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The Determinants and extent of whistleblowing policy disclosures of companies listed on the Nairobi Securities Exchange

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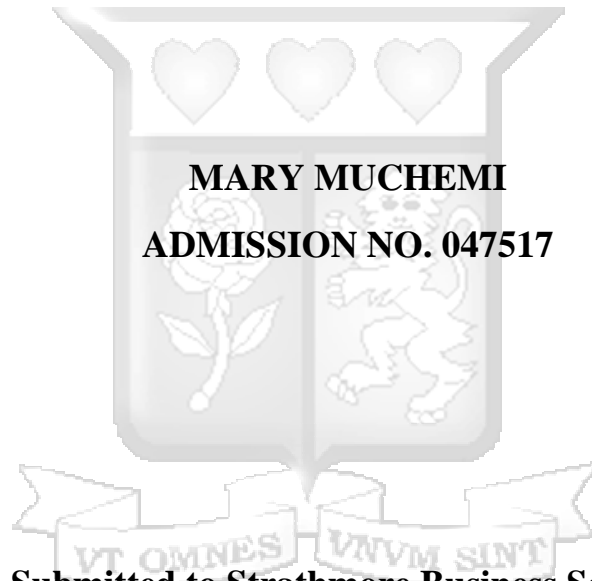
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**THE DETERMINANTS AND EXTENT OF WHISTLEBLOWING
POLICY DISCLOSURES OF COMPANIES LISTED ON THE
NAIROBI SECURITIES EXCHANGE**



**MARY MUCHEMI
ADMISSION NO. 047517**

**A Thesis Submitted to Strathmore Business School in Partial
Fulfillment of the Degree of Master of Commerce of Strathmore
University**

June 2019

DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

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Mary Muchemi

.....

18 June 2019

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TABLE OF CONTENTS

DECLARATION	i
TABLE OF CONTENTS.....	ii
LIST OF TABLES	v
LIST OF FIGURES	vi
DEDICATION.....	viii
ACKNOWLEDGEMENTS.....	ix
ABSTRACT.....	1
CHAPTER ONE.....	2
INTRODUCTION	2
1.1 Background	2
1.2 Statement of the Problem.....	6
1.3 Research Objectives.....	7
1.3.1 General Objective.....	7
1.3.2 Specific Objectives	7
1.4 Research Questions	8
1.5 Scope of the Study.....	8
1.6 Significance of the Study	8
1.7 Organization of the document.....	9
CHAPTER TWO	10
LITERATURE REVIEW	10
2.1 Introduction	10
2.2 Legitimacy theory	10
2.3 Institutional theory	11
2.4 Empirical Review of Extant Literature	14
2.4.1 Determinants of whistleblowing policy disclosures	15
2.5 Critique of the Literature.....	21
2.6 Conceptual Framework	21
2.6.1 Operationalization of the Study Variables.....	24
2.7 Chapter Summary.....	24
CHAPTER THREE	26

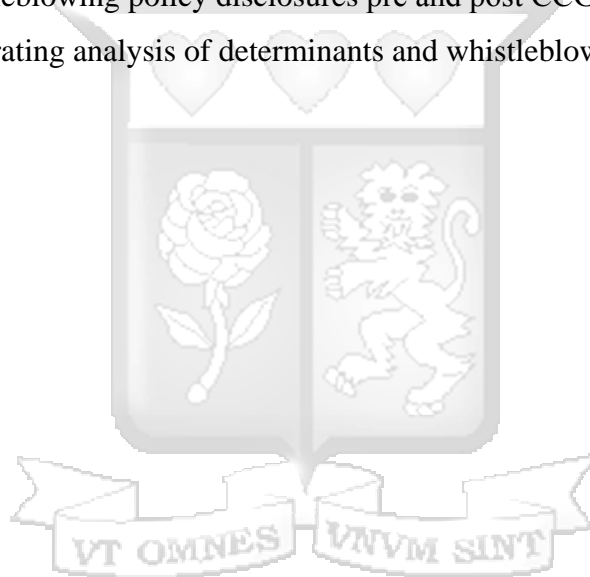
RESEARCH METHODOLOGY	26
3.1 Introduction	26
3.2 Research Philosophy	26
3.3 Research Design	27
3.4 Population.....	27
3.5 Data Collection Methods.....	27
3.6 Data Analysis	28
3.7 Research Quality	29
3.8 Ethical Issues in Research	31
CHAPTER FOUR.....	32
PRESENTATION OF RESEARCH FINDINGS	32
4.1 Introduction	32
4.2 Sample Characteristics	32
4.3 Diagnostic tests	33
4.4 Descriptive statistics.....	35
4.5 Correlation analysis.....	37
4.6 Regression analysis	40
4.7 Whistleblowing policy disclosures pre and post-CCGI	41
4.8 Moderation effect of the CCGI	44
4.9 Summary of Results	47
4.10 Summary of the Chapter	48
CHAPTER FIVE	49
DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS.....	49
5.1 Introduction	49
5.2 Summary of the Findings	49
5.3 Conclusions	53
5.4 Contribution to Knowledge.....	53
5.5 Recommendations	53
5.6 Suggestions for Further Research	54
5.7 Limitations of the Research.....	55
REFERENCES	57
APPENDICES	67

APPENDIX 1: Introduction letter	67
APPENDIX 2: Ethical approval.....	68
APPENDIX 3: Disclosure index	69
APPENDIX 4: Disclosure scores of disclosure index items.....	71
APPENDIX 5: Normality table.....	73
APPENDIX 6: NSE companies	74



LIST OF TABLES

Table 2.1: Measures and sources of the determinants	23
Table 4.1: Sample representation	30
Table 4.2: Sample representation by industry	31
Table 4.3: Test results for multicollinearity using variance inflation factors	33
Table 4.4: Average whistleblowing policy disclosures	34
Table 4.5: Descriptive statistics for other variables	35
Table 4.6: Pearson correlation matrix	37
Table 4.7: Regression analysis of determinants and whistleblowing policy disclosures.	38
Table 4.8: Whistleblowing policy disclosures pre and post CCGI	39
Table 4.9: Moderating analysis of determinants and whistleblowing policy disclosures	43



LIST OF FIGURES

Figure 1: Conceptual framework	22
Figure 2: Tests of normality	32
Figure 3: Whistleblowing policy disclosures over the period	41
Figure 4: Specific whistleblowing policy disclosures over time	42
Figure 5: Graphical representation of the moderating effect of the CCGI	47



ABBREVIATIONS

CA	Current Assets
CCGI	Code of Corporate Governance Practices for Issuers of Securities to the Public 2015
GLM	Generalized Linear Model
KLR	Kenya Law Reports
No	Number
NSE	Nairobi Securities Exchange
VIF	Variance Inflation Factors
WB	Whistleblowing



DEDICATION

I would like to dedicate this work to future whistleblowers. May you have the courage to speak up, raise your voices, stand for what is right, whatever the cost, despite a world that deals with what it doesn't want to hear by crucifying the messenger.



ACKNOWLEDGEMENTS

I wish to thank my parents, my siblings and friends for their unwavering support, prayers and encouragement on this journey. To my supervisor, Dr. David Mathuva, I am indebted to you for all your guidance on this project. I deeply appreciate it. And finally to God, I could never have finished this without your presence, grace and strength at every stage. Receive all the glory.



ABSTRACT

The purpose of this study was to investigate the determinants and extent of whistleblowing policy disclosures of companies that are listed on the Nairobi Securities Exchange (NSE). A disclosure index was developed and used to quantify the extent of disclosures. The association between whistleblowing policy disclosures and determinants related to the firm's characteristics, its legal environment, the ethical environment as well as corporate governance characteristics were also investigated. The study utilized the legitimacy and institutional theories (coercive isomorphism) to evaluate the extent of disclosures. The study measured the extent of disclosures of whistleblowing policies in the annual reports of NSE listed companies and the moderating effect of implementation of the Code of Corporate Governance Practices for Issuers of Securities to the Public 2015 (Code) using a disclosure index. Based on a review of the NSE listed company websites and annual reports, the study found that there is a low whistleblowing policy disclosure. Most key determinants had a positive association with the scope or extent of whistleblowing policy disclosures with firm size being the exception as it was found to be negatively correlated in this study. The study also found that the implementation of the 2015 Code led to an increase in the extent of whistleblowing policy disclosures and adds weight to the theory that companies will legitimate their activities by increasing their disclosures in a shifting regulatory policy context.

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CHAPTER ONE

INTRODUCTION

1.1 Background

Whistle-blowing has been defined by Transparency International as the “disclosure of information about perceived wrongdoing in an organization, or the risk thereof, to individuals or entities believed to be able to effect action” (2012). It has also been described by Near & Miceli (1985) as "the disclosure by organization members (former or current) of illegal, immoral, or illegitimate practices under the control of their employers, to persons or organizations that may be able to effect action". Whistle-blowing is a preventive measure that is used to decrease the likelihood of malpractice and irregularities occurring within an organization. It is a tool that helps organizations monitor their business principles and policies more effectively by creating a mechanism where information about irregularities can be obtained early and acted upon. An effective whistleblowing system allows fraud to be detected on a timely basis and gives the company the opportunity to investigate the reported matter thereby minimizing the cost of fraud (Chung et al., 2004). Bowden and Smythe (2009), Paul and Townsend (1996), and Miceli et al. (2009), emphasize that it is significant because it also avoids litigation, claims for damages and increases staff commitment and loyalty. By so doing, it increase the safety and welfare of employee.

The findings of a report submitted by the Association of Certified Fraud Examiners to the Nations on Occupational Fraud and Abuse for Sub-Saharan Africa (2018), revealed that tips - whistleblowing - was the most common means through which fraud was identified (40% and above of cases). When organizations had a hotline for reporting misconduct, 48% of cases were detectable, compared to only 25% in organizations without a hotline. Organizations with hotlines had 50% smaller fraud losses compared to those without. The importance of whistle-blowing as a means of detecting fraud was clear because more cases were discovered this way than the next three detection methods (internal audit, management review and account reconciliation) combined. Further just over half of all tips provided were by employees of the victim organizations while about a third were from

outsiders (customers, vendors, and competitors). In addition 14% of the tips were made anonymously showing that a large number of whistleblowers did not want to be known.

Whistleblowing policies indicate a firm's commitment to listening to any reports of wrongdoing and addressing them in the right manner. In so doing, they emphasize the importance of acting ethically which improves the organizations ethical climate (Weller, 1988). In addition, when proper training/communication of the policy is carried out to employees and other stakeholders, it makes them aware of the facilities they can make use of to report any concerns. For example, if employees are aware of the telephone hotline, they are likely to utilize it in the event they have something to report as opposed to going to other channels such as the media or the regulator. Thus, employees have a higher likelihood of blowing the whistle using internal channels if they are aware of them (Miceli and Near, 1988).

Whistleblowing policies have also been seen to reduce employees' fear of retaliation because they provide guidance on the appropriate action that should be taken by a whistleblower when needed. Studies have shown that there is a higher chance that an employee will reveal information to an external party if there is a possibility of retaliation. Jos et al. (1989) affirm this noting that employees have a higher likelihood of blowing the whistle to outsiders when reprisals are present. Keenan (1990) notes that when workers in a company are afraid of retaliation, they perceive their employer as being unable to provide sufficient protection in the event of retaliation, and therefore cultivating an atmosphere that discourages whistleblowing.

Having a whistleblowing policy is important but not enough. It is imperative that the right actions are taken when a matter is reported and that the whistleblower is not victimized. The company leaders must be seen to support whistleblowers and not intimidate them as well respond quickly to investigate the wrongdoing and take corrective action. It must also protect those who blow the whistle from retaliation, including job loss. If employees perceive that the company is not responsive to instances of whistleblowing they will want to blow the whistle or utilize the channels provide by the company.

Near and Miceli (1987) found that when whistleblowers knew where they could disclose information, they had a greater likelihood of doing so, but this was also influenced by the

potential whistleblowers perception of whether the channel was effective. They add that if the potential whistleblower perceives the channel to be ineffective, they would rather not report a matter or they may decide to report it using another channel. It can therefore be concluded that if organizations put in place good whistleblowing policies and respond effectively when any matters arise, it increases the chance that potential whistleblowers will use the prescribed medium to raise concerns about ethical issues. Knowing exactly where to disclose information regarding potential misconduct or unethical practices is particularly important when it involves an employee's immediate supervisor or other employees in management positions. By being aware of where to share information, employees are more likely to feel empowered to report wrongdoing when it involves those in authority over them. To encourage these kinds of disclosures, organizations should have written policies and a commitment to treat all wrongdoings fairly at all levels of the organization. Regularly reviewing these policies and their implementation, including what happens if wrongdoing is suspected or observed and making amends when the approach is ineffective, is beneficial. In addition, employees need to feel confident that their supervisor will not initiate any reprisal against them, and this needs to be emphasized both within the policy as well as in practice.

1.1.1 Whistleblowing in Kenya

Transparency International Kenya in their August 2006 report said that having whistleblowing laws in itself does not guarantee that wrongdoing will be reported. Instead, it is when whistleblowers have assurance of protection under existing laws that they are confident in blowing the whistle. They refer to the Goldenberg scandal, a significant financial scandal in Kenya involving approximately \$1 billion and another case where a journalist fled the country for two years when he blew the whistle on the Anglo Leasing scandal in which a government tender of over 90 million Kenya shillings was allegedly awarded to a phantom company.

Kenya does not have a specific whistleblower protection law. There are however provisions in other pieces of legislation aimed at reducing corruption, encouraging good governance and providing assurance to any individual who has witnessed a crime that they are protected against retaliation. These legislations include the 2003 Anti-Corruption and

Economic Crimes Act as well as The Public Officer Ethics Act of 2003. In addition, the 2006 Witness Protection Act and the Bribery Act and the Access to Information Act both legislated in 2016, also describe important provisions for whistleblowers.

Section 65 (1) of the Anti-Corruption and Economic Crimes Act (2003) provides protection for persons that provide assistance or disclose information to the Ethics and Anti-Corruption Commission (EACC) or its investigators. The Bribery Act (2016) protects whistleblowers in the public and private spheres. It defines a whistleblower as one who makes a report to the Ethics and Anti-Corruption Commission (EACC) or other law enforcement agencies on bribery. Whereas this Act provides for penalties to those who are responsible for retaliation to whistleblowers, it does not provide remedies for whistleblowers that suffer negative consequences because of reporting unethical conduct. Additionally, this Act requires all law enforcement agencies to put up measures to protect whistleblowers but does not compel other government agencies or private entities to do the same, making whistleblowers more vulnerable.

Section 41 of The Public Officer Ethics Act (2003) discourages whistleblowing as it states that “A person who, without lawful excuse, divulges information acquired in the course of acting under the Act is guilty of an offence and is liable, on conviction, to a fine not exceeding five million shillings or to imprisonment for a term not exceeding five years or to both”. However, the Access to Information Act (2016) permits members of the public to request for information from the government and mandates public servants to ensure that they avail the information, or otherwise risk incurring heavy penalties or even serve time in jail. In the third section of the 2006 Witness Protection Act (2006) protection is provided only to those who are willing to testify in court. For example, it provided protection to many witnesses in the International Criminal Court (ICC) in relation to the 2007 post-election violence (Bowry, 2012).

