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SCHOOL OF COMPUTING AND INFORMATICS

AN EXAMINATION OF THE FACTORS INFLUENCING SOCIAL MEDIA ADOPTION BY CORPORATE ORGANISATIONS IN KENYA.

BY

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RESEARCH REPORT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE DEGREE OF MASTER OF SCIENCE IN INFORMATION SYSTEMS (MSC.IS) OF THE UNIVERSITY OF NAIROBI.

DECLARATION

This research project is my original work and has not been presented for a degree in any other University.

Signature---------- Date----------

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P56/73481/2012

This research project report has been submitted for examination towards fulfilment for the award of degree of Master of Science in Information Systems with my approval as the University of Nairobi supervisor

Signature---------- Date----------

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ABSTRACT

Social Media is transforming the way the world does business. Today the implications are huge and the prizes are enormous for those businesses & individuals who handle it right. However a few organizations in Kenya today can actually show tangible results on their efforts on social media. Why? Most organizations jumped into the social media bandwagon without a strategy, a budget to sustain it and a dedicated social media team.

This study sought to determine the factors which influence the adoption of social media by corporate organisations in Kenya, to determine the extent to which these factors influence adoption of social media in corporate organisations in Kenya and develop and validate a model for social media adoption in corporate organisations in Kenya.

Various theories were reviewed in order to come up with the proposed model. These models include Unified Theory of Acceptance and Use of Technology (UTAUT) developed by Venkatesh et al (2003) and Technology Acceptance Model (TAM) derived from the theory of reasoned action by Azjen and Fishbein (1980)

A survey was used to collect quantitative data for this research. The population of this study comprised all the 60 companies listed in the Nairobi Securities Exchange as at 30th June 2013. A sample size of 50% of the population (or 30 firms) was selected for this study using simple random sampling technique. This study used primary data that was collected through semi-structured questionnaires that were administered to the IT managers of the corporate organisations in Kenya. The questionnaire contained questions on social media adoption by the firms in order to ascertain the adoption extent, types of social media adopted and the factors that influenced social media adoption in organisations. Pilot tests were done to help examine the validity of the instrument after which the instruments were amended accordingly.

During data collection, 27 out of the 30 questionnaires were collected. Various statistical tools and protocols were used to analyse the collected data. SPSS 15 for windows was the main tool used in this research. Various statistical approaches were used in the analysis and these included: Factor analysis, Analysis of variance (ANOVA), descriptive statistics and Regression.

The study found out that the most significant factor which influenced adoption of social media is relative advantage. The results from the analysis above were used to develop a framework that guides in determining the factors influencing social media adoption in corporate organizations. This framework will be important to IT managers, corporate organisations, policy makers, as well as researchers in technology and especially those interested in studying social media. Corporate organisations will understand the value of social media adoption to aid in communication purposes within the institutions as well as with the outsiders. It will aid in coming up with appropriate models to adopt technology and more specifically social media.

Keywords: Social Media, adoption, corporate organizations

DEDICATION

This project is dedicated to my dear parents Mr and Mrs Wycliffe Gimoi.

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My family will forever be in my heart for their support in every way. Above all, to God be the Glory for thus far He has brought me. I am forever grateful.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1. CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Social media is "the internet and mobile technology based channels of communication in which people share content with each other. Examples are social networking sites such as Facebook and Twitter." (Financial Times Lexicon, 2011). Social media can offer business advantages for both private companies and government agencies. Organizations can use this media to reach out to mass audiences efficiently and at very low cost. They can promote brand awareness in many different markets. They can also network with current and potential customers. A dichotomy exists between companies that have embraced the promise of this new technology and those that mostly avoid it. In a 2009 survey of companies that participate in online social media communities, 70 percent of respondents reported using social media of some kind in their businesses. Over 40 percent of such companies had employees whose job function included spending time on social media sites in order to maintain an organizational presence. More than a quarter of these companies maintained social media sites for employees' personal announcements and social events. Fewer than ten percent blocked access to social media for any employees.

Social media can have tremendous benefits but also can have serious security risks for organizations. Two of the greatest risks to organizations are malware and inadvertent disclosure of sensitive information (Waxer, 2011). The security risks are often cited by companies as a reason they do not allow social media use. Seventy-two percent of companies believe employees' use of social media poses a threat to their organizations (Schroeder, 2010). Their concerns are justified. According to a report by Sophos, the incidence of malware is increasing on the most popular social media sites including Twitter, MySpace, Facebook and LinkedIn (Sophos, 2010). In 2010, 57% of users reported they received spam via social media sites, an increase of 70.6% compared to the previous year. Additionally, 36% of users report they were sent malware via social media sites, a rise of 69.8% over 2009 (Schroeder, 2010).

1.1.1 Adoption of Social Media by Organisations

Recently, numerous publications have suggested that social media technologies: blogs, wikis, social networking sites (SNS), micro blogs, or social tagging tools, may facilitate

communication practices in organizations that differ from those associated with traditional computer mediated communication (CMC) technologies like e-mail, teleconferencing, intranets, decision-support systems, and instant messaging (Grudin, 2006; McAfee, 2006; Steinhuser, Smolnik, & Hoppe, 2011). In addition to the scholarly literature on the role of social media use in organizations, the business press has issued a number of bold proclamations such as: "Social media will change your business" (Baker & Green, 2008) and asked such daring questions as: "Can social apps kill enterprise software?". Whether or not one believes or discounts such statements, social media adoption within organizations is occurring at a rapid pace. According to a survey by global consulting firm McKinsey, 65% of companies reported the use of Web 2.0 technologies in their organizations.

Social networking sites encourage businesses to change their traditional marketing strategies and focus on talking prospects and clients, with the goal of developing and "deepening the relationship" between the company and customer. But what's the business benefit of that deepened relationship? When prospects grow to "know, like, and trust" a company, through interacting with their representatives on social networking sites, they are much more likely to do business with that company.

It is well-established that people feel more connected with a company when they have direct communication on an ongoing basis and opportunities to express their opinions," commented Lisa Brown, in an article about the use of social media risks in business. Indeed, social networking conversations create a level of immediacy and a kind of public intimacy that is impossible with traditional marketing. And since most large or medium-size companies are perceived by the public as relatively "faceless," social networking gives companies the opportunity to present a human face in the form of a social media spokesperson -- an individual who can nurture person-to-person conversations which builds trust in the company's authenticity as well as its professionalism.

The importance of social media tools in the today's business environment has gained importance due to the increasing complexity of the global business setting which involves global co-workers, customers and suppliers. Business processes have become so complex that they must be automated because employees can no longer perform all the tasks required in the time available. 'None of us can work in a vacuum in today's world; we must

work with one another to get things done. Organizations today are constantly facing the challenge of contextualizing this phenomenon and its effects on the employees' ability to perform duties assigned to them and the ability to draw boundaries between personal and professional use of organizational information technology resource. Wasting time through internet activities is simple and it is a huge hidden cost to business. If the company has an eight-person department and each of them spends an hour a day on the above activities, that is a whole employee wasted

A recent McKinsey study surveyed organizations on how they use "social tools and technologies", which include social networking and social media technologies. The survey showed that business use of these platforms has increased steadily since 2008 (when McKinsey first started quizzing companies on these issues). Likewise, business use of "microblogging" tools (such as Twitter, the popular social media platform) has increased (Bughin, et al., 2011). Beyond figures on adoption, the McKinsey survey also explored how companies are using these technologies. The survey found that, while the uses of social networking technologies vary fairly widely, they are mostly applied in externally focused processes such as gathering market intelligence and supporting marketing efforts. Internal use of these technologies appears to be less common among those companies surveyed.

The emergence of Internet-based social media has started a new kind of conversation among consumers and companies, challenging traditional ideas about marketing and brand management while creating new opportunities for organizations to understand customers and connect with them instantly. The proliferation of social media channels is mind-boggling. Publishing tools like TypePad and WordPress offer any company or customer the chance to write a blog, while micro-blogging on Twitter allows a rapid-fire stream of real-time commentary, complaints, and recommendations. Social networking sites like Facebook and LinkedIn bring together friends, fans, and detractors, while wikis and social news sites like Delicious and Digg quickly move links and ideas around the Web. Customers planning a vacation, a meal, or a haircut can turn to customer review sites like Trip Advisor and Yelp. Meanwhile, on multimedia sites like YouTube, companies can post promotional clips, while disgruntled consumers can capture scenes of poor service or damaged products on their iPhones and quickly upload the video.

The growth in use of these channels is equally astounding. Twitter reached a benchmark of 50 million tweets this year. Facebook has over 500 million worldwide users, and based on current growth rates, projects one billion total users by 2011. The average amount of time spent on social networking sites increased 82% last year. And it is not just a phenomenon among the young: according to Forrester research, a third of adults post at least once a week to social networking sites such as Facebook and Twitter, and about 70% read blogs and tweets, and watch YouTube. Never before have had companies had the opportunity to talk to millions of customers, send out messages, get fast feedback, and experiment with offers at relatively low costs. And never before have millions of consumers had the ability to talk to each other, criticizing or recommending products without the knowledge or input from a company. Conventional marketing wisdom long held that a dissatisfied customer tells ten people. But in the new age of social media, he or she has the tools to tell ten million.

1.1.2 Usage of Social Media by Organisations in Kenya

Social Media is transforming the way the world does business. Today the implications are huge and the prizes are enormous for those businesses & individuals who handle it right. However a few organizations in Kenya today can actually show tangible results on their efforts on social media. Why? Most organizations jumped into the social media bandwagon without a strategy, a budget to sustain it and a dedicated social media team! Social media marketing eliminates the middlemen, providing brands the unique opportunity to have a direct relationship with their customers (Mwambui, 2010).

Social networking has become integral to the lives of many. Users of social media in Kenya represent the most influential and economically able section of the population (customers, clients, prospects, suppliers etc.). The proliferation of mobile phone, affordable smart phones and notebooks in the country completely changes the when, where and how brands connect and interact with their communities online. Today people no longer search for news, content and information. Instead friends and followers continually push them to each other on social media. This growth of social media in business and communication in Kenya presents an opportunity as well as a serious risk to any business. However whether

or not an organisation is active doing the right thing on social media the conversation goes on with or without it (Munene and Nyaribo, 2013).

Kenyans are amongst the most active online audiences in sub-Saharan Africa: Estimates indicate that there are more than a million Kenyans on Facebook and just under 70,000 (active accounts) on Twitter. Social media usage has benefitted from rapidly growing internet access, especially as increasing numbers of people use mobile phones for this purpose. Kenya already has a mobile penetration rate of around 50%, and the prices for smartphones keep falling, as do the data tariffs offered by mobile telecommunication companies: Safaricom currently offers virtually unlimited mobile internet access for KES10 a day, Yu's Peperusha service allows people to access the internet via SMS, i.e. users do not even need a smartphone anymore to use Twitter, and Orange offer 50MB for KES50 a week (Munene and Nyaribo, 2013).

Social networks are quickly becoming a key source of information for urban Kenyans. As a consequence, in addition to straightforward online advertising, corporate also need to be aware of how they can use the digital chatter space: to provide information about their goods and services, to build their brand, and also to counteract mentions on online media that are detrimental to their image (Munene and Nyaribo, 2013).

1.2 Problem Statement

The use of social media technologies such as blogs, wikis, social networking sites, social tagging, and microblogging is proliferating at an incredible pace. Social media adoption within organizations is occurring at a rapid pace. According to a survey by global consulting firm McKinsey, 65% of companies reported the use of Web 2.0 technologies in their organizations (Bughin & Chui, 2010). Forrester Research predicted that corporate spending on enterprise social media would reach more than $4.6 billion annually by 2013 (Young et al., 2008).

Yet despite the increased adoption of social media by firms, the implications of these new technologies for organizational processes are not yet well understood by communication researchers. Scholars have suggested that social media adoption in organizations is outpacing empirical understanding of the use of these technologies and our theories about

why they may alter various organizational processes (Raeth, Smolnik, Urbach, & Zimmer, 2009)

However, scholarship has largely failed to explain the adoption and usage of social media in developing countries especially Kenya, where technology adoption is generally low but rising. Because the implications of social media use in organizations are not well understood.

A few studies on the use of social media by corporate organisations have been carried out in the Kenyan context. Okolloh (2009) carried out a study on Ushahidi, or 'testimony' on Web 2.0 tools for crowd-sourcing crisis information. Mwambui (2010) carried out a study on Leveraging social media for fundraising in Kenya. Munene and Nyaribo (2013) studied the Effect of Social Media Pertication in the Workplace on Employee Productivity. Not much study has focused on the adoption and usage of social media in a corporate setting. There is therefore a gap as far as a study on adoption and usage of social media in a corporate organisations in Kenya. This study seeks to examine the adoption of social media in corporate organisations in Kenya. Thus the contribution of this study is the examination of social media adoption models by public institutions and with this the study intends to come up with a framework for adoption of social media that can be used in corporate organizations given their unique features that make them different from private organisations. Companies that lack a social media policy run the risk of becoming frozen in the marketplace. Lack of guidelines tends to create chaos in organizations of all sizes. Some companies simply turn off all forms of social media, block employees from using Twitter, Facebook or other channels at work and the overarching policy is NOT to use social media.

1.2 Research Objectives

The main purpose of this research is to determine the determinants of social media adoption in Kenyan corporate organisations. In particular, the study seeks to explore the following specific objectives.

1 To determine the factors which influence the adoption of social media by corporate organisations in Kenya

2 To determine the extent to which these factors influence adoption of social media in corporate organisations in Kenya.

3 To develop and validate a framework for social media adoption in corporate organisations in Kenya.

1.4 Research Hypotheses

The research seeks to answer the following research questions:

H1a: Does Relative advantage have a direct relationship with social media adoption?

H1b: What is the effect of the number of employees on relative advantage in the adoption of social media?

H2a: Does Compatibility have a direct relationship with social media adoption?

H2b: Does the number of employees have a moderating effect on compatibility in the adoption of social media?

H3: What is the relationship between observability and social media adoption?

H4a: Does Perceived risks have a direct relationship with social media adoption?

H4b: Is there any moderating effect of company ownership on perceived risk in the adoption of social media?

H4c: Does the number of employees in an organisation have a moderating effect on perceived risk in the adoption of social media?

1.5 Value of the Study

This study will be important to corporate organisation, policy makers, as well as researchers in technology and especially those interested in studying social media. Corporate organisations will understand the value of social media adoption to aid in communication purposes within the institutions as well as with the outsiders.

With the governments need to integrate technology in its operations, this study will aid policy makers in coming up with appropriate models to adopt technology and more specifically social media in government owned institutions. The factors that affect social media adoption in organisations will be important pointers for policy makers in Kenya too.

Other researchers can also use this study as a point of references for future studies on social media adoption and use in Kenya for both public and private institutions.

2. CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents the theoretical framework, conceptual framework and the empirical review of this study. In the theoretical framework, theories on the adoption use of technology in organisations are presented. The conceptual framework presents the relationship between the variables in the study. Finally, the empirical review presents literature on what other researchers have studied in the same topic.

2.2 Theoretical Framework

This study will be based on various models of technology acceptance. These include the Unified Theory of Acceptance and Use of Technology (UTAUT),

2.2.1 Unified Theory of Acceptance and Use of Technology (UTAUT)

The Unified Theory of Acceptance and Use of Technology (UTAUT) was proposed and validated in order to provide a unified theoretical basis from which to facilitate research on information system (IS)/ information technology (IT) adoption and diffusion. The theory postulates that four core constructs performance expectancy, effort expectancy, social influence, and facilitating conditions –are direct determinants of IS/IT behavioural intention and ultimately behaviour (Venkatesh et al., 2003). The theory also assumes that the effect of core constructs is moderated by gender, age, experience, and voluntariness of use (Venkatesh et al., 2003). The theory was developed through the review, mapping and integration of eight dominant theories and models, viz: the Theory of Reasoned Action (TRA), the Technology Acceptance Model (TAM), the Motivational Model (MM), the Theory of Planned Behaviour (TPB), a combined Theory of Planned Behaviour/Technology Acceptance Model (C-TPB-TAM), the Model of PC Utilization (MPCU), the Innovation Diffusion Theory (IDT), and the Social Cognitive Theory (SCT). These theories and models have been successfully utilised by a large number of previous studies of technology or innovation adoption and diffusion within both the information systems field and other disciplines including marketing, social psychology, and management. The motivation to define and validate the UTAUT was based on the argument that many of the constructs of existing theories are similar in nature; therefore, it

was logical to map and integrate them to create a unified theoretical basis (Venkatesh et al., 2003). By doing so, creators of the UTAUT hoped that future studies would need not to search, collate and integrate constructs from numerous different models but instead could just apply the UTAUT to gain an understanding of a variety of problems related to IS/IT adoption and diffusion.

