicate that there are advantages for a corporation to adopt environmentally sustainable practices. Therefore, it can be deduced that Kenyan companies that exhibit a higher level of transparency in their Corporate Environmental Reports (CERs) are likely to achieve superior financial performance compared to those that exhibit a lower level of transparency in their CERs. With the implementation of enhanced Corporate Environmental Responsibility (CER) practices, these enterprises will experience a boost in their environmental reputation and gain a positive perception among stakeholders, sometimes referred to as "green goodwill."

The concept of information quality pertains to the degree of correctness and comprehensiveness exhibited by environmental information, as discussed by Zaller et al. (2015). Hasseldine et al. (2015) present the initial empirical findings on the impact of environmental disclosure quality, as assessed subjectively. Their study demonstrates that the influence of environmental reputation on executive and investor stakeholder groups is more pronounced when the focus is on the quality rather than the quantity of environmental disclosure. It is suggested that conducting additional research on the influence of environmental disclosure strategies on stock market value would be highly valuable in comprehending the significance of both the quantity and quality of disclosure. Zahller, Arnold, and Roberts (2015) present empirical findings indicating that an increase in the quality of environmental disclosures leads to a corresponding increase in investors' perception of organizational legitimacy. Consequently, the authors suggest that businesses should prioritize the inclusion of quantitative, consistent, and comparable reporting in their disclosure practices. This suggests that the implementation of voluntary environmental disclosure of high quality can contribute to safeguarding the financial market performance of organizations in the event of an external shock, by influencing the perceived legitimacy of the business. (Zahller *et al.*, 2015)

1.1.1 Nairobi Securities Exchange

The research was conducted inside manufacturing companies that are listed on the Nairobi Security Exchange (NSE). The Nairobi Securities Exchange (NSE) is a prominent stock exchange in Africa, situated in Kenya, a nation experiencing rapid economic growth within the Sub-Saharan African region. The National Stock Exchange (NSE) through the process of demutualization and subsequently listed itself on the stock exchange in 2014. The Board and management team of the Exchange include of prominent capital markets professionals from Africa, who prioritize innovation, diversification, and operational excellence. The Nairobi Securities Exchange (NSE) plays a crucial role in fostering the expansion of Kenya's economy through its promotion of savings and investment, while also facilitating local and foreign enterprises' acquisition of affordable capital. The National Stock Exchange (NSE) functions within the regulatory framework established by the Capital Markets Authority (CMA) of Kenya.

1.2 Statement of the Problem

Environmental sustainability has emerged as a prominent cornerstone in contemporary corporate practices. One of the primary objectives of accounting information is to assist consumers in making predictions regarding the potential returns on their investments. Investors make the decision to allocate their funds to an economic entity after acquiring sufficient information, which encompasses financial data (Lu & Abeysekera, 2014).

Nevertheless, traditional accounting methods exhibit limitations as they do not immediately cater to the requirements of corporate environmental reporting and transparency. According to data provided by the Capital Market Authority (CMA) in Kenya, there has been a notable decline in the performance of manufacturing companies listed on the Nairobi Securities Exchange (NSE) in recent times. For instance, Mumias Sugar Company reported a significant loss of Ksh 3.4 billion in 2017 (Gibendi, 2017). Additionally, British American Tobacco released its full-year financial results for the period ending on December 31, 2016, revealing a 15% decrease in profitability, amounting to $39.8 million. These occurrences persist despite the adherence of listed firms to legislation and the oversight they get. This thus gives rise to the argument that the underperformance of these entities may be attributed to their incapacity or failure to engage in collaborative environmental reporting, which has implications for stock prices and agency expenses.

Crowther (2018) argues that weak regulations in financial reporting fail to accurately represent the underlying value of enterprises. Shareholders, as the proprietors of corporations, have expressed a desire for increased inclusion in the management of company affairs. Moreover, it has been noted that there is a significant focus on the reporting of financial performance, while the significance of non-financial information, such as corporate environmental reporting and disclosure, which has a long-term impact on financial success, is being overlooked (Crowther, 2018).

Despite the growing demand from shareholders and regulators, the level of environmental disclosure by companies in Kenya remains inadequate in terms of comprehensiveness, consistency, and reliability (Kalunda, 2012). Furthermore, the quality of corporate environmental reporting in the country is deemed to be subpar (Wang'ombe, 2013). Corporate Environmental Responsibility (CER) in Kenya is predominantly characterized by its voluntary nature; nonetheless, there have been notable endeavors to promote the uptake of CER among Kenyan enterprises (Wangombe, 2013). Corporate environmental responsibility (CER) exhibits variability across different organizations and reporting media, and the measures used to establish its connection to corporate financial performance (CFP) remain ambiguous (Arnold, 2008). There remains a lack of clarity regarding the intended objectives of Corporate Environmental Responsibility (CER) for a company and its association with the financial performance of the company (McWilliams, 2014).

At the crux of the discourse surrounding the efficacy of Corporate Environmental Responsibility (CER) for a company lies a fundamental inquiry: Does the environmental disclosure made by a company have the potential to influence its financial performance? A long-standing tradition of scholars has extensively investigated this idea, mainly with a focus on conceptualizing. A considerable body of scholarly research has extensively investigated this assertion, primarily aiming to conceptualize, delineate, and empirically explore the potential link between environmental disclosure and financial success. However, the findings of these studies have yielded inconclusive and varied outcomes (Roslan, 2013). The majority of prior research examining the association between corporate environmental responsibility (CER) and corporate financial performance (CFP) has primarily focused on developed nations. However, there have been limited investigations into CER in several developing countries, such as Bangladesh (Belal, 2000), Malaysia (Ahmad, Hassan, & Mohammad, 2003), Brazil (Chatterjee & Mir, 2008), and South Africa (Antonites & Villiers, 2016).

The private sector has shown a keen interest in promoting environmental sustainability. The ability of businesses to thrive and expand is contingent upon the presence of a successful and sustainable society (Pramanik et al., 2008). Nevertheless, there is a prevalent belief that companies are unlikely to embrace voluntary disclosure unless the advantages of doing so surpass the associated costs (Nishitani, Kaneko, Fujii & Komatsu, 2012). Hence, it is imperative to do additional empirical research in order to ascertain if companies who exhibit greater information disclosure in their Corporate Environmental Reports (CERs) demonstrate superior financial performance in comparison to companies with less CERs in the context of Kenya. On the other hand, in the event that a neutral or negative association is established between Corporate Environmental Responsibility (CER) and Corporate Financial Performance (CFP), Kenyan companies might potentially enhance their financial gains by minimizing the extent of information included in their CER reports.

Previous research has investigated the impact of voluntary disclosure, specifically corporate environmental reporting and disclosure, on business performance. Notable works in this area include Hąbek and Wolniak (2016), Amran, Lee, and Devi (2014), Guthrie and Parker (2015), and Adams (2014). Sierra-García, Zorio-Grima, and García-Benau (2015) have also contributed to the understanding of this topic. These research yield varying outcomes about the nature of the association between voluntary disclosure and corporate performance. This study therefore sought to assess effect of corporate environmental reporting and disclosure on financial performance of manufacturing companies listed on the NSE.

1.3 Objectives of the Study

To assess corporate environmental reporting disclosure and financial performance of Manufacturing Companies Listed on Nairobi Securities Exchange

To achieve this, the study specifically sought to;

i. Determine the effect of quantity of disclosure of corporate environmental reporting on financial performance of manufacturing firms listed in the Nairobi Securities Exchange.

ii. Examine the effect of content of corporate environmental reporting and disclosure on financial performance of manufacturing firms listed in the Nairobi Securities Exchange.

iii. Assess the effects of research and development of corporate environmental reporting and disclosure on financial performance of manufacturing firms listed in the Nairobi Securities Exchange

iv. Establish the effect of industry practice of corporate environmental reporting on financial performance of manufacturing firms listed in the Nairobi Securities Exchange

1.4 Hypotheses of the Study

The study was guided by the following Hypotheses

H_{01}: There is no significant effect of quantity of disclosure of corporate environmental reporting on financial performance of manufacturing firms

H_{02}: There is no significant effect of content of corporate environmental reporting and disclosure on financial performance of manufacturing firms

H_{03}: There is no significant effect of research and development of corporate environmental reporting and disclosure on financial performance of manufacturing firms.

H_{04}: There is no significant effect of industry practice of corporate environmental reporting on financial performance of manufacturing firms.

1.5 Significance of the Study

This study holds considerable significance for stock market participants as it provides valuable insights into the consequences of corporate environmental reporting and transparency on businesses' performance. The executives of the companies are now equipped with the necessary information to make well-informed decisions regarding the publication or reporting of environmental accounting reports.

Additionally, investors in the stock market might derive advantages by implementing a well-devised strategy, thereby enhancing the potential for higher returns on their investments. This arises from the acquisition of vital information that may be consulted by analysts who are capable of providing helpful advice. This recommendation was derived from an analysis of corporate environmental reporting and the importance of ensuring the comprehensiveness and accuracy of disclosed information.

Furthermore, from a governmental perspective, this might potentially facilitate the evaluation of enterprises' revenue generation. This research holds significance for government policymakers as they consider the formulation of new legislation pertaining to corporate environmental reporting and transparency. Ultimately, this study has the potential to make a valuable contribution to the existing body of literature and serve as a foundation for future research endeavors exploring the relationship between corporate environmental reporting and disclosure and financial performance.

1.6 Scope of the Study

This research was conducted on the listed manufacturing companies on the Nairobi Securities Exchange that have been trading continuously from 2008 to 2018 (ten years) without suspension or delisting. The study excludes companies that were listed, delisted, or suspended during the specified period. The study focused exclusively on the annual reports of the organizations during a span of ten years, commencing from 2008 and concluding in 2018. Furthermore, this study exclusively focused on the four key principles of corporate environmental reporting and disclosure, namely quantity, substance, research and development, and industry practice.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provided theoretical guide, conceptual review, empirical review and research gap as well as conceptual framework.

2.2 Review of Theories

2.2.1 Legitimacy Theory

The research was informed by the legitimacy theory proposed by Dowling and Pfeiffer (2015). Legitimacy theory is based on the idea that there is a connection between a group and the society in which it works (Ioannou & Serafeim, 2017). It is widely acknowledged that organizations utilize societal resources, and their operations are assessed by the public in terms of their utility and legitimacy. Epstein (2018). It has been argued that legitimacy is attained when stakeholders, encompassing both internal and external audiences impacted by an organization's outcomes, endorse and provide support for the goals and actions of such organization. Hence, in order to establish credibility, a company must engage in behaviors or activities that align with widely accepted social norms and values.

The disclosure of environmental information has the potential to showcase an organization's responsible behavior, with the underlying intention of influencing the public or community. The study conducted by Ioannou and Serafeim in 2017. Qiu, Shaukat, and Tharyan (2016) suggest that disclosures can serve the purpose of demonstrating an organization's adherence to community norms, or conversely, they can be employed to modify societal norms. According to the legitimacy hypothesis, managers would adopt methods to secure the ongoing provision of essential resources or knowledge for organizational survival, in order to acquire or sustain legitimacy. Siew (2015).

In order to establish legitimacy, a corporation needs ensure that its acts are held accountable to align with societal expectations regarding appropriate conduct. This is because there exists an implicit "social contract" between the firm and society. Schaltegger, Burritt, and Petersen (2017) conducted a study. There is a contention that in the event that society sees a breach of expectations by a corporation, the firm's survival could be jeopardized due to the failure to fulfill the social contract. Welford (2016). Lys, Naughton, and Wang (2015) provided an elucidation of the social contract, which pertains to the reciprocal agreement between corporations, often limited companies, and individual members of society. Society, in its capacity as a collective of persons, confers upon companies their legal status, defining their characteristics and granting them the power to possess and utilize natural resources, as well as employ humans.

Organizations utilize community resources to produce both commodities and services, while also generating waste products that are released into the broader ecosystem. The organization does not own intrinsic entitlements to these benefits, and for their continued existence, it is anticipated that the benefits would surpass the societal expenses. The social contract, a fundamental theoretical framework in legitimacy theory, plays a pivotal role. However, the manner in which firms fulfill their social contract is contingent upon the unique characteristics of each firm, as managers possess distinct perspectives regarding societal expectations of firm conduct. Consequently, this discrepancy elucidates the divergence in actions taken by various managers. Trumpp and Guenther (2017) conducted a study on a particular topic. The usage of legitimacy theory can be closely associated with the concept of social contract. One of the fundamental tenets of legitimacy theory posits that the viability of firms is contingent upon their ability to align with societal norms and garner support from the community (Guenther, 2017).