The Code of Corporate Governance Practices for Issuers of Securities to the Public 2015 (CCGI) sets out principles as well as specific guidelines that listed or unlisted companies issuing securities to the public should follow so as to ensure that quality governance practices are a core element in their corporate culture and business processes. Although the CCGI was effected on 15 December 2015 and immediate implementation was encouraged,

companies had no later than one year, that is, by 15 December 2016, before implementation was mandated. Companies are therefore expected to have a statement of policy regarding good governance as well as the status of the application, at the close of each year in their annual reports.

The CCGI (2015) stipulates that the board is responsible for establishing a whistleblowing policy for the company and monitoring its effectiveness. The objective of this kind of policy is to ensure employees have the necessary support and feel empowered to speak up and report anything they deem improper, unethical or inappropriate. In addition, it encourages identification and challenging of misconduct at all levels within the company, as well as provides clear guidelines for how it should be reported. Furthermore, the policy ensures that all disclosures are taken seriously, and that confidentiality is upheld, and takes measures to reassure employees against any fears related to retaliation. Finally, the policy ensures that a proper system is in place so that disclosures are managed in a professional, consistent and timely manner. The CCGI requires that the board shares its whistleblowing policy on its website as well as in its annual company report. According to Transparency International Kenya's Business Integrity Country Agenda (BICA) report (2018), there is limited information on the guidelines that public and private organizations utilize for reporting misconduct to sufficiently safeguard employees who want to divulge information regarding wrongdoing. .

1.2 Statement of the Problem

The training provided by organizations about whistle-blowing is an important determinant for employees on whether or not they will report wrongdoing using internal systems or external ones. When employees are made aware of the whistleblowing channels and processes, the employer demonstrates their support for whistleblowing (Cho & Song, 2015). Furthermore, when employees know what channels are available for them to report encourages them to speak up in the event they observe wrongdoing (Berry, 2004; Near & Miceli, 2008). Based on research carried out by Near and Miceli (1996), lack of awareness of the organization's internal reporting mechanism was a factor that made an employee report misconduct or unethical practices using another channel.

Whistleblowing policy disclosures are a significant element in the establishment of effective systems for whistleblowing within a company because research has shown that the intention to report grows as the quality of the policies also increases (Barnett et al. 1993; Schwartz 2001). According to Somers (2001), there were less wrongdoings or incidences of misconduct in companies with ethical guidelines or codes. In addition, Barnett et al. (1993) noted that individuals within a company were more likely to report unethical behaviours when internal policies were present. It can therefore be inferred that the reporting behaviours of employees in regards to whistleblowing are influenced by whether or not whistleblowing policies are present and of high quality as well as their perceived effectiveness.

The CCGI requires that the boards of companies disclose their whistleblowing policy in their annual report and website. This study therefore sought to establish the extent of whistleblowing policy disclosures by those companies that are listed on the NSE through examining their annual reports and websites for compliance with the CCGI. This research study also investigated specific determinants which have an influence on the scope of whistleblowing policy disclosures by NSE-listed companies.

1.3 Research Objectives

1.3.1 General Objective

This research focused on examining the determinants and extent of whistleblowing policy disclosures of companies which are listed on the Nairobi Securities Exchange.

1.3.2 Specific Objectives

The specific objectives were:

1. To establish the extent of whistleblowing policy disclosures in the annual reports and websites of companies which are listed on the Nairobi Securities Exchange.
2. To investigate the determinants of whistleblowing policy disclosures by companies listed on the Nairobi Securities Exchange.

3. To examine the moderating effect of The Code of Corporate Governance Practices for Issuers of Securities to the Public 2015 on the association between the whistleblowing policy disclosures and its determinants.

1.4 Research Questions

The research questions for this study were:

1. What is the extent of whistleblowing policy disclosures in the annual reports and websites of companies listed on the Nairobi Securities Exchange?
2. What are the determinants of whistleblowing policy disclosures by companies listed on the Nairobi Securities Exchange?
3. What is the moderating effect of The Code of Corporate Governance Practices for Issuers of Securities to the Public 2015 on the association between the whistleblowing policy disclosures and its determinants?

1.5 Scope of the Study

This study looked at whistleblowing policy disclosures in the websites and annual reports of all companies listed on the NSE during the period 2013 to 2018. The main justification for using NSE companies is because of the general interest that capital providers (investors, lenders, creditors, etc.) have in these companies as compared to private companies.

Furthermore, NSE companies are mandated by law to publish their financial statements annually and since 2016 must include information on their whistleblowing policy in their annual reports and websites. Further, NSE companies are more visible and likely to have websites and thus have a greater chance of having their annual reports on their websites. In addition, they have a higher likelihood of providing information regarding their whistleblowing policy on their websites.

1.6 Significance of the Study

This research can help companies take a closer look at what they are currently reporting regarding their whistleblowing policies and make some adjustments to ensure that they are

providing the right information online through their websites as well as their annual company reports.

Regulators may also benefit from the findings of this research by having information about what NSE listed companies are reporting on their whistleblowing policies. In addition, regulators can use this knowledge to come up with relevant standards for whistleblowing policy disclosures so as to protect employees or third parties with reporting intentions to improve their trust in company's whistleblowing systems.

This research will also contribute to a greater appreciation for ways the disclosure theories are applied in a developing capital market. This study will also provide empirical evidence investigating the association or relationship between variables that are company-specific and the extent of disclosures, thus contributing to a deeper understanding of the way quality disclosure is achieved. By analysing company characteristics in relation to disclosure, insights into the explanatory power of theories are obtained.

1.7 Organization of the document

This thesis has five chapters. The first looks at the problem, the research objectives, the scope and justification of the research. The second one offers a review of the relevant literature and theories that relate to disclosures as well as their determinants. The third describes the research design and methodology that will be utilized in the study. The fourth outlines the findings of the research while chapter five discusses the interpretation of results, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This second chapter starts with a review of two theories followed by what other researchers have found in regards to whistleblowing policy disclosures. The next section of the chapter looks at the determinants of whistleblowing policy disclosures, how they are evaluated and what other researchers have used to do this. In the last section of the chapter, the researcher examines the conceptual framework and discusses the different variables and how they are interrelated.

2.2 Legitimacy theory

Legitimacy theory has to do with the perception that an organization is constantly striving to function within the norms or values that are set out by the society in which it is operating in. (Deegan 2009). This theory implies that a ‘social contract’ between a company and the communities in existence around it (Deegan & Samkin 2009 and Deegan 2006). This contract is about whether the organisation is operating according to the expectations of society. A company tries to ensure that it abides by the standards of society so as not to lose its legitimacy since maintaining their honour in the eyes of society is important for the company’s continued survival.

Societies have both explicit and implicit expectations. These expectations shaped by the law, can be considered an explicit expectation or legal requirement. There are also non-legislative societal exceptions which can be described as implicit expectations and are shaped by the moral standards and values of the community. As such, society’s expectation of legitimacy could be explicit or implicit.

Corporations may lose their legitimacy even when their ways of operating have not changed. O’Donovan (2002, p. 348) stated that this could occur because of a change in social awareness, media influence, pressure from lobby groups and pressure from regulatory or institutional sources. They may also lose their legitimacy when members of the public concerned with a specific issue become aware of new information (Milne &

Patten, 2002). In this scenario, company operations may still be running the same way for some time, but its relevant public are not aware of the information. In addition, it may have been difficult to obtain information that is now easily accessible to the public with some help from government. When this information is readily available to the public, corporations need to close any actual or potential legitimacy gaps.

Companies use various strategies, such as public disclosure, to close their legitimacy gap with the public (Lindblom, 1994). Whistleblowing policy disclosures, for instance, can be seen as one of the public disclosure tools used by corporations to maintain or reclaim their legitimacy. According to Lang and Lundholm (1993), the annual company's report is the primary means of communication about its legitimate activities. Whistleblowing has become a significant issue and the public expects corporations to respond. This pressure can force companies to change their business activities and, in some cases, their business structure and today, they face a legitimacy threat. In order for them to continue business operations in a corrupt and fraud-ridden economy, it is crucial for companies to have measures in place in order to mitigate fraud risk as well as corruption. Companies must also take responsibility in informing society about their whistleblowing policies to be legitimate in society. This research suggests that following expiration of the CCGI effective date, more companies that are listed on the NSE have provided whistleblowing policy disclosures in their annual report to legitimize their activities.

2.3 Institutional theory

Institutional theory addresses various organizational forms and seeks to provide an understanding behind the homogeneous characteristics or forms that are present among organizations that are considered to be in the same "organisational field" (Fernando and Lawrence, 2014). An organizational field has been defined by DiMaggio and Powell (1983) as those organizations that holistically have a recognized or shared institutional life which includes elements such as: "key suppliers, resource and product consumers, regulatory agencies, and other organisations that produce similar services or products". Institutional theory notes that organizations operate in a framework that is shaped by assumptions, social norms and values which in turn determines which economic behaviours a society deems as acceptable or appropriate Oliver (1991). Therefore, in

accordance with institutional theory, it is in the best interests of organizations to conform to the expectations of an organizational field they stand to gain the capability to survive, an increase in legitimacy, as well as resources for continued existence (Scott 1987). DiMaggio and Powell (1983) have argued that when the structures within an organizational field are in place, it results in the emergence of forceful powers within a society that then cause the constituent organizations in the field to become more alike. Institutional theory consists of two dimensions: decoupling and isomorphism. Decoupling, involves the discrepancy between an organization's external image, and its daily practices. Dillard, Rigsby, and Goodman (2004) define decoupling as a situation whereby the formal organizational structure is distinct and separate from its organizational practices. A company's actual practices may or may not align with the external expectations of the public, and this separation may either be an intentional or unintentional action of the organization (Moll et. al., 2006). In relating decoupling to CSR reporting practice, Deegan (2009) notes that decoupling may be linked to elements of legitimacy theory because environmental and social disclosures can compel organizations to portray an image of themselves that could be distinctly different from their actual social and environmental practices. Thus, through their corporate reports, an organization may create an image of social and environmental responsibility and yet in actuality, managerial practices are fuelled more by maximizing profits and increasing shareholder value (Deegan, 2009).

Isomorphism, on the other hand, refers to the constraining forces that compel one unit within a population to become similar to the other units because they are facing conditions within their environment that are the same (DiMaggio & Powell, 1983). They further note that isomorphism best describes the process that occurs during homogenization. Moll, Burns, and Major (2006) view isomorphism as broken down into two types: competitive and institutional. Competitive isomorphism, as the name suggests, has to do with the competitive forces that compel organizations to put in place the most efficient structures as well as adopt practices that are least costly (Moll et al., 2006).

According to DiMaggio & Powell (1983), institutional isomorphism consists of three different kinds of isomorphism processes that are described as: coercive, mimetic and normative. Coercive isomorphism stems from the pressure exerted by critical stakeholders such as shareholders, employees or the government and causes an organization to change

its institutional practices (Deegan 2009). Coercive isomorphism works to create homogeneity within organizations because a company may feel coerced to align their practices according to the expectations and demands of its most significant stakeholders. These critical stakeholders, such as the government and regulatory bodies, may also have the same expectations of other organizations, thus resulting in uniformity of institutional practices across different companies.

When a regulating body uses its coercive pressure that is informed by the legal and political institutions, it impacts an organization's decisions, including the choice about what information they are required to reveal (DiMaggio and Powell 1983; Scott, 1995). Thus, the legal environment becomes a prime example of coercive pressure since the authority of the law is considered a higher force that supersedes the organizational authority.

Principally, coercive pressure, which comes about from the authority, both legal and political, which is exercised by a regulator (DiMaggio and Powell 1983; Scott, 1995), causes companies to reveal mandatory information. The company's legal environment is a good example of coercive pressure where legal authority is greater than the organisational authority.

As legal environments have become more pervasive, a number of changes in regulations have been made and these in turn require structural adjustments within organizations. The more that organizations are willing to adjust their internal structures and environment in response to the demands of new legal developments, the more they can maintain or enhance their legitimacy (Chen and Roberts, 2010).

Mimetic isomorphism takes place when a company does not know what action it should take and therefore emulates the behaviour of other companies which are more successful or legitimate in its operating environment (Skelcher et al. 2015). A company that does not adopt the behaviours of others in its industry risks losing legitimacy (Unerman and Bennett, 2004).

Normative isomorphism relates to the beliefs, values and norms held by companies operating in the same environment (Tucker 2010). It is largely driven by professions as the formal training and memberships determine what is considered as acceptable in a company's environment (De Villiers and Alexander, 2014).

Institutional isomorphism undergirds this research as it underscores the significance of an influential stakeholder in an organization's policies increasing homogeneity among constituent members. In this research, the focus is on the influence of one critical stakeholder, namely, the Capital Markets Authority (CMA), on whistleblower policy disclosures by companies listed on the NSE. CMA's introduction of the mandatory requirement for all publicly listed companies to include their whistleblower policies in their annual reports as well as websites effective 4 March 2016, was necessitated by the need to enhance transparency and improve the level of whistleblowing policy disclosures in Kenya. It is therefore anticipated that there will be a significant increase in the extent of whistleblower policy disclosures as a direct reaction to the demands made by the regulator. Thus, this research hypothesizes that the extent of whistleblower policy disclosures by NSE-listed companies increases between 2013 and 2018.

2.4 Empirical Review of Extant Literature

Those who use financial statements of companies have made increasing demands for better quality information. The annual reports and websites of companies are a primary medium through which leaders of organizations use to disseminate relevant information to various stakeholders. Wallace et al. (1995) and Owusu-Ansah (1998) both describe disclosure as the dissemination or communication of economic information about a company's financial position and its performance. This information can take various forms including financial or non-financial and quantitative or otherwise.

Mandatory disclosure stipulates the minimum amount of information that must be contained within a company's report (Owusu-Ansah, 1998). Not surprisingly, regulators often compel companies to share the kinds of information that companies may prefer to remain hidden). Thus, one of the primary concerns for regulatory bodies is to ensure they protect and preserve the wellbeing of the ordinary investors by putting in place disclosure regulations (Watts & Zimmerman, 1986 and Taplin et al., 2002). In addition, Healy et al., 1999, argue that regulators seek to shorten the information gap by requiring a minimum level of disclosure in order to ultimately redistribute the wealth between those investors who are informed and those who are not. Furthermore, the existence of a disclosure regulation increases the credibility of the information in the capital markets, and thus in

turn increases the credibility of the company's financial capabilities (Al-Htaybat et al., 2006). In this research, the Capital Markets Authority (CMA) in Kenya requires mandatory disclosure of whistleblowing policies in their yearly reports and in websites of all companies that are listed on the NSE.