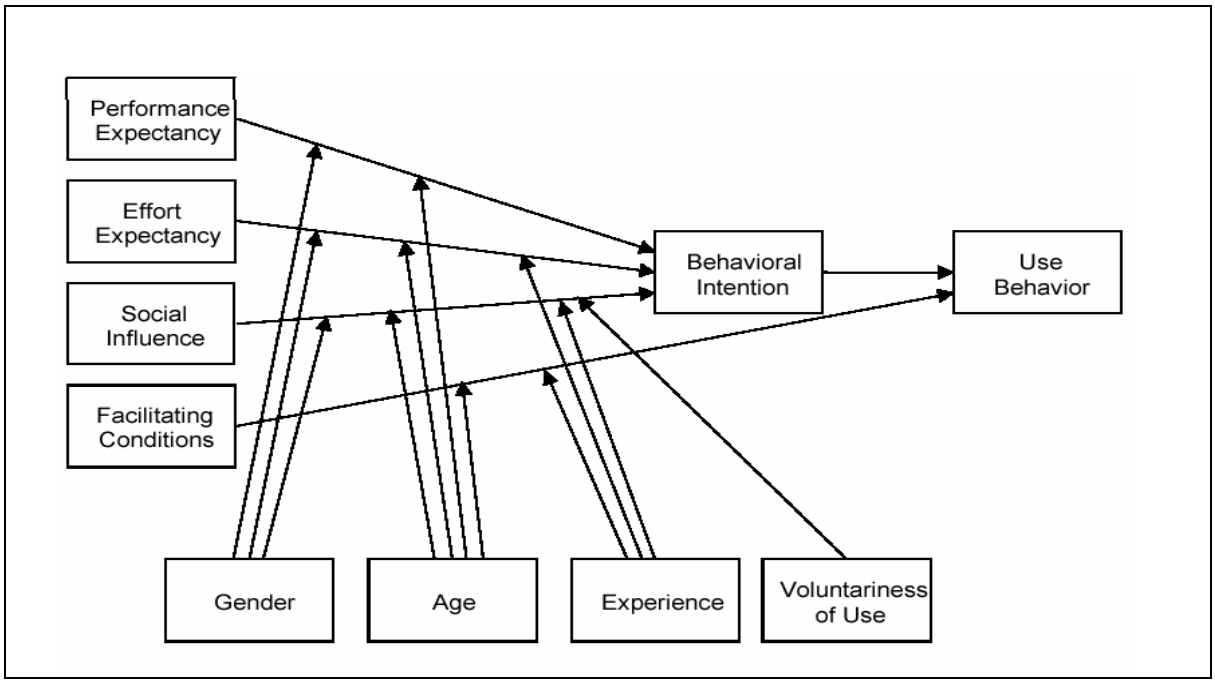

Figure 2.1 Unified Theory of Acceptance and Use of Technology (UTAUT)

Source: Venkatesh et al. (2003)

Since its original publication, UTAUT has served as a baseline model and has been applied to the study of a variety of technologies in both organizational and non-organizational settings. There have been many applications and replications of the entire model or part of the model in organizational settings that have contributed to fortifying its generalizability (e.g., Neufeld et al. 2007). There are three broad types of UTAUT extensions/integrations. The first type of extension/ integration examined UTAUT in new contexts, such as new technologies (e.g., collaborative technology, health information systems; Chang et al. 2007), new user populations (e.g., healthcare professionals, consumers; Yi et al. 2006) and new cultural settings (e.g., China, India; Gupta et al. 2008). The second type is the addition of new constructs in order to expand the scope of the endogenous theoretical mechanisms outlined in UTAUT (e.g., Chan et al. 2008; Sun et al. 2009). Finally, the third type is the inclusion of exogenous predictors of the UTAUT variables (e.g., Neufeld et al. 2007; Yi et

al. 2006). These extensive replications, applications, and extensions/integrations of UTAUT have been valuable in expanding our understanding of technology adoption and extending the theoretical boundaries of the theory. However, our review of this body of work revealed that most studies using UTAUT employed only a subset of the constructs, particularly by dropping the moderators (see Al-Gahtani et al. 2007; Armida 2008). Thus, while the various studies contribute to understanding the utility of UTAUT in different contexts, there is still the need for a systematic investigation and theorizing of the salient factors that would apply to a consumer technology use context.

Based on a review of the extant literature, Venkatesh et al. (2003) developed UTAUT as a comprehensive synthesis of prior technology acceptance research. UTAUT has four key constructs (i.e., performance expectancy, effort expectancy, social influence, and facilitating conditions) that influence behavioral intention to use a technology and/or technology use. We adapt these constructs and definitions from UTAUT to the consumer technology acceptance and use context. Here, performance expectancy is defined as the degree to which using a technology will provide benefits to consumers in performing certain activities; effort expectancy is the degree of ease associated with consumers' use of technology; social influence is the extent to which consumers perceive that important others (e.g., family and friends) believe they should use a particular technology; and facilitating conditions refer to consumers' perceptions of the resources and support available to perform a behavior (Brown and Venkatesh 2005). According to UTAUT, performance expectancy, effort expectancy, and social influence are theorized to influence behavioural intention to use a technology, while behavioural intention and facilitating conditions determine technology use. Also, individual difference variables, namely age, gender, and experience (note that we drop voluntariness, which is part of the original UTAUT), are theorized to moderate various UTAUT relationships. The lighter lines in Figure 1 show the original UTAUT along with the one modification noted above that was necessary to make the theory applicable to this context.

UTAUT takes an approach that emphasizes the importance of utilitarian value (extrinsic motivation). The construct tied to utility, namely performance expectancy, has consistently been shown to be the strongest predictor of behavioural intention (see Venkatesh et al. 2003). Complementing this perspective from motivation theory is intrinsic or hedonic

motivation (Vallerand 1997). Hedonic motivation has been included as a key predictor in much consumer behaviour research (Holbrook and Hirschman 1982) and prior IS research in the consumer technology use context (Brown and Venkatesh 2005). Second, from the perspective of effort expectancy, in organizational settings, employees assess time and effort in forming views about the overall effort associated with the acceptance and use of technologies.

In a consumer technology use context, price is also an important factor as, unlike workplace technologies, consumers have to bear the costs associated with the purchase of devices and services. Consistent with this argument, much consumer behaviour research has included constructs related to cost to explain consumers' actions (Dodds et al. 1991). Finally, UTAUT and related models hinge on intentionality as a key underlying theoretical mechanism that drives behavior. Many, including detractors of this class of models, have argued that the inclusion of additional theoretical mechanisms is important. In a use, rather than initial acceptance, context habit has been shown to be a critical factor predicting technology use.

2.2.2 The Technology Acceptance Model

The Technology Acceptance Model (TAM) is derived from the theory of reasoned action from Azjen and Fishbein (1980) and addresses the issue of how users come to acceptance and use a technology (Davis, 1989). TAM suggests that when users are presented with a new technology, different variables influence the decision whether and how they will use it. Two causal linkages influence this decision: perceived usefulness (PU) and perceived ease of use (PEOU) of the relevant technology. Perceived usefulness explains the user's perception to the extent that the technology will improve his/her work performance and perceived ease of use relates to the user's perception of the amount of effort required to utilize the system or the extent to which a user believes that using a particular technology will be effortless (Davis, 1989). The model provides explanations of determinants of computer technology acceptance by tracing the impact of external factors on internal beliefs, intentions and attitudes.

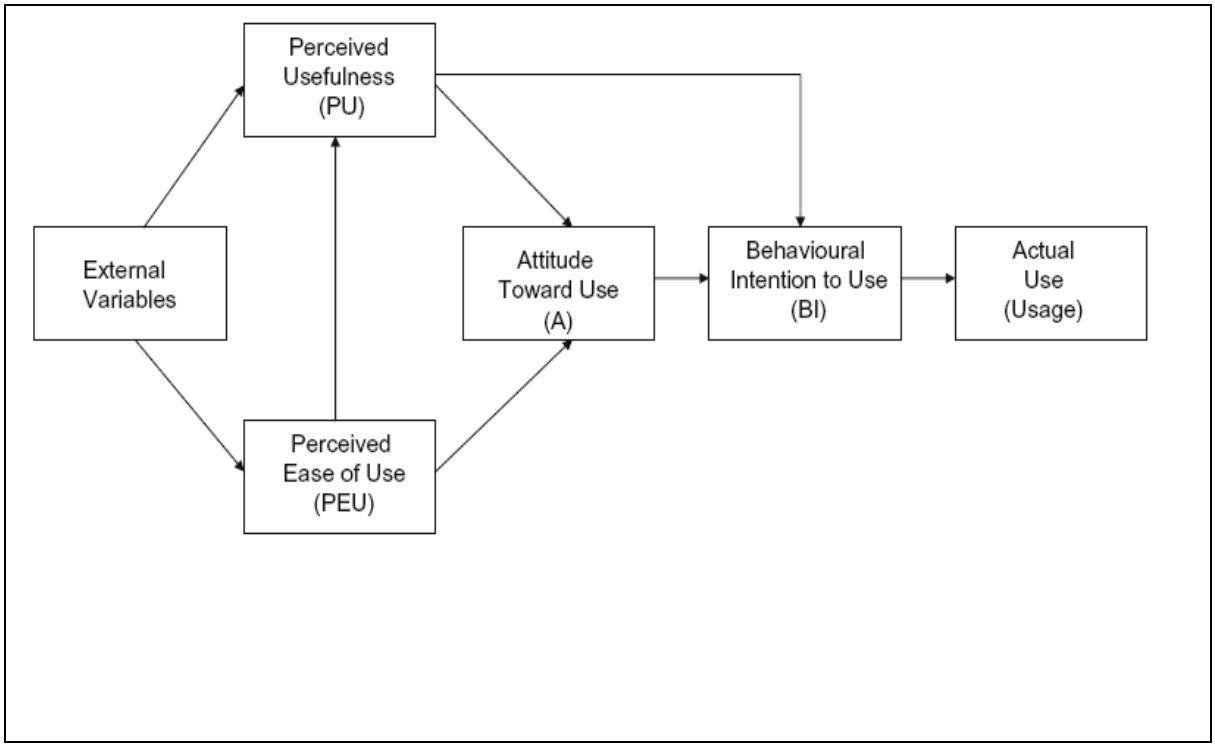

Figure 2.2 : Technology Acceptance Model (TAM)

Source: Davis et al 1989

The concepts of usefulness and ease of use of technology have evolved from the original research on the technology acceptance model by Davis (1989). The technology acceptance model (TAM) demonstrates that the perceptions of technology and its perceived ease of use and usefulness have a significant impact on its use and ultimately on performance. There has been an extensive amount of research on these variables that has evolved out of the theory of reasoned acceptance whereby users accept or reject the use of information technology based on its perceived ease of use and usefulness (Malhotra, Heine & Grover, 2001; Saade, 2007; Venkatesh & Bala, 2008).

The practicality of this experience can be related to the TAM in that this model has been widely used to predict user acceptance and use based on perceived usefulness and ease of use (Davis, 1989). Ndubisi, Gupta, and Ndubisi (2005), add to the research by implying that "innovativeness, risk taking propensity, perservance, and the flexibility between users' ease of use are important constructs". However, while the TAM has been acclaimed for predicting acceptance, Venkatesh (2000), suggests that the TAM does not help to understand and explain acceptance in ways that promote development from meaningful

predictive analysis. Nevertheless, Venkatesh (2000), posits that the TAM's "perceived usefulness will be influenced by perceived ease of use, because the easier a technology is to use, the more useful it can be" (p. 343). Devaraj, Easley, and Crant (2008), cobborate this with their research model and imply that with personality as an external variable, it can lead to beliefs and then to behavior. The authors complete their study by proposing that "future research move beyond the technology acceptance model" (p. 103). Venkatesh (2000) adds a slight twist to Devaraj, Easley, and Crant's model by imposing emotion as a major determinant in the TAM.

Different researchers have extended or changed the original TAM by Davis (e.g. Segars and Grover, 1993; Venkatesh and Davis, 2000). These studies confirmed the model's validity and gave support for using it with different populations of users and different software choices (e.g. Szajna, 1994). Venkatesh and Davis (2000) proposed TAM2, which includes all the original TAM elements but extended it by (among other constructs) social influences, since they increased the insights on perceived usefulness and usage intention constructs. Social influences were reflected in the subjective norm concept, which is defined as "the degree to which an individual perceives that important others believe he or she should use the new system" (Venkatesh et. al., 2003, p. 451). Although attention has been given to social influences, it is still acknowledged that "social norms need to be conceptualized in a more distinguishing manner to capture the nuances of the social environment" (Srite and Karahanna, 2006, p. 697). For instance, Davis et. al. (1989, p. 998) explicated the need for "more sophisticated methods for assessing the specific types of social influence processes at work in a computer acceptance context" while Venkatesh and Davis (2000, p. 200) suggest a repositioning where "the nature and role of social influence processes (both within teams and across teams) will need to be elaborated".

2.3 Empirical Review

Research has seen an increase in studies focused on the adoption of social media applications by public relations practitioners (Jin & Liu, 2010; Sallot, Porter & Alzuru-Acosta, 2004; Taylor & Kent, 2010; Toledano, 2010; Venter, 2010). Additionally, research has focused on the role social media have within an organization's public relations strategy (Briones et al., 2010; Liu, Austin & Jin, 2011). Even though research in public relations is

beginning to examine the social media phenomenon, researchers have yet to explore the functions social media may serve the organization-public relationship system. Since social media are dependent upon two-way communication, it is important to explore both sides of the interaction within the system of an organization and its publics who engage in social media. It is simply not enough to study social media and the individual functions received for an individual or an organization. Research needs to strive for additional understanding of the functions received at the systems level, that is, organization-public relationships engaging in social media.

Various studies have highlighted the perceived benefits that social media offers in the work place such as, improved communication channels, sharing of skills and knowledge, channels for informal learning and improvement of morale and job satisfaction (Pettenati and Cigognini, 2007). Indications from Zyl (2009) tends to capture the bulk of these applications by indicating that, individual success in society depends on size of their social networks and ability to network and form connections with social groups.

Social media applications have created new ways for organizations to communicate with the public. Twitter and Facebook in particular have garnered attention from non-profit organizations as innovative communicative tools that both supplement and supplant the traditional Website (Non-profit Technology Network, 2011). Nonetheless, our understanding of why non-profits adopt such technologies is sparse not only due to the unique qualities of non-profit organizations (Lewis, 2005) but also the lack of organizational-level research on social media adoption. There is a substantial intra-organizational communication literature related to individuals' adoption, acceptance, and use of new technologies, including the Unified Theory of Acceptance and Use of Technology (Curtis et al., 2010; Venkatesh et al. 2003), the Technology Acceptance Model (e.g., Davis, 1989; Zhou, 2008), Innovation Diffusion Theory (e.g., Rogers, 1995; Vishwanath and Goldhaber, 2003); and process framework (Tang and Ang, 2002). However, such individual level approaches are better suited to explaining individual preferences for one technology over another—such as why certain employees would prefer Twitter over email rather than the organizational selection of a given communication technology.

Holtz (2008) says that organisations' intranets were built with enthusiasm as and was seen as the enterprise version of the Internet, but as the Internet evolved, intranets remained stagnant with static content that gets updated and refreshed when it is too late. Employees no longer feel engaged with static, one-way communication from the organisation. Holtz (2008) goes further by saying that employees are becoming increasingly frustrated and feel less engaged as they are finding it difficult to find the correct resources and information to perform their jobs. This in turn has an effect on the organisation's ability to react fast to competitive pressure.

Curtis (2009) carried out a study on the adoption of social media for public relations by non-profit organizations. This survey of non-profit public relations practitioners (N= 409) applied the Unified Theory of Acceptance and Use of Technology (UTAUT). Findings indicate that women consider social media to be beneficial, whereas men exhibit more confidence in actively utilizing social media. Organizations with specified public relations departments were more likely to adopt social media. Positive correlations between UTAUT factors and credibility indicated a greater likelihood to adopt social media.

Fiske, Gilbert and Lindzey (2010) describe a concept known as socio metering that suggests that humans have a social monitoring system that responds specifically to instances in which people become particularly concerned with their acceptance and belonging. These authors propose that an increase in belonging needs, increase the persons sensitivity to social information which helps them climb the social ladder. This means that for humans to be happy, they need to be accepted by society and feel the need to be needed and to belong.

Vaast (2011) examined how work practices change with the use of social media in a network of practice (NoP), that is, among people who share work practices without working with one another or even working for the same organization. Based on the in depth qualitative case study of the use of social media among non-profit professionals, the paper develops a grounded theorization of changes in practice that underscores the at first exogenous then endogenous sources of changes in practices and the trend toward changes in gradually more central practices in the NoP with social media. The grounded theorization acknowledges the importance of the changes in the social media applications

and their popularity and recognizes the organizational-level implications of these changes in practices. This grounded theorization holds implications for IS research on IT implementation and use as well as for the understanding of dynamics taking place in NoPs in organizations. This paper contributes the understanding and conceptualization of exciting new dynamics of practices as social media and other web-based applications will continue to become more prevalent in work environments.