Conversely, in the event that society expresses dissatisfaction with the corporation's operations, society will effectively rescind the implicit agreement allowing the firm to persist in its activities. The emergence of a legitimacy gap occurs when there is a discrepancy between the actions undertaken by a company and the societal expectations and views regarding the appropriate nature of these actions (Guenther, 2017). Post, Rahman, and McQuillen (2015) proposed several factors that contribute to the occurrence of legitimacy gaps. These factors include: firstly, when there is a discrepancy between changes in corporate performance and the unchanged societal expectations of corporate performance; Secondly, a misalignment arises when there is a discrepancy between shifts in societal expectations regarding corporate performance and the lack of progress in corporate performance. Thirdly, a situation occurs when both corporate performance and societal expectations undergo changes, but they either move in different directions or move in the same direction with a time delay. To ensure and uphold credibility, organizations must employ suitable legitimating strategies that are designed to address and alleviate the legitimacy gap. (Epstein, 2018).

2.2.2 Impression Management Theory

The application of impression management theory has been observed at both the individual and corporate levels. According to this theoretical framework, it is imperative for both individuals and organizations to generate and uphold impressions that align with the desired perceptions they wish to communicate to the general public. Braam, de Weerd, Hauck, and Huijbregts (2016). According to impression management theorists, a fundamental motivation for such behavior, both inside and outside of companies, is to be perceived positively and to avoid being viewed unfavorably (Schaltegger & Burritt, 2017). According to Amores-Salvado, Martin-de Castro, and Navas-López (2015), there are two main motivations behind individuals' engagement in impression management. The first motivation, referred to as 'instrumental,' involves the desire to influence others and obtain rewards. The second motivation, known as 'expressive,' revolves around the construction of a self-image that asserts personal identity and aligns with the desired presentation of oneself. The impetus to partake in impression management is expected to be impacted by many crucial factors. These elements include the significance of impressions to one's goals, the perceived value of enhancing one's image, and the disparity between one's existing image and the intended image.

In recent years, there has been a growing trend among corporate managers to disclose financial information to shareholders that goes beyond what is legally mandated. This practice is motivated by the desire to highlight corporate accomplishments and cultivate a positive perception of the firm, ultimately bolstering the legitimacy attributed to its activities (Dubey, Gunasekaran & Ali, 2015). The practice of corporate disclosure is often influenced by the concept of impression management, as discussed by Cho, Patten, and Roberts (2014). This notion also applies to the disclosure of social and environmental issues, as highlighted by Govindan, Azevedo, Carvalho, and Cruz-Machado (2015). As indicated in the preceding chapter, existing research on social and environmental disclosure has demonstrated a tendency among corporate management to prioritize the reporting of positive information rather than the disclosure of negative information. This suggests that social and environmental disclosure practices primarily serve as a means of self-promotion (Wong, Lai, Shang, & Lu, 2014). Guesser, Hein, Pfitscher, and Lunkes (2015) found that many businesses that practice corporate social disclosure view their reports as public relations tools used to reassure stakeholders and aid in the development of a favorable brand image. Organizations employ social and environmental disclosure as a strategic tool to communicate information with the aim of influencing stakeholders' views and, in turn, society's perceptions of the organization. According to Stacchezzini, Melloni, and Lai (2016), when a company conducts itself in a responsible and ethical manner, it is more likely to be perceived as a responsible corporate citizen, thereby validating its continued existence in the business landscape. Therefore, one could posit that the incorporation of corporate social and environmental disclosure as a strategy for impression management holds the capacity to bolster the perception and reputation of businesses in the public domain (Mokhtar, Zulkifli & Jusoh, 2015).

In their study, Arora and Lodhia (2017) examined the utilization of impression management tactics in Shell's social reporting, drawing from the viewpoints of corporate communication and impression management. In alignment with previous research conducted by Diouf and Boiral (2017), the present study observed that Shell's reports exhibited a tendency towards self-praise in their corporate social and environmental disclosure. Specifically, the analysis revealed a greater prevalence of proactive tactics aimed at garnering acclaim, such as entitlements and enhancements, as opposed to reactive accounting tactics like excuses and justifications. This strategic emphasis on proactive acclaiming tactics serves to cultivate a favorable perception of Shell as a socially and environmentally conscious organization. Melloni (2015) conducted a study.

The construction of corporate reputation has been proposed to be seen via the theoretical underpinnings of organizational impression management in the burgeoning literature on corporate reputation. Leung, Parker, and Courtis (2015). According to Talbot and Boiral (2018), firms are perceived as social actors who have the objective of self-presentation in order to obtain approval and status from their important stakeholders. The endeavor of firms to attain both acceptance and prestige aligns with the utilization of individual impression management tactics, as discussed by Talbot and Boiral (2018). One such strategy is exemplification, which involves persuading others of one's virtuous character. Another strategy is self-promotion, which aims to convince others of one's deservingness of respect. The reputation of a corporation is formed by the combined impressions of key constituents. Stacchezzini, Melloni, and Lai (2016) argue for the importance of adopting a perspective on impression generation as a fundamental framework for comprehending corporate reputation. While the collective reputation is formed by individual perceptions, it is not perceived as a mere aggregation of these sensations. Instead, it is regarded as a shared impression, representing the average of all individual impressions. This study conducted a comprehensive evaluation of the existing literature on the establishment and construction of corporate reputation. Based on this research, a model was developed to illustrate the process by which individual impressions contribute to the building of corporate reputation. According to Talbot and Boiral (2018), the illustrative model suggests that environmental cues, which refer to specific pieces of information about a firm's corporate social responsibility (CSR) policy, play a role in shaping constituents' perceptions of the firm. These perceptions, in turn, influence how constituents view the firm's respectability, honor, integrity, impressiveness, prominence, and prestige. The aspects of respectability and impressiveness are consistent with the perception of reputation, apperceived quality, and prominence.

2.2.3 Stakeholders Theory

Depoers, Jeanjean, and Jerome (2016) have made a significant contribution to the management literature by establishing a robust and enduring basis for further endeavors to delineate and develop stakeholder models, frameworks, and theories (Arena, Bozzolan, & Michelin, 2015). The focal point of stakeholder theory is managerial decision-making, as asserted by Plumlee, Brown, Hayes, and Marshall (2015). The stakeholders of an organization has the ability to exert influence over managerial strategic decisions by virtue of their control over the resources necessary for the organization's ongoing existence. Chan, Watson, and Woodliff (2014) provided a rationale for the inclusion of stakeholders in the strategic management of organizations. The approach to stakeholder theory has typically been examined via the lenses of business ethics, corporate financial performance, corporate governance, and/or corporate social performance (Michelon, Pilonato, & Ricceri, 2015).

The evolution of stakeholder theory has encompassed three distinct approaches: descriptive, instrumental, and normative (Lu & Abeysekera, 2014). Amran, Lee, and According to Devi (2014), the descriptive aspect of stakeholder theory provides a comprehensive understanding of the specific interactions that occur between organizations and their stakeholders. The instrumental aspect of the idea makes a connection between stakeholder management and the achievement of various business performance targets. Finally, the normative implications of the theory aim to elucidate the underlying objectives of the company and offer ethical or philosophical guidelines for its functioning and administration. In the realm of accounting literature, Mokhtar, Zulkifli, and Jusoh (2015) put up the contention that stakeholder theory encompasses both an ethical or normative aspect and a management (or positive) aspect. The ethical branch of stakeholder theory offers guidelines regarding the appropriate treatment of stakeholders by organizations. This perspective emphasizes the responsibilities that organizations have towards their stakeholders. In contrast, the managerial branch of the theory emphasizes the importance of effectively managing stakeholder groups that possess significant power due to their control over resources essential for the organization's operations.

According to the research conducted by Dubey, Gunasekaran, and Ali (2015), when considering stakeholder theory from a managerial standpoint, organizations tend to allocate greater efforts in managing relationships with stakeholders who hold significant importance to the organization. In this context, information plays a crucial role as it serves as a key tool for organizations to demonstrate their adherence to stakeholders' expectations. The stakeholder approach has been extensively utilized in the literature on social and environmental disclosure. The stakeholders of a corporation has the ability to exert influence over managerial strategic decisions by virtue of their control over the resources necessary for the organization's ongoing survival. In order to secure the sustained survival of a firm, it is imperative for the firm to actively pursue and uphold the support of its stakeholders. Corporate social and environmental disclosures are perceived as a component of the communication exchange between the corporation and its various stakeholders.

Arora and Lodhia (2017) constructed a conceptual framework comprising three aspects, namely stakeholder power, strategic posture, and economic performance, building upon the foundational research conducted by Freeman. The authors subsequently employed this model to investigate corporate social responsibility initiatives. According to Melloni (2015), the stakeholder method offers a suitable rationale for integrating strategic decision-making into investigations of corporate social responsibility initiatives. The empirical investigation conducted by Albertini (2014) aimed to evaluate the many elements that impact the disclosure of corporate social responsibility. The results of this study demonstrate a significant association between stakeholder power, strategic posture, and economic performance, and the extent of corporate social disclosure. These findings provide support for the incorporation of a stakeholder perspective in studies examining corporate social disclosure. In contemporary times, researchers have employed the stakeholder approach to investigate the manner in which companies interact with stakeholders during the disclosure of social and environmental information. Additionally, this strategy has been utilized to comprehend the perspectives of external stakeholders regarding corporate social and environmental disclosure.

Liao, Luo, and Tang (2015) employed Habermas' discourse ethics as a conceptual framework to investigate the implementation of stakeholder engagement. A complete analysis was undertaken on the implementation of a specific internet-based stakeholder discussion system, specifically focusing on the Shell web forum. The online platform, hosted on Shell's official website, serves as a virtual bulletin board dedicated to the discussion of social and environmental matters. The practical implementation of using this online platform for discussing Shell's social and environmental responsibilities and obligations has not been noticed by either Shell or a substantial portion of its external stakeholders. Although stakeholders have not commonly employed it, there is a proposal to increase the prevalence of internet stakeholder interaction as a means to boost openness regarding corporations' duties towards society and the environment. Hąbek and Wolniak (2016) developed a hierarchical model to elucidate the importance of stakeholder engagement in the context of social and environmental disclosure. This model delineates the many steps involved in the disclosure process.

Hąbek and Wolniak (2016) propose a conceptual framework for understanding the social and environmental disclosure process. This framework suggests that the process can be divided into four distinct stages, organized in a hierarchical manner. These stages are commonly referred to as 'why - who - for what - how'. The first phase, sometimes referred to as the "why" step, entails the analysis of a firm's fundamental reasons for engaging in social and environmental disclosure. The third phase, commonly known as the 'who' stage, involves the identification of stakeholders to whom the corporation acknowledges responsibility and must engage with during the social and environmental disclosure process. The subsequent phase, referred to as the 'for what' stage, involves the active involvement and communication with stakeholders, during which their expectations are recognized and given priority. Finally, the stage of 'how' involves the operationalization of procedures and the generation of reports that facilitate the company's ability to efficiently meet the expectations of stakeholders.

The utilization of the stakeholder viewpoint in studying corporate reputation has been driven by the assessment and control of reputation by many stakeholders within a shared institutional setting, as highlighted by Harrison and van der Laan Smith (2015). Cable and Graham (2014) conducted a study that explored the factors influencing job seekers' perceptions of a firm's reputation from a stakeholder perspective. Their findings revealed that certain factors affecting job seekers' reputation perceptions differed significantly from those previously examined in research primarily focused on executives. The results indicated that stakeholders may hold varying perspectives of a company's reputation due to the influence of diverse elements on their perceptions.

2.3 Conceptual review

2.3.1 Quantity

It's a quality that can come in various sizes and be compared using more, less, or the same as well as numerical values (Amores-Salvadó, Martin-de Castro, &Navas-López, 2015). Topics addressed, word count, and page count per issue and report size were used to gauge quantity.

2.3.2 Content

There is still debate in the academic literature regarding how to quantify the quality of environmental disclosure. It's the range of subject matter, word count, and overall length of each report. Economic factors, environmental lawsuits, and pollution abatement coverage were used to gauge content.