Disclosure is often qualitative and narrative in nature and is not easily measured objectively (Leuz et al., 2008). Determining what financial information is meaningful and considered high-quality disclosure to users of this information is challenging because there is little to no guidance. Disclosure is therefore measured differently. One common way, is to base it on the experts' perceptions of what investors consider important and useful. For instance, financial analysts from different groups provided their expertise during the development of ratings by some researchers, although critics have noted that the rankings may have been biased due to the influence of the objectives of potential sell-side analysts (Lang et al., 1993; Healy et al., 1999; Nagar et al., 2003). Others have measured disclosure by constructing their own checklists (Aljifri, 2008, Bruslerie et al., 2010, Cooke, 1989, Cerf, 1961; Omar et al., 2011).

2.4.1 Determinants of whistleblowing policy disclosures

For an effective internal whistleblowing system to be established, a significantly high level of disclosure to the employees within a company is required. The robustness of the kind of whistleblowing system that is implemented, and therefore reflected in a company's disclosures, will inevitably be influenced by the costs versus benefits of implementation. This study will examine factors that are related to the firm, including: economic, legal, ethical and corporate governance. The factors impacting each company include its size, cash, inventory and accounts receivables in relation to current assets, the number of cases reported in Kenya Law Reports, its cross-listing status, the existence of an active hotline service, independence of the audit committee, concentrated shareholding and an explicit statement of commitment to fighting fraud. Each of these factors are examined next.

2.4.1.1 Firm characteristics

i) Firm size

Since large companies have significantly greater publicity within their societal context (Watts and Zimmermann, 1986), there is a higher likelihood that they will act in accordance with the societal expectations. (Gray et al. 1995). One of these expectations may be the implementation of a whistleblowing system and the demand that the company discloses information about it to various stakeholders. There is therefore greater pressure for larger companies to implement whistleblowing systems and have greater disclosures in this regard, than smaller ones.

Direct oversight and control of employees' actions is challenging for large companies and this may therefore encourage the use of hotlines for reporting wrongdoing (Calderon-Cuadrado et al., 2009). Further to this, the bureaucracy that is commonplace in most large companies can stifle upward communication of information with employees perceiving that finding the right manager to look into a critical matter is difficult or impossible. Managers in these companies will ensure that they disclose comprehensive information regarding their whistleblowing policy to ensure that employees are clear about where to report any concerns therefore avoiding reputational and other types of damage (Near and Miceli, 1987).

Large companies also have a higher likelihood of sharing more information due to the large number of stakeholders they are accountable to, including customers, suppliers, investors and analysts. These stakeholders demand more information about the company as it has an impact on their activities and the company may have to oblige.

Large companies are likely to incur fewer costs in the implementation of whistleblowing systems when compared to smaller ones due to the differences in their economic capabilities (McWilliams and Siegel, 2001). In addition, since smaller companies may incur greater average costs compared to the benefits, they may choose not to implement a whistleblowing system.

A large company's impact on the economy can be considerable especially if they employ a large number of staff, consume or import a large quantity and value of raw material or

produce a large quantity of goods and services. As a result, they must also navigate political pressures such as the expectation from society to engage in initiatives that demonstrate social responsibility, as well as regulations like higher taxes, price controls, as well as the threat of being nationalized (Jensen and Meckling (1978). To minimize this, they disclose less information as it removes them from the spotlight of policy makers (Wallace et al., 1994). Furthermore, some managers may consider certain information to be exclusive as it could cause loss of competitive advantage thus lowering profits (Dye 1985a). As a result they would minimize the disclosure of such information.

ii) Current assets

Current assets are generally at a higher risk of fraud. Companies with higher levels of cash, inventory and accounts receivables have a greater probability of exposure to internal control risks, including those that are related to timely recognition, proper measurement, recording as well as misreporting due to theft (Ashbaugh-Skaife et al. 2007). In their study findings, Ashbaugh-Skaife et al. (2007) noted that internal control deficits were more likely to be reported by firms that had a higher level of inventory in comparison to those with lower levels. It is therefore predicted that those companies which have more current assets (cash, inventory and accounts receivables) have a greater likelihood of implementing a whistleblowing system so as to proactively mitigate fraud risk.

2.4.1.2 Legal environment

i) Number of reported cases

The risk of litigation often prompts firms to make voluntary disclosures. Field et al. (2005), note that when firms are faced with possible litigation, they are more likely to voluntarily disclose information. In addition, those organization with bad news also have a higher chance of releasing information in order to prevent the likelihood of a lawsuit. The possibility of litigation is therefore an important factor that managers within an organization consider when deciding whether or not to disclose information. Thus, the risk of litigation increases the likelihood of a company making voluntary disclosures. Companies with a greater risk of litigation or those with adverse information tend to reveal more so as to decrease the likelihood of potential litigation.

ii) Cross-listing status

Registering a company for trading on a foreign stock exchange means that it may have to abide by the regulations of that market which including disclosures in yearly reports that are over and above those of the home stock exchange. This expected increase in the level of detail assumes that the minimum information required by the foreign country is higher than that which is expected in the home country, although this may not always be the case (Choi, 1973 and Meek and Gray (1989). For instance, in the US, audit committees are required to put in place proper systems for receiving, retaining as well as handling complaints obtained by the company including information regarding accounting, auditing matters, internal accounting controls, as well as any whistleblowing submissions (Sarbanes-Oxley Act, 2002). Thus, US cross-listed companies have a greater likelihood of having well-established whistleblowing policies and hotline services (Worlton 2005).

It can therefore be argued that a company that has a listing in its home and a foreign stock exchange would provide greater level of information in its annual report compared to a company listed only in its local exchange. This is because the company may have to abide by the disclosure guidelines of more than one stock exchange and is likely to adhere to the one with the highest requirements. However, Biddle and Saudagaran (1989 and 1991) found that companies may also be in foreign markets that have lesser requirements of disclosure when compared to their local exchange market.

Information in the yearly reports of listed and unlisted companies likely varies. Federation des Experts Comptables Europeens IFEE (1992) found that in Europe listed companies provided a greater level of detail when compared to unlisted companies as revealed in their yearly reports. Having the registered office of a company in another country is not the same as listing one's company in the foreign stock exchange. It only makes it necessary for the company to comply with the accounting regulations in the foreign nation since it must regularly file reports with the relevant authority in that country.

2.4.1.3 Ethical environment

Existence of active hotline service

A good whistleblowing policy is one that has credibility. Weaver et al. (1999) point out that simply having a whistleblowing policy is not the same as a good system and therefore

does not guarantee credibility. In addition, Hassink et al. (2007) argue that a standard whistleblowing policy may lack credibility as it likely does not adapt the policy to fit the dynamics of its establishment. Weaver et al, (1999) observed that companies they analyzed complied with the cost-effective symbolic ethical requirements by adopting various codes and policies, however, a significant number of these companies failed in implementation and enforcement of the guidelines in their daily operations. Thus, an effective whistleblowing system requires not only a good policy but implementation and continuous monitoring.

Standards Australia (2003) recommended the adoption of highly visible and dedicated reporting tools such as hotlines by companies committed to developing effective whistleblowing mechanisms. ACFE (2018) have found that hotlines are the most utilized and effective form of reporting fraud and that their presence decreases losses incurred through fraud by the highest percentage. This is because they can allow for anonymity when reporting which reduces the likelihood of retaliation against the whistleblower (Bierstaker et al., 2006; Holtfreter 2005). It also allows employees to report at their convenience especially if it is a 24-hour service (Asgary and Mitschow 2002). The set-up of hotlines by companies often allows for employees located in different geographical locations to utilize the same channel which makes it cost-effective (Bierstaker et al. 2006 and Calderon-Cuadrado et al. 2009). Lastly, having a hotline reduces the likelihood of unethical practices because it increases the perception that any employee engaging in wrongdoing will be reported (Bierstaker et al. 2006).

2.4.1.4 Corporate governance characteristics

The structures of governance within a company have an impact on the internal systems of control which are established for fraud detection, compliance and to enhance credibility. (Coram et al. 2008; Davidson et al. 2005). When there is a significant number of external directors on audit committees, as well as the presence of concentrated shareholdings, increased pressure for robust monitoring systems including effective whistleblowing mechanisms becomes inevitable (Davidson et al. 2005). Thus, it can be hypothesized that companies which have good governance structures within their corporation have an

increased chance of having higher whistleblowing policy disclosures and having a hotline service in place.

i) Size and independence of the audit committee

Fama and Jensen (1983) found that boards that have more non-executive directors monitor management more effectively, which increases information disclosure. In addition, when non-executive independent directors are present, it limits the probability that management can engage in unscrupulous behaviour (Eng and Mak, 2003). As Haniffa and Cooke (2002) highlight, non-executive directors are often seen as honourable and respectable advisors who in turn have the potential to increase the credibility and quality of a company's disclosure. Research has shown that non-executive directors positively influence a company's compliance with mandatory disclosures (Morris & Gray, 2005). As earlier indicated, when audit committees have external directors, they exert greater pressure for more effective monitoring systems to be in place (Davidson et al. 2005). It is therefore anticipated that the more independent audit committee members there are, the more it increases whistleblowing policy disclosures.

ii) Concentrated shareholding

Concentrated shareholders are those who have an unusually high number of shares. In developed countries, concentrated shareholding is negatively correlated with disclosure while in developing countries, there were mixed results. For instance, Samaha and Dahawy (2011) found a negative correlation among companies in Egypt between voluntary disclosures and concentrated shareholding. Companies with less concentrated shareholding have a higher chance of revealing information so as to meet the needs of investors while those investors with concentrated shareholding can usually obtain relevant information through internal channels and therefore management is not inclined to disclose as much information.

iii) Commitment to fighting fraud

The ethical environment of a company has an impact on an individual's choice to report wrongdoing (Near and Miceli 1985). When companies support whistleblowing, they are more likely to put in place better mechanisms. In addition, those companies encouraging whistleblowing have a greater chance of implementing a hotline system in order to

facilitate reporting of wrongdoing (McDonald, 2000). In this study, the commitment to fighting fraud will be determined by whether each NSE-listed company explicitly states its commitment and support for whistleblowing in their annual reports or in its whistleblowing policy.

2.5 Critique of the Literature

It is predicted that the implementation of whistleblowing systems, as measured by extent of corporate disclosure and implementation of a hotline service, is associated with the size, cash to current assets ratio, inventory to current assets ratio, accounts receivables to current assets ratio, number of cases reported in Kenya Law Reports, cross-listing status, existence of an active hotline service, size and independence of the audit committee, concentrated shareholding and an explicit statement of commitment to fighting fraud.

This study is important as there is very limited empirical research in Kenya on the disclosure of whistleblowing policies by companies. Moreover, no other study has examined the impact of the CCGI on whistleblowing policy disclosures by companies that are listed on the Nairobi Securities Exchange. It is this significant gap in the empirical field that this research seeks to address by analyzing the extent of whistleblowing policy disclosures and its determinants for companies that have been listed on the Nairobi Securities Exchange, as well as the moderating effect of the CCGI on the association between whistleblowing policy disclosures and its determinants. This information will help the public have greater confidence in trading in the stocks of these companies. Regulators will also be able to know what NSE listed companies are reporting on their whistleblowing policies as well as enable them come up with relevant standards for whistleblowing policy disclosures so as to protect employees or third parties with reporting intentions to improve their trust in company's whistleblowing systems.

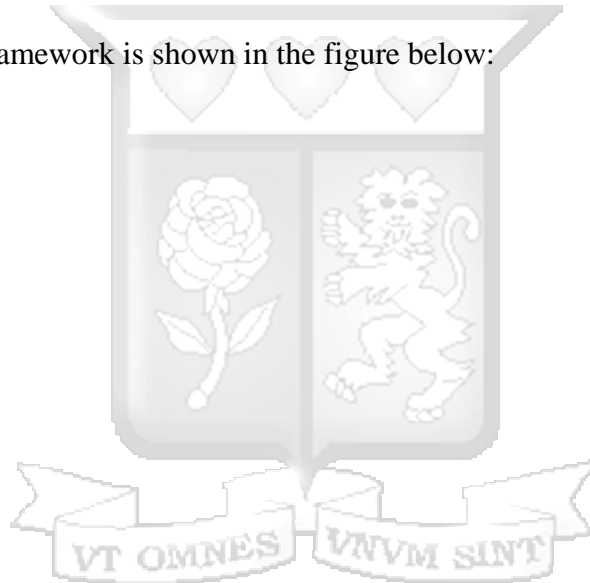
2.6 Conceptual Framework

This research sought to identify the key variables that have an influence on the relationship between the extent of whistleblowing policy disclosures and the determinants for companies that are listed on the Nairobi Securities Exchange. It also examines the moderating effect of the CCGI on this association. The selected variables have been

derived from previous studies that have looked at the relationship between key company characteristics, its environment and the extent of whistleblowing policy disclosures. They include the independent, dependent and the moderating variables.

The independent variables the determinants of whistleblowing policy disclosures and comprises of firm characteristics, its legal environment, ethical environment and corporate governance. The dependent variable is the extent of whistleblowing policy disclosures as influenced by the independent variables. The moderating variable is the institutionalization of the CCGI which was the reference point to determine the extent of whistleblowing policy disclosures and its determinants for companies that are listed on the Nairobi Securities Exchange, before and after its implementation.