Social media offers important business advantages to companies and organizations, but also has well-known security risks. In order to mitigate these security risks and still enjoy the benefits of social media organizations must establish and enforce good social media usage policies. But many organizations are unsure of how to develop effective social media policies. Instead, many organizations either simply prohibit social media use altogether, or have no policy at all regarding social media use. Both of these approaches are unsatisfactory. Organizations that do not adopt social media fail to reap its significant benefits and are at a disadvantage to their competitors that do. Organizations that simply allow social media use without any policies or guidelines open themselves to security threats. Wanner (2011) intended to demonstrate that the existing information security policies already in place at many organizations can easily be extended to cover social media. Therefore, organizations do not need to issue security policies and guidelines specifically for social media. He attempts to demonstrate that the main security threats posed by social media would be addressed by a good overall security awareness program, along with and technical and administrative safeguards.

Nah and Saxton (2012) examines what drives organizational adoption and use of social media through a model built around four key factors – strategy, capacity, governance, and environment. Using Twitter, Facebook, and other data on 100 large US non-profit organizations, the model is employed to examine the determinants of three key facets of social media utilization: adoption, frequency of use and dialogue. They found that organizational strategies, capacities, governance features, and external pressures all play a part in these social media adoption and utilization outcomes. Through its integrated, multidisciplinary theoretical perspective, this study thus helps foster understanding of which types of organizations are able and willing to adopt and juggle multiple social media accounts, to use those accounts to communicate more frequently with their external

publics, and to build relationships with those publics through the sending of dialogic messages.

System theorists believe that organizations that function as an open system have a greater chance of survival than organizations that function as a closed system due to the exchange of inputs and outputs between the organization and its publics. Public relations researchers have proposed adopting a dialogic approach to public relations where interaction between the organization and its publics are mutual, which is the underpinning to an open systems approach. Reitz (2012) posits that organizations can function within an open systems approach to public relations by employing social media. Adoption of a functional approach is a fruitful way to look at the social functions various social media serve in the system of organizations and their publics. Research has considered the gratifications publics receive from social media; however, limited research has considered what social media do for the organization-public relationship system. It has been argued that organizations also have psychological and social motivations; therefore, applying a functional analysis approach might be a good of way determining what functions social media serve in the organization-public relationship system. Four functions are proposed in which social media may serve the system: maintenance of organizational identity, opportunity to build relationships with publics, ability to control issues management, and the chance to promote social corporate responsibility. Understanding social media's role in the system can help practitioners identify the functions that may contribute to an open systems approach to public relations and ultimately an organization's survival.

Munene and Nyaribo (2013) examine the extent of social media participation by employees and its effect on their productivity. A sample was randomly selected from a population that has internet connectivity in the workplace. Analysis of variance (ANOVA) test and Pearson's correlation was undertaken to ascertain the degree of relationship between the variables. Primary data was collected by use of a questionnaire. The research found both negative and positive relationship between social media participation and employee productivity. The negative relationship was however found to be stronger as employees spend most of their time on social media enhancing personal networks. Positive relationship exists in employee use of social media for seeking and viewing general information. The study concluded that employees participate in social media in the

workplace for both work and non-work related activity. Social media has the potential to allow employees to form collaborations and communities for knowledge creation and sharing, better channels of communication, which enhance employee productivity. However, it can draw employees in to an addiction that distracts performance as well as straining the organizational resource.

2.4 Conceptual Framework

This study is anchored on the technology acceptance model as shown below that shows the relationship between the independent variables and the dependent variables in the study.

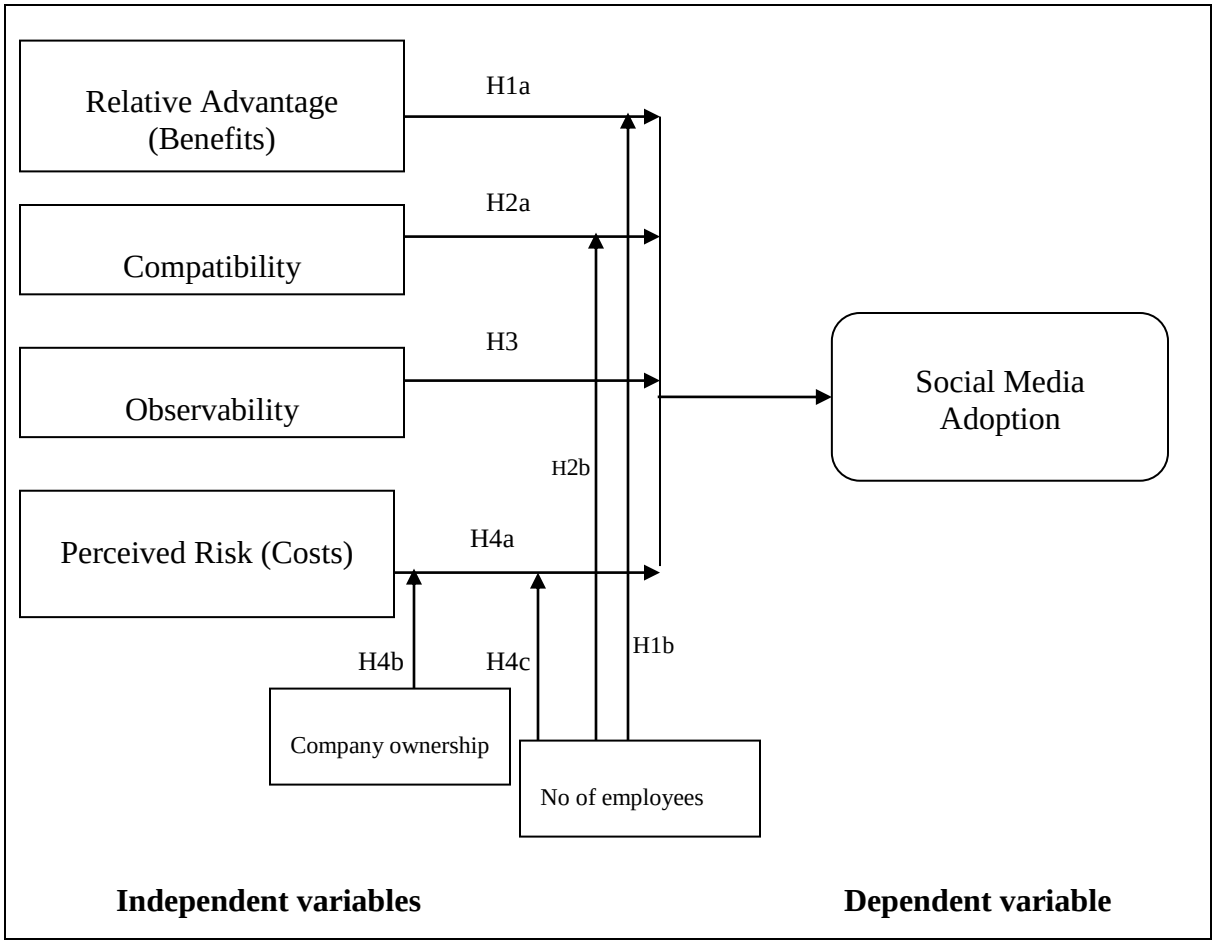

Figure 2.3 Conceptual Framework

2.4.1 HYPOTHESIS

The researcher developed the hypothesis below whose test determined if they hold true in the adoption of social media in the Kenyan corporate organisations. The research therefore tested the following hypothesis:

H1a: Does Relative advantage have a direct relationship with social media adoption?

H1b: What is the effect of the number of employees on relative advantage in the adoption of social media?

H2a: Does Compatibility have a direct relationship with social media adoption?

H2b: Does the number of employees have a moderating effect on compatibility in the adoption of social media?

H3: What is the relationship between observability and social media adoption?

H4a: Does Perceived risk have a direct relationship with social media adoption?

H4b: Is there any moderating effect of company ownership on perceived risk in the adoption of social media?

H4c: Does the number of employees in an organisation have a moderating effect on perceived risk in the adoption of social media?

2.5 Summary

The literature review carried out above has focused on two main theories in an attempt to explain technology adoption by organisations specifically focusing on social media. These theories are the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Technology Adoption Model. Also, the review has focused on various studies related to the adoption of social media in organisations. Most of these studies have focused on the effect of use of social media on individual employees and the effect on their productivity. This study will however focus on the entire organisation and will specifically focus on corporate organisations in Kenya. A conceptual framework has been developed from the reviewed models and a hypothesis formulated for the adoption of social media. The survey therefore seeks to determine if the hypothesis holds true. The test of the hypothesis was be vital in the validation of the conceptual framework.

In the next chapter, this study focus on the methodology used to achieve the research objectives.

3. CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter presents the research methodology and methods that was employed in order to meet the objectives of the study. The chapter will begin with a section on the research design then the population and sample of the study. This is then followed by another section on data collection. Finally, a section on data analysis is presented.

3.2 Research Design

This study was a descriptive study of firms listed in the Nairobi Securities Exchange. The aim of the study was to explore the adoption and usage of social media in corporate organisations in Kenya. The study also sought to evaluate the factors influencing the adoption and use of social media in corporate organisations in Kenya. Descriptive research design is used when the researcher wants to describe things as they are in the population and has no intention of manipulating them (Kothari, 2006).

The tests used to analyse the collected data include:

Descriptive statistics

This includes analysis of mean, standard deviation, range, maximum and minimum data values.

Factor analysis

Factor analysis involved the reduction of components which were then taken through the process of reduction and varimax rotation. From here we obtained the independent variables which then proceeded to regression

The factor analysis pre-tests included:

1. Multivariate normality
2. Missing data analysis
3. Test of for outliers

4. Factorability of correlation matrix
5. Test for multicollinearity
6. Reliability analysis

Regression analysis

Regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modelling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. It consists of the following pretests that have been used in this research project.

Multivariate normality

The multivariate normal distribution is a generalization of the one-dimensional (univariate) normal distribution to higher dimensions. It is often used to describe, at least approximately, any set of (possibly) correlated real-valued random variables each of which clusters around a mean value. The dependent variables should be normally distributed for each combination of independent variables.

Missing data analysis

Missing data, or missing values, occur when no data value is stored for the variable in an observation. Missing data are a common occurrence and can have a significant effect on the conclusions that can be drawn from the data. Missing data can occur because of no response: no information is provided for several items or no information is provided for a whole unit. Some items are more sensitive for no response than others, for example items about private subjects such as income.

Test for outliers

An outlier is an observation point that is distant from other observations. An outlier may be due to variability in the measurement or it may indicate experimental error; the latter are sometimes excluded from the set. Outliers can occur by chance in any distribution, but they are often indicative either of measurement error or that the population has a heavy-tailed

distribution. This research used Mahalanobis distance to identify cases which were multivariate outliers.

Factorability of correlation matrix

Factorability is the assumption that there are at least some correlations amongst the variables so that coherent factors can be identified. Basically, there should be some degree of collinearity among the variables but not an extreme degree or singularity among the variables. Both Bartlett's test of sphericity and Kaiser Meyer-Olkin (KMO) measure of sampling adequacy can be used to determine the factorability of the matrix as a whole

Auto correlation matrix

This is the cross-correlation of a signal with itself. Informally, it is the similarity between observations as a function of the time lag between them. |It is a mathematical tool for finding repeating patterns.

Linearity

In common usage, linearity refers to a mathematical relationship or function that can be graphically represented as a straight line, as in two quantities that are directly proportional to each other, such as efficiency of getting information quickly as used in scatter plots in this project. Voltage and current in a simple DC circuit, or the mass and weight of an object.

Analysis of variance (ANOVA)

The Analysis Of Variance, popularly known as the ANOVA, can be used in cases where there are more than two groups. When we have only two samples we can use the t-test to compare the means of the samples but it might become unreliable in case of more than two samples. If we only compare two means, then the t-test (independent samples) will give the same results as the ANOVA. Assumptions

There are four basic assumptions used in ANOVA.

- The expected values of the errors are zero

- The variances of all errors are equal to each other
- The errors are independent
- They are normally distributed

3.2.1 Population and Sample of Study

The population of this study comprised all the 60 companies listed in the Nairobi Securities Exchange as at 30th June 2013(see appendix 6). A sample size of 50% of the population (or 30 firms) was selected for this study using simple random sampling technique. During data collection, 27 out of the 30 questionnaires were collected (see appendix 5). The response rate was therefore 90%.

This study used primary data that was collected through semi-structured questionnaires (see appendix 1) that were administered to the IT managers of the corporate organisations in Kenya. The questionnaire contained questions on social media adoption by the firms in order to ascertain the adoption extent, types of social media adopted and the factors that influenced social media adoption in organisations. Pilot tests were done to help examine the validity of the instrument after which the instruments were amended accordingly. Reliability tests were done on the instrument to check for the quality of measures used using Cronbach's alpha (coefficient if internal consistency) which was found to be 0.82 and therefore considered reliable as shown in the table.

Table 3.1 Cronbach's alpha

Cronbach's Alpha	N of Items
0.820	16

Cronbach's alpha is a tool for assessing the reliability of scales. It determines the average or internal consistency of correlating items in a survey instrument to gauge its reliability. The values are rated as shown below.

Cronbach's alpha	**Internal consistency**
$\alpha \geq 1$	Excellent (High-Stakes testing)
$0.5 \leq \alpha < 0.1$	Good (Low-Stakes testing)
$0.2 \leq \alpha < 0.5$	Acceptable
$0.1 \leq \alpha < 0.2$	Poor
$\alpha < 0.1$	Unacceptable

3.3 Pre-Test Data Analysis

Before processing the primary data, the questionnaires were edited for completeness and consistency. The data were analysed through SPSS using descriptive analysis. Descriptive analysis was used to examine the extent to which social media had been adopted as well as to assess the factors which influenced social media adoption. This was done through percentages, mean scores and standard deviations. Cronbach alpha is considered an appropriate method as it has been used before in studies on social media adoption such as Curtis (2009).

3.3.1 Missing Data Analysis

In statistics, missing data, or missing values, occur when no data value is stored for the variable in an observation. Missing data are a common occurrence and can have a significant effect on the conclusions that can be drawn from the data.

Missing data can occur because of non response: no information is provided for several items or no information is provided for a whole unit. Some items are more sensitive for non response than others, for example items about private subjects such as income.

3.3.1.1 Analysis Process

The responses from the questionnaires were filtered and only usable questionnaires were used in the data file, but some missing data values existed. The missing values analysis was done and produced this output.

3.3.1.2 Analysis Results

Table 3.2: Missing data analysis summary

There are no variables with 5% or more missing values. TTEST table is not produced.
There are no categorical variables. CROSSTAB is not produced.
There are no variables with 5% or more missing values. MISMATCH table is not produced.

Table 3.3: Missing data analysis-detail

	N	Missing	
		Count	Percent
OWNERSHIP	27	0	0
EMPLOYEES	27	0	0
SOCIAL_MEDIA_USAGE	27	0	0
PLATFORM	27	0	0
RELATIVE_ADVANTAGE1	26	1	3.7
RELATIVE_ADVANTAGE2	27	0	0
RELATIVE_ADVANTAGE3	27	0	0
COMPATIBILITY1	26	1	3.7
COMPATIBILITY2	27	0	0
COMPATIBILITY3	27	0	0
PERCEIVED_RISK1	27	0	0
PERCEIVED_RISK2	26	1	3.7
PERCEIVED_RISK3	27	0	0
OBSERVABILITY1	27	0	0
OBSERVABILITY2	27	0	0
OBSERVABILITY3	27	0	0
OBSERVABILITY4	27	0	0
OBSERVABILITY5	27	0	0
OBSERVABILITY6	27	0	0
OBSERVABILITY7	27	0	0

From the results on tables 3.2 and 3.3, the missing items were less than 5%. This implies that the data available was statistically sufficient for analysis.

3.3.2 Outlier Analysis

Outliers are values that "**lie outside**" the other values. When we collect data, sometimes there are values that are "far away" from the main group of data

3.3.2.1 Analysis Process

This is the stage after missing data analysis with respect to examining the data before data analysis. Multivariate outlier analysis was testing using SPSS 15. It was necessary to calculate the Mahalanobis distance which is the distance of a particular case from the centroid of the remaining cases, where the centroid is the point created by the means of all the variables.