2.3.3 Research and development

That which a company does to create new and better products is known as product development (Diouf & Boiral, 2017). Proactive reporting rates, decision sizes, and decision costs were used to evaluate the quality of the R&D efforts.

2.3.4 Financial Performance

An intangible indicator of a company's ability to exploit its core competency and produce profits (Fombrun & Van Riel, 2014). Investment returns, equity returns, and asset returns were used to evaluate financial results.

2.4 Empirical Review

In the past 40 years, numerous research on corporations' cooperative environmental reporting and disclosure have been published in the field of accounting. Reviewing the literature, Schaltegger, Burritt, and Petersen (2017) showed that the studies covered a wide range of topics and perspectives, such as the factors that influence cooperative environmental reporting and disclosure and the connection between that reporting and actual performance (Shaukat, Qiu, and Trojanowski, 2016). used a wide range of research techniques, including content analysis, case/interview study, and model-testing (Wiseman, 2014; Zeghal and Ahmed,2015; Guthrie and Parker,2014; Deegan, 2015;

Roberts, 2016); and spanned multiple countries and time periods, including the United States, United Kingdom, Australia, Canada, and New Zealand. Studies conducted in the United States, Europe, and Australia dominate the field because of the prevalence of American, European, and Australian researchers in the field (Campbell, 2014).

2.4.1 Quantity

The annual reports of corporations encompass a comprehensive range of both financial and non-financial data. Financial ratios are commonly employed to facilitate the comprehension of financial data, enabling a more straightforward interpretation of financial information. On the other hand, the analysis of non-financial information can be conducted efficiently by employing a research methodology known as "Content Analysis". This analytical tool has been employed and has yielded positive results in a wide range of research applications pertaining to corporate environmental disclosure (Ingram & Frazier, 1980; Wiseman, 2016; Freedman & Wasley, 2014; Deegan, Rankin & Voght, 2015; Hughes, Anderson & Golden, 2015; Al-Tuwaijri, Christensen & Hughes, 2014; Clarkson, Li, Richardson & Vasvari, 2016; Uwuigbe, 2014; Uwuigbe, 2016; Oba & Fodio, 2015; Jumhani, 2014, Akinlo & Iredele, 2017).

Lu and Abeysekera (2017) propose that content analysis serves as a research methodology employed to derive reproducible and valid inferences from data within their respective contexts. This approach functions as a research instrument facilitating the contextualized interpretation of various documents. The process of analyzing textual data within its contextual framework entails a methodical approach to categorizing and discerning recurring themes or patterns. In accordance with the findings of Hąbek and Wolniak (2016), the process of analysis and interpretation adheres to a prescribed set of guidelines and sequential models, hence avoiding hasty quantifications. The aforementioned definition posits that content analysis assigns significance to non-monetary data, such as speeches, texts, and their respective contextual elements.

The quantification of information can be conducted on a categorical or organizational level by the enumeration of data-related elements, such as the tally of words, phrases, and pages (Hąbek & Wolniak, 2016). The process of content analysis can be facilitated by computer assistance or conducted manually by human coders. The latter approach offers the benefit of enabling the quantitative evaluation of reliability levels obtained (Midin, Joseph & Mohamed, 2017).When examining the measure of social information disclosure, the majority of research have focused on analyzing sources like as annual reports, stand-alone reports, social responsibility reports, or the company's website.

2.4.2 Content

The measurement of environmental disclosure quality is frequently challenging and continues to be a contentious topic within scholarly literature. The primary challenge pertains to the absence of a universally acknowledged metric for assessing the quality of disclosure. Numerous scholarly works have assessed the quality of disclosure by employing criteria determined by the researcher and aligned with the objectives of the study. The study conducted by Wiseman (2014) investigated the degree to which firms engage in voluntary environmental disclosures inside their annual reports. The present study employed a research design that closely resembled the one utilized by Ingram and Frazier (2015). Ingram and Frazier (2015) expressed apprehension regarding the dearth of corporate social responsibility disclosures in annual reports, attributing this to their voluntary nature. Wiseman (year) developed an environmental disclosure index that encompasses a total of 18 elements, distributed across four distinct categories. These categories include economic reasons, which consist of 5 items, environmental litigation, which comprises 2 items, pollution abatement, which encompasses 5 items, and finally, environmental disclosures that do not pertain to any of the aforementioned categories, which consist of 6 things. Furthermore, Wiseman allocated a numerical value to each item, taking into account whether the disclosure provided was quantitative or qualitative. A score of 3 was assigned to items with quantitative disclosure, while a score of 2 was given to items with non-quantitative disclosure. Items that were mentioned in broad terms received a score of 1, and items with no disclosure were assigned a score of 0.

Numerous scholarly investigations on corporate environmental disclosure have subsequently utilized the Wiseman index as a means to evaluate the magnitude and caliber of environmental disclosure (Hąbek & Wolniak, 2016). In their study, Amran Lee and Devi (2014) conducted an analysis on the correlation between the pollution performance of corporations and the disclosure of pollution-related information in their annual reports and 10-K reports submitted to the Securities and Exchange Commission. The sample comprises 50 United States-based enterprises representing four distinct industries, namely Steel, Oil, Pulp & Paper, and Electric Utilities. The environmental disclosures in both annual and 10-K reports are measured by the authors using the identical indexing approach that was first devised by Wiseman (2014).

Bewley and Li (2016) examine the factors that influence environmental disclosures in Canada in this study using a framework that is based on the voluntary disclosure theory. The authors of this study utilized the Wiseman index to assess the extent of environmental disclosures in the 2016 annual reports of Canadian industrial businesses.

In their study, Hughes et al. (2016) employed a slightly adapted version of the Wiseman index to evaluate the extent of environmental disclosures presented in the President's letter and note portion. Subsequently, they examined the alignment between these environmental disclosures and environmental performance ratings. Patten (2016) employed a revised version of the Wiseman index metric and assessed the line count of environmental disclosures in the 2014 annual reports of 131 American corporations spanning across 24 distinct industries.

In their study, Al-Tuwaijri et al. (2014) investigate the interrelationships between environmental disclosure, environmental performance, and economic performance by employing a simultaneous equations approach. The measurement of environmental disclosure is conducted by the authors through the implementation of a content analysis across four distinct areas. These categories encompass the designation of potential responsible parties, the disclosure of toxic waste information, the reporting of oil and chemical spills, as well as the documentation of environmental fines and penalties. However, the choice of items was dependent on their relevance to the particular context of Malaysia. The indicators consisted of four primary characteristics, namely: (1) Employee relationships, (2) Environment, (3) Community involvement, and (4) Product. Schaltegger and Burritt (2017) posited that the assessment of disclosure quality may be accomplished by assigning varying weights to distinct disclosure items. The rankings presented are established based on the perceived level of importance attributed to each item by various user categories. Significantly, the utmost degree of significance, indicated by a weight of '3', is allocated to quantitative disclosures concerning the four Corporate Social Responsibility (CSR) indicators or categories. The value '2' is assigned to denote non-quantitative but specific information related to these indicators. Lastly, it is important to acknowledge that typical qualitative disclosures are allocated the minimum weight of '1'. Firms that choose not to disclose any information about the specified indicators are allocated a score of zero. ShaukatQiu and Trojanowski (2016) employed the disclosure-quality measurement methodology developed by AlTuwaijri et al (2014). Within the scope of this investigation, the utmost significance was assigned, with a weight of 3, to monetary disclosures that hold relevance to the research. The prioritization of environmental elements was seen, with a weighting of 2 assigned to quantitative indicators. The weight assigned to general disclosure was the lowest at 1. In cases when a firm fails to submit information for a specific indicator, it is assigned a score of zero for that particular item. Schaltegger and Burritt (2017) conducted a study to examine the utilization of the internet as a medium for communicating corporate environmental information to stakeholders among financial and non-financial businesses listed in Nigeria.

The assessment of environmental disclosure was carried out through a comprehensive content analysis that encompassed four unique categories: Environment, Energy, Research and Development, and Employee Health and Safety. The assessment of the overall reporting score was carried out utilizing the Kinder Lydenberg Domini (KLD) social environmental performance evaluation methodology, which employs a binary approach. A score of 1 was allocated to an item that was reported, while a score of 0 was allocated in all other cases. Consequently, the affirmation might be assigned a spectrum of values, ranging from a minimum of 0 to a high of twenty (20).

In their study, Midin and Mohamed (2017) examine the extent of environmental reporting within the annual reports of companies operating in Greece. In order to ascertain the aspects that might impact the disclosure level of environmental information by Greek enterprises, a disclosure index was developed. This index encompasses a total of fifteen data points. The items were scored using a dichotomous approach, wherein a score of one was assigned to items that were disclosed and a score of zero was assigned to items that were not disclosed. The approach outlined is frequently known as the unweighted methodology. Shaukat, Qiu, and Trojanowski (2016) utilized a four-element quality index to evaluate the extent of disclosure quality in their research. A score of up to six points was provided to each instance of a theme, which contributed to a disclosure score. This score represented the overall quality index for each category of theme.

Walden and Schwartz (2017) devised a comprehensive four-factor index for evaluating the integrity of environmental disclosure inside annual reports. One potential method for assessing quality is through the examination of efficacy. Assessing the significance or insignificance of a certain phenomena or event. The quantification of information, regardless of its monetary or non-monetary nature, holds significant relevance. The notion of specificity pertains to the degree of detail presented with regards to actions, individuals, happenings, or locations. It can be regarded as either exhibiting specificity or lacking specificity. The temporal framework can be classified into three discrete periods, namely the past, present, and future. The influence of the location inside the annual report was noteworthy, since the disclosure found in the letter to shareholders and financial sections was deemed to be of significance. The assessment of the three remaining components of disclosure was carried out by evaluating the presence or absence of each type of disclosure and the extent of information supplied for each category of environmental disclosure. A score of one point was provided to each element of the index that was contained in the disclosure. Instances in which the disclosure referred to future events or included monetary considerations were assigned a score of two points for each occurrence. If the disclosure was relevant to the current reporting period, it was given a score of one. Credit was not granted in situations when the disclosure related to previous occurrences or when the specific component was not present. Therefore, it is evident that the evaluation of the quality of every environmental disclosure is based on a set of four criteria, each carrying a maximum score of six points.

Trumpp and Guenther (2017) conducted a study with the objective of examining the relationship between environmental disclosure and environmental performance. The present study developed a content analysis index that utilizes the sustainability reporting criteria of the Global Reporting Initiative (GRI). The objective of this index is to assess the extent of voluntary disclosures present in environmental and social responsibility reports.

Epstein (2018) undertook an assessment to evaluate the current status of sustainability, aligning it with internationally accepted criteria and benchmarks. The present study conducted an analysis of the financial reports of six multinational oil and gas firms that are engaged in operations within the Nigerian context. The assessment of the environmental disclosure quality of multinational oil and gas companies in Nigeria was conducted by employing the Global Reporting Initiative (GRI) guidelines and the International Petroleum Industry Environmental Conservation Association (IPIECA) oil and gas industry guidance on voluntary sustainability reporting as frameworks of reference.

2.4.3 Research and Development

A considerable body of academic literature in the realm of social and environmental disclosure has made efforts to shed light on the determinants that motivate corporations to voluntarily disclose social and environmental information (Guthrie and Parker, 2015; Patten, 2016; Deegan and Rankin, 2014; 2018; O'Donovan, 2017; Milne and Patten, 2016; Van Staden and Hooks, 2017). The level of voluntary disclosure is predominantly determined by the discretion of managerial decision-makers. NE et al. (2015) claim that companies may opt to utilize disclosure techniques in response to public concerns and as a way to minimize the necessity for more regulatory interventions regarding their disclosure procedures. On the other hand, Verrecchia (2015) and Dye (2014) argue that decision-makers may opt to withhold specific information under the belief that investors do not deem it necessary, can easily obtain it from other sources, or that its disclosure could lead to additional penalties imposed by external entities. During the course of performing a literature study, Deegan (2014) presented an initial overview of diverse incentives that prompt managers to share social and environmental information. The motivations encompass various factors such as the imperative to comply with legal obligations, the potential benefits for businesses in terms of cultivating a favorable reputation, a sense of accountability or duty to provide reports, the need to meet borrowing criteria, the fulfillment of societal expectations, the response to potential threats that could undermine the legitimacy of the firm, the management of specific stakeholder groups, the attraction of investment funds, adherence to industry standards or codes of conduct, the avoidance of more onerous disclosure regulations, and the pursuit of specific recognition for reporting practices.