The conceptual framework is shown in the figure below:



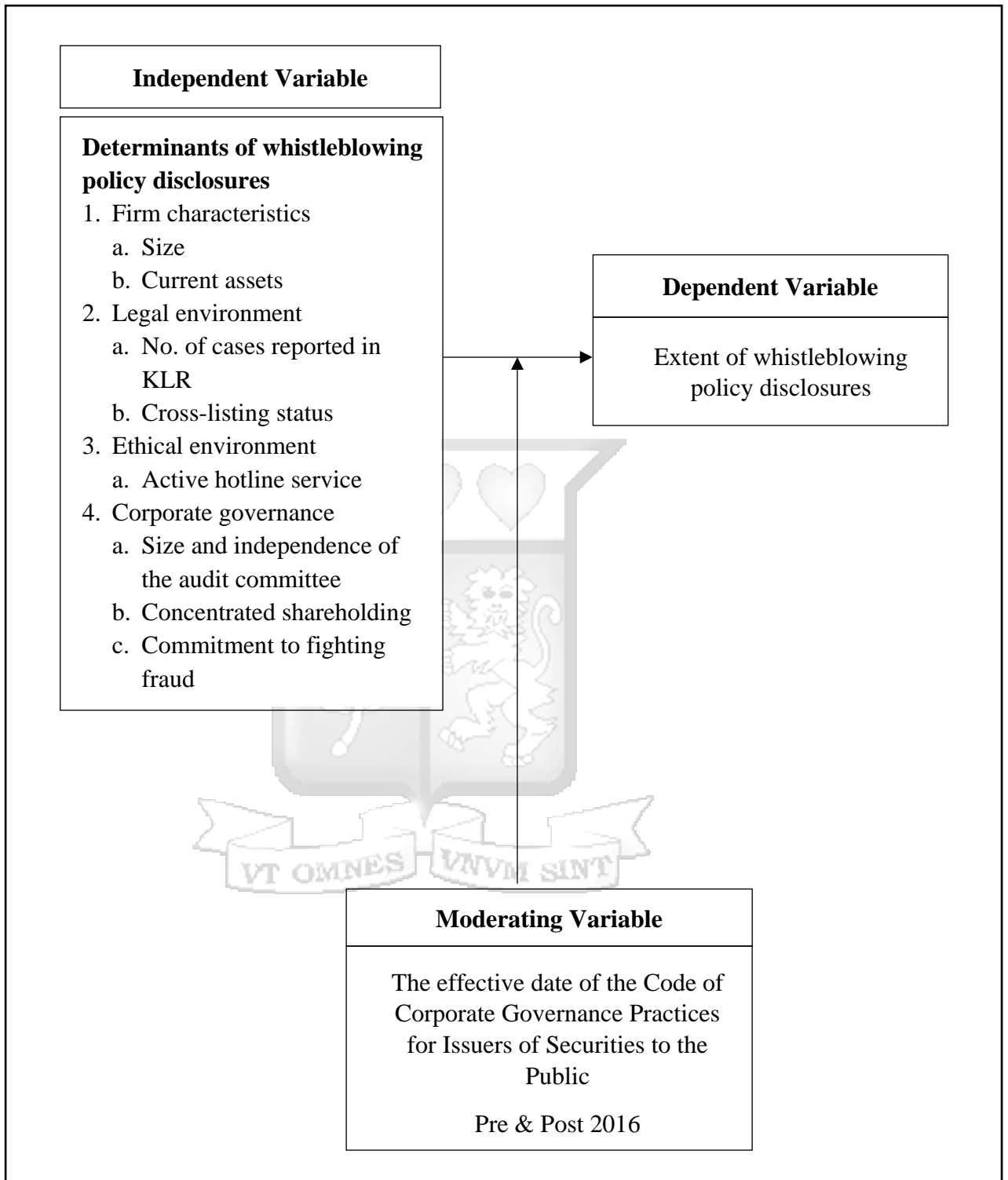


Figure 1: Conceptual framework

2.6.1 Operationalization of the Study Variables

Ten independent variables are studied in this research: size, cash, inventory and accounts receivables to current assets ratios, inventory to current assets ratio, accounts receivables to current assets ratio, number of cases reported in Kenya Law Reports, cross-listing status, existence of an active hotline service, independence of the audit committee, concentrated shareholding and an explicit statement of commitment to fighting fraud. The definition and measurement of variables are shown in the table below:

Table 2.1: Measures and sources of the determinants

Determinants	Measure	Sources
<i>Firm characteristics</i>		
Size	Total assets	Calderon-Cuadrado et al., 2009, Reverte 2009, Holder-Webb et al., 2008
Cash	Cash, inventory and accounts receivables to current assets ratios	Ashbaugh-Skaife et al.2007
Inventory		
Accounts receivable		
<i>Legal environment</i>		
No. of cases reported in Kenya Law Reports (KLR)	Number of cases in KLR	Field et al., 2005
Cross-listing status	Listed in more than one country	Worlton, 2005
<i>Ethical environment</i>		
Active hotline service	Existence of a telephone hotline	Hassink et al., 2007, Bierstaker et al., 2006
<i>Corporate governance characteristics</i>		
Audit committee independence	Number of independent audit committee members	Haniffa & Cooke, 2002, Susilowati, Morris & Gray, 2005 Davidson et al., 2005
Concentrated shareholding	Percentage of top shareholders	Samaha and Dahawy, 2011
Commitment to fighting fraud	Existence of a statement of commitment to fighting fraud	Chung et al., 2004 McDonald, 2000

2.7 Chapter Summary

Chapter two presented a literature review and the theoretical and conceptual framework that were adopted in the study in order to explain companies' motivation regarding whistleblowing policy disclosures in their annual reports and websites. Furthermore,

various determinants of whistleblowing policy disclosures were discussed including how each were operationalized in this research.



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the techniques and tools applicable in examining the determinants and extent of whistleblowing policy disclosures of companies that are listed on the Nairobi Securities Exchange. This chapter describes the companies that will be studied, the process of data collection and the measurement system. The requirements of reliability and validity of content analysis are also discussed. An overview of statistical analysis is also provided.

3.2 Research Philosophy

Ontology is the manner in which a researcher defines what is true and interprets reality, as well as the link between one's research and the various philosophical roots, thus clarifying their theoretical framework (Cohen, et al. 2000). Ontology has to do with the integral question about whether social entities are viewed as subjective or objective. Thus, objectivism (or positivism) and subjectivism are two significant pillars of ontology. The positivism research philosophy guided this study as it was best suited to highly structured, stable data which can be observed and described objectively as well as measured quantitatively without interference with the study variables (Levin, 1988). In addition, observations can be used to make predictions and explain reality as well as relationships between variables.

This research was a quantitative research that operated under the assumption of objectivity. It assumed that the reality was observable (whistleblowing policy disclosures) and that any logical observer who looked at the same observable fact would no doubt concur on its existence as well as its associated characteristics. The data collection techniques focused on obtaining hard data in the form of numbers in order that evidence would be presented in quantitative form (Sarantakos, 2005; Neuman, 2003). A standardized disclosure index was used to measure what is observed. Variables were measured and the relationship between them was expressed using effect statistics such as correlations and regression.

3.3 Research Design

This study examined panel data for six years (2013 - 2018). Examining panel data seeks to investigate the relationship that exists among the variables being studied over a given timeframe and therefore uses a cross sectional analysis approach. (Huang et al., 2008b). This research was descriptive as it sought to find out the extent of whistleblowing policy disclosures before the effective implementation date of the CCGI as well as after it came into effect.

3.4 Population

The targeted study population for this research was NSE listed companies. There were 65 listed companies at the time of carrying out this study (31 December 2018) and all of these were included in this particular study. This was therefore a census study as all elements of the population were considered for the study. The entire population was used as it is a small population that is also well defined.

The main justification for using NSE companies was because of the general interest that investors have in these companies as compared to private companies. In addition, NSE listed companies are mandated to be in compliance with the corporate governance practices and since 4 March 2016, they were required to disclose their whistleblowing policies in their websites as well as their annual reports.. Further, companies which are listed on the NSE have easily available annual reports. These companies are also more visible and have a greater probability of having websites and therefore likely to provide the annual reports as well as their whistleblowing policy on these public online platforms.

3.5 Data Collection Methods

The dependent variable in this research, the extent of whistleblower policy disclosures, was measured using a disclosure index. According to studies by Brown et al., (2005) and Nurhayati et al., (2006), a disclosure index is the most preferred technique when levels of disclosure are being measured in developing nations. In addition, it has been noted by Cooke and Wallace (1989) and Hossain et al., (1995) that the disclosure index is best suited when the researcher is seeking to gain insight into the level of information that companies

have disclosed. Thus, the disclosure index was considered most suitable in analyzing the dependent variable.

The whistleblower policy disclosures in each company's annual report were compared to the items listed in the disclosure index and coded as either one or zero, depending on whether the given content conformed to the items that had been listed (Meek et al., 1995). For each company, a disclosure index was calculated as the ratio of the total score that was awarded to the company divided by the maximum number of items that were applied to the entity (Meek et al., 1995). Consequently, the level or degree of disclosure was treated as a continuous variable when it was measured by the disclosure index. To minimize the possibility of subjectivity, all the items in the index were unweighted, meaning that each of the disclosure items in the index were considered to be uniformly important to all the companies.

The effective date of the CCGI was measured by the effective date of 4 March 2016. The data collected was for the period 1 January 2013 to 31 December 2018, a six year period. The period was divided into two three year periods: the pre-CCGI period (2013 to 2015) and the post-CCGI period (2016 to 2018) to allow for analysis of disclosures before and after the implementation of the CCGI.

3.6 Data Analysis

The following regression model was utilized in analysing the extent of whistleblowing policy disclosures:

$$WB\ DISCL_{it} = \beta_0 + \beta_1 \sum_{t=1}^n Firm\ Xtristics_{it} + \beta_2 \sum_{t=1}^n Legal\ Env._{it} + \beta_3 \sum_{t=1}^n Ethical\ Env._{it} + \beta_4 \sum_{t=1}^n Corp.\ Gov._{it}$$

The expanded specific model for the above is shown below:

$$\begin{aligned}
 WB\ DISCL_{it} = & \beta_0 + \beta_1 Size_{it} + \beta_2 Inventory_{it} + \beta_3 Cash\ \&\ bank_{it} \\
 & + \beta_4 Acc.\ receivable_{it} + \beta_5 Legal\ cases_{it} + \beta_6 Cross\ listing\ status_{it} \\
 & + \beta_7 Active\ hotline_{it} + \beta_8 Indep.\ audit\ comm.\ _{it} + \beta_9 Conc.\ shareholding_{it} \\
 & + \beta_{10} Commitment\ to\ fighting\ fraud_{it} + \Upsilon_i + \lambda_i + \Psi_t + \varepsilon_i
 \end{aligned}$$

The model with the CCGI moderating effect is as follows:

$$\begin{aligned}
 WB\ DISCL_{it} = & \beta_0 + \beta_1 Firm\ Xtristics * CCGI + \beta_2 Firm\ Xtristics + \beta_3 Legal\ Env. \\
 & * CCGI + \beta_4 Legal\ Env. + \beta_5 Ethical\ Env.* CCGI \\
 & + \beta_6 Ethical\ Env. + \beta_7 Corp.\ Gov.* CCGI + \beta_8 Corp.\ Gov. + \Upsilon_i + \lambda_i + \Psi_t \\
 & + \varepsilon_i
 \end{aligned}$$

Where:

WB DISCL is the whistleblowing policy disclosure score;

Υ_i is company control dummy;

λ_i is the firm year control dummy;

Ψ_t is the CCGI dummy (pre and post 2015); and

ε_i is the error.

3.7 Research Quality

Content validity describes the extent to which all aspects of a given construct are represented within a measure (Knabe, 2012). In order to establish content validity, the researcher sought feedback from practitioners who reviewed the pilot instrument. The practitioners were persons who are experts in the use of whistleblowing tools in the Kenyan market. After the pilot test was conducted, the questions were refined as needed to eliminate ambiguity or provide clarification.

Internal validity has to do with the degree to which the independent variable affects the dependent variable. This study looks at the extent to which independent variables: firm characteristics, the legal and ethical environment and corporate governance, affect whistleblowing policy disclosures. A disclosure index was utilized in measuring the

dependent variable. (Williams, 1998). Hackston and Milne (1996) also found that using a disclosure index does not affect the regression results, making them more reliable. According to Cooke (1989), the level of disclosure by a company can be examined in two ways: weighted and unweighted (Cooke, 1989). Those who advocate for a weighted approach (Copeland et al., 1968; Curtis, 1979; Barrett, 1977) consider that all items of information have different importance and therefore, professional judgment is required in order to make a determination regarding the weight. In this approach, the result is a scale of disclosure item that varies from zero to one. The way in which scores are allocated along the continuum is however somewhat subjective since it is determined by the evaluator's professional judgment that is dependent on their level of experience and knowledge (Cooke, 1989). For this study, in order to minimize subjectivity, the items in the index were unweighted meaning that each disclosure item that was in the index was considered uniformly significant for all the companies that were part of the study.

3.7.1 Diagnostic tests

In this study, a reasonable correlation was anticipated between the variables. The dependent variables were not expected to have a high degree of multicollinearity which indicates redundant dependent variables and decreases statistical efficiency. Multicollinearity was assessed through the examination of Spearman's rho correlation matrices. According to Field (2009) and Pallant (2007), variables whose r -value is equal to 0.9 and above are considered to be highly correlated.

Rank regression analysis was utilized in order to provide additional confidence in the statistical results because it lessens the impact of outliers and measurement errors, as well as residual heteroscedasticity on the regression results (Cheng et al. (1992), Ho and Mathews (2002) and Wallace et al. (1994)).

The normality of the dependent variables was tested using the Kolmogorov-Smirnov statistic. For the dependent variables, the Kolmogorov-Smirnov statistic for checking for normality is $p= 0.00$.

3.8 Ethical Issues in Research

The researcher complied with the ethical requirements of Strathmore University during data collection. All the available data required for this research was publicly available. Information obtained from companies' annual reports and whistleblowing policies were coded to safeguard confidentiality.



CHAPTER FOUR

PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This chapter presents the analysis of data analysis and the findings of this study. The first sections covers an analysis of the results of whistleblowing policy disclosures and the extent thereof while the second section covers the results of the data analysis of the determinants of the whistleblowing policy disclosures.

4.2 Sample Characteristics

The NSE had 65 companies listed on the Securities Exchange at the outset of this study. The final list of companies for this study contained 57 companies due to de-listing of two companies, lack of annual reports and whistleblowing policies for the period or having information pertaining to only one portion of the timeframe of this study. Of the list of 57 companies that remained, there were 37 missing observations for some of the companies. Only those companies with data for the period were included in the study. The details of the companies that whose data formed the final sample for analysis are shown in table 4.1 below:

Table 4.1: Final sample of companies

Panel A		
Details	No. of companies	No. of observations
Number of listed companies as at 31 December 2018	64	384
Number of de-listed companies	(2)	(12)
Number of companies omitted due to missing observations	(4)	(24)
Number of companies with data only pertaining to the post-CCGI period	(1)	(6)
Missing observations from the final sample of companies	(-)	(37)
Companies in the final sample	57	305

The details of the industry are shown below:

Table 4.2: Sample industry sector representation

Panel B:			
Industry	No. of companies	No. of observations	Percentage
Agricultural	6	35	11%
Automobiles & Accessories	2	12	4%
Banking	11	53	17%
Commercial and Services	8	42	14%
Construction and Allied	5	26	9%
Energy and Petroleum	5	29	10%
Insurance	6	32	10%
Investment	4	23	7%
Investment Services	1	5	2%
Manufacturing and Allied	8	42	14%
Telecommunication and Technology	1	6	2%
Total	57	305	100%

The above table shows the company industries as classified by the NSE. There are 11 industries and the number of companies and observations for each are indicated. The industry with the highest number companies and observations is the banking industry followed by Commercial Services and Manufacturing & Allied industries. The industries with the lowest representation are Investment Services and Telecommunication & Technology as they have one company each.

4.3 Diagnostic tests

The data collection was captured in Microsoft Excel. Once this was completed, each of the variables were checked to ensure that there were either no errors or that any errors were corrected by referring to the respective documents (annual report or whistleblowing policy). After the data was cleaned, certain variables were coded for ease of analysis and interpretation. The data was then uploaded in Minitab and Eviews which are the two statistical softwares used to perform the statistical tests for this study.

4.3.1 Normality tests

Selecting appropriate statistical tests depends on, among other factors, whether or not the data is normally distributed. When it is normally distributed, the most appropriate tests are parametric statistics (Keller, 2011) while non-parametric statistics are best suited for data

that is not normally distributed. Normality tests were conducted using the Kolmogorov-Smirnov test, the box-plot and Q-Q plot tests to check the distribution of the data collected.