3.3.2.2 Analysis Results

Table 3.4: Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Mahalanobis Distance	26	96.3%	1	3.7%	27	100.0%

Table 3.5: Extreme Values

			Case Number	Value
Mahalanobis Distance	Highest	1	3	22.04167
		2	2	22.04167
		3	14	11.04000
		4	6	10.54167
		5	17	10.54167
	Lowest	1	26	6.70833
		2	24	6.70833
		3	21	6.70833
		4	19	6.70833
		5	10	6.70833(a)

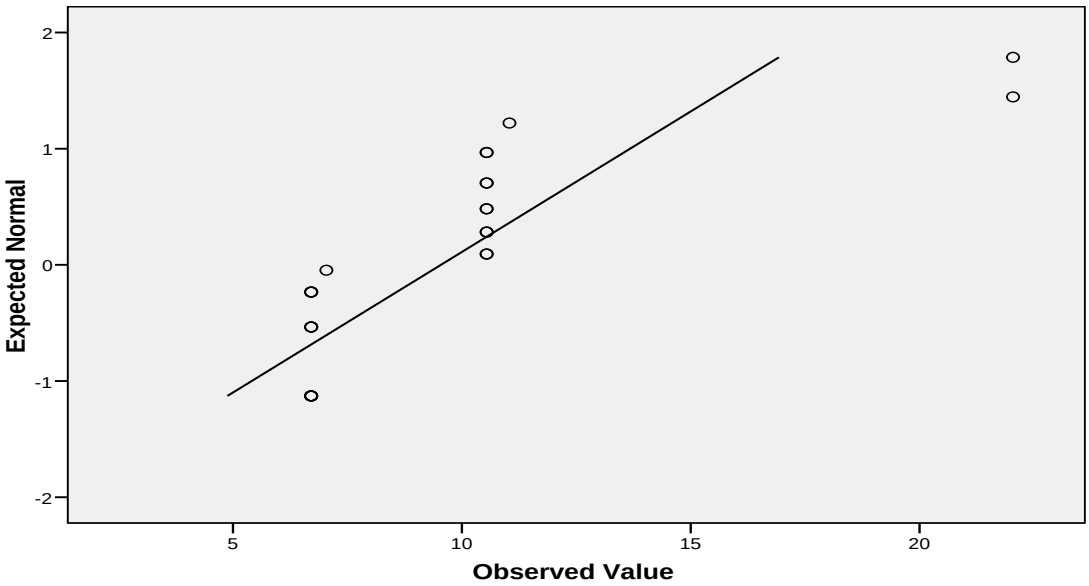

Figure 3.1Normal Q-Q Plot for Mahalanobis Distance

Computation of the Mahalanobis measure as shown in table 3.4, 3.5 and fig 3.1 revealed that there were no cases with outlier characteristics. This implies that the responses obtained were usable in the determination of factors that affect the adoption of social media in corporate entities.

3.3.3 Multivariate Normality Analysis

This is the fundamental assumption in analysis. Normality is correspondence to the normal distribution which is the benchmark for statistical methods. Normal is used to describe a symmetrical, bell shaped curve, which has the greatest frequency of scores in the middle, with smaller frequencies towards the extremes.

3.3.3.1 Analysis Process

Normality was assessed by obtaining skewness and kurtosis values. Skewness indicates the symmetry of a distribution while kurtosis provides information about the peakedness of the distribution.

3.3.3.2 Analysis Results

Table 3.6: Normality Analysis

Variable	Descriptive Statistics					
		N	Skewness		Kurtosis	
		Statistic	Statistic	Std. Error	Statistic	Std. Error
COMPANY OWNERSHIP	What is the ownership of the firm?	27	0.707	0.448	-0.997	0.872
NO OF EMPLOYEES	How many employees does the firm have?	27	-0.215	0.448	-0.922	0.872
RELATIVE ADVANTAGE	To get information more quickly.	26	-1.215	0.456	-0.112	0.887
	To improve the quality of information	27	0.263	0.448	-1.853	0.872
	To enhance our effectiveness on information sharing	27	-0.717	0.448	-1.437	0.872
COMPATIBILITY	Experience of persons who have previously used thetechnology	26	-2.31	0.456	4.582	0.887
	Technology is consistent with business needs	27	-2.765	0.448	7.296	0.872
	Technology is consistent with industry needs	27	0.057	0.448	-2.024	0.872
PERCEIVED RISK	Safety of social media	27	-1.741	0.448	2.08	0.872
	No privacy risks involved in the use of social media	26	-0.809	0.456	-1.129	0.887
	Protection of corporate information	27	-1.689	0.448	1.535	0.872
OBSERVABILITY	The positive results of using social media being apparent	27	-1.408	0.448	0.93	0.872
	Others in the industry speaking of the benefits of social media use	27	-0.696	0.448	-0.866	0.872
	Customer satisfaction with use of social media	27	-0.739	0.448	-1.034	0.872
	Increased profitability	27	-0.734	0.448	-0.79	0.872
	Increased productivity	27	-0.456	0.448	-1.532	0.872
	Increased product quality	27	-0.45	0.448	-1.454	0.872
	Keeping abreast with competition	27	-1.325	0.448	0.148	0.872
SOCIAL MEDIA ADOPTION	I recommend my institution to adopt social media.	27	-0.29	0.448	-1.438	0.872

Skewness of 1 indicates moderate skewness. Kurtosis values less than 1 are negligible, values from 1-10 indicate moderate non-normality while values greater than 10 indicate severe non-normality. The maximum skewness value in this research was 1.718 and maximum kurtosis was 7.296. The above results therefore imply that the collected data conforms to the prerequisites for analysis.

3.3.4 Profile of Organisations

The study sought to determine the distribution of firms in terms of their ownership. Data was partitioned into two splits. The first split contained 14 respondents while the second split contained 13 respondents.

Results

Split 1: 14 respondents

From the first 14 respondents, 43% were from the public sector, 14% private sector, 29% government agencies and 14% foreign firms.

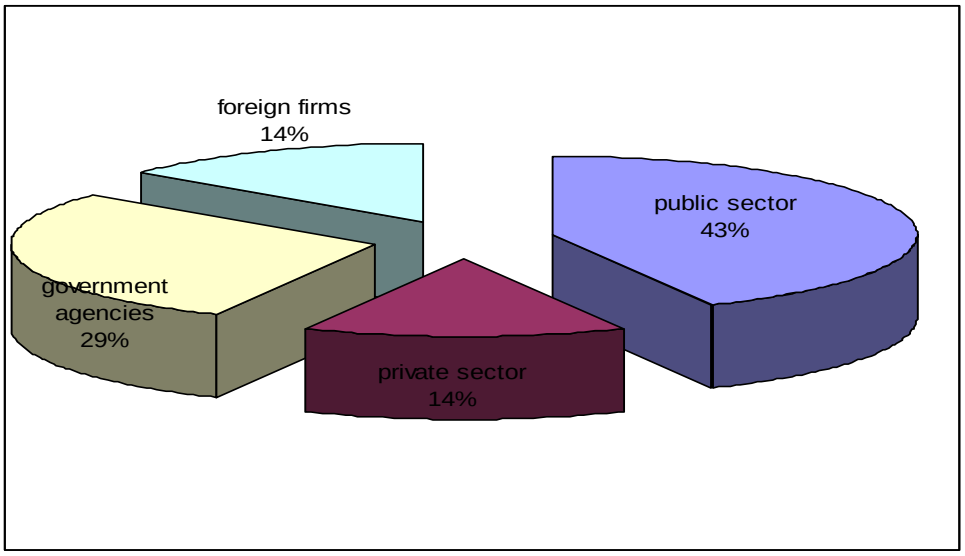

Figure 3.2: Ownership of Sampled Firms

Split 2: 13 respondents

From the second split of respondents, 62% were from the public sector, 15% private sector, 15% government agencies and 8% foreign firms.

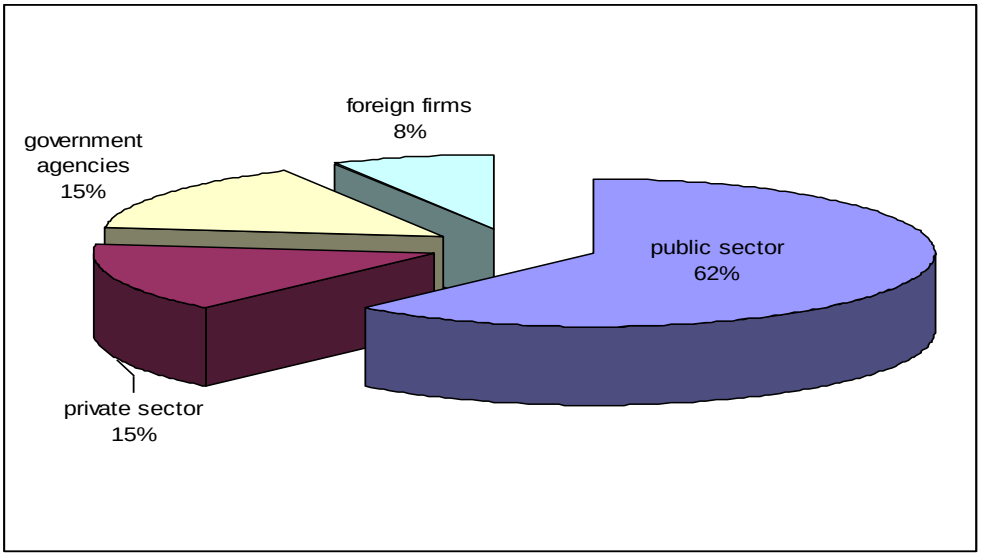

Figure 3.3: Ownership of Sampled Firms

3.3.5 Number of Employees

The study sought to determine the size of the firms surveyed. This was achieved by asking the respondents the number of employees in their firms. The results are shown in Figure 3.4. As shown, the results reveal that 11% of the firms had less than 100 employees, 18% had 100 – 200 employees, 41% had 201 – 300 employees and 30% had 301 – 400 employees. It can therefore be observed that most of these firms were large firms employing more than 200 employees across the country.

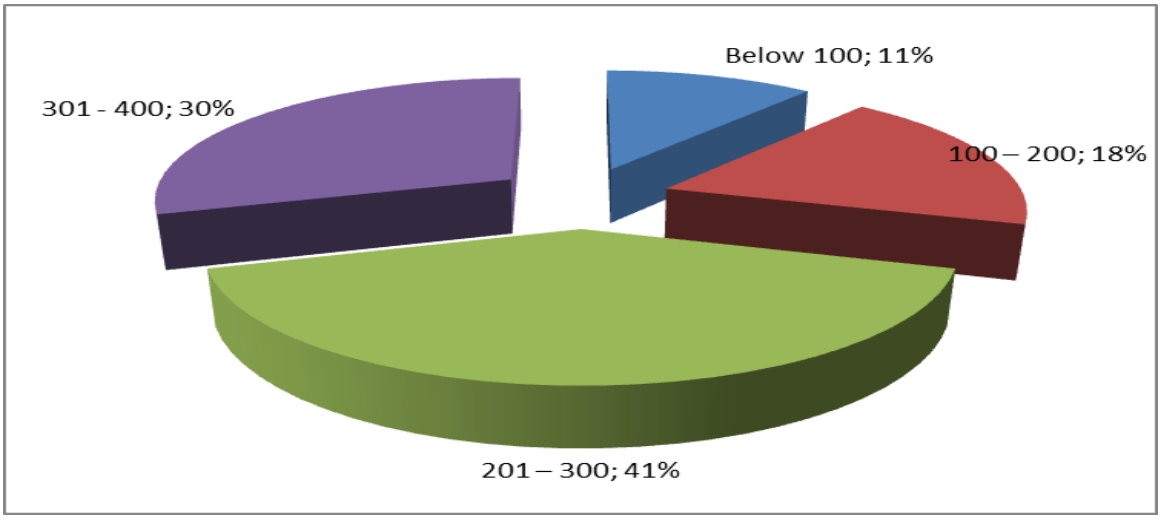

Figure 3.4: Number of employees

The study sought to identify the firms which use social media platform for communication. The respondents were therefore asked to state if their firms used any social media platform for communication purposes. The results are shown in Figure 3. As shown, the study found that 85% of the firms used some kind of social media platform for communication while 15% did not. Therefore, the results reveal that social media had been adopted by majority of the listed firms in Kenya.

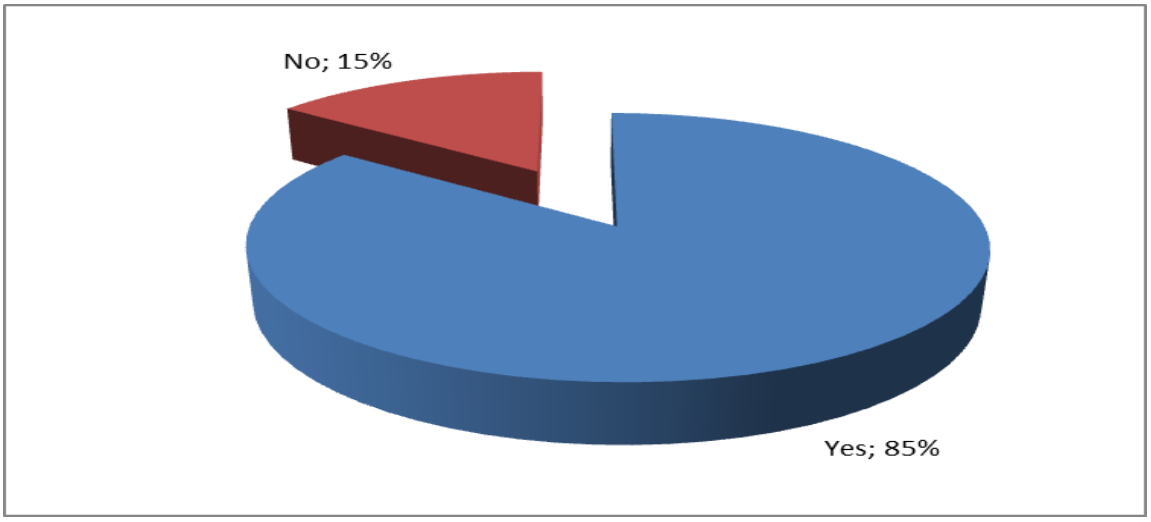

Figure 3.5: Adoption of Social Media

The study sought to identify the social media platforms which were used by the listed firms surveyed. The respondents who agreed that their firms had adopted social media use for communication were therefore asked to state the platform(s) their firms used. The results are shown in Figure 4. The results show that 85% of the firms used Facebook, 41% used Twitter, 22% used LinkedIn and 15% used Google+. Facebook was therefore the most used and adopted social media platform for communication.

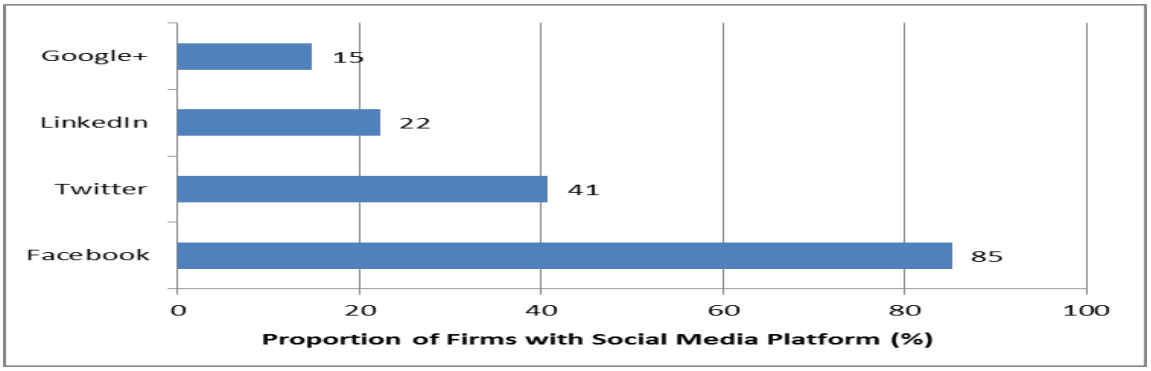

Figure 3.6: Social Media Platforms Used by Listed Companies in Kenya

3.4 Framework Design

This section deals with the process of identifying the factors that affect the adoption of social media in the Kenyan corporate organisations.

It involves running tests on the data and these tests include:

Factor analysis

Factor analysis involves reduction of information contained in original variables into smaller set of components with minimum loss of information. This is a statistical approach that can be used to analyze interrelationships among a large number of variables and to explain these variables in terms of common underlying dimensions (factors).

There are two types of factor analysis:
Principal component analysis;
This method provides a unique solution, so that the original data can be reconstructed from the results. It looks at the total variance among the variables. The solution generated will include as many factors as there are variables although it is unlikely that they will all meet the criteria for retention.
Common factor analysis
This family of techniques uses an estimate of common variance among the original variables to generate the factor solution. Because of this, the number of factors will always be less than the number of original variables.

This research uses principal component analysis of factor analysis.

Factor extraction

This is a factor analysis process that identifies and retains components /factors for further analysis. It does so by identifying eigenvalues which exceed a certain value and 'extracts' such factors as a representation of all the others.

Factor rotation

This is the process of adjusting the extracted factor axes to achieve a simple and pragmatically more meaningful factor solution- the goal is a simple factor structure.

3.4.1 Factor Analysis Process

Factor analysis involves condensing of information contained in original variables into smaller set of dimensions with minimum loss of information.

It is a statistical analysis approach that can be used to analyse interrelationships among large number of variables and to explain those variables in terms of their common underlying dimensions (factors).

3.4.1.1 Prerequisites for Factor Analysis

i. **Multivariate Normality**
   The dependent variables should be normally distributed for each combination of independent variables.

ii. **Test for outliers**

   This research used Mahalanobis distance to identify cases which were multivariate outliers.

iii. **Factorability of correlation matrix**

Both Bartlett's test of sphericity and Kaiser Meyer-Olkin (KMO) measure of sampling adequacy can be used to determine the factorability of the matrix as a whole.