Several academic studies in this specific field have attempted to clarify their findings by utilizing legitimacy theory through two separate approaches: reactive (Patten, 2016; Deegan and Rankin, 2017; Deegan et al., 2018) and proactive (O'Donovan, 2014; Milne and Patten, 2015; Van Staden and Hooks, 2016). The theoretical framework will focus on analyzing the suitability of legitimacy theory within the context of these two approaches. Moreover, a number of studies have examined the relationship between environmental disclosure and environmental performance, as elaborated upon in the following section. The aforementioned research often observed a tendency to adopt a responsive approach when the findings suggested a negative correlation between environmental disclosure and corporate performance. Firms characterized by heightened levels of harmful discharges demonstrated a positive correlation with increased levels of environmental disclosure.

Hummel and Schlick (2016) conducted an empirical investigation. The aforementioned findings indicate that businesses' disclosure procedures were motivated by a need to respond to public apprehensions regarding their substantial negative influence on the environment. The proactive technique on this area was further substantiated by empirical study, which demonstrated a positive correlation between environmental disclosure and environmental performance. There exists a discernible positive association between the proactive disclosure practices of firms and their inclination to address and minimize any challenges to their legitimacy.

2.4.4 Industry practice

The existing body of literature has indicated the importance of considering the intricate nature of both external and internal factors that may influence organizations' decision to disclose information regarding social responsibility (Adams, 2014). An emerging perspective on corporate social and environmental disclosure, as proposed by advocates of reporting (GRI, 2016; KPMG, 2017) and researchers (Friedman and Miles, 2014; Toms, 2015; Hasseldine et al., 2016), posits that it can be perceived as both a result of and component within reputation risk management procedures (Bebbington et al., 2017). Despite the widespread presence of corporate reputation, it has received comparatively limited scholarly attention (Fombrun, 2015). Reputation has been conceptualized in several manners within the literature (Fombrun & Van Riel, 2014). These conceptualizations have emerged from several perspectives, including those of economics, strategic management, marketing, organizational studies, sociology, and accounting. From an economic standpoint, reputation is commonly understood as traitor signals, representing the perceptions of firms as perceived by external observers (Fombrun & Van Riel, 2014). From a strategic management standpoint, reputation is regarded as an intangible asset that has the capacity to generate value (Fombrun, 2014; Little & Little, 2016). Reputation, when viewed through a marketing lens, is commonly referred to as "brand image." This concept centers on the cognitive processes involved in information processing and leads to the construction of mental representations in the minds of external stakeholders (Qiu, Shaukat, & Tharyan, 2016). Corporate reputation, from an organizational standpoint, is established based on the cognitive processes and interpretations of employees (Qiu, Shaukat, & Tharyan, 2016). Reputation, as understood via a sociological lens, is regarded as the result of collectively generated social impressions of a firm (Qiu, Shaukat, & Tharyan, 2016). In the realm of accounting, numerous scholars advocate for comprehensive endeavors aimed at enhancing the metrics used to evaluate investments in intangible assets (Tharyan, 2016).

According to Aragón-Correa, Marcus, and Hurtado-Torres (2016), reputation can be characterized by the following aspects: firstly, it serves as an external manifestation of a firm's internal identity, which is shaped by employees' understanding of the firm's societal role. Secondly, reputation is a summary of evaluations of a firm's past performance from various evaluators. Thirdly, it is formed by multiple but interconnected perceptions of the firm held by all stakeholders. Lastly, reputation encompasses two essential dimensions of a firm's effectiveness: its economic performance and its ability to fulfill social responsibilities. In line with the aforementioned attributes, the subsequent description is put forth: "A corporate reputation can be understood as a comprehensive portrayal of a company's previous endeavors and achievements, which elucidates the company's capacity to provide desirable outcomes to various stakeholders." The assessment measures the comparative position of a company, considering its internal perception among employees and external perception among stakeholders, within the contexts of both competition and institutional factors.Within the existing body of literature, the prevailing method employed to assess corporate reputation is through the utilization of reputation ranking studies and diverse reputation indices. Li, Huang, Ren, Chen, X., and Ning (2018) conducted a comprehensive analysis of six globally recognized reputation ranking surveys. The findings of their study indicate that these surveys primarily emphasize five key dimensions of reputation, namely financial performance, quality of management, social and environmental responsibility performance, employee quality, and the quality of goods/services provided. Nevertheless, reputation is a multifaceted attribute of a business, making it unfeasible for ranking studies to encompass all its dimensions. Consequently, every specific facet of reputation that a firm may forfeit is sometimes regarded as a risk to its overall reputation.

Qiu, Shaukat, and Tharyan (2016) suggested that in everyday interactions between organizations and their stakeholders, the firm's reputation is "at risk," with risks coming from a variety of directions, including strategic, operational, and financial ones.The recognition of reputation risk is intricately connected to the implementation of strategies aimed at mitigating and controlling these risks. There exists empirical evidence indicating that companies employ social and environmental disclosure as a strategy to mitigate reputation concerns. One instance is the survey conducted by KPMG (2013) on corporate sustainability reporting, which posited that a key motivation for social and environmental disclosure is the desire to cultivate a favorable brand image and reputation. In light of growing recognition among firms regarding the importance of effectively addressing various environmental, social, and ethical risks, there has been a notable increase in their allocation of resources towards endeavors that are expected to foster a favorable social and environmental standing. Nevertheless, in order to fully capitalize on the benefits derived from such a reputation, firms are required to engage in disclosure practices that are closely linked to these efforts. Numerous empirical research have examined the correlation between business reputation and corporate disclosure approach (Friedman & Miles, 2014; Toms, 2015; Hasseldine et al., 2016; Bebbington et al., 2017).

Friedman and Miles (2014) interviewed specialists in the field of socially responsible investing (SRI) to examine the relationship between corporate social and environmental disclosure and SRI. The authors proposed that the management of reputation risk occupies a prominent role in the corporate governance agenda, resulting in a heightened need for transparency of company social and environmental practices. This research is the inaugural endeavor to establish the possibility of social and environmental disclosure as a viable strategy for proficiently overseeing the environmental, ethical, and social standing of organizations. Nevertheless, this study is deficient in its omission of empirical analysis about the relationship between corporate social and environmental disclosure and company social repute. Toms (2015) examined the relationship between environmental disclosure and environmental reputation and found that the quality of disclosure, institutional shareholder power, and minimal systematic risk are associated with corporate environmental reputation. Toms (2015) conducted a study that evaluated the environmental reputation of corporations. The evaluation was conducted using the corporate reputation rankings according to the aspects of community and environmental responsibility as outlined in the Management Today survey. This survey specifically examined the most esteemed firms in Britain throughout the timeframe spanning from 2017 to 2018. The results of this study provide strong empirical support for the correlation between corporate disclosure strategies and environmental reputation.

Li, Huang, Ren, Chen, and Ning (2018) conducted a replication of the research conducted by Cormier and Magnan (2015) and found consistent results. Specifically, they validated that the quality of environmental disclosure, as opposed to the sheer number, significantly influenced the establishment of an organization's environmental reputation. Li, Huang, Ren, Chen, and Ning (2018) expanded upon their model by incorporating two other variables, namely research and development (R&D) investment, and diversification. Their findings indicated that these variables, under specific conditions, also had a significant role in shaping environmental reputation.

Cho, Michelon, Patten, and Roberts (2015), examined the notion that the disclosure of corporate social responsibility (CSR) can be considered as both a result and component of reputation risk management procedures. This inquiry involved a three-stage approach. The researchers formulated a theoretical framework for understanding corporate social responsibility disclosure in relation to reputation risk management based on a comprehensive analysis of Roberts' (2015) report. They determined that the incorporation of reputation risk management principles can enhance comprehension of corporate social responsibility disclosure practices. The growing popularity of reputation as an explanatory factor for corporate social and environmental disclosure is evident from surveys conducted among practitioners and academic research. Despite the growing attention and interest surrounding this field, there is a substantial need for additional research in this domain. Cho, Michelon, Patten, and Roberts (2015) conducted a study that solely focused on investigating the association between environmental disclosure and environmental reputation within the United Kingdom. However, there exists a dearth of research that explores the connection between corporate social and environmental disclosure and corporate social reputation in a developing nation.

2.5 Knowledge Gap

As previously mentioned, the majority of the extant academic literature focuses on empirical studies of social and environmental disclosure in industrialized nations. Few studies are available from developing nations, particularly those that have only recently undergone industrialization. Singh and Ahuja (2013), Hegde et al. (2015), and Belal (2014) are just a few of the scholarly papers that have looked at the corporate social and/or environmental disclosure processes in South Asia. Singh and Ahuja (2013) and Hegde et al. (2015) conducted an exhaustive analysis of the social disclosure procedures utilized by Indian public sector organizations. Hegde et al. (2015) state that public sector enterprises in India prioritize social welfare objectives over profit maximization. Consequently, these organizations are recognized for publishing social balance sheets, social income statements, and human resource accounts. Environmental disclosure practices were not analyzed as part of the aforementioned research. In order to rectify this disparity, Belal (2014) investigated the environmental disclosure practices of Bangladeshi businesses. The study entailed an analysis of thirty annual reports from Bangladeshi corporations for 2014. The analysis demonstrated that the level and standard of disclosure appeared insufficient and substandard in comparison to environmental disclosure practices observed in industrialized countries.

In addition, a number of researchers have studied social and environmental disclosure in the African context (Savage, 2015; Disu and Gray, 2017; Kisenyi and Gray, 2018; De Villiers and Van Staden, 2016). Savage (2015) examined a sample of 115 South African businesses and found that approximately 63% of these companies engaged in social disclosure. The typical length of such disclosures, however, was only half a page. In their 2015-2017 study, Disu and Gray (2017) examined a sample of 22 notable multinational corporations (MNCs) operating in Nigeria. Fewer than 25 percent of the companies, as determined by the researchers, disclosed information regarding environmental practices, equal opportunities, and customer concerns. In a separate study on social and environmental disclosure in Uganda, Kisenyi and Gray (2018) found that none of the four businesses examined provided any type of environmental disclosure. Despite the small sample size, this study revealed a lack of social and environmental transparency in Uganda. De Villiers and Van Staden (2013) investigated environmental disclosure practices within the context of South Africa in a more recent study. Their research encompassed nine years and revealed a decline in environmental disclosure following an initial period of growth. The authors argue that legitimacy theory can be used to explicate not only the mechanisms underlying the preservation or expansion of disclosure, but also the rationale behind disclosure reductions. In conclusion, developing nations lack research on social and environmental disclosure in comparison to more developed Western nations. The majority of the limited number of studies conducted in developing nations have solely examined the disclosure practices of corporations. There is a paucity of research examining the factors influencing social and environmental disclosure, attempting to elucidate the reasons for disclosure motivations, or investigating additional social and environmental disclosure-related aspects (Savage, 2015).

As previously mentioned, there is a paucity of scholarly literature on social and environmental disclosure within the context of developing nations in general, with a particular focus on the Chinese context. Prior research in the field of social and environmental disclosure has primarily utilized content analysis to examine the prevalence, characteristics, volume, and standard of disclosure found in corporate annual reports. Nevertheless, the evolution of literature has been marked by numerous modifications. The data sources used to analyze social and environmental disclosure have expanded beyond the traditional annual report to include a variety of reporting formats. In addition, the classification structure used for content analysis has been modified to accommodate a wider variety of reporting frameworks, including the GRI Sustainability Reporting Guidelines. In tandem with these changes, there have been commensurate modifications to research methodologies and instruments, which have subsequently been used to investigate social and environmental disclosure practices in developed nations (Disu & Gray, 2017).