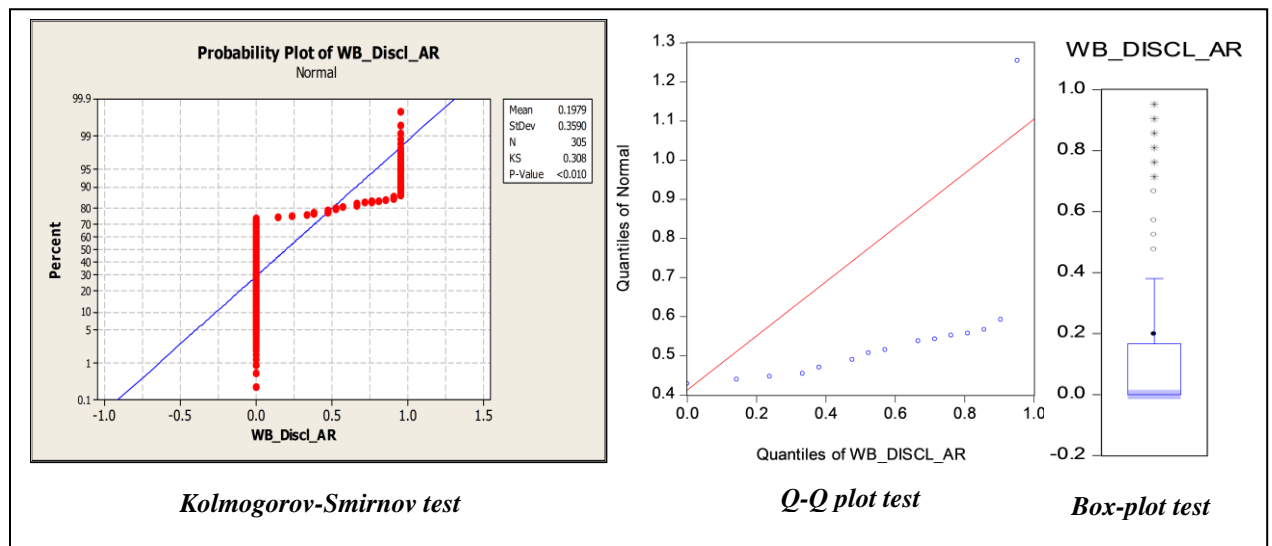


Figure 2: Tests of normality

According to the results in Figure 4.2, the coefficient on the Kolmogorov-Smirnov test is 0.308 which is significant at the 1% level. Further the Q-Q and the box plots illustrate that the dependent variable is not normally distributed. The results in Appendix 4 also show that the kurtosis and skewness are 3.180 and 1.409 respectively which confirmed that the data did not conform to the normality assumption. A non-parametric approach was therefore employed in analysing the data and variables. All three tests showed that the data was not distributed normally and therefore non-parametric statistics were utilized for analysis of the variables.

4.3.2 Multicollinearity test

In this study, it was expected that there would be reasonable correlation between variables but not have a high multicollinearity of the independent variables as this would have indicated redundant variables and decreased statistical efficiency. Multicollinearity was therefore determined from a review of Spearman’s rho correlation matrix. According to Field, 2009 and Pallant, 2007, variables are highly correlated when the r-value is greater than or equal to 0.9. The correlation coefficient was found to be 0.800 which indicated that multicollinearity was not a concern.

Multicollinearity was tested using variance inflation factors which determines the extent by which the variance of an estimated regression coefficient goes up due to correlation of the predictors. When the VIF is higher than the range of 5-10, it means that there is poor estimation of the regression coefficients (Montgomery and Peck, 1982). On the hand, if the range of VIFs is between 1-5, it shows that there is no multicollinearity observed between the variables. Table 4.3 below shows the results of the test:

Table 4.3: Test for multicollinearity using variance inflation factors

Variable	Variance inflation factors (VIF)	Tolerance (1/VIF)
Ln Total assets	1.500	0.667
Cash/CA	1.100	0.909
Inv./CA	1.000	1.000
Acc. Rec./CA	1.100	0.909
Legal cases	1.100	0.909
Cross-listing	1.000	1.000
Hotline	1.700	0.588
Aud. comm. size	1.900	0.526
Aud. comm. indep.	2.200	0.455
Conc. ownership	1.600	0.625
Commitment	1.300	0.769

4.3.3 Autocorrelation

Autocorrelation was used to measure the similarity between the whistleblower disclosure observations for each year. The result of the Durbin Watson test was 1.008 which indicated a positive autocorrelation. This was dealt with by including as many variables as possible from the literature that may have had an effect on the extent of whistleblowing policy disclosures.

4.4 Descriptive statistics

The descriptive statistics for the independent and dependent variables are discussed in the sections below:

4.4.1 Descriptive statistics on whistleblowing policy disclosures

The first objective of this study was to establish the extent of whistleblowing policy disclosures in the annual reports and websites of companies listed on the Nairobi Securities Exchange. The average disclosure scores are shown in the table below:

Table 4.4: Average whistleblowing policy disclosures

Categories of whistleblowing policy disclosures	No. of disclosure items	Annual reports		Website	
		No. of observations	Average disclosure score	No. of observations	Average disclosure score
Contents & scope	4	270	0.191	103	0.452
Nature of violations to be reported	2	130	0.184	46	0.404
Official/body to whom wrongdoing should be reported	2	134	0.189	48	0.421
Reporting guidelines	1	53	0.150	23	0.404
Anonymity and confidentiality	2	141	0.199	62	0.544
Protection from retaliation	5	257	0.145	103	0.361
Investigation details	5	283	0.160	89	0.312
Disclosure score	21	1,268	0.198	474	0.396

The t-test for the average disclosure score in the annual reports and websites is -7.14 (p=0.000).

The average disclosure scores for whistleblowing policy disclosures were low in both the website annual reports of NSE companies. The average for annual reports was 0.198 while that of websites was higher at 0.396. A detailed comparison of average disclosure scores is shown in Appendix 3.

The highest category of whistleblowing policy disclosures was anonymity and confidentiality for both the annual reports and the website. The lowest category of whistleblowing policy disclosures was in protection from retaliation for the annual company reports and investigation details for the websites of the companies.

4.4.2 Descriptive statistics for other variables

The second objective of the study was to investigate the determinants of whistleblowing policy disclosures by NSE companies. The statistics for the determinants are 1 in table 4.5 below:

Table 4.5: Descriptive statistics for other variables

Variable	Observations	Mean	Median	Std. Dev.	Minimum	Maximum
WB disclosures - annual reports	305.000	0.198	0.000	0.359	0.000	0.952
Ln Total assets	305.000	18.594	18.188	3.456	11.649	26.542
Cash/CA	305.000	0.303	0.193	0.285	0.001	1.000
Inv./CA	305.000	0.290	0.218	0.276	0.000	0.989
Acc. Rec./CA	305.000	0.408	0.396	0.260	0.000	0.945
Legal cases	305.000	13.374	0.000	69.535	0.000	512.000
Cross-listing	305.000	0.105	0.000	0.307	0.000	1.000
Hotline	305.000	0.354	0.000	0.479	0.000	1.000
Aud. comm. size	305.000	4.334	4.000	1.762	2.000	10.000
Aud. comm. indep.	305.000	1.370	1.000	1.399	0.000	5.000
Conc. ownership	305.000	0.558	0.735	0.392	0.003	1.000
Commitment	305.000	0.725	1.000	0.447	0.000	1.000

The results in table 4.5 above show that a typical listed company has an average (median) whistleblowing policy disclosure of 0.198 (0.000). This indicates that the NSE listed companies have low disclosures in the annual reports although the maximum indicates that there are some companies with high disclosures. The variables for inventory to current assets ratio, legal cases, cross-listing, hotline and audit committee size and independence have a minimum of zero which indicates that those items did not exist for the specific companies.

4.5 Correlation analysis

Since the data was found to be non-parametric, the rank spearman correlation was utilized to measure the correlation between the determinants of whistleblowing policy disclosures and the extent of whistleblowing policy disclosures. From the results in table 4.7, most of the variables have a positive association to whistleblowing policy disclosures at the 5%

significance level. These include the cash to current assets ratio, the number of legal cases, the existence of a hotline, the audit committee size and independence, the percentage concentrated ownership and the existence of a commitment to fighting fraud in the annual report. Four of the variables have a negative association to whistleblowing policy disclosures at the 5% level of significance which includes total assets, inventory and accounts receivables to current assets ratio and the cross-listing status. According to the results in the above table, the highest correlation coefficient is 0.673 while the lowest coefficient is 0.628 which is less than 0.8000 which indicates that multicollinearity is not a cause for concern. In order to establish the determinants of whistleblowing policy disclosures, multivariate regression analyses were performed and are explained in subsequent sections.

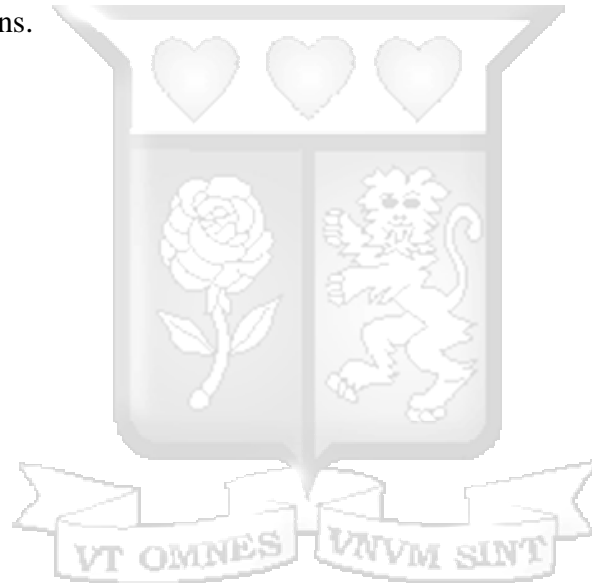


Table 4.6: Pearson correlation matrix

Probability	Whistleblowing policy disclosures in annual reports	Ln Total assets	Cash/ CA	Inv./ CA	Acc. Rec/ CA	Legal cases	Cross- listing	Hotline	Aud. comm. size	Aud. comm. indep.	Conc. owners
Ln Total assets	-0.175										
p-value	0.00										
Cash/CA	0.159	-0.064									
p-value	0.01	0.27									
Inv./ CA	-0.038	0.066	-0.628								
p-value	0.50	0.25	0.00								
Acc. Rec/ CA	-0.073	-0.091	-0.414	-0.294							
p-value	0.20	0.11	0.00	0.00							
Legal cases	0.234	-0.121	0.190	-0.086	-0.177						
p-value	0.00	0.03	0.00	0.14	0.00						
Cross-listing	-0.024	0.065	-0.050	0.014	0.155	-0.081					
p-value	0.67	0.26	0.39	0.80	0.01	0.16					
Hotline	0.664	-0.266	0.123	0.019	-0.089	0.239	-0.097				
p-value	0.00	0.00	0.03	0.74	0.12	0.00	0.09				
Aud. comm. size	0.105	-0.113	0.143	-0.091	-0.079	0.407	-0.064	0.014			
p-value	0.07	0.05	0.01	0.11	0.17	0.00	0.26	0.80			
Aud. comm. indep.	0.308	-0.234	0.110	-0.014	-0.120	0.369	-0.058	0.349	0.613		
p-value	0.00	0.00	0.06	0.81	0.04	0.00	0.31	0.00	0.00		
Conc. ownership	0.212	0.175	0.027	0.018	-0.148	-0.228	-0.071	0.363	-0.174	-0.052	
p-value	0.00	0.00	0.64	0.75	0.01	0.00	0.22	0.00	0.00	0.36	
Commitment	0.040	0.232	-0.012	-0.015	-0.071	0.119	-0.148	-0.050	0.172	0.026	-0.238
p-value	0.48	0.00	0.84	0.79	0.22	0.04	0.01	0.38	0.00	0.65	0.00

4.6 Regression analysis

The generalized linear model of regression was used since the data are not normal (non-parametric) with the specific regression equation used being the binomial proportion logit model. The following model was used to investigate the influence of each of the determinants on the whistleblowing disclosures:

$$\begin{aligned}
 WB\ DISCL_{it} = & \beta_0 + \beta_1 Size_{it} + \beta_2 Inventory_{it} + \beta_3 Cash\ \&\ bank_{it} \\
 & + \beta_4 Acc.\ receivable_{it} + \beta_5 Legal\ cases_{it} + \beta_6 Cross\ listing\ status_{it} \\
 & + \beta_7 Active\ hotline_{it} + \beta_8 Indep.\ audit\ comm.\ _{it} + \beta_9 Conc.\ shareholding_{it} \\
 & + \beta_{10} Commitment\ to\ fighting\ fraud_{it} + \Upsilon_i + \lambda_t + \Psi_t + \varepsilon_i
 \end{aligned}$$

The results of the model are shown below:

with cash to current assets ratio:

$$\begin{aligned}
 & = 0 + -0.291 + 1.024 + 0.003 + 1.009 + 3.059 + 0.041 + 0.278 + 0.313 + 0.773 \\
 & = 6.209
 \end{aligned}$$

with inventory to current assets ratio:

$$\begin{aligned}
 & = 0 + -0.267 + -1.071 + 0.004 + 0.939 + 3.081 + 0.035 + 0.308 + 0.353 + 0.971 \\
 & = 4.353
 \end{aligned}$$

with accounts receivables to current assets ratio:

$$\begin{aligned}
 & = 0 + -0.252 + -0.586 + 0.003 + 1.012 + 3.078 + 0.029 + 0.297 + 0.217 + 0.684 \\
 & = 4.482
 \end{aligned}$$

The variables were coded as follows: size (0=less than Kshs 100 million and 1=greater than Kshs 100 million), cash, inventory and accounts receivables to current assets ratios (0=less than 0.5, 1=0.5 and greater), number of legal cases (0=less than 10, 1=greater than 10), cross-listing status (0=not cross-listed, 1=cross-listed), existence of a hotline (0 = non-existent, 1= exists), independent audit committee members (0 = less than 2, 1=2 and above), concentrated shareholding (0=less than 70%, 1=70% and above) and commitment to fighting fraud (0=non-existent, 1= exists). The convergence was achieved after 5 iterations. Table 4.7 below shows the results:

Table 4.7: Regression analysis of determinants and whistleblowing policy disclosures

Variable	GLM - Binomial Logit		
	Coefficient	Coefficient	Coefficient
Ln Total assets	-0.291*** (-13.92)	-0.267*** (-13.74)	-0.252*** (12.18)
Cash/CA	1.024*** (3.27)	-	-
Inv./CA	-	-1.071*** (-3.64)	-
Acc. Rec./CA	-	-	-0.586** (-2.01)
Legal cases	0.003*** (3.54)	0.004*** (3.91)	0.003*** (3.71)
Cross-listing	1.009*** (3.51)	0.939*** (3.26)	1.012*** (3.60)
Hotline	3.059*** (13.54)	3.081*** (13.75)	3.078*** (13.62)
Aud. comm. size	0.041 (0.73)	0.035 (0.63)	0.029 (0.54)
Aud. comm. indep.	0.278*** (3.53)	0.308*** (3.96)	0.297*** (3.81)
Conc. ownership	0.313 (1.35)	0.353 (1.52)	0.217 (0.95)
Commitment	0.773*** (3.97)	0.971*** (4.78)	0.684*** (3.40)
Deviance statistic	2.591	2.581	2.614
Akaike info criterion	2.968	2.958	2.991
Pearson statistic	3.027	3.217	3.068
Hannan-Quinn criterion	3.012	3.002	3.035

*** significance at 1%

The number of legal cases was found to have the highest impact on the extent of whistleblowing policy disclosures with significance at the 1% level. Total assets has a negative association with the extent of whistleblowing policy disclosures with significance at the 1% level.