Results

Table 3.7: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.760
Bartlett's Test of Sphericity	Approx. Chi-Square	141.032
	df	21
	Sig.	.000

Results Discussion

If several values in the correlation matrix exceed 0.3 then it is appropriate to use factor analysis. The anti-image correlation matrix is used to assess the sampling adequacy of each variable. Only variables with sampling adequacy of greater than 0.5 are included in the analysis. The KMO statistic varies between 0-1. Values nearest 1 are desirable for factor analysis. It is also desirable that Bartlett's value $p<0.05$.

iv. Test for Multicollinearity

Multicollinearity increases the standard error of factor loadings, making them less reliable and thereby making more difficult the process of inferring labels for factors. To detect Multicollinearity in factor analysis, KMO statistics may be used, or data first screened in regression analysis using Variance Inflation factor (VIF) or Tolerance. KMO and correlation matrix were used to detect Multicollinearity and collinear terms were eliminated prior to factor analysis.

v. Reliability Analysis

It was necessary to check reliability of the scale used to confirm that it used consistently reflected the variables being measured. Cronbach's Alpha was used to measure the scale of reliability.

Reliability Analysis Results

Table 3.8: Reliability Statistics

Cronbach's Alpha	N of Items
0.820	16

Cronbach's Alpha value varies from 0-1, with higher values being desirable. The average Cronbach's Alpha for our data was 0.820.

3.4.2 Factor Extraction

Principal component analysis (PCA) was used as the extraction method with varimax rotation.

3.4.2.1 Factor Extraction Results

This analysis produced the table below.

Table 3.9: Factor Extraction

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.358	31.518	31.518	5.358	31.518	31.518
2	3.092	18.189	49.708	3.092	18.189	49.708
3	2.578	15.165	64.873	2.578	15.165	64.873
4	1.955	11.497	76.370	1.955	11.497	76.370
5	1.119	6.581	82.951	1.119	6.581	82.951
6	0.944	5.554	88.505			
7	0.877	5.159	93.664			
8	0.459	2.703	96.367			
9	0.283	1.663	98.029			
10	0.238	1.663	99.429			
11	0.097	1.663	99.429			
12	0.000	1.663	99.429			
13	0.000	1.663	99.429			
14	0.000	1.663	99.429			
15	0.000	1.663	99.429			
16	0.000	1.663	99.429			
17	0.000	1.663	99.429			
Extraction Method: Principal Component Analysis.						

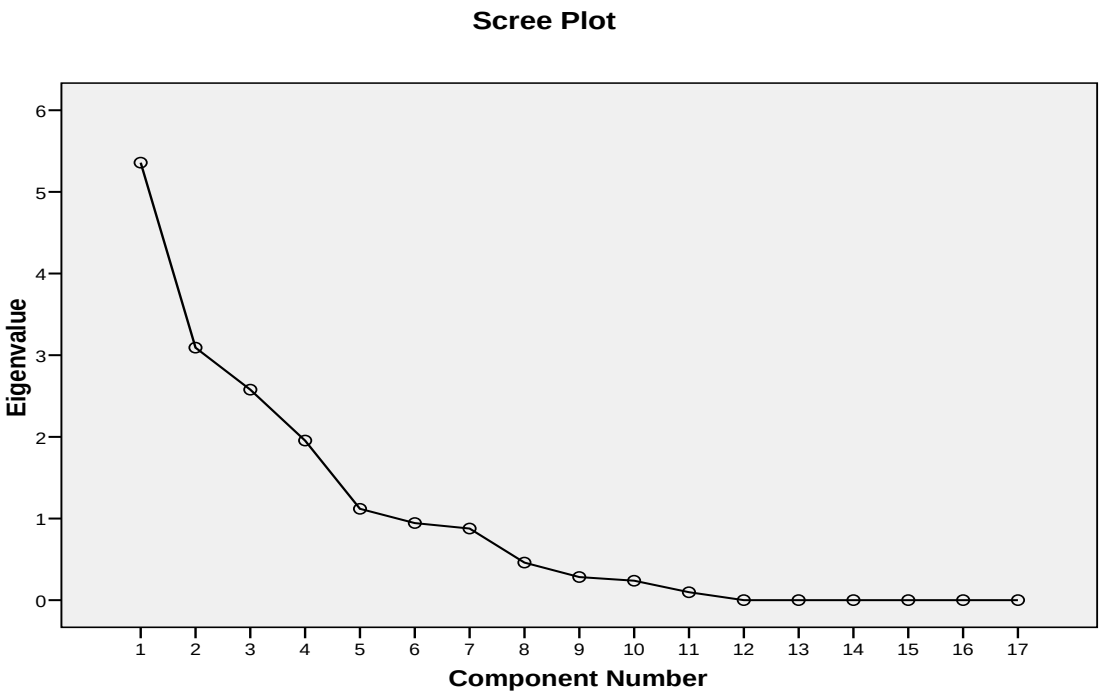

Figure 3.7: Scree plot

3.4.2.2 Factor Extraction Results Discussion

Reference is made to the eigenvalue and scree plot of the data. An eigenvalue of 1 is used to identify the number of factors at this stage of analysis. The eigenvalues associated with each factor represent the variance explained by that particular linear component and SPSS also displays the eigenvalues in terms of the percentage of variance explained e.g. factor 1 explains 31.518 of total variance.

All factors with eigenvalues greater than 1 were extracted leaving 5 factors which are displayed in the columns labelled Extraction Sums of Squared Loadings. The values which are not moved to the above column are discarded. The factors after rotation are displayed in the columns Rotation Sums of Squared Loadings. Rotation optimizes the factor structure thus the relative importance of the four factors is equalized.

The cut off for selecting factors should be at the inflexion point of the curve. As seen in the scree plot above, the inflexion point is at component 5 which agrees with the eigenvalues table above.

This analysis therefore resulted in a solution of 5 factors selected for further analysis. The scree plot below was also produced.

3.4.3 Factor Rotation

The factors extracted above were further tested with varimax rotation method. The factor rotation matrix will group the scales which are most highly loaded (correlated) with the first factor and arranged in descending order to their size of correlation. Next, scales which load strongly with the second factor will be clustered to form the second factor, and the process will continue for all the five extracted factors.

3.4.3.1 Factor Rotation Results

Table 3.10: Varimax rotation

Rotated Component Matrix(a)					
	Component				
	1	2	3	4	5
RELATIVE_ADVANTAGE1	-0.290	0.648	-0.266	0.387	-0.135
RELATIVE_ADVANTAGE2	0.205	-0.082	0.152	-0.854	0.137
RELATIVE_ADVANTAGE3	0.793	-0.489	-0.015	0.279	-0.006
COMPATIBILITY1	0.938	-0.149	-0.014	-0.118	0.058
COMPATIBILITY2	-0.006	0.441	-0.025	0.656	0.096
COMPATIBILITY3	0.263	-0.435	0.632	-0.194	0.026
PERCEIVED_RISK1	0.938	-0.181	-0.048	-0.119	0.011
PERCEIVED_RISK2	0.705	-0.102	0.639	-0.183	-0.003
PERCEIVED_RISK3	0.675	0.288	0.230	0.114	0.346
OBSERVABILITY1	-0.180	0.891	-0.314	0.145	0.142
OBSERVABILITY2	-0.230	-0.058	0.837	-0.175	-0.212
OBSERVABILITY3	0.303	-0.661	0.095	0.601	0.061
OBSERVABILITY4	0.244	0.183	-0.595	0.555	-0.174
OBSERVABILITY5	0.026	0.862	0.325	0.197	-0.064
OBSERVABILITY6	0.068	-0.150	-0.044	-0.359	0.732
OBSERVABILITY7	0.250	0.172	0.879	0.168	-0.079
ADOPTION	0.078	0.094	-0.124	0.135	0.848
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.					
Rotation converged in 9 iterations.					

3.4.3.2 Factor Rotation Results Discussion

The scale in table 3.11 was used in the above results:

Table 3.11: Factor rotation scale

RELATIVE_ADVANTAGE1	To get information more quickly.
RELATIVE_ADVANTAGE2	To improve the quality of information
RELATIVE_ADVANTAGE3	To enhance our effectiveness on information sharing
COMPATIBILITY1	Experience of persons who have previously used the technology
COMPATIBILITY2	Technology is consistent with business needs
COMPATIBILITY3	Technology is consistent with industry needs
PERCEIVED_RISK1	Safety of social media
PERCEIVED_RISK2	No privacy risks involved in the use of social media
PERCEIVED_RISK3	Protection of corporate information
OBSERVABILITY1	The positive results of using social media being apparent
OBSERVABILITY2	Others in the industry speaking of the benefits of social media use
OBSERVABILITY3	Customer satisfaction with use of social media
OBSERVABILITY4	Increased profitability
OBSERVABILITY5	Increased productivity
OBSERVABILITY6	Increased product quality
OBSERVABILITY7	Keeping abreast with competition
ADOPTION	I recommend my institution to adopt social media.

Normally researchers accept a loading of an absolute value of more than 0.3 to be important. The shaded loadings were selected since they are more than 0.3

All the conceptual framework variables were supported by results of factor analysis. These variables include:

Independent variables

1. Relative advantage
2. Compatibility
3. Perceived risk
4. Observability

Dependent variables

1. Social media adoption

3.4.4 Validation of Factor Analysis Results

The research examined if the factor model is stable and generalizable and if the factor solution is impacted by outliers. Stability was examined by splitting the sample into two in order to see it factor structure and commonalities remain the same. A comparison was made on the two splits created above. While the communalities differed for the two models, in all cases they were above 0.3, indicating the factor model is explaining more than half of the variance in all the original variables.

Table 3.12: Component Matrix (a) SPLIT 1

	1	2	3	4	5
RELATIVE_ADVANTAGE1		0.548			
RELATIVE_ADVANTAGE3	0.693				
COMPATIBILITY1	0.838				
COMPATIBILITY2				0.456	
COMPATIBILITY3			0.532		
PERCEIVED_RISK2	0.705				
PERCEIVED_RISK3	0.675				
OBSERVABILITY1		0.591			
OBSERVABILITY2			0.637		
OBSERVABILITY3				0.701	
OBSERVABILITY4				0.555	
OBSERVABILITY5		0.662			
OBSERVABILITY6					0.632
OBSERVABILITY7			0.579		
ADOPTION					0.548

Table 3.13: Rotated Component Matrix (a) - SPLIT 2

	1	2	3	4	5
RELATIVE_ADVANTAGE1		0.648			
RELATIVE_ADVANTAGE3	0.593				
COMPATIBILITY1	0.438				
COMPATIBILITY2				0.456	
COMPATIBILITY3			0.532		
PERCEIVED_RISK2	0.505				
PERCEIVED_RISK3	0.775				
OBSERVABILITY1		0.791			
OBSERVABILITY2			0.437		
OBSERVABILITY3				0.501	
OBSERVABILITY4				0.555	
OBSERVABILITY5		0.862			
OBSERVABILITY6					0.732
OBSERVABILITY7			0.879		
ADOPTION					0.848

Discussion

Table 3.12 provides the factor rotation results for the first half of the split sample. Just like in table 3.13, all cases in this table are above 0.30 thus confirming the results in table 9. The two rotated factor matrices for each split of the sample produced the same pattern of loadings for both validation analysis of the complete sample. The pattern factor loadings for both validation analyses show the same pattern of variables, though the components switched places. This result validates the factor solution obtained.

3.3.5 Resulting model

The analysis of the collected data identified four factors key in the adoption of social media in corporate organisations namely:

- Relative advantage, moderated by the number of employees
- Compatibility
- Perceived risk moderated by the number of employees
- Observability

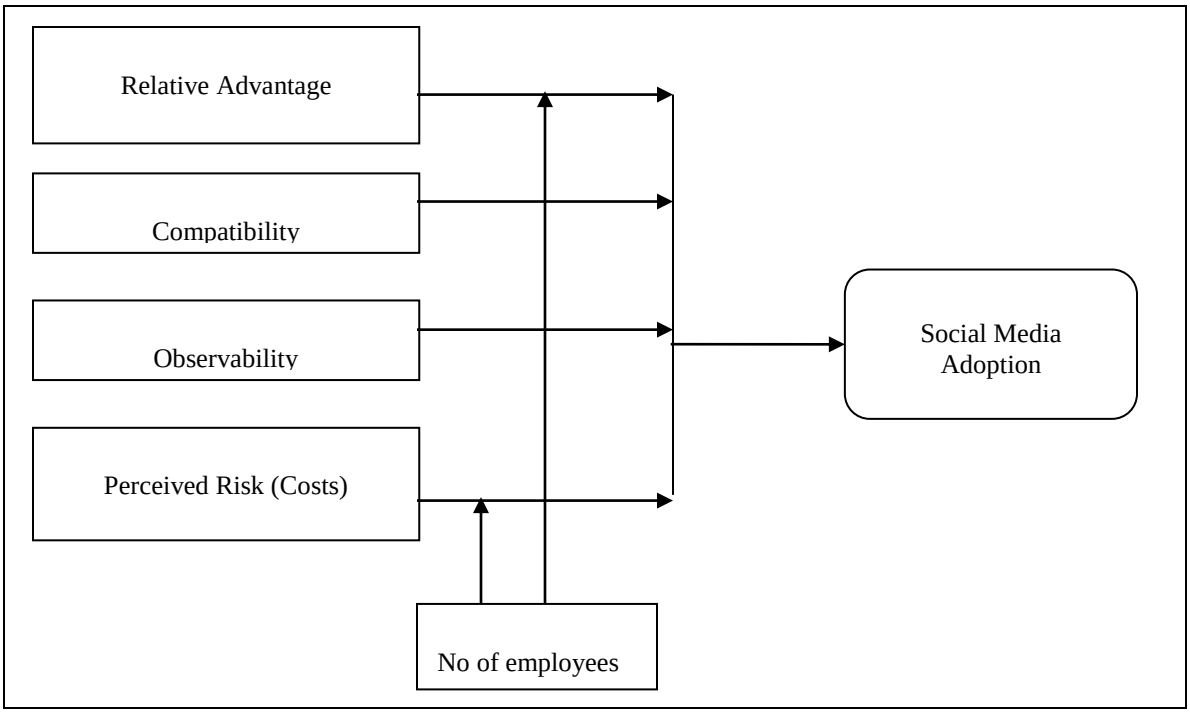

Figure 3.8: The Resulting Model

4. CHAPTER FOUR: MODEL VALIDATION

4.0 Evaluation Overview

This research sought to achieve the following objectives: To determine the factors which influence the adoption of social media by corporate organisations in Kenya, to determine the extent to which these factors influence adoption of social media in corporate organisations in Kenya and to develop and validate a framework for social media adoption in corporate organisations in Kenya.

The regression analysis and analysis of variance (ANOVA) tests were done to validate the model. This was done on the dependent, independent and the moderating variables in order to determine the relationship strengths between each other.

4.1 Regression Analysis

Regression analysis is a statistic technique used to investigate the relationships between a dependent variable and one or more independent variables. Multiple linear regression is used in this to investigate the relationship between the adoption of social media and the four independent variables.

Regression coefficients can be used to evaluate the strength of the relationship between the independent variable and the dependent variable.

Adoption=a+b1RelativeAdv+b2Compatibility+b3PerceivedRisk +b4Observability+e

Where: a= the constant where regression intercepts the y axis

b= regression coefficients

e = random error

4.9.1 Prerequisites for Regression Analysis

Before conducting regression analysis on the data, certain characteristics must be me. These characteristics were analysed as below.

i. **Test for Outliers:** This was tested by computing the Mahalanobis distance which did not show any extreme values.

ii. Linearity

Examining the residual scatter is the most common way to identify any nonlinear patterns in the data. The scatter plot (in appendix 2) of standardized residuals versus the fitted values was visually inspected. The plots did not reveal any nonlinear patterns in the data indicating a linear relationship in all the regression models in this study.

iii. Normally distributed Error term

A histogram and a normal probability (P-P plot) were used to asses whether the error terms are normally distributed. This research tested normality using these two methods as shown in the appendix 3 and 4 respectively.

iv. Autocorrelation Analysis

For any two observations within the data series, it's assumed that knowing one observation treatment tells nothing about the other observation. Dubin-Watson coefficient tests auto-correlation.