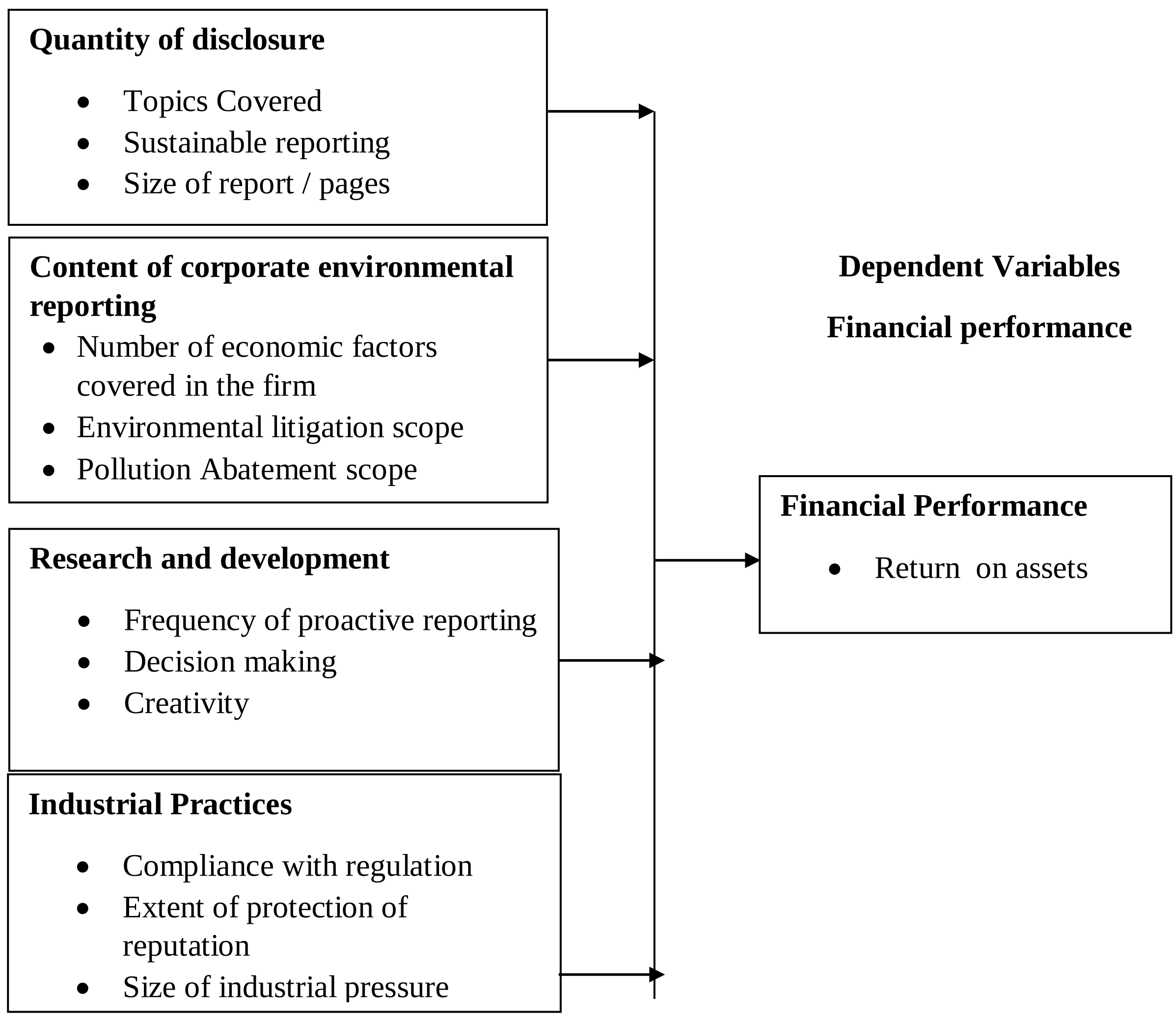
Moreover, the dynamics of power relations have transformed as a result of globalization's influences, a phenomenon of particular relevance to China given its recent adoption of globalizing forces. In emergent nations, particularly China, there is a dearth of extensive research on corporate social and environmental disclosure. This represents a significant knowledge gap throughout the 21st century, which is anticipated to fuel global responsible corporate development. Moreover, within the extant body of research on the Chinese context, the majority of studies take a descriptive approach, presenting only the information disclosed by enterprises. Nevertheless, these studies frequently lack a comprehensive analysis of the factors influencing firms' disclosure practices and theoretical explanations for their disclosure behavior. However, the existing corpus of work examining the factors that impact corporate social and environmental disclosure in affluent nations presents inconsistent results. In addition, there is a notable dearth of research in the existing literature investigating the relationship between social and environmental disclosure and company reputation. Existing research has examined the relationship between corporate governance and company reputation. However, there is a paucity of research examining the potential impact of social and environmental disclosure, such as a CSR report, in conjunction with various corporate governance elements on corporate reputation (Kisenyi & Gray, 2018)

In light of the aforementioned context, the current study seeks to address the disparity by conducting a contemporary empirical investigation of the prevalent social and environmental disclosure procedures of socially responsible Chinese listed companies. In addition, this study seeks to empirically investigate the relationship between stakeholder power and firms' disclosure of social and environmental information, drawing on prior research that highlights the impact of corporate attributes on social and environmental disclosure. Moreover, taking into account the corporate governance factors that have been acknowledged in prior scholarly research as having an impact on corporate reputation, this study aims to empirically investigate the relationship between the act of releasing a Corporate Social Responsibility (CSR) report and the level of disclosure quality within said report, as well as its effect on the business's social responsibility reputation (De Villiers & Van Staden, 2016).

2.6 Conceptual Framework

Independent Variables

Cooperate Environmental Reporting Disclosure



Adopted from Kisenyi and Gray, (2018)

Figure 2.1 Conceptual framework

The assessment of corporate environmental reporting encompasses various dimensions, including the volume of reporting, the substance of the information disclosed, the extent of investment in research and development, and the adherence to environmentally responsible industrial practices. This phenomenon has an impact on the financial performance as assessed by the metric of return on assets.

The quantity of disclosure, which served as the independent variable, was assessed by examining the themes addressed, the number of words each issue, and the size of the report on the disclosure mechanism. The measurement of disclosure content was conducted by assessing the extent to which various economic factors were addressed, as well as the scope of environmental lawsuits and pollution abatement measures. The assessment of research and development activities was conducted by evaluating the frequency of proactive reporting, the severity of decision consequences, and the cost implications associated with these decisions. The measurement of industrial practices encompasses three key factors: adherence to regulatory requirements, the level of reputation protection, and the magnitude of industrial influence.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter elucidates the research design and methodologies employed in conducting the research investigation. The structure of the document is comprised of the subsequent sections: research design, field of study, demographic of interest, methods of sampling and determination of sample size, instruments used for data collection, preliminary study, assessment of the validity and reliability of research instruments, procedures for data collection, ethical considerations, and concludes with techniques for data analysis and ethical considerations.

3.2 Study Area

The present study was conducted in Kenya, specifically focusing on manufacturing companies that are listed on the Nairobi Securities Exchange. The study excludes companies that were listed, delisted, or suspended during the specified period. The study focused exclusively on the annual reports of the corporations throughout a 10-year period, spanning from 2008 to 2018.

3.3 Research Design

A research design refers to the systematic plan that outlines the methods and procedures employed to gather the necessary information. The operational pattern or framework of a project determines the specific procedures and sources from which information is to be collected (Kuada, 2012). The following is the proposed methodology for conducting the research study. According to Kombo and Tromp (2006), a research design is the "glue" that connects all the components together as the scheme, outline, or strategy utilized to produce solutions to the research challenges. The present study utilized an descriptive and causal research approach to investigate the cause and effect relationship between dependent and independent variables.

3.4 Target Population

The target population is the entire collection of units for which the survey data are intended to be used to derive conclusions. According to Kothari (2006), the term "eligible population" alludes to the participants in research studies. According to Kombo and Tromp (2006), the target population is defined as the complete set of individuals or elements that a researcher is specifically interested in studying. It is the group for which the researcher aims to make inferences and draw conclusions. The target population refers to the specific group of individuals for whom researchers seek to obtain information. According to Ngechu (2004), a population refers to a well-defined collection of individuals, services, entities, occurrences, or groups of entities or households that are the subject of investigation. A study population refers to a cohort of persons selected from the broader community who possess a shared trait, such as age, gender, or health status. The research focused on individuals in senior management positions and staff in the finance department inside eight manufacturing companies that are listed on the NSE. These companies consisted of a total of 32 participants, with four participants selected from each organization.

Table 3.1 Target Population

Target Group	CEO/Director	Finance Department
Flame Tree Group Holdings	2	2
BOC Kenya Limited	2	2
British American Tobacco Limited	2	2
Carbacid Investments Limited	2	2
East African Breweries	2	2
Kenya Orchards Limited	2	2
Mumias Sugar Company Limited	2	2
Unga Group	2	2
Total	**16**	**16**

Source: Manufacturing Firms Report (2023)

The study employed census since the target population size is small at N=n=32

3.5 Data Collection Instruments

The data collection process included questionnaires as the study instruments. As stated by Kombo and Trump (2006), a questionnaire refers to a collection of printed or written inquiries accompanied by a selection of response options, designed to facilitate a survey or statistical investigation. According to Kombo and Trump (2006), a questionnaire can be defined as a document that consists of a series of questions, often distributed to a statistically significant sample of individuals, with the purpose of collecting data for a survey. Cooper (2008) defines a questionnaire as a research tool including a sequence of inquiries and supplementary prompts designed to collect data from participants. Structured closed-ended questionnaires were employed in order to elicit standardized replies from the participants. The closed questionnaire was designed using a Likert scale format, with a value of 5 assigned to the response option "strongly agree" (SA) as the highest rating on the scale, and a value of 1 assigned to the response option "strongly disagree" (SD) as the lowest rating. One notable benefit associated with the utilization of this particular instrument is the convenience it provides to the researcher during the analysis process. Additionally, questionnaires are characterized by their ease of administration and cost-effectiveness in terms of both time and financial resources. According to Cooper (2008), closed-ended questions offer a higher level of consistency and are more readily comprehensible. The utilization of structured questionnaires necessitates the provision of a comprehensive list encompassing all potential possibilities. Respondents are therefore able to indicate their circumstance by simply marking the appropriate answer (Kombo & Trump, 2006).

3.6 Validity and Reliability of research Instruments

3.6.1 Validity

The validity of the questionnaire was assessed by seeking expert advice. The supervisor assisted the researcher in evaluating whether the questionnaire effectively addressed all the study objectives, with the goal of assuring the collection of pertinent data. The viewpoint of the experts, specifically the supervisors who played a crucial part in assessing the validity and reliability of research tools, is of great importance (Kombo & Tromp, 2006). In order to establish the validity of the questionnaire, the researcher sought the input of experts and individuals with relevant experience to provide critique and offer suggestions on the structure and design of the survey instruments. The participants' comments were included into the questionnaires prior to the final administration of the instruments in the study. Furthermore, in the pilot study that was planned and executed, the researcher engaged in open and unrestricted communication with the participants. The amicable environment facilitated the researcher's identification of limitations in the research equipment, leading to further modifications prior to their use in the actual study. The researcher gained insights from the piloting process at Unga Group on respondents excluded in final study regarding the adequacy of variable representation for the purpose of obtaining relevant data. Furthermore, appropriate modifications were implemented in accordance with the circumstances.

3.6.2 Reliability

Reliability can be defined as the degree to which the outcomes of a test exhibit consistency. The study employed the test-retest procedure. The research methodology employed in this study entailed the distribution of questionnaires to distinct groups of respondents at separate points in time. The methodology entails the identification of a cohort of participants who are subjected to the initial examination, followed by the administration of identical questionnaires to another cohort thereafter. The two outcomes are subsequently examined for correlation, and any discrepancies are identified if present (Kombo & Tromp, 2006). The research utilized cronbach alpha. In general, a threshold of $\alpha > 0.7$ was established as indicative of sufficient reliability for each of the respective data sets, where α represents the variable under examination for reliability.

3.7 Data Collection Procedures

The researcher acquired a letter of recommendation from the University of Science and got approval from the management of the chosen manufacturing companies. In addition, the researchers requested a permit from the National Council for Science, Technology, and Innovation (NACOSTI) in order to conduct the study. Subsequently, the researcher proceeded to visit the designated manufacturing enterprises and directly administered the questionnaires to employees in managerial and financial roles. The participants were provided with instructions on how to reply and were then guaranteed secrecy. Following this, they were administered the questionnaires for completion.