4.7 Whistleblowing policy disclosures pre and post-CCGI

The third objective of the study was to examine the moderating effect of the CCGI on the association between the whistleblowing policy disclosures and its determinants. This is discussed in the sections below:

4.7.1 Pre and post-CCGI

Table 4.8 below shows the average whistleblowing policy disclosure scores for the items in the disclosure index during the pre-CCGI period as well as the post-CCGI period. The overall disclosure score is also given:

Table 4.8: Whistleblowing policy disclosures pre and post-CCGI

Disclosure index items	Overall Pre-CCGI (2013-2015)	Overall-Post CCGI (2016-2018)	Overall disclosure (2013-2018)
Duty to report	0.187	0.199	0.193
Scope employees	0.152	0.228	0.190
Scope non-employees	0.193	0.263	0.228
Training	0.181	0.175	0.178
Reportable violations	0.181	0.228	0.205
Failure to report	0.175	0.175	0.175
Hotline	0.199	0.216	0.208
Contact details	0.181	0.187	0.184
Reporting guidelines	0.158	0.152	0.155
Confidentiality	0.181	0.222	0.202
Anonymity	0.199	0.222	0.211
Good faith	0.018	0.012	0.015
Non-retaliation	0.181	0.222	0.202
Action taken	0.170	0.164	0.167
Protection given	0.187	0.240	0.213
Specific protection	0.164	0.146	0.155
Recipients	0.170	0.175	0.173
Fair investigation	0.193	0.234	0.213
Investigation process	0.146	0.129	0.137
Progress notification	0.158	0.146	0.152
Feedback	0.164	0.140	0.152
Overall WB disclosures	0.168	0.184	0.198

Paired T for Overall Pre CCGI – Overall Post CCGI

T-Test of mean difference = 0 (vs not = 0): T-Value = -2.46 P-Value = 0.023

Mann-Whitney Test and CI: Overall Pre CCGI, Overall Post CCGI W = 405

Test of ETA1 = ETA2 vs ETA1 not = ETA2 is significant at 0.2472

Significant at 0.2462 (adjusted for ties)

The overall whistleblowing policy disclosure score during the pre-CCGI period was 0.168 which increased to 0.184 in the post-CCGI period. The largest increases in the average disclosure score between the pre and post-CCGI implementation pertained to disclosure that the whistleblowing policy applies to employees as well as non-employees. There was a reduction in the average disclosure score between the pre and post-CCGI implementation periods for disclosures pertaining to reporting in good faith, training, reporting guidelines, actions taken for retaliation, notification of progress of investigation, the investigation process, specific protection provided to whistleblowers and the feedback provided to whistleblowers on the outcome of the investigation. Feedback had the highest decrease between the two periods. There was no change in the failure to report disclosure item between the two periods.

4.7.2 Trends in whistleblowing policy disclosures over time (years)

Figure 3 below shows the overall whistleblowing policy disclosure scores over the six year period. In the pre-CCGI period (2013 to 2015), there was a decline in overall disclosures in 2015 when compared to 2013 and 2014. However, this increases in the post-CCGI period (2016 to 2018) which implies that there was a positive influence on the extent of disclosures after implementation of the CCGI.

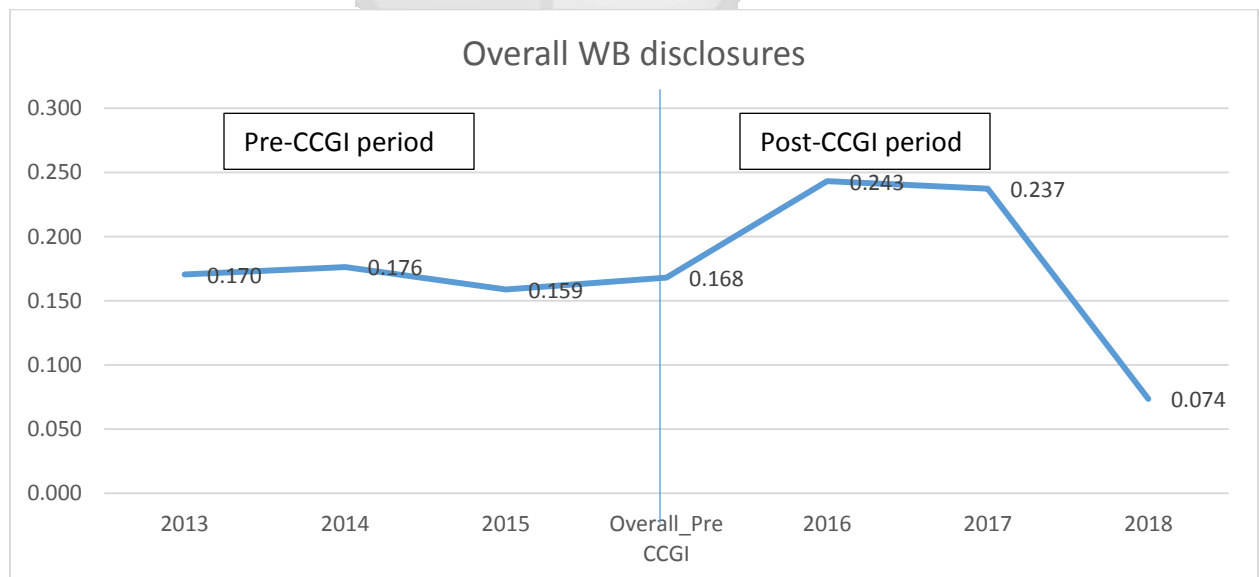


Figure 3: Whistleblowing policy disclosures over the period 2013 to 2018

Figure 4 below shows the trend of specific whistleblowing policy disclosures over the six year period. The post CCGI implementation period has higher disclosures as compared to the pre-CCGI period. Disclosures for reporting in good faith were the lowest while disclosures on the scope applying to employees were highest during the period.

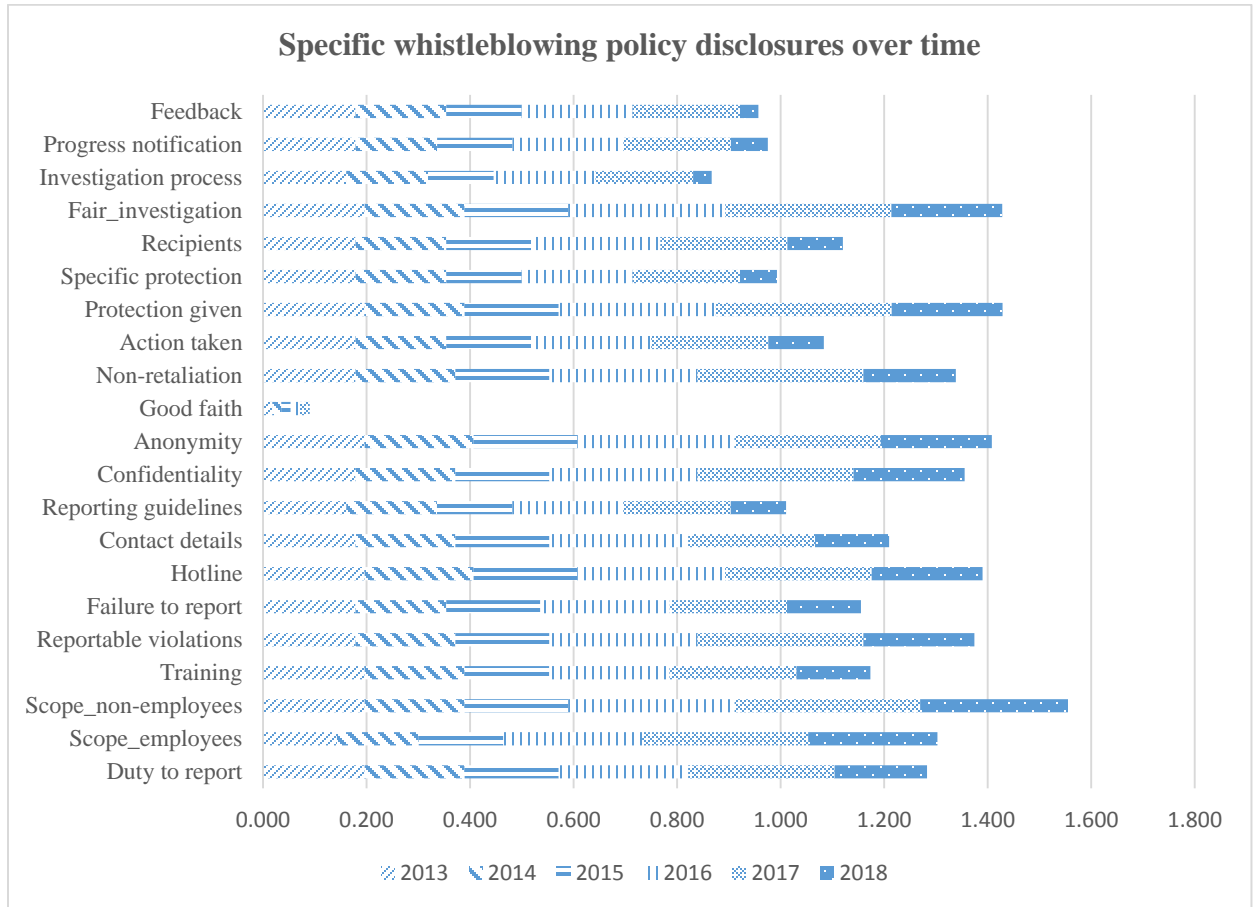


Figure 4: Specific whistleblowing policy disclosures over time

4.8 Moderating effect of the CCGI

The moderating effect of the CCGI on the determinants and whistleblowing policy disclosures is seen in table 4.9 below. The following model was used to investigate the moderating effect of the CCGI on the determinants and whistleblowing policy disclosures:

$$WB\ DISCL_{it} = \beta_0 + \beta_1 Firm\ Xtristics * CCGI + \beta_2 Firm\ Xtristics + \beta_3 Legal\ Env.* CCGI + \beta_4 Legal\ Env. + \beta_5 Ethical\ Env.* CCGI + \beta_6 Ethical\ Env. + \beta_7 Corp.\ Gov.* CCGI + \beta_8 Corp.\ Gov. + \Upsilon_i + \lambda_t + \Psi_t + \varepsilon_i$$

$$= 0 + -6.750 + -11.669 + 0.067 + 0.705 + 3.000 + 3.383 + 1.87 + 1.803$$

$$= -7.590$$

Table 4.9 below shows the moderating effect of the determinants and whistleblowing policy disclosures:

Table 4.9: Moderating analysis of determinants and whistleblowing policy disclosures

Variable	GLM - Binomial Logit	
	Without CCGI	With CCGI Moderation
	Coefficient	Coefficient
Ln Total assets	-0.096*** (-2.65)	-0.207*** (-3.43)
Cash/CA	-3.263*** (-4.32)	0.318 (0.28)
Inv./CA	-4.478*** (-6.08)	-4.074*** (-3.54)
Acc. Rec./CA	-3.832*** (-5.85)	-2.784*** (-3.03)
Legal cases	0.002** (2.17)	0.002 (1.17)
Cross-listing	0.703** (2.29)	0.065 (0.15)
Hotline	3.383*** (14.03)	3.000*** (9.80)
Aud. comm. size	0.085 (1.46)	0.400*** (3.91)
Aud. comm. indep.	0.175** (2.12)	0.034 (0.28)
Conc. ownership	0.715*** (2.95)	0.938*** (2.60)
Commitment	0.828*** (3.89)	0.498 (1.47)
CCGI	0.501*** (3.15)	
Pearson statistic	2.991	2.998
Hannan-Quinn criterion	2.893	5.333
Akaike info criterion	2.835	5.661
Deviance statistic	2.458	4.108

** Significance at 5%

*** Significance at 1%

The coefficient on firm size (Ln Total Assets) is -0.099 in the pre-CCGI period which is significant at the 1% level and increases to -0.207 in the post-CCGI period and is still significant at the same level. This indicates that the negative correlation between firm size and whistleblowing policy disclosures is strengthened following the implementation of the CCGI.

The coefficient on the cash to current assets ratio (Cash/CA) is -2.925 in the pre-CCGI period which is significant at the 1% level. The coefficient changes to 0.318 in the post-CCGI period and loses significance at the 1% level. This implies that the negative association between the cash to current ratio and whistleblowing policy disclosures changes to a positive one following the implementation of the CCGI.

The coefficient on the inventory to cash ratio drops minimally from the pre-CCGI period to the post-CCGI period but the effect is still present and significant at the 1% level.

The coefficient on the receivables to current assets ratio is -3.454 in the pre-CCGI period which is significant at the 1% level. The coefficient changes to -2.784 in the post-CCGI period and loses significance at the 1% level. There is a drop in the negative association between the receivables to current ratio and whistleblowing policy disclosures. There is also a decline in the significance level but it is still significant at 1%.

The coefficients on the number of legal cases is 0.002 in both the pre and post-CCGI periods with a minimal drop in the significance level though it is still significant at 1%. The coefficient on the cross-listing status, the existence of an active hotline, the audit committee independence and the commitment to fighting fraud drop in the post-CCGI period thereby losing significance at the 1% level. This means that the positive correlation between these variables and the whistleblowing policy disclosures weakens following implementation of the CCGI.

The coefficients on the audit committee size and the concentrated ownership increases in the post-CCGI period with significance at the 1% level. This means that the positive correlation between these variables and the whistleblowing policy disclosures increases following implementation of the CCGI.

For the period 2016 to 2018, the whistleblowing policy disclosures increased and this is significant at the 5% level. This implies a positive contribution of the CCGI on the extent of whistleblowing policy disclosures by listed companies.