Auto correlation Results

Table 4.1 provides results of the autocorrelation analysis

Table 4.1: Durbin-Watson Values

DEPENDENT VARIABLE	INDEPENDENT VARIABLES	Durbin-Watson
SOCIAL MEDIA ADOPTION	RELATIVE ADVANTAGE	1.543
	COMPATIBILITY	1.654
	PERCEIVED RISK	1.683
	OBSERVABILITY	1.828
SOCIAL MEDIA ADOPTION	RELATIVE ADVANTAGE	2.0635
	RELATIVE ADVANTAGE+NO OF EMPLOYEES	1.684
SOCIAL MEDIA ADOPTION	COMPATIBILITY	1.462
	COMPATIBILITY+NO OF EMPLOYEES	1.875
SOCIAL MEDIA ADOPTION	PERCEIVED RISK	1.0665
SOCIAL MEDIA ADOPTION	OBSERVABILITY	2.665
	OBSERVABILITY+NO OF EMPLOYEES	1.895
	OBSERVABILITY+COMPANY OWNERSHIP	1.499

Discussion

Durbin-Watson values should be between 1.5 and 2.5 to indicate independence of observations. Positive autocorrelation means standard errors of the beta coefficients are too small while negative autocorrelation means errors are too large.

v. Condition index

Condition index is used to test Multicollinearity of the data

Condition Index Results

Table 4.2 provides the results of this test:

Table 4.2: Condition index values

DEPENDENT VARIABLE	INDEPENDENT VARIABLES	Condition Index
SOCIAL MEDIA ADOPTION	RELATIVE ADVANTAGE	11.044
	COMPATIBILITY	17.887
	PERCEIVED RISK	14.814
	OBSERVABILITY	9.202
SOCIAL MEDIA ADOPTION	RELATIVE ADVANTAGE	5.387
	RELATIVE ADVANTAGE+NO OF EMPLOYEES	10.314
SOCIAL MEDIA ADOPTION	COMPATIBILITY	10.838
	COMPATIBILITY+NO OF EMPLOYEES	9.524
SOCIAL MEDIA ADOPTION	PERCEIVED RISK	6.02
SOCIAL MEDIA ADOPTION	OBSERVABILITY	16.669
	OBSERVABILITY+NO OF EMPLOYEES	13.116
	OBSERVABILITY+COMPANY OWNERSHIP	13.129

Discussion

Researchers suggest condition indexes over 15 indicate possible Multicollinearity and over 30 indicate serious Multicollinearity problems.

The maximum condition index for this research's data was 17.887.

vi. Tolerance

Tolerance is also used to measure Multicollinearity.

Tolerance Results

Table 4.3: Tolerance values.

DEPENDENT VARIABLE	INDEPENDENT VARIABLES	Tolerance
SOCIAL MEDIA ADOPTION	RELATIVE ADVANTAGE	0.577
	COMPATIBILITY	0.535
	PERCEIVED RISK	0.352
	OBSERVABILITY	0.72
SOCIAL MEDIA ADOPTION	RELATIVE ADVANTAGE	0.874
	RELATIVE ADVANTAGE+NO OF EMPLOYEES	0.783
SOCIAL MEDIA ADOPTION	COMPATIBILITY	0.798
	COMPATIBILITY+NO OF EMPLOYEES	0.995
SOCIAL MEDIA ADOPTION	PERCEIVED RISK	0.957
SOCIAL MEDIA ADOPTION	OBSERVABILITY	0.937
	OBSERVABILITY+NO OF EMPLOYEES	0.553
	OBSERVABILITY+COMPANY OWNERSHIP	0.952

Discussion

If the tolerance value is less than 0.20, the independent should be dropped from the analysis due to Multicollinearity.

The minimum tolerance for the sample was 0.352 thus minimal Multicollinearity.

vii. Variance Inflation Factor (VIF)

VIF is the reciprocal of tolerance.

Table 4.4a: Tolerance values.

DEPENDENT VARIABLE	INDEPENDENT VARIABLES	Tolerance
SOCIAL MEDIA ADOPTION	RELATIVE ADVANTAGE	1.733
	COMPATIBILITY	1.869
	PERCEIVED RISK	2.857
	OBSERVABILITY	1.389
SOCIAL MEDIA ADOPTION	RELATIVE ADVANTAGE	1.144
	RELATIVE ADVANTAGE+NO OF EMPLOYEES	1.277
SOCIAL MEDIA ADOPTION	COMPATIBILITY	1.253
	COMPATIBILITY+NO OF EMPLOYEES	1.005
SOCIAL MEDIA ADOPTION	PERCEIVED RISK	1.045
SOCIAL MEDIA ADOPTION	OBSERVABILITY	1.067
	OBSERVABILITY+NO OF EMPLOYEES	1.808
	OBSERVABILITY+COMPANY OWNERSHIP	1.050

When VIF is greater than 4.0, Multicollinearity is the problem. The maximum VIF value for the sample was 2.857.

4.2 HYPOTHESIS TESTING

This section will test the strength of the relationships between the independent variables and the dependent variable. The effect of the moderating variables on the independent variables will also be tested.

4.2.1Testing for direct effects

The four independent variables, relative advantage, compatibility, perceived risk and observability in the regression model were regressed against social media adoption and provided the results in the table below.

4.2.1.1 Regression of Relative advantage With Social media adoption

Regression process was done on the relative advantage variable against social media adoption.

Regression results

Table 4.5 to table 4.17 provide results for each of the independent variables. Each variable has the model summary, analysis of variance and **Relative** advantage Coefficients.

Table 4.5: Relative advantage Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.214(a)	.046	-.084	.868

A: Predictors: (Constant), To enhance our effectiveness on information sharing, To improve the quality of information, To get information more quickly.

Table 4.6: Relative advantage Analysis of variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.797	3	.266	.352	.788(a)
	Residual	16.588	22	.754		
	Total	17.385	25			

A: Predictors: (Constant), To enhance our effectiveness on information sharing, To improve the quality of information, To get information more quickly.
B: Dependent Variable: I recommend my institution to adopt social media.

Table 4.7: Relative advantage Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	2.863	1.842		1.554	.134
	To get information more quickly.	.156	.278	.198	.562	.579
	To improve the quality of information	.055	.142	.116	.383	.705
	To enhance our effectiveness on information sharing	.129	.126	.277	1.021	.318

A: Dependent Variable: I recommend my institution to adopt social media.

4.2.1.2 Regression of Compatibility with Social media adoption

Table 4.8: Compatibility Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	**.166(a)**	**.028**	**-.105**	**.842**

A: Predictors: (Constant), Technology is consistent with industry needs; Technology is consistent with business needs, Experience of persons who have previously used the technology

Table 4.9: Compatibility Analysis of variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.442	3	.147	.208	.890(a)
	Residual	15.597	22	.709		
	Total	16.038	25			

A: Predictors: (Constant), Technology is consistent with industry needs; Technology is consistent with business needs, Experience of persons who have previously used the technology
B: Dependent Variable: I recommend my institution to adopt social media.

Table 4.10: Compatibility Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	3.716	1.023		3.632	.001
	Experience of persons who have previously used the technology	.112	.157	.164	.709	.486
	Technology is consistent with business needs	.027	.160	.038	.171	.866
	Technology is consistent with industry needs	-.048	.102	-.113	-.471	.643

A: Dependent Variable: I recommend my institution to adopt social media.

4.2.1.3 Perceived Risk with Social media adoption

Table 4.11: Perceived Risk Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.415(a)	.172	.060	.777

A: Predictors: (Constant), Protection of corporate information, Safety of social media, And No privacy risks involved in the use of social media

Table 4.12: Perceived Risk Analysis of variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.766	3	.922	1.528	.235(a)
	Residual	13.272	22	.603		
	Total	16.038	25			

A: Predictors: (Constant), Protection of corporate information, Safety of social media, No privacy risks involved in the use of social media

Table 4.13: Perceived Risk Coefficients

B: Dependent Variable: I recommend my institution to adopt social media

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	2.311	1.454		1.589	.126
	Safety of social media	.134	.349	.103	.384	.705
	No privacy risks involved in the use of social media	-.104	.139	-.214	-.750	.461
	Protection of corporate information	.367	.180	.454	2.042	.053

A: Dependent Variable: I recommend my institution to adopt social media.

4.2.1.4 Observability with Social media adoption

Table 4.14: Observability Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.545(a)	.297	.038	.803

A: Predictors: (Constant), Keeping abreast with competition, Increased product quality, The positive results of using social media being apparent, Customer satisfaction with use of social media, Others in the industry speaking of the benefits of social media use, Increased profitability, Increased productivity

Table 4.15: Observability Analysis of variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.170	7	.739	1.147	.377(a)
	Residual	12.237	19	.644		
	Total	17.407	26			

A: Predictors: (Constant), Keeping abreast with competition, Increased product quality, The positive results of using social media being apparent, Customer satisfaction with use of social media, Others in the industry speaking of the benefits of social media use, Increased profitability, Increased productivity
B: Dependent Variable: I recommend my institution to adopt social media.

Table 4.16: Observability Coefficients

	Constant	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
		1.432	1.984		0.722	0.479
	The positive results of using social media being apparent	0.551	0.358	0.863	1.539	0.14
	Others in the industry speaking of the benefits of social media use	-0.09	0.172	-0.166	-0.55	0.59
	Customer satisfaction with use of social media	0.214	0.158	0.411	1.357	0.191
	Increased profitability	-0.09	0.189	-0.158	-0.5	0.624
	Increased productivity	-0.29	0.252	-0.586	-1.14	0.27
	Increased product quality	0.133	0.112	0.268	1.194	0.247
	Keeping abreast with competition	0.223	0.204	0.399	1.089	0.29

4.2.1.5 Independent Variable Coefficients Summary

Table 4.17 presents the summarized weights for each variable which will be used to determine the strength of the relationship between the independent and dependent variables.

Table 4.17: Summary of Coefficients

Coefficients(a,b)					
Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
Relative Advantage	0.113	0.182	0.197	0.655	0.534
Compatibility	0.030	0.140	0.030	0.136	0.665
Perceived Risk	0.132	0.223	0.114	0.559	0.406
Observability	0.092	0.206	0.147	0.428	0.336

Regression Results Discussion

All the four independent variables obtained positive beta weights hence have positive effect on the adoption of social media. According to the data, relative advantage had the largest value (ß= 0.197), followed by Observability (ß= 0.147), perceived risk (ß= 0.114) with compatibility having the least strength (ß= 0.030).

4.2.2 Testing Moderating Variables

With respect to interaction variables, the relationships are measured by Beta values, which represent the strength of the relationship. The Beta for the interaction of the moderator with the variable provides information regarding the interaction effect.

- The independent variables were combined with the corresponding moderating variable and regressed against social media adoption.

Regression on Moderating Variables Results

Literature suggests the scale for Beta values as follows:

- Less than 0.1 denotes lack of effect on the variable
- If the Beta value is between 0.1 and 0.3, there is small effect
- If the value is 0.3 and 0.50 there is a medium effect

Above 0.50 denotes a large effect

4.2.2.1 The Moderating Effect of Number of Employees

Table 4:19 Company ownership moderating effects.

Independent + Moderating Variable	Beta Value
Relative advantage + No. of employees	0.213
Compatibility + No. of employees	0.039
Perceived risk + No. of employees	0.148

According to the results above, the number of employees has no moderating effect on compatibility since it has a beta value of 0.039 which is less than 0.1. The number of employees has a moderating effect on relative advantage and perceived risk with beta values of 0.213 and 0.148 respectively.

4.2.2.2 The Moderating Effect of No of Company Ownership

Table 4:20 moderating effect of No of employees

Independent + Moderating Variable	Beta Value
Perceived risk + Company ownership	0.030

Results

From the results above, company ownership has no moderating effect on perceived risk in the adoption of social media since its beta value of 0.030 is theoretically insignificant.

4.2.3 Validated Model

The validation of the model resulted into four factors which include:

1) Relative Advantage moderated by No of employees
2) Compatibility
3) Relative advantage
4) Perceived Risk (Costs) moderated by No of employees

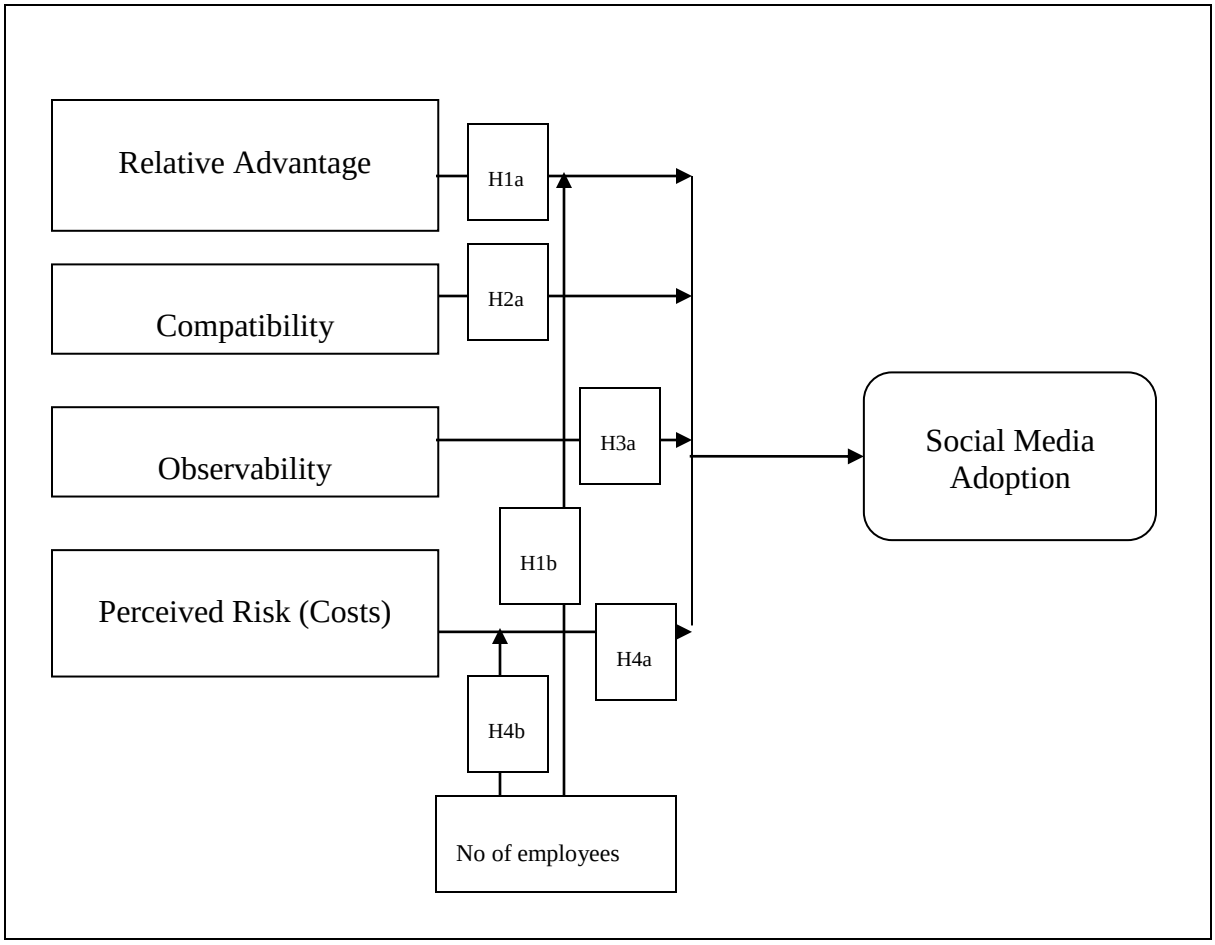

Figure 4.1: Validated Model

4.2.4 Validated Model Discussion

H1a: Relative advantage has a direct relationship with social media adoption

H1b: The number of employees has a moderating effect on relative advantage in the adoption of social media.

H2a: Compatibility has a direct relationship with social media adoption.

H2b: The number of employees has a moderating effect on compatibility in the adoption of social media.

H3: Observability has a direct relationship with social media adoption.

H4a: Perceived risk has a direct relationship with social media adoption.

H4b: The company ownership has a moderating effect on perceived risk in the adoption of social media.

H4c: The number of employees in an organisation has a moderating effect on perceived risk in the adoption of social media

The entire hypothesis passed with exception of H2b and H4b since the research found out that the number of employees does not have a moderating effect on compatibility and that company ownership does not have a moderating effect on perceived risk in the adoption of social media in corporate organisations.

5. CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The previous chapter has provided the findings of the study from data analysis and the discussions thereof. This is the last chapter of this paper. This chapter shows the summary of findings, conclusions of the study, recommendations for policy and practice, and suggestions for further research. The main purpose of this research is to determine the determinants of social media adoption in Kenyan corporate organisations.

Problem statement

The use of social media technologies such as blogs, wikis, social networking sites, social tagging, and microblogging is proliferating at an incredible pace. Social media adoption within organizations is occurring at a rapid pace. According to a survey by global consulting firm McKinsey, 65% of companies reported the use of Web 2.0 technologies in their organizations (Bughin & Chui, 2010). Forrester Research predicted that corporate spending on enterprise social media would reach more than $4.6 billion annually by 2013 (Young et al., 2008).

Yet despite the increased adoption of social media by firms, the implications of these new technologies for organizational processes are not yet well understood by communication researchers. Scholars have suggested that social media adoption in organizations is outpacing empirical understanding of the use of these technologies and our theories about why they may alter various organizational processes.