3.8 Data Analysis

Kombo and Trump (2006) described data analysis as the procedure through which a huge amount of acquired data is arranged, structured, and interpreted. Both descriptive and inferential statistics were used in the investigation. Frequencies and percentages were used in the analysis to paint a whole picture. Inferential statistical methods like the Pearson correlation and simple linear regression analysis were used in this investigation. Descriptive statistical analyses, such as frequency and percentage calculations, were conducted using SPSS version 18 by the researchers. This made it possible to offer numerical information pertinent to the studies. Quantitative and qualitative data were collected using open-ended questions, with the latter being organized thematically and presented in narrative style. Multiple regression analysis was used to test the study's hypotheses. Once the relationship has been estimated, it becomes feasible to utilize the equation:

$$Y = \alpha + \beta_1 X_1 + \varepsilon$$

$$Y = \alpha + \beta_2 X_2 + \varepsilon$$

$$Y = \alpha + \beta_3 X_3 + \varepsilon$$

$$Y = \alpha + \beta_4 X_4 + \varepsilon$$

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: Y= the dependent variable (Financial Performance)

X = the independent variables (corporate environmental reporting disclosure)

X_1 – Quantity

X_2 – Content

X_3 – Research and Development

X_4 – Industry Practice

While: β_1, β_2, β_3, β_4 are independents variable coefficients

α= the constant

ε= is the error term assumed to have zero mean and independent across time period.

3.8.1 Diagnostic Test

The analysis encompassed tests for normalcy and multicollinearity. Multi-collinearity refers to a situation where there is a high correlation (r= 0.9 and above) between two or more predictor variables. This can be problematic in statistical analysis (Neuman, 2015). The study utilized Pearson Correlation and linearity test to conduct a Multi Collinearity test. A correlation coefficient (r) of 0.9 or higher shows the presence of multicollinearity. Additionally, the normality of the variance inflation factor and tolerance values was established (Neuman, 2015).

The study employed statistical tests to evaluate the extent to which the data deviated from normality, as proposed by Hair et al. (2010). The researcher conducted the Shapiro-Wilk test and the Kolmogorov-Smirnov test to examine normality. Both tests yielded results above the 0.05 significance level, indicating that the data followed a normal distribution.

3.9 Ethical Considerations

The researchers obtained permission from the appropriate authorities and participants who took part in the study. The researcher provided an explanation to the respondents regarding the nature and goal of the research. The researcher upheld the individual's rights in order to preserve their personal integrity. Participants in the study were guaranteed both anonymity and confidentiality during the duration of the research. The surveys did not include any names or personal identification numbers, with the exception of a numbering system used for identification purposes during data editing.

CHAPTER FOUR

RESEARCH RESULTS AND DISCUSSIONS

4.1 Introduction

Data from top management and finance department employees was obtained. From a sample of 32 only one person failed to respond giving a response rate of 96.8%.

4.2 Pilot Results

A total of 5 respondents from NSE manufacturing firms top tier were involved in the pilot. This respondents did not participate in the final study. Reliability of the test questionnaire was undertaken as shown in the table below. Values ranged between 0.779 to 0.814 hence values were 0.7 and above satisfying cronbach alpha statistical requirement of at least 0.7 value as shown under table 4.1.

Table 4.1: Reliability Table

Variable	Cronbach alpha
Quantity of disclosure	0.806
Content and quality	0.810
Research and development	0.814
Industry practice	0.771

Source: Author (2023)

4.3 Descriptive Analysis

Descriptive analysis was aided by frequency and percentage computations.

4.3.1 Background Information

Table 4.2: Gender

Gender	Frequency	Percent
Male	21	67.7
Female	10	32.3
Total	31	100.0

Source: Author (2023)

The Table 4.2 above established that 21 (67.7%) of respondents were male and, 10 (32.3%) were female. Listed manufacturing firms achieved a third gender rule which could have a positive effect on environmental corporate disclosure reporting and financial performance.

Table 4.3: Level of Education

Gender	Frequency	Percentage
Phd	1	3.2
Degree	24	77.4
Diploma	3	9.7
Masters	3	9.7
Total	**31**	**100.0**

Source: Author (2023)

The Table 4.3 above established that diploma holders were 3(9.7%) graduates constituted of 24 (77.4%), those with PhD were 1(3.2%) and masters were 3(9.7%). The level of education of top management and finance staff members was well constituted to enable performance in manufacturing listed firms at NSE .

Table 4.4: Working Experience

Experience	**Frequency**	**Percent**
Less than 2 year	2	6.5
2-5 years	2	6.5
Above 5 years	27	87.1
Total	**31**	**100.0**

Source: Author (2023)

Table 4.4 established the working experience of respondents where those with an experience of above 5 years were the majority at 27(87.1%), 2-5 years experience were 2(6.5%) and those less than 2 years were 2(6.5%). With working experience of over 5 years dominating employees were well positioned to enable performance for manufacturing listed firms.

4.3.2 Quantity of Disclosure of Corporate Environmental Reporting

Table 4.5 Quantity of Disclosure of Corporate Environmental Reporting

Quantity of Disclosure	SA	A	UD	D	SD
The annual reports of corporations encompass a comprehensive range of both financial and non-financial data.	7(22.6%)	5(16.1%)	5(16.1%)	8(25.8%)	6(19.4%)
Use of financial ratios makes it easy to understand financial information, while a study tool can be used to understand non-financial information.	14 (45.2%)	2(6.5%)	3(9.7%)	5(16.1%)	7(22.6%)
The analysis of social information disclosure sources includes annual reports, stand-alone reports, social responsibility reports, and the company's website.	14 (45.2%)	2(6.5%)	3(9.7%)	2(6.5%)	8(25.8%)
Topics covered are adequate	13(41.9%)	14(45.2%)	2(6.5%)	0(0%)	2(6.5%)
Size of the report is satisfactory	15(48.4%)	8(25.8%)	2(6.5%)	6(19.4%)	0(0%)

Source: Author (2023)

Table 4.5 presented above examines the potential impact of the extent of corporate environmental reporting on the financial performance of manufacturing firms listed at the Nairobi Securities Exchange. The majority of participants expressed a high level of agreement regarding the impact of disclosure quantity. The inquiry pertains to the inclusion of both financial and non-financial data inside the corporate annual reports of companies. 7(22.6%) highly agreed, 5(16.1%) agreed, 8(25.8%) disagreed, and

6(19.4%) severely disagreed while 5(16.1%) were indecisive. The question at hand pertains to the ease of interpreting financial information through the utilization of financial ratios, as opposed to the interpretation of non-financial information through the application of a research instrument. 14 (45.2%) strongly agreed, 2 (6.5%) agreed as 5 (16.1%) disapproved, and 3 (9.7%) were unsure as to whether they agreed or disagreed strongly.

On whether annual reports, stand-alone reports, social responsibility report or the company's website were analyzed as a source of social information disclosure 14 (45.2%) strongly agreed, 2(6.5%) agreed, 3(9.7%) were undecided, 2(6.5%) disagreed as 8(25.8%) strongly disagreed. On whether topics covered were adequate for disclosure 13(41.9%) strongly agreed, 14(45.2%) agreed, 2(6.5%) were undecided, none disagreed as 2(6.5%) strongly disagreed. On whether size of the report was satisfactory disclosure approach, 15(48.4%) strongly agreed, 8(25.8%) agreed, 2(6.5%) were undecided, 6(19.4%)disagreed and none strongly disagreed or was undecided. This study agrees with Lu and Abeysekera (2017) who found quantity of disclosure to be a significant predictor of financial performance of NSE firms. It however disagrees with to Hąbek and Wolniak (2016 who found quantity disclosure insignificant while studying agricultural firms which could be as a result of different scope of study.

4.3.3 Content and Quality of Corporate Environmental Reporting and Disclosure

Table 4.6 Content and Quality of Corporate Environmental Reporting and Disclosure

Content and Quality	SA	A	UD	D	SD
The quality of environmental disclosure is often difficult to measure and it remains an area of controversy	16(51.6%)	12(38.7%)	0(0%)	3(9.7%)	0(0%)
The major difficulty lies in the fact that there is no generally accepted measurement of disclosure quality.	15(48.4%)	8(25.8%)	2(6.5%)	6(19.4%)	0(0%)
Many corporate environmental disclosures relies on the Wiseman index in order to measure the extent or quality of environmental disclosure	16(51.6%)	4(12.9%)	7(22.6%)	4(12.9%)	0(0%)
Number of economic factors covered is adequate	16(51.6%)	4(12.9%)	7(22.6%)	0(0%)	4(12.9%)
Environmental litigation scope is well covered	18(58.1%)	11(35.5%)	2(6.5%)	0(0%)	0(0%)
Pollution abatement scope is well covered	20(64.5%)	9(29.0%)	0(0%)	2(6.5%)	0(0%)

Source: Author (2023)

Table 4.6 presented above examines the potential impact of the content and quality of corporate environmental reporting and disclosure on the financial performance of manufacturing firms listed at the Nairobi Securities Exchange. It is often difficult to measure the quality of environmental disclosure, and it remains a contentious issue, as 16 (51.6%) respondents strongly agreed, 12 (38.5%) agreed, none disagreed, and 3 (9.2%) strongly disagreed. The primary challenge pertained to the absence of a universally recognized metric for evaluating the quality of disclosure. While 6(19.4%) disagreed, 2(6.5%) were undecided, 8(25.8%), 15(48.4%) strongly agreed, and 2(6.5%) agreed.

On whether many corporate environmental disclosures relies on the Wiseman index in order to measure the extent or quality of environmental disclosure 16(51.6%) strongly agreed, 4(12.9%)agreed, 7(22.6%) were undecided, 4(12.9%) disagreed while none strongly disagreed. On whether the number of economic factors covered is adequate 16(51.6%) strongly agreed, 4(12.9%)agreed, 7(22.6%) undecided as 4(12.9%) disagreed. On whether environmental litigation scope was well covered 18(58.1%) strongly agreed, 11(35.5%) agreed, 2(6.5%) were undecided and none disagreed or strongly disagreed. On whether pollution abatement scope was well covered 20(64.5%) strongly agreed, 9(29.0%) agreed, 8(14.0%) none was undecided, 2(6.5%) disagreed. The study agrees with Bewley and Li (2016) who examined factors associated with environmental disclosures in Canada from a voluntary disclosure theory perspective. The study found quantity of disclosure to be significant on performance. The study is disagreement with Schaltegger and Burritt (2017) who found content and quality of disclosure insignificant on financial performance of banks. This could be due to different scope banks and manufacturing firms hence different results.

4.3.4 Research and Development of Corporate Environmental Reporting and Disclosure

Table 4.7 Research and Development of Corporate Environmental Reporting and Disclosure

Research and Development	SA	A	UD	D	SD
Voluntary disclosure largely depends on managerial decision-makers' will.	19(61.3%)	9(29%)	0(0%)	2(6.5%)	2(6.5%)
Decision-makers might withhold some information if they perceived that investors did not need it or could easily find it from other alternative sources.	14(45.2%)	13(41.9%)	0(0%)	2(6.5%)	2(6.5%)
Firms with higher levels of toxic releases have higher levels of environmental disclosure.	15(48.4%)	8(25.8%)	2(6.5%)	6(19.4%)	0(0%)
The motivation of firms' proactive disclosure is to prevent possible threats to their legitimacy.	14(45.2%)	7(22.6%)	2(6.5%)	3(9.7%)	5(16.1%)
Frequency of proactive reporting	14(45.2%)	8(25.8%)	4(12.9%)	3(9.7%)	2(6.5%)
Cost impact on decision is well covered	13(41.9%)	14(45.2%)	0(0%)	2(6.5%)	2(6.5%)

Source: Author (2023)

Table 4.7 demonstrates whether the research and development of corporate environmental reporting and disclosure affected the financial performance of manufacturing companies listed on the Nairobi Securities exchange. Considering that managerial decision-makers have a substantial impact on voluntary disclosure, 19(61.3%) respondents strongly agreed, 9(29%) agreed, 6(10.5%) were undecided, 2(6.5%) disagreed, and 2(6.5%) disagreed vehemently. On whether decision-makers could withhold some information if they perceived that investors did not need it or could readily find it from other alternative sources 14 (45.2%) of respondents concurred, while 26 (45.6%) agreed. None of the 13 (41.9%) respondents were undecided, 2 (6.5%) disagreed, and 2 (6.5%) strongly disagreed.