Figure 5 below is a graphical representation of the moderating effect of the CCGI on the determinants and whistleblowing policy disclosures:

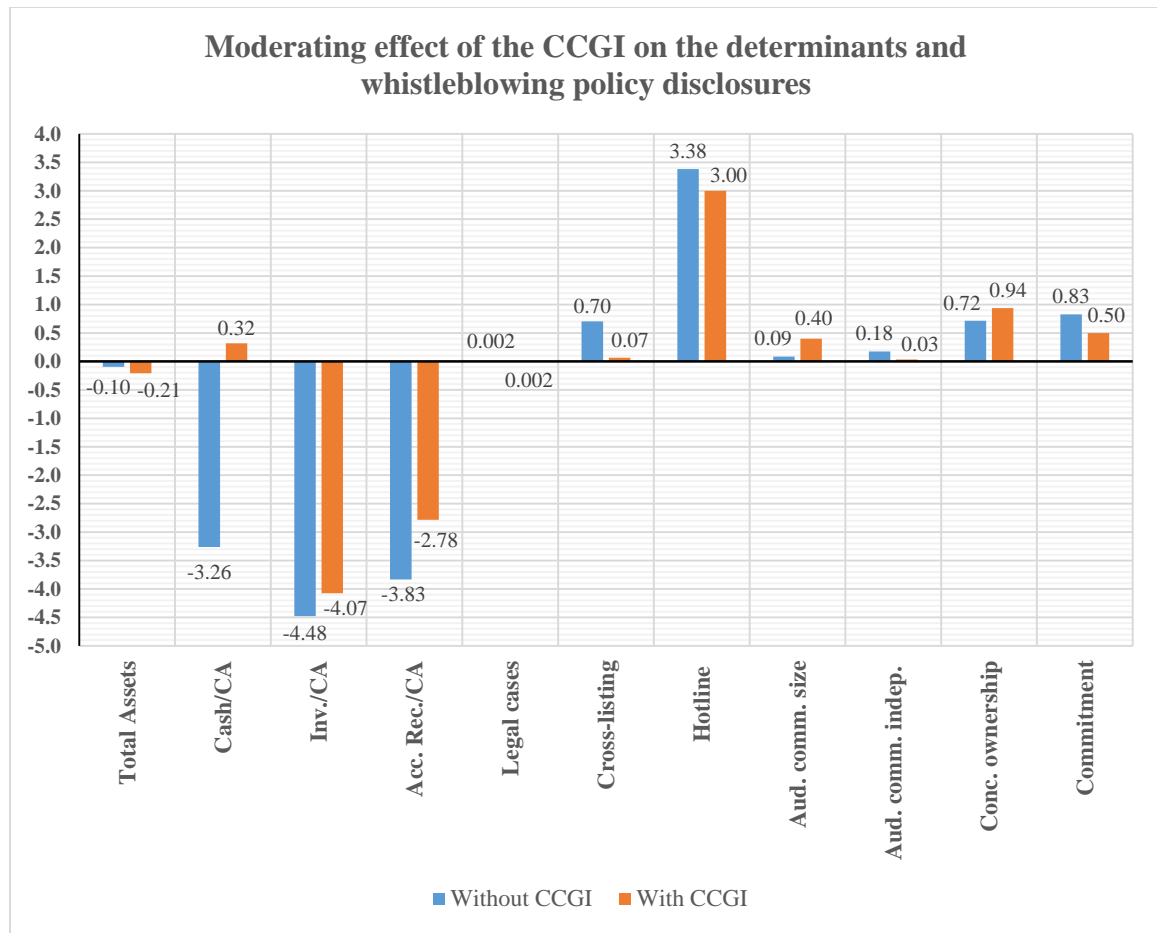


Figure 5: Graphical representation of the moderating effect of the CCGI

4.9 Summary of Results

57 NSE listed firms formed the final sample of companies. The data was found not to be normally distributed and thus non-parametric tests were used to carry out the statistical tests. In addition, the panel data was found to be unbalanced as there were missing observations from some of the company data. Multicollinearity was found not to be a problem.

The average whistleblowing policy disclosure score was low for disclosures both in the annual reports and the websites of NSE companies. However, the disclosures on websites were almost twice that in the annual reports. The highest category of whistleblowing policy disclosures was anonymity and confidentiality for both annual report disclosures as well as website disclosures. The lowest categories were protection from retaliation and investigation details for annual report and website whistleblowing policy disclosures respectively.

Most of the variables had a positive correlation with whistleblowing policy disclosures with the existence of a hotline having the strongest positive correlation. Four variables had a negative correlation with whistleblowing policy disclosures with the highest of these being the total assets. There CCGI positively influences the extent of whistleblowing policy disclosures by NSE companies during the period 2016 to 2018.

4.10 Summary of the Chapter

This chapter discusses the key findings of the study. There was low disclosure by the NSE companies in their websites and annual reports, with the highest category being anonymity and confidentiality. The lowest categories were protection from retaliation and investigation details for annual report and website whistleblowing policy disclosures respectively. In addition, most of the variables were found to have a positive correlation with whistleblowing policy disclosures.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the interpretation of the results of the research based on the objectives and the implications. The first section summarizes the research findings after which follows the general conclusions of the study. The third part discusses the contribution to knowledge after which recommendations arising from the study as well as suggestions for further research are discussed. The final part of the chapter discusses the limitations of the study.

5.2 Summary of the Findings

This study sought to establish the extent of whistleblowing policy disclosures in the websites and annual reports of NSE companies. The extent of whistleblowing policy disclosures as per the disclosure score was low in both websites and the annual reports of NSE listed companies. On average, the disclosure on websites by the NSE listed companies was higher than that in the annual reports with whistleblowing policy disclosures in websites being almost twice that in the annual reports.

The second objective of the study was to investigate the determinants of whistleblowing policy disclosures by companies listed on the NSE. Most of the determinants were found to have a positive correlation to whistleblowing policy disclosures at the 5% significance level include the cash to current assets ratio, the number of legal cases, the existence of a hotline, the audit committee size and independence, the percentage concentrated ownership and the existence of a commitment to fighting fraud in the annual report. Four of the determinants had a negative association to whistleblowing policy disclosures at the 5% level of significance and they included total assets, inventory to current assets ratio, receivables to current assets ratio and the cross-listing status. The number of legal cases was found to have the highest impact on the extent of whistleblowing policy disclosures with 1% significance level while total assets had the highest negative association with the extent of whistleblowing policy disclosures with significance at the 1% level.

The third objective of the study was to examine the moderating effect of the CCGI on the association between the whistleblowing policy disclosures and its determinants. The overall whistleblowing policy disclosure score during the pre-CCGI period was 0.168 which increased to 0.184 in the post-CCGI period and this is significant at the 5% level. This means that there is a positive influence of the CCGI on the extent of whistleblowing policy disclosures by the NSE listed companies.

5.2.1 Summary of the extent of whistleblowing policy disclosures by NSE listed companies

The average disclosure scores for whistleblowing policy disclosures were low in both the annual company reports and websites of companies that are listed on the NSE. The average for annual reports was 0.208 while that of websites was higher at 0.396. The findings align with the theories of legitimacy and institutionalism which assert that companies should have measures to mitigate fraud risk as well as corruption. This is vital in order to inform society about corporate whistleblowing policies so as to increase the company's legitimacy in the society and it has also been demanded by the regulator. After the effective date of the CCGI, companies listed on the NSE have provided more whistleblowing policy disclosures in their reports and websites so as to legitimize their operations and in order to comply with the regulator's instructions.

A possible reason for the lack of disclosure by the NSE companies is the direct cost of production and dissemination of whistleblowing policy disclosures. First, there may be a direct cost associated with producing and disseminating information. Secondly, some of the NSE companies may perceive a loss of competitive advantage or bargaining power since the disclosed information is available to competitors and other strategic partners. Finally, NSE companies may simply not be aware of what constitutes adequate whistleblowing policy disclosures since the regulator has not specified this in the CCGI.

5.2.2 Summary of the determinants of whistleblowing policy disclosures by NSE listed companies

The findings indicated that the size of the firm was negatively associated with whistleblowing policy disclosures indicating that some of the largest firms have low disclosures. Hassan, Giorgioni and Romilly (2006) highlighted the importance of firm size as a key determinant of a company's practices in regards to their corporate disclosures. Their findings were however inconclusive, as it can either be positive or negative. The findings in this study which indicated that larger NSE listed companies had lower disclosures aligns with research that posits that organizations which have greater visibility face mounting political pressure that can increase the likelihood of disclosing less information in their yearly reports and websites. These pressures may take the form of expectations from the society to demonstrate responsibility for societal concerns, as well as greater regulations including higher taxes, the threat of nationalization as well as increased price controls (Jensen and Meckling, 1976).

A positive correlation was noted between whistleblowing policy disclosures and inventory and receivables to current assets ratios. Since current assets are generally at a higher risk of fraud, companies that have a larger volume of inventory and receivables are more likely to implement a system that would minimize the risk of fraud and have this clearly disclosed in key sources of information for stakeholders. The cash to current assets ratio had a negative correlation to whistleblowing policy disclosures which can be attributed to NSE listed companies carrying out much fewer cash transactions preferring electronic and mobile payment options.

The number of reported legal cases was found to be the greatest influence when determining the extent of whistleblowing policy disclosures, and this is consistent with studies that have shown that greater litigation risk tends to cause companies to disclose more information to avoid possible lawsuits (Field et al., 2005).

The cross-listing status of companies had a negative correlation to whistleblowing policy disclosures. In their work, Biddle and Saudagaran (1989 and 1991) and Saudagaran and Biddle (1992) observed that companies tended to list in foreign exchange markets where the disclosure guidelines were less stringent when compared to their local markets. This

appeared to be the case for NSE listed firms which are cross-listed in other East African countries that generally have less stringent disclosure rules than Kenya or are in markets where enforcement is less likely.

The existence of a hotline and the commitment to fighting fraud had a positive correlation with the extent of disclosures related to whistleblowing policies. This is in line with the literature which suggests that companies that have a hotline and who explicitly indicate their attitude towards fraud disclose information about the hotline or their stance to facilitate and enable the reporting of any unethical behaviour.

The findings of this research affirmed that having more independent non-executive audit committee members, had a positive correlation with the extent of disclosure compliance. This is consistent with previous research by Chen and Jaggi (2000) and Susilowati, Morris & Gray (2005), which found that the size of the audit committees and independence of key leaders impacts whistleblowing disclosures.

Concentrated shareholding had a positive correlation with the extent of whistleblowing policy disclosures which is in line with the literature which suggests that investors with large stocks in a company have more incentive to send positive signals to the market in order to increase their share price. Some studies found mixed results when comparing developed and developing countries. According to Samaha and Dahawy (2011), Egyptian companies had a negative correlation between concentrated shareholding and voluntary disclosures. It was noted that companies with concentrated shareholdings may use internal channels to obtain information and therefore may feel less inclined to divulge more information in their whistleblowing disclosures.

5.2.3 Summary of the moderating effect of the CCGI on the association between whistleblowing policy disclosures and its determinants

The overall whistleblowing policy disclosure score during increased during the post-CCGI period. In the pre-CCGI period (2013 to 2015), there was a decline in overall disclosures in 2015 when compared to 2013 and 2014. However, this increases in the post-CCGI period (2016 to 2018) indicates the positive influence of the CCGI on the extent of disclosures after its implementation. For the period 2016 to 2018, the whistleblowing policy

disclosures increased at the 5% significant level. This shows the positive contribution of the CCGI to whistleblowing policy disclosures by the NSE companies.

5.3 Conclusions

This research has reported the results of the extent of whistleblowing policy disclosures in the websites and annual reports and of NSE companies. The extent of whistleblowing policy disclosures was determined using a disclosure index and was found to be low in line with the previous research findings. Consistent with the findings of other research, the association between the extent of whistleblowing policy disclosures and the cash to current assets ratio, the number of legal cases, the existence of a hotline, the audit committee size and independence, the percentage concentrated ownership and the existence of a commitment to fighting fraud were found to be positive for NSE listed companies but the association between the extent of whistleblowing policy disclosures and total assets, inventory and receivables to current assets ratio and the cross-listing status were found to be negative. The implementation of the CCGI had a positive influence on the scope of whistleblowing policy disclosures and its determinants.

5.4 Contribution to Knowledge

This research will help companies take a closer look at what they are currently reporting regarding their whistleblowing policy and make some adjustments to ensure that they are providing the right information in their websites and annual reports. Regulators can also use the findings of this research to know what NSE listed companies are reporting on their whistleblowing policies as well as enable them come up with relevant standards for whistleblowing policy disclosures so as to protect employees or third parties with reporting intentions to improve their trust in company's whistleblowing systems.

5.5 Recommendations

5.5.1 Policy Recommendations

This study supports prior research that both legitimacy and institutional isomorphism theories explain companies' whistleblower policy disclosure practices (Suchman, 1995; Mobus, 2005). Legitimacy theory posits that companies are likely to increase their

whistleblowing policy disclosures to legitimise their activities (Deegan & Rankin, 1996). Companies may increase their whistleblowing policy disclosures following the threat to their legitimacy that mandatory disclosure of this information by the regulator (coercive isomorphism) posed. Institutional theory, on the other hand, shows how the external pressure of a regulator affects companies' whistleblowing policy disclosures. This research could be extended to a study of the reasons why companies in a similar operating environment disclose more information in line with a regulator's requirements yet others slack in doing so. The company attributes that moderate the effects of institutional pressures can also be studied.

5.5.2 Recommendations for Practice/Managerial Recommendations

It can be concluded that the CCGI influenced the NSE listed companies to provide more whistleblowing policy disclosures, thus mandatory whistleblowing policy disclosure legislation is a good policy intervention to change the reporting practices of companies. This finding can be helpful for the regulator in order to control whistleblowing policy disclosures by companies.

Although this study finds that overall whistleblowing policy disclosure practices have increased over the years, there are companies whose full annual reports are not publicly available, others who do not have functional websites or do not have whistleblowing policies on their websites. Considering the importance of whistleblowing policy disclosures, regulators should enforce the requirement that all companies to provide their full annual reports and have functional websites and their whistleblowing policies on the websites so that stakeholders of these companies are better informed about whistleblowing policy disclosures.

5.6 Suggestions for Further Research

This research has potential for expansion and replication. Many developing African countries can conduct a similar research. This study found that mandatory disclosure requirements were an impetus to provide more whistleblowing policy disclosures. However, is hard to confidently confirm the reason for this increase without asking corporate management as they have power and control over the reported information. A

future study might therefore interview corporate managers to identify the prime drivers for disclosing whistleblowing information in their websites and annual reports to determine the degree to which disclosure practices were impacted by legislation. It is also recommended that future researchers examine whistleblowing policy disclosures for a longer period after the implementation of the CCGI to determine if there was greater compliance by the companies.

5.7 Limitations of the Research

There were limitations encountered in this study. The first was the lack of some of the annual reports and whistleblowing policies of the NSE companies. The reports were sourced from their websites as well as public sources while the whistleblowing policies were obtained from the companies' websites only. It was not possible to obtain panel data for 8 of the companies as the companies had either been de-listed or no annual reports or policies could be found for them. 2018 was also a key year of full implementation of the CCGI but the full 2018 annual report for a number of the companies was not available and therefore information on whistleblowing policy disclosures in the 2018 annual reports was limited.

The second limitation is the timeline for the study: 2013-2018. The chosen timeline relates to the introduction of the CCGI but is otherwise arbitrary. The CCGI was issued in December 2015, gazetted into law on 4 March 2016 and became fully applicable with effect from 4 March 2017. However, by 4 March 2017, most listed companies were in the middle of their financial years and the deadline for compliance was therefore pushed to April 2018. Full implementation of whistleblowing policy disclosures in annual reports and websites was therefore expected in 2018. However, this study sought to determine whether there was any compliance by NSE companies in the reports prior to the April 2018 deadline.