In particular, the study seeked to explore the following specific objectives;

1 To determine the factors which influence the adoption of social media by corporate organisations in Kenya
2 To determine the extent to which these factors influence adoption of social media in corporate organisations in Kenya.
3 To develop and validate a framework for social media adoption in corporate organisations in Kenya.

The research sought to answer the following research questions:

H1a: Does Relative advantage have a direct relationship with social media adoption?

H1b: What is the effect of the number of employees on relative advantage in the adoption of social media?

H2a: Does Compatibility have a direct relationship with social media adoption?

H2b: Does the number of employees have a moderating effect on compatibility in the adoption of social media?

H3: What is the relationship between observability and social media adoption?

H4a: Does Perceived risks have a direct relationship with social media adoption?

H4b: Is there any moderating effect of company ownership on perceived risk in the adoption of social media?

H4c: Does the number of employees in an organisation have a moderating effect on perceived risk in the adoption of social media?

Design process:

This study was a descriptive study of firms listed in the Nairobi Securities Exchange. The population of this study comprised all the 60 companies listed in the Nairobi Securities Exchange as at 30th June 2013. A sample size of 50% of the population (or 30 firms) was selected for this study using simple random sampling technique. During data collection, 27 out of the 30 questionnaires were collected giving a response rate of 90%. This study used primary data that was collected through semi-structured questionnaires that were administered to the IT managers of the corporate organisations in Kenya. Descriptive analysis was used to examine the extent to which social media had been adopted as well as to assess the factors which influenced social media adoption. This was done through percentages, mean scores and standard deviations.

The study found that 59% of the firms were public, 15% were private, 11% were government owned, and 15% were foreign firms. The results reveal that 11% of the firms had less than 100 employees, 18% had 100 – 200 employees, 41% had 201 – 300 employees and 30% had 301 – 400 employees. The results show that 85% of the firms surveyed had adopted some form of social media for communication purposes either within the organisations or with the customers. The study also found that the most adopted social media platforms was Facebook (85%) followed by Twitter (41%), LinkedIn (22%) and Google+ (15%).

The study also sought to examine the factors that influenced adoption of social media by companies listed on the Nairobi Securities Exchange. The study found that the most significant factor that influenced adoption of social media platforms was relative advantage (Beta = 0.197). This was followed by Observability (Beta = 0.147), perceived risk (Beta = 0.114) and compatibility (Beta = 0.030).

5.2 Conclusions

The study was aimed at achieving the following:

1 To determine the factors which influence the adoption of social media by corporate organisations in Kenya
2 To determine the extent to which these factors influence adoption of social media in corporate organisations in Kenya.
3 To develop and validate a framework for social media adoption in corporate organisations in Kenya.

It was concluded that corporate organisations have, to a large extent, adopted social media for communication. The most used social media platform was Facebook followed by

Twitter. Therefore, most of the listed firms in Kenya can be said to be technologically savvy as they have adopted the new forms of communication by adopting social media platforms.

The study also concludes that the most significant factor which influenced adoption of social media is relative advantage. It was observed that firms are more concerned with the benefits achieved from the use of the social media. There is serious competition among the Kenyan companies and each organisation wants to put its best foot forward. There is also need to reduce costs, yet the advertising costs in the mainstream media is escalating, thus the need to use the cheap yet effective social media. The number of employees in the organisations was found to be the moderator of relative advantage and perceived risk.

5.3 Recommendations

The study makes a number of recommendations. First, the study notes that there is overreliance on only once social media platform – Facebook. There is need for companies to adopt other social media platforms especially Twitter which has been found in other surveys to be the most effective for marketing brands all over the world. Other platforms such as the use of Google's Youtube platform for making videos about the company would also be useful in building the brand of the organisation.

Secondly, the study recommends that organisations should be concerned about how they intend to use the social media by having an elaborate social media strategy as they adopt the same as just adopting such for communication without giving it a thorough thought would make the organisation look rudderless. Case example of a firm that has used social media with clear social media strategy is Safaricom which used both Twitter and Facebook to engage the customers about their products and also for customer care purposes. Other

companies such as Kenya Power and banks such as Co-operative Bank and Kenya Commercial Bank also have a strong presence on social media and a clear social media strategy.

The Government, through legislation, should enact laws that will enhance security of firms using social media for communication. In the era of internet and cyber-crimes, it is important that laws be available which can be used to prosecute those who use these platforms to defraud organisations. With the current Media Bill, it is an opportunity to legislate how social media is used in Kenya.

5.4 Recommendations for Future Research

The study made an attempt at establishing the factors that influence social media adoption in Kenya. A lot, however, still remains to be done. Further studies should examine more factors other than the ones used in this study to come up with a complete model of social media adoption in Kenya. It is also recommended that studies of similar nature be done within mid-sized organisations.

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APPENDICEX 1: QUESTIONNAIRE

Section A: Introduction Letter

Sammy Gimoi

P.O. Box 100026, 00101,

Nairobi

14th Nov, 2013.

Dear Sir/Madam,

RE: RESEARCH INFORMATION FOR A MASTERS PROJECT

I am a postgraduate student undertaking a Master of Science in Information Systems at the School of computing and Informatics at the University of Nairobi. As a partial fulfillment of the requirements for the award of the MIS degree, I am conducting a survey on "An examination of the determinants of social media adoption by corporate organizations in Kenya". You are one of the key respondents and I would like to kindly request for information regarding ICT in your daily activities.

The information you provide in this study will not be used for any other purpose apart from its intended academic use. I hereby undertake not to make any reference to your name in any presentation or report hitherto the study.

I am aware that filling the questionnaire is time consuming and I will greatly appreciate your assistance. Any additional information in form of suggestions and comments that you deem necessary to make my research findings more conclusive, relevant and reflective of the study area will be highly appreciated.

Thank you in advance.

Yours faithfully,

Sammy Gimoi

MIS Student

Section B: Questionnaire

Demographic Data

- Name of the institution

  …….

- Year of incorporation

  …….

- What is the ownership of the firm?

  Public [ ]

  Private [ ]

  Government [ ]

  Foreign [ ]

- How many employees does the firm have?

  Below 100 [ ]

  100-200 [ ]

  201-300 [ ]

  301-400 [ ]

  Above 400 [ ]

- Does your organisation use any social media platform for communication?

  Yes [ ]

  No [ ]

- If yes, what social media platform does your firm use? You can tick more than 1 choice.

  Facebook [ ]

Twitter [ ]

Google plus (G+) [ ]

Other (specify) [ ] ……..

Section 2: Factors Influencing Adoption of Social Media

- To what extent do you agree that the following factors influence the decision of your company to adopt social media use?

	Strongly disagree**(1)**	Disagree **(2)**	Neutral **(3)**	Agree **(4)**	Strongly agree **(5)**
RELATIVE ADVANTAGE					
To get information more quickly.					
To improve the quality of information					
To enhance our effectiveness on information sharing					
	Strongly disagree**(1)**	Disagree **(2)**	Neutral **(3)**	Agree **(4)**	Strongly agree **(5)**
COMPATIBILITY					
Experience of persons who have previously used the technology					

Technology is consistent with business needs					
Technology is consistent with industry needs					
PERCEIVED RISK	Strongly disagree**(1)**	Disagree **(2)**	Neutral **(3)**	Agree **(4)**	Strongly agree **(5)**
Safety of social media					
No privacy risks involved in the use of social media					
Protection of corporate information					
OBSERVABILITY	Strongly disagree**(1)**	Disagree **(2)**	Neutral **(3)**	Agree **(4)**	Strongly agree **(5)**
The positive results of using social media being apparent					
Others in the industry speaking of the benefits of social media use					

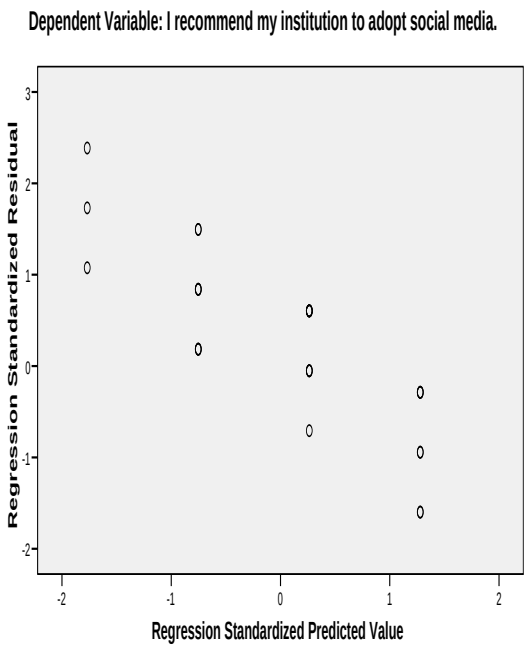
Customer satisfaction with use of social media					
Increased profitability					
Increased productivity					
Increased product quality					
Keeping abreast with competition					
SOCIAL MEDIA ADOPTION					
I recommend my institution to adopt social media.					

End of Questionnaire

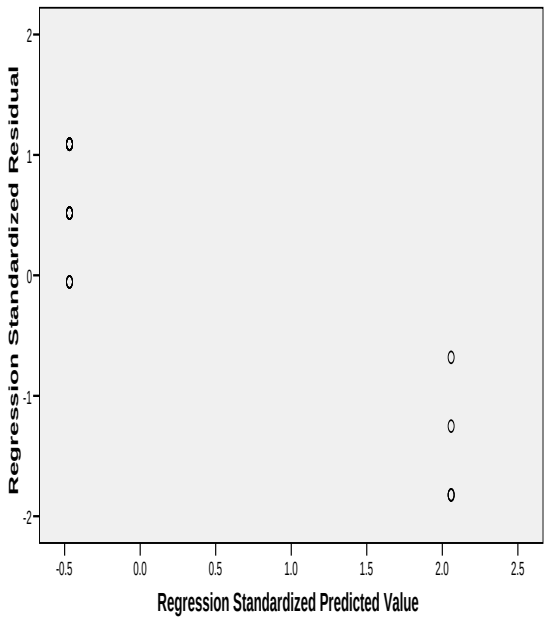
APPENDIX 2: SCATTER PLOTS

Scatterplot

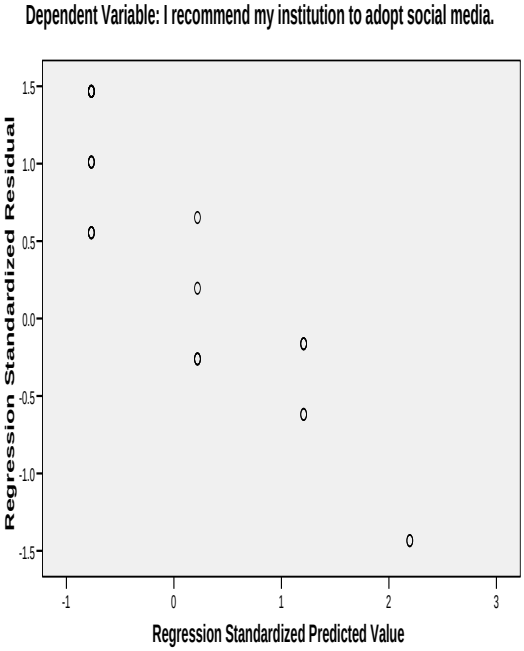
Scatterplot 1



Scatterplot 2



Scatterplot 3



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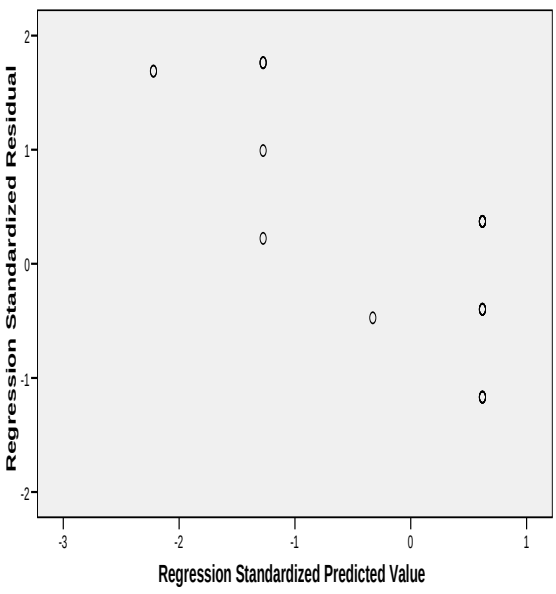

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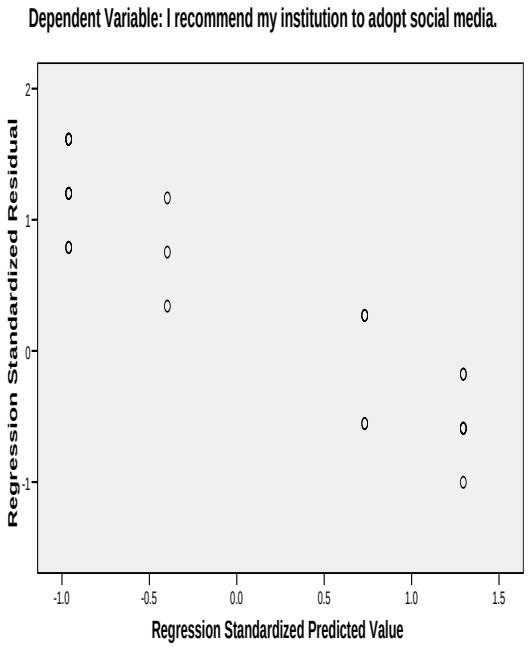
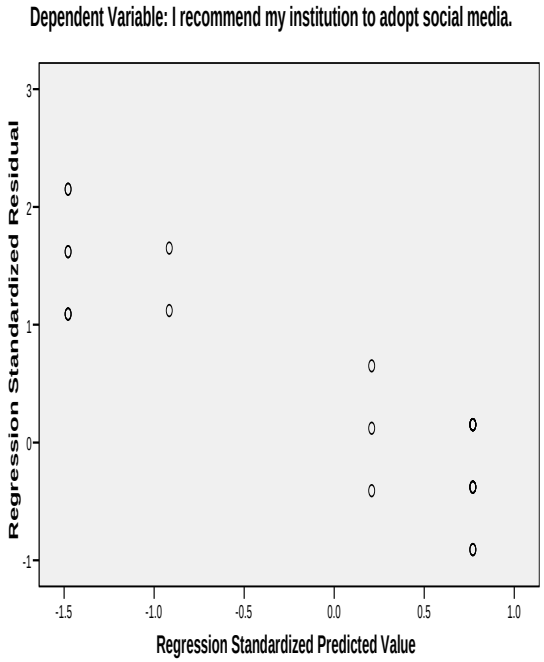
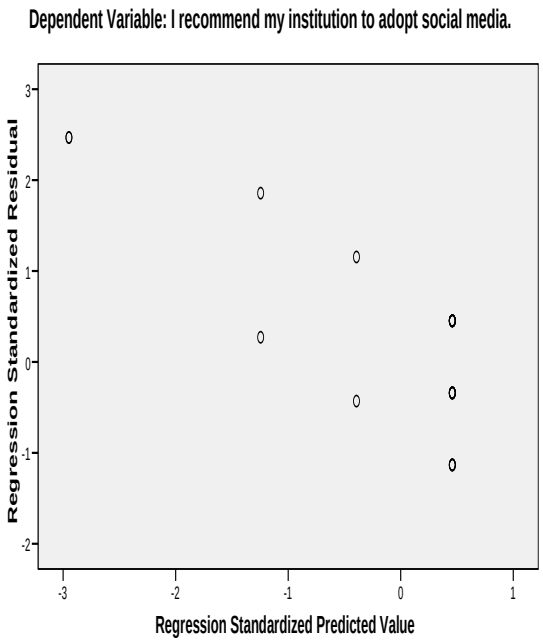