Concerning whether firms with greater levels of toxic emissions have greater environmental disclosure. 15 (48.4%) were strongly in agreement, 8 (25.8%) were in agreement, 2 (6.5%) were undecided, and 6 (19.4%) were in disagreement, but none were strongly in disagreement. Whether firms' proactive disclosure is motivated by the desire to prevent potential threats to their legitimacy. 5(16.1%) strongly disagreed, 7(22.6%) concurred, 2(6.5%) were undecided, 3(9.7%) disagreed, and 14(45.2%) strongly agreed. Whether cost impact on decision was adequately discussed None was undecided, 13(41.9%) strongly concurred, 14(45.2%) agreed, 2(6.5%) disagreed, and 2(6.5%) strongly disagreed. According to (Milne & Patten, 2015; Van Staden & Hooks, 2016), research and development is a significant factor in the financial performance of publicly traded companies. The study contradicts the findings of Hummel and Schlick (2016), who found research and development to be difficult and therefore insignificant on performance.

4.3.5 Industry Practice of Corporate Environmental Reporting and Disclosure

Table 4.8 Industry Practice of Corporate Environmental Reporting and Disclosure

Industry Practice	SA	A	UD	D	SD
It is necessary to take into account the complexity of external and internal factors that might lead firms to disclose social responsibility information	19(61.3%)	9(29.0%)	1(3.2%)	2(6.5%)	0(0%)
Reputation is viewed as an intangible asset with the potential for value creation	20(64.5%)	9(29.0%)	0(0%)	2(6.5%)	0(0%)
Compliance with industrial regulation is ok	8(25.8%)	7(22.6%)	6(19.4%)	5(16.1%)	5(16.1%)
Extent of protection of reputation is good	14(45.2%)	7(22.6%)	5(16.1%)	3(9.7%)	2(6.5%)
Size of industrial pressure is big	14(45.2%)	7(22.6%)	2(6.5%)	3(9.7%)	4(12.9%)

Source: Author (2023)

Table 4.8 above shows if the way the manufacturing industry reports and shares information about the environment affects the financial success of companies listed on the Nairobi Securities exchange. Regarding whether it was necessary to take into consideration the complexity of external and internal factors that could motivate businesses to disclose social responsibility information. 19(61.3%) respondents strongly agreed, 9(29.0%) concurred, 1(3.2%) were unsure, and 2(6.5%) disagreed. Regarding whether reputation was regarded as an intangible asset with value-generation potential. 20(64.5%) strongly agreed, 9(29.0%) agreed, none were undecided, 2(6.5%) disagreed.

On whether compliance with industrial regulation is commendable 8(25.8%) strongly agreed, 7(22.6%) agreed, 6(19.4%) undecided as 5(16.1%) disagreed while 5(16.1%) strongly disagreed.

On whether extent of protection of reputation was good 14(45.2%) strongly agreed, 7(22.6%) agreed, 5(16.1%) were undecided as 3(9.7%) disagreed as 2(6.5%) strongly disagreed. On whether the size of industrial pressure was big 14(45.2%) strongly agreed, 7(22.6%) agreed, 2(6.5%) were undecided as 3(9.7%) disagreed as 4(12.9%)strongly disagreed. The study agrees with Fombrun, (2015) who found industry practice as significant on financial performance of manufacturing firms. This study disagrees with Fombrun and Van Riel, 2014 who found industry practice insignificant on performance of an industry.

4.4 Inferential Results for Primary Data

Correlation analysis based on quantity of disclosure, content and quality, research and development and industry practice was presented. Regression was done for each independent variable.

4. 4.1 Assumptions of Regression

4.4.1.1 Multi-collinearity Test

Table 4.9 Collinearity Statistics

Variable	Value of Tolerance	Variance Inflation Factors
Quantity of disclosure	.137	3.605
Content and quality	.359	2.797
Research and development	.526	2.805
Industry practice	.139	6.477

Source: Author (2023)

Table 4.9 above shows test undertaken and since VIF values were below 10 as tolerance value were below 1 hence absence of multi-collinearity problem (Lind, Marchal & Wathen, 2008).

4.4.1.2 Normality test

According to Ghasemi and Zahedias (2012) when Kolmogorov-Smirnov test and Shapiro-Wilk test values significance < 0.05 data is set to be normal. The data set was normal since values were significance< 0.05.

Table 4.10:Tests of Normality

	Kolmogorov-Sm			Shapiro-W		
	Stat	Diff	Sign.	Stat	Diff	Sign.
Quantity of disclosure	.492	31	.012	.811	31	.012
Content and quality	.571	31	.037	.806	31	.000
Research and development	.341	31	.015	.951	31	.015
Industry practice	.306	31	.021	.812	31	.052

Source: Author (2023)

4.5 Correlation analysis

The bivariate correlation, which quantifies the relationship between two variables, was calculated for the observed data using the Pearson product-moment correlation coefficient (r). The values of r fall between the range of 0 to +1, representing the lower and upper bounds of no correlation and perfect correlation, respectively. This coefficient quantifies the degree to which a linear relationship is present between two variables. The findings of the correlation study are displayed in Table 4.11.

4.5.1 Pearson Correlation Analysis

Table 4.11 Pearson Correlation Analysis

		Quantity disclosure	Content quality	Research and development	Industry practice	Performance
Quantity disclosure	Pearson Correlation	1	.767**	.773**	.798**	.751*
	Sig. (2-tailed)		.000	.000	.000	.012
	N	31	31	31	31	10
Content quality	Pearson Correlation	.767**	1	.815**	.759**	.662*
	Sig. (2-tailed)	.000		.000	.000	.037
	N	31	31	31	31	10
Research and development	Pearson Correlation	.773**	.815**	1	.780**	.739*
	Sig. (2-tailed)	.000	.000		.000	.015
	N	31	31	31	31	10
Industry practice	Pearson Correlation	.798**	.759**	.780**	1	.713*
	Sig. (2-tailed)	.000	.000	.000		.021
	N	31	31	31	31	10
performance	Pearson Correlation	.751*	.662*	.739*	.713*	1
	Sig. (2-tailed)	.012	.037	.015	.021	
	N	10	10	10	10	10

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Author (2023)

The results confirms that at 0.05 level of significance, quantity disclosure was a significant predictor of financial performance among listed manufacturing companies in Kenya (r = 0.751, p-value =0.000 < 0.012). This implies that an augmentation in the extent of information revealed results in a corresponding enhancement in the overall financial performance. Conversely, a statistically significant and positive correlation was seen between content and quality and financial performance in the context of listed manufacturing companies in Kenya. This association was evidenced by a Pearson correlation coefficient of $r = 0.662$, with a p-value of 0.000, indicating significance at a level of 0.05. This suggests that a higher quantity and improved credibility of authoritative content leads to enhanced financial performance. The findings of the study also provided confirmation that, at a significance level of 0.05, research and development exhibited a substantial predictive relationship with financial performance ($r = 0.739$, p-value $= 0.015 < 0.05$). An increase in research and development leads to an increase in financial performance. Lastly, the results showed that at 0.05 level of significance, industry practice was a significant predictor of financial performance ($r = 0.713$ p-value $= 0.000 < 0.021$).

4.6 Regression Analysis

The study sought to establish the effect of corporate environmental reporting and disclosure on financial performance of manufacturing companies listed NSE. This study focused on investigating the impact of the extent of corporate environmental reporting on the financial performance of manufacturing firms listed in the Nairobi Securities Exchange. Additionally, it analyzed the influence of the content of corporate environmental reporting and disclosure on the financial performance of these firms. Furthermore, it assessed the effects of research and development activities related to corporate environmental reporting and disclosure on financial performance. Lastly, it examined the effect of industry practices in corporate environmental reporting on the financial performance of manufacturing firms listed in the Nairobi Securities Exchange.

4.6.1 Effect of Quantity of Disclosure on Financial Performance of NSE Listed Manufacturing Firms

The objective of this study was to examine the impact of disclosure quantity on the financial performance of manufacturing enterprises listed on the Nairobi Securities Exchange (NSE). To establish this, a simple linear regression test was employed. The study employed a null hypothesis, which was evaluated at a significance level of 0.05.

Table 4.12: Effect of Quantity of Disclosure on Financial Performance of NSE Listed Manufacturing Firms

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics: R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.751[a]	.564	.509	.22087	.564	10.331	1	8	.012	1.549

a. Predictors: (Constant), quantity disclosure

b. Dependent Variable: performance

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.504	1	.504	10.331	.012[a]
	Residual	.390	8	.049		
	Total	.894	9			

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2.930	.294		9.971	.000
	Quantity disclosure	.357	.111	.751	3.214	.012

a. Dependent Variable: performance

Source: Researcher, (2023)

The results in table 4.12 above shows that the R-square was 0.564 implying, variation of financial performance at 56.4% among listed manufacturing firms was explained by quantity of disclosure. At 0.05 level of significance the ANOVA test indicated that quantity of disclosure was important in predicting financial performance among listed manufacturing firms at NSE as indicated by the significance value=0.012 which was less than 0.05 level of significance ($p=0.012 <0.05$). Thus, quantity of disclosure had a significant influence on financial performance among listed manufacturing firms at NSE (t-statistic=9.971, p-value=0.012< 0.05). The null hypothesis was rejected and alternative hypothesis that quantity of disclosure has a significant effect on financial performance among listed manufacturing firms at NSE was accepted. Quantity of disclosure increased financial performance among listed manufacturing firms at NSE by 0.357.The regression model equation was:

$Y=2.930+0.357$

This study agrees with Lu and Abeysekera (2017) who found quantity of disclosure to be a significant predictor of financial performance of NSE firms. It however disagrees with to Hąbek and Wolniak (2016 who found quantity disclosure insignificant while studying agricultural firms which could be as a result of different scope of study.

4.6.2 Effect of Content and Quality on Financial Performance of NSE Listed Manufacturing Firms

The study sought to establish the effect of effect of content and quality on financial performance of NSE listed manufacturing firms. To establish this, simple linear regression test was used. The study utilized the following null hypothesis which was tested at 0.05 level of significance.

Table 4.13: Effect of Content and Quality on Financial Performance of NSE Listed Manufacturing Firms

Model Summary[b]

					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.662[a]	.439	.368	.25053	.439	6.248	1	8	.037	1.475

a. Predictors: (Constant), contentquality

b. Dependent Variable: Log10performance

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.392	1	.392	6.248	.037[a]
	Residual	.502	8	.063		
	Total	.894	9			

a. Predictors: (Constant), contentquality

b. Dependent Variable: Log10performance

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	T	Sig.
1	(Constant)	1.849	.803		2.302	.050
	Content quality	.574	.229	.662	2.500	.037

a. Dependent Variable: Log10performance

Source: Researcher, (2023)

Results in table 4.13 showed that R-square was 0.439 implying that variation of 43.9% of financial performance among listed manufacturing firms at NSE was explained by content and quality. Content and quality was important in predicting financial performance as indicated by significance value=0.037 which was less than 0.05 level of significance ($p=0.037< 0.05$). The study findings revealed that content and quality had a significant effect on financial performance among listed manufacturing firms at NSE (t-statistic=2.302, p-value=0.037< 0.05). The null hypothesis was rejected and alternative hypothesis that content and quality of disclosure has a significant effect on financial performance among listed manufacturing firms at NSE was accepted. Content and quality increased financial performance among listed manufacturing firms at NSE by 0.574.The regression model equation was:

$Y=1.849+0.574$

The study agrees with Bewley and Li (2016) who examined factors associated with environmental disclosures in Canada from a voluntary disclosure theory perspective. The study found quantity of disclosure to be significant on performance. The study is disagreement with Schaltegger and Burritt (2017) who found content and quality of disclosure insignificant on financial performance of banks. This could be due to different scope banks and manufacturing firms hence different results.

4.6.3 Effect of Research and Development on Financial Performance of NSE Listed Manufacturing Firms

The study sought to establish the effect of research and development on financial performance of NSE listed manufacturing firms. To establish this, simple linear regression test was used. The study utilized the following null hypothesis which was tested at 0.05 level of significance.