The third limitation is the annual reports and websites used as the source of whistleblowing policy disclosures. Using annual reports and whistleblowing policies obtained from publicly available sources ignores other sources of obtaining the information. However, annual reports are considered as an important information source by most company stakeholders. Moreover, the majority of prior whistleblowing policy disclosure related studies use annual report as the disclosure instrument (Gray et al., 1995; Buniamin, 2012).

In addition, annual reports make the comparison between years easier to undertake and, hence, an appropriate choice for this study.

The fourth limitation was the disclosure index, which was developed to capture whistleblowing policy disclosures in annual reports and whistleblowing policies obtained from the websites of companies. The items listed in the disclosure index had equally weighted scores. However, a simple scoring system (1 for existence and 0 for absence) has a lower degree of subjectivity and is more reliable than a weighted scoring system (Milne & Adler, 1999).

Lastly, consistent with similar studies, this research only examined observable disclosures not actual whistle-blowing practices. Research on actual whistleblowing practices would be beneficial if the data were available.



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APPENDICES

APPENDIX 1: Introduction letter



17 April 2019

TO WHOM IT MAY CONCERN

Academic Reference for Muchemi Mary Wangui Student No. 47517

Ms Muchemi Mary Wangui is a postgraduate student in our Master of Commerce (MCom) programme. In partial fulfilment of the MCom degree, students are required to carry out a research project and write a thesis on a contemporary subject within their field of specialisation. Among other activities, the project involves data collection and analysis.

Mary is requesting to gather information to be used in her research. The information she will obtain from your organization will be used for this academic purpose only and will be kept confidential. The results of the survey will be in summary form and will not disclose any individual, company name or company information in any way.

The research study is entitled **"The Determinants and Extent of Whistleblowing Disclosures by Companies Listed on the Nairobi Securities Exchange."**

We hope that your organization can assist by providing information to the above named student.

Yours faithfully,

A handwritten signature in black ink, appearing to read "Quindos Karanja".

Quindos Karanja
Coordinator – Master Programmes
Strathmore University Business School
Email: qkaranja@strathmore.edu

APPENDIX 2: Ethical approval



3rd June 2019

Ms Muchemi, Mary,
mwmuchemi@gmail.com

REF Protocol ID: SU-IERC0500/19 Student No.: 047517

The Determinants and Extent of Whistleblowing Policy Disclosures of Companies Listed on the Nairobi Securities Exchange

We acknowledge receipt of your application documents to the Strathmore University Institutional Ethics Review Committee (SU-IERC) which includes:

1. Study Protocol submitted 28th May 2019
2. Cover letter listing all submitted documents 28th May 2019
3. Proposal declaration Page signed by supervisors 28th May 2019

The committee has reviewed your application, and your study "*The Determinants and Extent of Whistleblowing Policy Disclosures of Companies Listed on the Nairobi Securities Exchange*" has been granted **approval**.

This approval is valid for one year beginning **3rd June 2019** until **3rd June 2020**.

In case the study extends beyond one year, you are required to seek an extension of the Ethics approval prior to its expiry. You are required to submit any proposed changes to this proposal to SU-IERC for review and approval prior to implementation of any change.

SU-IERC should be notified when your study is complete.

Thank you.

Sincerely,

for: Prof Florence Oloo
Secretary
Strathmore University Institutional Ethics Review Committee



APPENDIX 3: Disclosure index

PART I: Whistleblowing policy disclosures	
Items	Scoring
General	
Does company have a website?	0, No/ 1, Yes
Does company have complete financial statements on its website?	0, No/ 1, Yes
Does the company have its whistleblowing policy on its website?	0, No/ 1, Yes
1. Contents & scope	
a. Clear statement that reporting violations is a requirement or duty	0, No/ 1, Yes
b. Scope applies to employees (including contractors and consultants)	0, No/ 1, Yes
c. Applicable to non-employees (suppliers, the public, customers, etc)	0, No/ 1, Yes
d. Provision of training on the whistleblowing policy	0, No/ 1, Yes
2. Nature of reportable wrongdoing	
a. Specific examples of reportable violations are given (corruption, bribery, theft, misappropriation, etc.)	0, No/ 1, Yes
b. Failing to report wrongdoing is wrong	0, No/ 1, Yes
3. Official/body to whom wrongdoing should be reported	
a. Dedicated hotline (telephone/e-mail/web) / specific individual within the organization	0, No/ 1, Yes
* Specific individual within the organization	Title of person
b. Specific contact details of the individual are given or are said to be "found on website/intranet"	0, No/ 1, Yes
4. Reporting guidelines	
a. Guidelines on how to report (specific details mentioned/special reporting form is provided)	0, No/ 1, Yes
5. Anonymity and confidentiality	
a. Reported wrongdoing will be handled confidentially	0, No/ 1, Yes
* Exceptions to confidentiality	Circumstance
b. Statement that violations can be reported anonymously	0, No/ 1, Yes
* No reporting anonymously	0, No/ 1, Yes
* Public disclosure (regulator, media) is not allowed without permission/is allowed under clear conditions	0, No/ 1, Yes
6. Protection from retaliation	
a. Requirement that the report is made in good faith/reasonable grounds or belief of wrongdoing	0, No/ 1, Yes
b. Statement that there will be no retaliation/retaliation is prohibited/not tolerated if report is made in good faith	0, No/ 1, Yes
c. Action(s) to be taken if there is retaliation	0, No/ 1, Yes
d. Statement that protection is given	0, No/ 1, Yes
e. The kind of protection given	0, No/ 1, Yes
7. Investigation details	
a. Statement on the individuals that will receive and investigate the reported violations	0, No/ 1, Yes
b. Statement that the investigation will be fair and impartial	0, No/ 1, Yes
c. Description of investigation process	0, No/ 1, Yes
d. Whether whistleblowers will be informed about the start and progress of the investigation	0, No/ 1, Yes
e. Statement on whether whistleblowers will receive feedback after the investigation	0, No/ 1, Yes
Total Score	21

PART II: Determinants	
1. Firm characteristics	
<i>Size</i>	
a. Total assets	Value
<i>Current assets</i>	
a. Inventory	Value
b. Cash & bank	Value
c. Accounts receivable	Value
d. Current assets	Value
2. Legal environment	
a. Number of legal cases (in Kenya Law Reports)	Number
b. Cross-listed in another jurisdiction (securities exchange)	0, No/ 1, Yes
3. Active hotline service	
a. Existence	0, No/ 1, Yes
b. Name	Name
c. Telephone number	0, No/ 1, Yes
d. Toll-free telephone number	0, No/ 1, Yes
e. E-mail address	0, No/ 1, Yes
f. Website form/reporting	0, No/ 1, Yes
g. Multilingual	0, No/ 1, Yes
h. Availability - 24/7 service or other	0, 24/7/ 1, OTHER
i. Internal or outsourced whistleblower service	0, INT/ 1, EXT
4. Corporate governance	
<i>Audit committee independence</i>	
a. Total non-executive audit committee directors	Number
b. Number of audit committee non-executive directors that are independent	Number
<i>Concentrated shareholding</i>	
a. Percentage of top 10 shareholders	Percentage
<i>Commitment to fighting fraud</i>	
a. Existence of a statement of commitment to fighting fraud	0, No/ 1, Yes

APPENDIX 4: Disclosure scores of disclosure index items

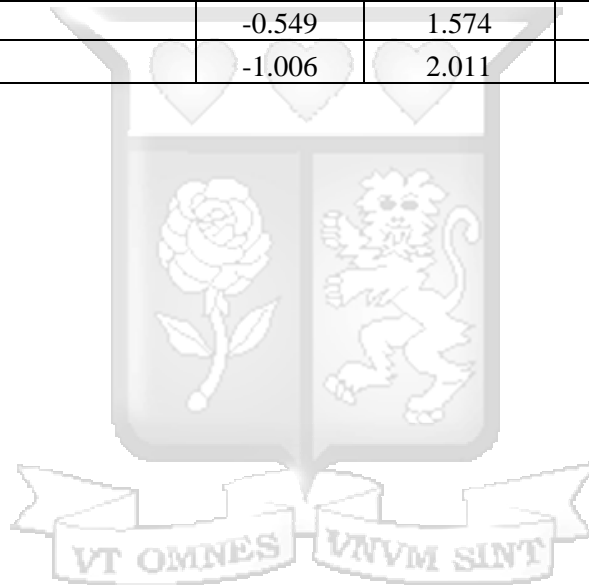
Disclosure scores	Annual report		Website	
	Total	Average disclosure score	Total	Average disclosure score
1. Contents & scope				
a. Clear statement that reporting violations is a requirement or duty	66	0.186	35	0.593
b. Applicable to employees (includes consultants and contractors)	65	0.184	27	0.458
c. Applicable to non-employees (suppliers, the public, customers, etc)	78	0.220	36	0.610
d. Provision of training on the whistleblowing policy	61	0.172	16	0.271
Average	68	0.191	28.5	0.483
2. Nature of violations to be reported				
a. Specific examples of reportable violations are given (corruption, bribery, theft, misappropriation, etc.)	70	0.198	33	0.559
b. Failing to report wrongdoing is wrong	60	0.169	20	0.339
Average	65	0.184	26.5	0.449
3. Official/body to whom wrongdoing should be reported				
a. Dedicated hotline (telephone/e-mail/web) / specific individual within the organization	71	0.201	32	0.542
b. Specific contact details of the individual are given or are said to be "found on website/intranet"	63	0.178	23	0.390
Average	67	0.189	27.5	0.466
4. Reporting guidelines				
a. Guidelines on how to report (specific details mentioned/special reporting form is provided)	53	0.150	24	0.407
Average	53	0.150	24	0.407
5. Anonymity and confidentiality				
a. Reported wrongdoing will be handled confidentially	69	0.195	36	0.610
b. Statement that violations can be reported anonymously	72	0.203	34	0.576
Average	71	0.199	35	0.593
6. Protection from retaliation				
a. Requirement that the report is made in good faith/reasonable grounds or belief of wrongdoing	5	0.014	5	0.085
b. Statement that there will be no retaliation/retaliation is prohibited/not tolerated if reporting is done in good faith	69	0.195	31	0.525
c. Action(s) to be taken if there is retaliation	57	0.161	26	0.441
d. Protection given	73	0.206	34	0.576
e. Type of protection given	53	0.150	16	0.271
Average	51	0.145	22.4	0.380

Disclosure scores	Annual report		Website	
	Total	Average disclosure score	Total	Average disclosure score
7. Investigation details				
a. Statement on the individuals that will receive and investigate the reported violations	59	0.167	23	0.390
b. Statement that the investigation will be fair and impartial	73	0.206	32	0.542
c. Description of investigation process	47	0.133	18	0.305
d. Whether whistleblowers will be informed about the start and progress of the investigation	52	0.147	10	0.169
e. Statement on whether whistleblowers will receive feedback after the investigation	52	0.147	8	0.136
Average	57	0.160	18	0.308
Average disclosure score		0.198		0.396



APPENDIX 5: Normality table

Variable	Skewness	Kurtosis	Jarque-Bera	Probability
WB disclosures - annual reports	1.409	3.180	101.340	0.000
Ln Total assets	0.375	2.300	13.373	0.001
Cash/CA	0.830	2.469	38.596	0.000
Inv./CA	0.857	2.717	38.391	0.000
Acc. Rec./CA	0.098	2.089	11.033	0.004
Legal cases	6.398	44.527	23,996.890	0.000
Cross-listing	2.578	7.648	612.568	0.000
Hotline	0.610	1.372	52.595	0.000
Aud. comm. size	1.222	4.154	92.868	0.000
Aud. comm. indep.	0.650	2.222	29.133	0.000
Conc. ownership	-0.549	1.574	41.149	0.000
Commitment	-1.006	2.011	63.824	0.000



APPENDIX 6: NSE companies

No.	Company Name	Financial Year End
A Agricultural		
1	Eaagads Limited	31 March
2	Kakuzi	31 March
3	Kapchorua Tea Co. Limited	31 March
4	The Limuru Tea Co.	31 December
5	Sasini	30 September
6	Williamson Tea Kenya Limited	31 March
B Automobiles & Accessories		
7	Car & General (K) Limited	30 September
C Banking		
8	Barclays Bank of Kenya Limited	31 December
9	BK Group	31 December
10	Diamond Trust Bank Kenya Limited	31 December
11	Equity Group Holdings	31 December
12	HF Group	31 December
13	I&M Holdings	31 December
14	KCB Group	31 December
15	National Bank of Kenya Limited	31 December
16	NIC Group	31 December
17	Stanbic Holdings	31 December
18	Standard Chartered Bank Kenya Limited	31 December
19	The Co-operative Bank of Kenya Limited	31 December
D Commercial And Services		
20	Atlas African Industries Limited*	30 June
21	Deacons (East Africa)*	31 March
22	Eveready East Africa Limited	30 September
23	Express Kenya Limited	31 March
24	Kenya Airways Limited	31 March
25	Longhorn Publishers	30 June
26	Nairobi Business Ventures Limited	31 March
27	Nation Media Group Limited	31 December
28	Sameer Africa	31 December
29	Standard Group	31 December
30	TPS Eastern Africa Limited	31 December
31	Uchumi Supermarket	30 June
32	WPP Scangroup	31 December
E Construction & Allied		
33	ARM Cement*	31 December
34	Bamburi Cement Limited	31 December
35	Crown Paints Kenya	31 December
36	E.A. Cables Limited	31 December

No.	Company Name	Financial Year End
37	E.A. Portland Cement Co. Limited	31 December
F Energy & Petroleum		
38	KenGen Company	30 June
39	KenolKobil Limited*	31 December
40	Kenya Power & Lighting Co Limited	30 June
41	Total Kenya Limited	31 December
42	Umeme Limited	31 March
G Insurance		
43	Britam Holdings	31 December
44	CIC Insurance Group Limited	31 December
45	Jubilee Holdings Limited	31 December
46	Kenya Re Insurance Corporation Limited	31 December
47	Liberty Kenya Holdings Limited	31 December
48	Sanlam Kenya	31 December
H Investment		
49	Centum Investment Co	31 March
50	Home Afrika Limited	31 March
51	Kurwitu Ventures Limited	31 December
52	Olympia Capital Holdings Limited	28 February
53	Trans-Century	31 December
I Investment Services		
54	Nairobi Securities Exchange	31 December
J Manufacturing & Allied		
55	B.O.C Kenya	31 December
56	British American Tobacco Kenya	31 March
57	Carbacid Investments Limited	31 March
58	East African Breweries Limited	30 June
59	Flame Tree Group Holdings Limited	31 December
60	Kenya Orchards Limited	31 March
61	Mumias Sugar Co. Limited	30 June
62	Unga Group Limited	31 December
K Telecommunication		
63	Safaricom	31 March
L Real Estate Investment Trust		
64	Stanlib Fahari I-REIT	31 December
M Exchange Traded Fund		
65	NewGold Issuer (RP) Limited	31 March

* Suspended from the securities exchange as at the date of this list

Source: NSE website and the NSE 2017 - 18 Investors Handbook as at 31 Dec 2018