Table 4.14: Effect of Research and Development on Financial Performance of NSE Listed Manufacturing Firms

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics: R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.739[a]	.546	.489	.22532	.546	9.614	1	8	.015	1.442

a. Predictors: (Constant), research and development

b. Dependent Variable: performance

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.488	1	.488	9.614	.015[a]
	Residual	.406	8	.051		
	Total	.894	9			

a. Predictors: (Constant), research and development

b. Dependent Variable: Performance

Coefficients[a]

Model		Unstandardized Coefficients: B	Std. Error	Standardized Coefficients: Beta	t	Sig.
1	(Constant)	2.421	.465		5.202	.001
	Research and development	.549	.177	.739	3.101	.015

a. Dependent Variable: performance

Source: Researcher, (2023)

Results in table 4.14 showed that R-square was 0.546 implying that, variation of 54.6% of financial performance among listed manufacturing firms at NSE was explained by research and development. Research and development was important in predicting financial performance among listed manufacturing firms at NSE ($p=0.015< 0.05$). Research and development significantly affected financial performance among listed manufacturing firms at NSE (t-statistic=5.202, p-value=0.000<0.015). The null hypothesis was rejected and the alternative hypothesis that research and development had a significant effect on financial performance was accepted. Therefore, we conclude that research and development does affect financial performance. For every unit increase in research and development there was a corresponding increase on financial performance among listed manufacturing firms at NSE by 0.549.The regression model equation is:

Y=2.421+0.549

The findings agrees with (Milne &Patten, 2015; Van Staden & Hooks, 2016) who found research and development as a significant factor on financial performance of listed firms. The study disagrees with Hummel and Schlick (2016) who found research and development to be strenuous hence insignificant on performance.

4.6.4 Effect of Industry Practice on Financial Performance of NSE Listed Manufacturing Firms

The study sought to establish the effect of industry practice on financial performance of NSE listed manufacturing firms. To establish this, simple linear regression test was used. The study utilized the following null hypothesis which was tested at 0.05 level of significance.

Table 4.15: Effect of Industry Practice on Financial Performance of NSE Listed Manufacturing Firms

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics: R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.713[a]	.508	.446	.23458	.508	8.252	1	8	.021	1.740

a. Predictors: (Constant), industry practice

b. Dependent Variable: Performance

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.454	1	.454	8.252	.021[a]
	Residual	.440	8	.055		
	Total	.894	9			

a. Predictors: (Constant), industry practice

b. Dependent Variable: performance

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3.034	.293		10.357	.000
	Industry practice	.332	.116	.713	2.873	.021

a. Dependent Variable: Performance

Source: Researcher, (2023)

Results in table 4.15 showed that R-square was 0.508 implying that, variation of 50.8% of financial performance among listed manufacturing firms at NSE was explained by industry practice. Industry practice was important in predicting financial performance among listed manufacturing firms at NSE ($p=0.021<0.05$). Industry practice significantly affects financial performance among listed manufacturing firms at NSE (t-statistic=10.357, p-value=0.021<0.05).

The null hypothesis was rejected and the alternative hypothesis that industry practice had a significant effect on financial performance was accepted. Therefore, we conclude that industry practice does affect financial performance. For every unit increase in industry practice there was a corresponding increase on financial performance among listed manufacturing firms at NSE by 0.549.The regression model equation is:

$Y=2.421+0.549$

The study agrees with Fombrun, (2015) who found industry practice as significant on financial performance of manufacturing firms. This study disagrees with Fombrun and Van Riel, 2014 who found industry practice insignificant on performance of an industry.

Table 4.16: Multiple Regression Model

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics: R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.865[a]	.831	.796	.10150	.731	26.935	3	6	.001	2.100

a. Predictors: (Constant), research development, content quality, quantity disclosure

b. Dependent Variable: Log10performance

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.832	3	.277	26.935	.001[a]
	Residual	.062	6	.010		
	Total	.894	9			

a. Predictors: (Constant), research development, content quality, industry practice, quantity disclosure

b. Dependent Variable: Log10performance

Coefficients[a]

Model		Unstandardized Coefficients: B	Std. Error	Standardized Coefficients: Beta	t	Sig.
1	(Constant)	3.003	.493		6.087	.001
	Content quality	.712	.126	.822	5.646	.001
	Industry practice	.713	.127	.823	5.647	.001
	Quantity disclosure	1.700	.388	3.578	4.378	.005
	Research development	2.311	.630	-3.113	3.669	.010

a. Dependent Variable: Log10performance

Source: Researcher, (2023)

Results in table 4.16 showed that R-square was 0.831 implying that, variation of 83.1% of financial performance among listed manufacturing firms at NSE was explained by corporate environmental reporting disclosure. corporate environmental reporting disclosure variables ($p<0.05$) confirmed they were significant. Content quality (t-statistic=5.646, p-value=0.001<0.05), Industry practice (t-statistic=5.647, p-value=0.001<0.05), Quantity disclosure (t-statistic=4.378, p-value=0.005<0.05), Research development (t-statistic=3.669, p-value=0.010<0.05).

The null hypothesis were rejected and the alternative hypothesis that corporate environmental reporting disclosure had a significant effect on financial performance was accepted. Therefore, we conclude that corporate environmental reporting disclosure does affect financial performance. For every unit increase in corporate environmental reporting disclosure there was a corresponding increase on financial performance among listed manufacturing firms at NSE. The regression model equation is:

$Y=3.003+0.712X_1+0.713X_2+1.7X_3+2.311X_4$

The study agrees with Fombrun, (2015) who found respective corporate environmental reporting disclosure as significant on financial performance of manufacturing firms.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1Introduction

This Chapter presented a summary of the study findings, conclusions, recommendations and suggestions for further research.

5.2 Summary of the Findings

This study sought to establish the effect of corporate environmental reporting disclosure and financial performance among listed manufacturing firms at NSE. The study found that financial performance is attained through combined efforts of quantity of disclosure, content and quality, research and development as well as industry practice. The 5% level of significance confirmed effect of corporate environmental reporting disclosure as follows: quantity of disclosure ($p=0.012 < 0.05$); content and quality ($p=0.000 < 0.05$), research and development ($p=0.000< 0.05$) and industry practice ($p=0.000< 0.05$) was a significant predictor of financial performance among listed manufacturing firms at NSE.

5.2.1 Quantity of disclosure

Quantity of disclosure was well responded on as 65.2% agreed that it affected financial performance. Based on the first objective, the study found out that quantity of disclosure had a significant effect on financial performance among listed manufacturing firms at NSE (t-statistic=9.971, p-value=0.012< 0.05).

5.2.2 Content and Quality

Content and quality of disclosure was well responded on as 61.6% agreed that it affected financial performance. In regard to the second objective, the study findings indicated that content and quality had a significant effect on financial performance among listed manufacturing firms at NSE (t-statistic=2.302, p-value=0.037< 0.05).

5.2.3 Research and development

Research and development on disclosure was well responded on as 51.6% agreed that it affected financial performance. Based on the third objective, the study found out that research and development had a significant effect on financial performance among listed manufacturing firms at NSE (t-statistic=5.202, p-value=0.000<0.015).

5.2.4 Industry practice

Research and development on disclosure was well responded on as 64.5% agreed that it affected financial performance. Finally, the fourth objective study findings confirmed that industry practice had a significant effect on financial performance among listed manufacturing firms at NSE (t-statistic=10.357, p-value=0.021<0.05).

5.3 Conclusion

Quantity of disclosure corporate environmental reporting disclosure had a significant effect on financial performance for listed manufacturing firms at NSE. Quantity disclosure elements were assessed through topics covered, number of words per issue and size of report.

Content and Quality corporate environmental reporting disclosure had a significant effect on financial performance for listed manufacturing firms at NSE. In explaining Content and Quality the number of economic factors covered, the environmental litigation scope and pollution abatement scope gained practice.

Research and development corporate environmental reporting disclosure had a significant effect on financial performance for listed manufacturing firms at NSE. The frequency of proactive reporting, magnitude of decision and cost impacts on decisions guided research and development.

Industry practice corporate environmental reporting disclosure had a significant effect on financial performance for listed manufacturing firms at NSE. This was attained under compliance with regulation, extent of protection of reputation and size of industrial pressure.

5.4 Recommendations

Based on findings and conclusions the following recommendations were formulated Manufacturing companies should disclose information to enable trust since accountability will easily be achieved through quantity of information disclosed.

Manufacturing companies should report information objectively by capturing the content of information and display it in the best quality form as much as possible

Manufacturing companies needs growth hence use of research and design will increase the scope of financial growth through innovation and new disclosure trends that will lead to prosperity.

Manufacturing companies should employ industry practice trends especially compliance to keep them within the law so as to ensure they compete favourably and achieve financial performance.

5.5 Suggestion for Further Research

The study was on manufacturing companies listed at Nairobi security exchange, there are many sectors under NSE, a further study on Banks listed or agricultural firms listed is recommended. Furthermore corporate financial reporting disclosure can be conducted factoring in a moderating variable the firm size.

Further study can be conducted using other corporate environmental disclosure measures such as board independence and financial leverage. The dependent variable financial performance can be measured in future studies using earnings per share, Return on equity and profit margin."

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APPENDIX I: QUESTIONNAIRE

Directions: For each statement below, please mark appropriately against each statement.

There is no right or wrong answers, so please respond as honestly as possible.

Section A: General information

1. What is your Gender?

   ( ) Male ( ) Female

2. What is your level of education?

   ( ) Masters

   ( ) PhD

3. How long have you worked in this company?

   Less than 2 years

   Between 2-5 years

   Above 5 Years

Objective I: Quantity of Disclosure of Corporate Environmental Reporting

To what extent do you agree with the following statements on quantity of disclosure of corporate environmental reporting?

Key: SA- Strongly Agree, A- Agree, D- Disagree, SD- Strongly Disagree, UD- Not Decided

	SA	A	UD	D	SD
1. Corporate annual reports of firms contain both financial and non-financial information.					
2. Financial information can be easily interpreted with the use of financial ratios while non-financial information can be interpreted with the use of a research tool					
3. The amount of information can be measured per category or per company by counting the data terms					
4. Annual reports, stand-alone reports, social responsibility report or the company's website is analyzed as a source of social information disclosure.					
5.Topics covered are adequate					
6.Size of the report is satisfactory					

Objective 2: Content and Quality of Corporate Environmental Reporting and Disclosure

To what extent do you agree with the following statements on content and quality of corporate environmental reporting and disclosure ?

Key: SA- Strongly Agree, A- Agree, D- Disagree, SD- Strongly Disagree, UD- Not Decided

1.The quality of environmental disclosure is often difficult to measure and it remains an area of controversy	SA	A	UD	D	SD
2.The major difficulty lies in the fact that there is no generally accepted measurement of disclosure quality.					
3.Many corporate environmental disclosures relies on the Wiseman index in order to measure the extent or quality of environmental disclosure.					
4.Number of economic factors covered is adequate					
5.Environmental litigation scope is well covered					
6.Pollution abatement scope is well covered					

Objective 3: Research and Development of Corporate Environmental Reporting and Disclosure

To what extent do you agree with the following statements on research and development of corporate environmental reporting and disclosure ?

Key: SA- Strongly Agree, A- Agree, D- Disagree, SD- Strongly Disagree, UD- Not Decided

	SA	A	UD	D	SD
1.Voluntary disclosure largely depends on managerial decision-makers' will.					
2.Decision-makers might withhold some information if they perceived that investors did not need it or could easily find it from other alternative sources.					
3.Firms with higher levels of toxic releases have higher levels of environmental disclosure.					
4.The motivation of firms' proactive disclosure is to prevent possible threats to their legitimacy.					
5.Frequency of proactive reporting					
6.Cost impact on decision is well covered					

Objective 4: Industry Practice of Corporate Environmental Reporting and Disclosure

To what extent do you agree with the following statements on industry practice of corporate environmental reporting and disclosure?

Key: SA- Strongly Agree, A- Agree, D- Disagree, SD- Strongly Disagree, UD- Not Decided

	SA	A	UD	D	SD
1.It is necessary to take into account the complexity of external and internal factors that might lead firms to disclose social responsibility information					
2.Reputation is viewed as an intangible asset with the potential for value creation					
3.Corporate reputation is rooted in the sense-making experiences of employees					
4.Compliance with industrial regulation is ok					
5.Extent of protection of reputation is good					
6.Size of industrial pressure is big					

APPENDIX II: SECONDARY DATA TEMPLATE

ITEM	2018	2019	2020	2021	2022
Total Income					
Total Assets					