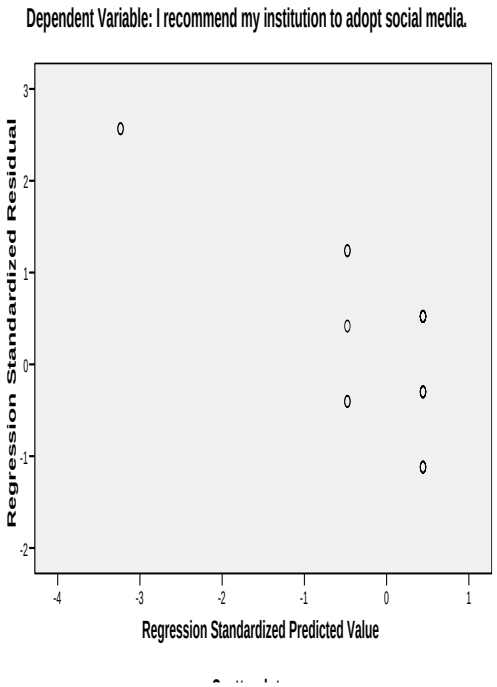
Scatterplot 6



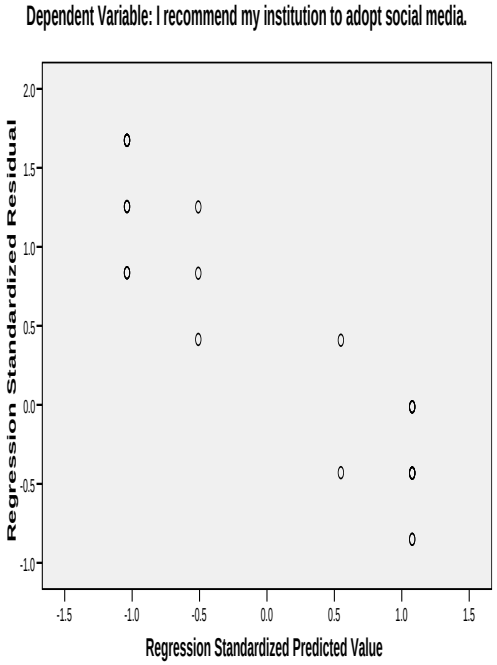
Scatterplot 7



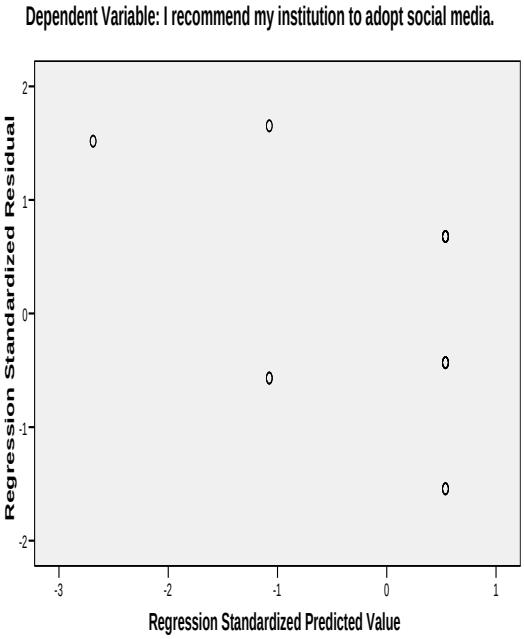
Scatterplot 8



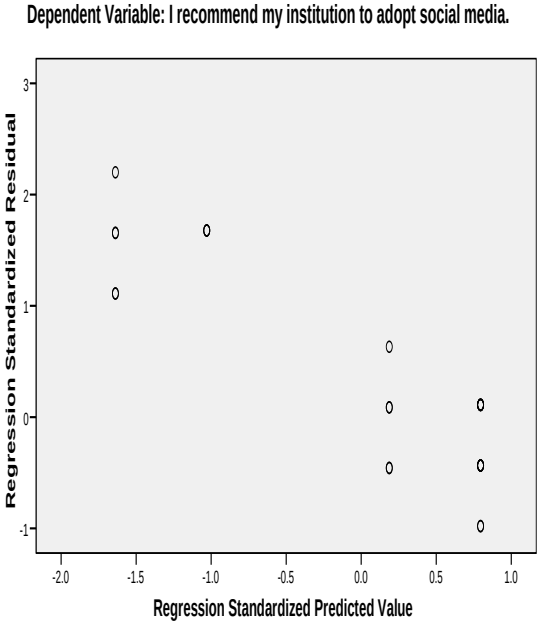
Scatterplot 9



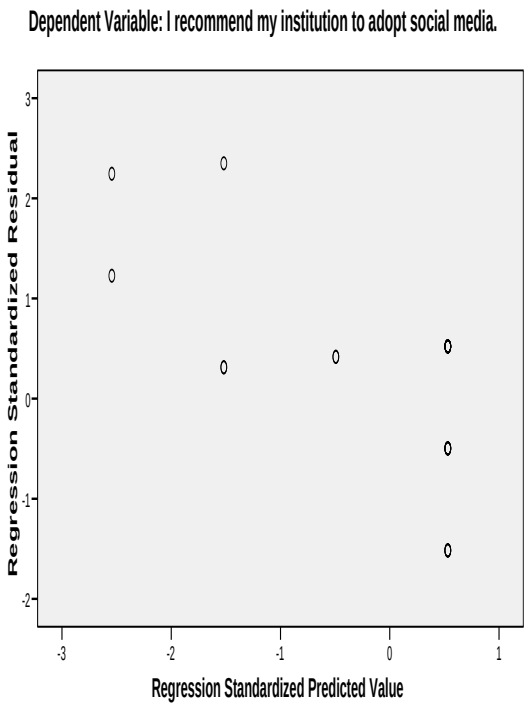
Scatterplot 10



Scatterplot 11



Scatterplot 12



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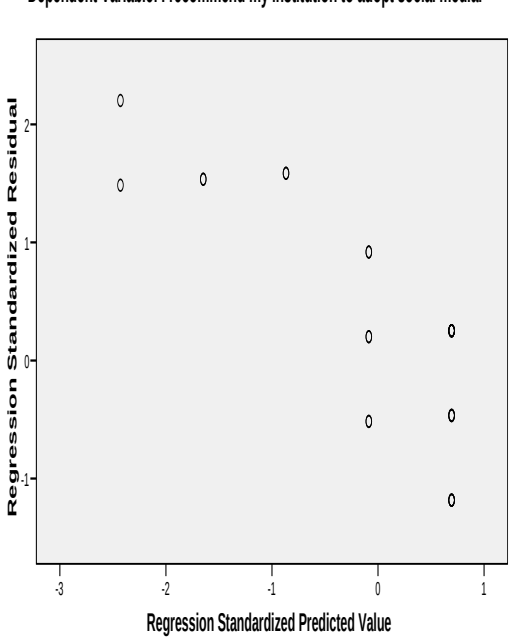
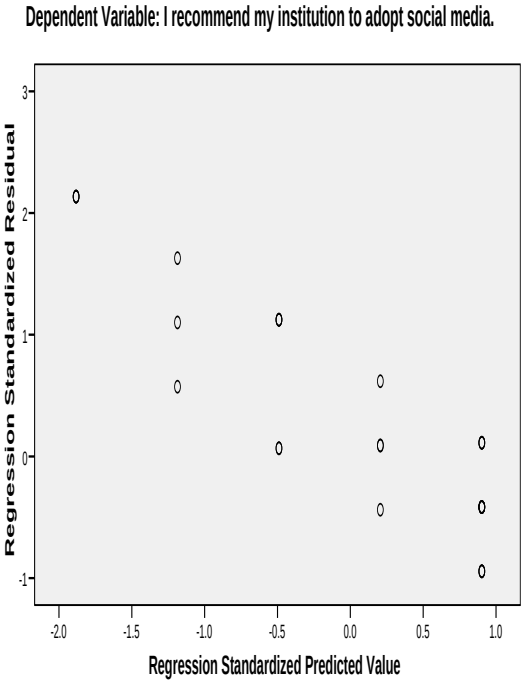
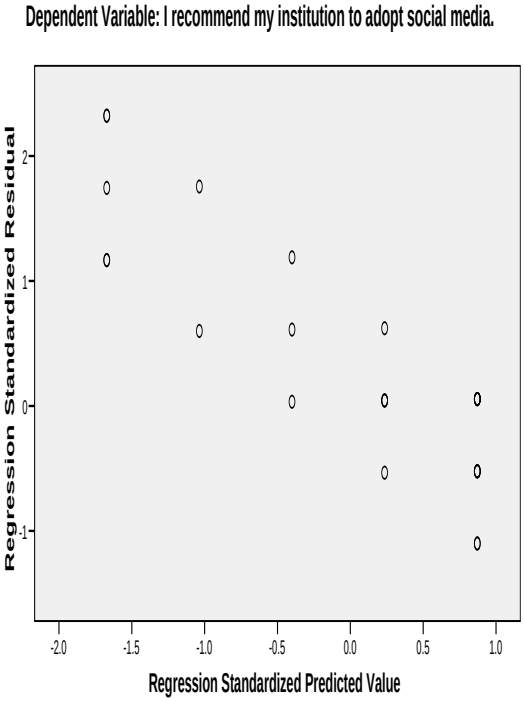


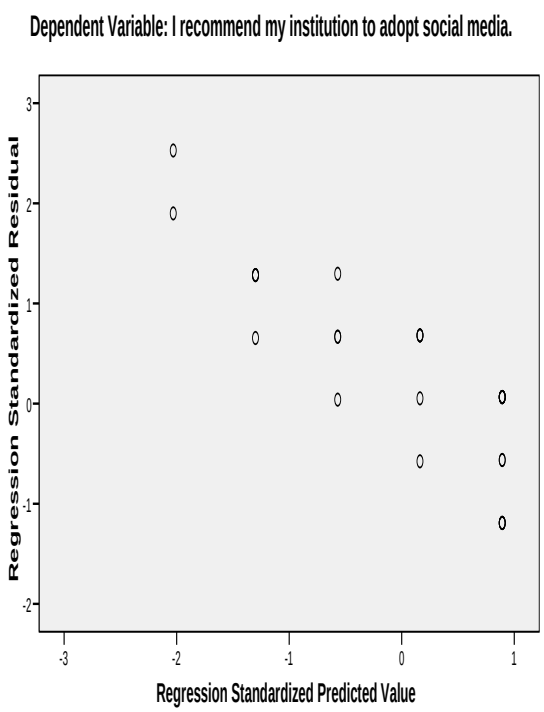
Scatterplot 14



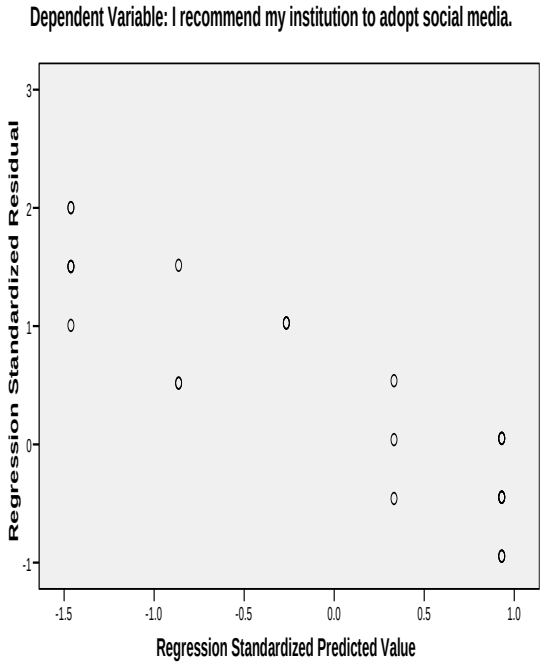
Scatterplot 15



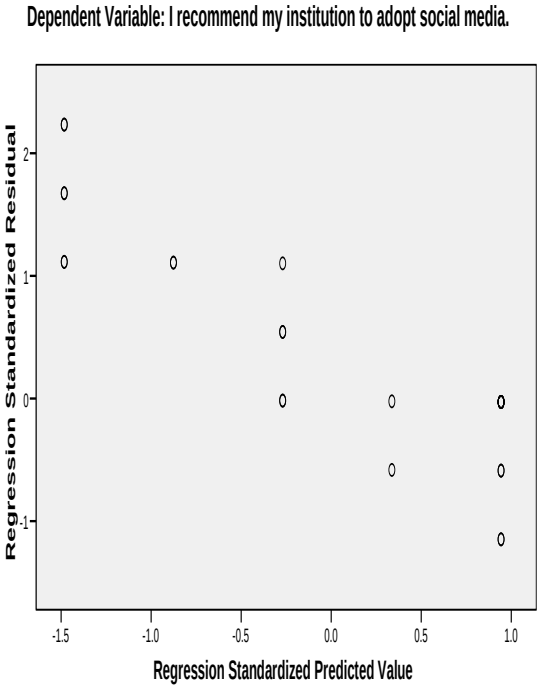
Scatterplot 16



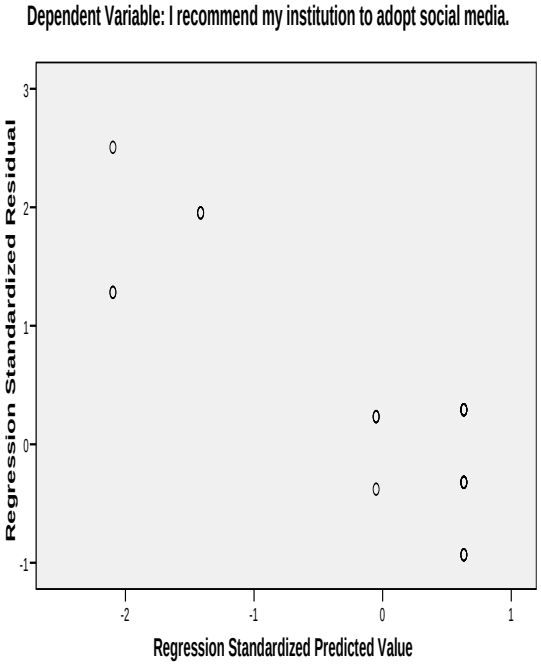
Scatterplot 17



Scatterplot 18

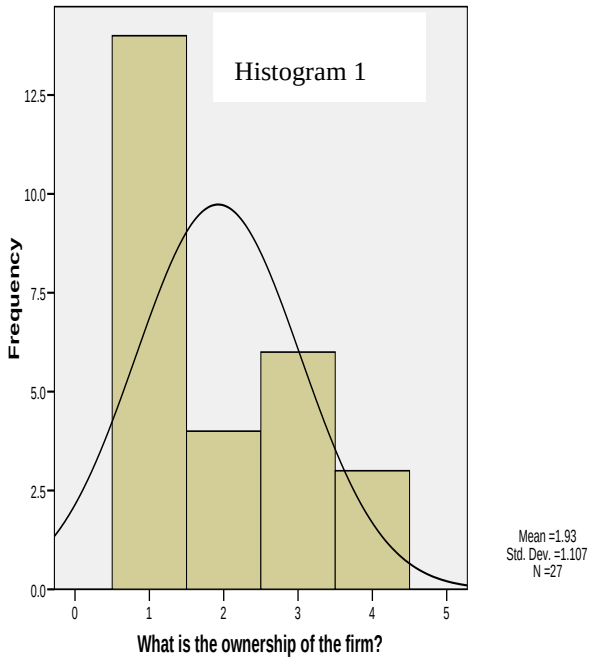


Scatterplot 19

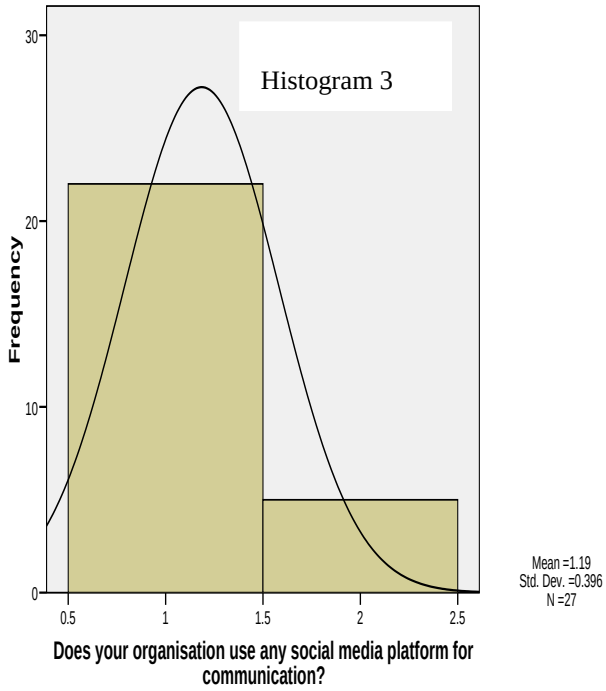


APPENDIX 3: HISTOGRAMS

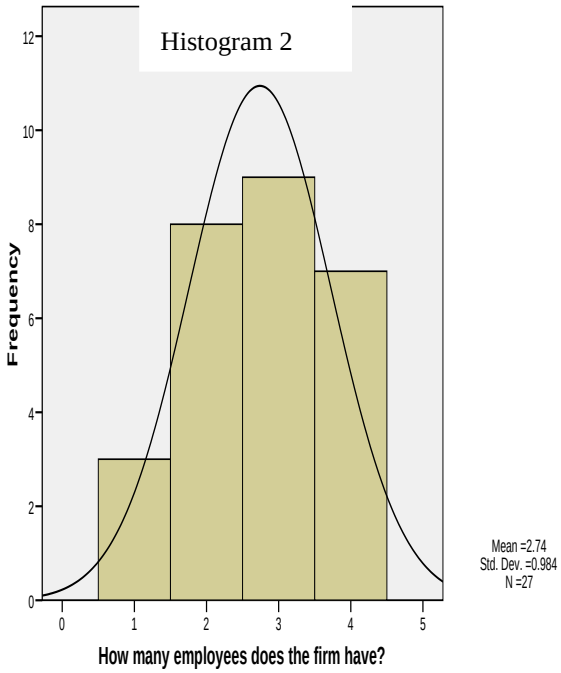
What is the ownership of the firm?



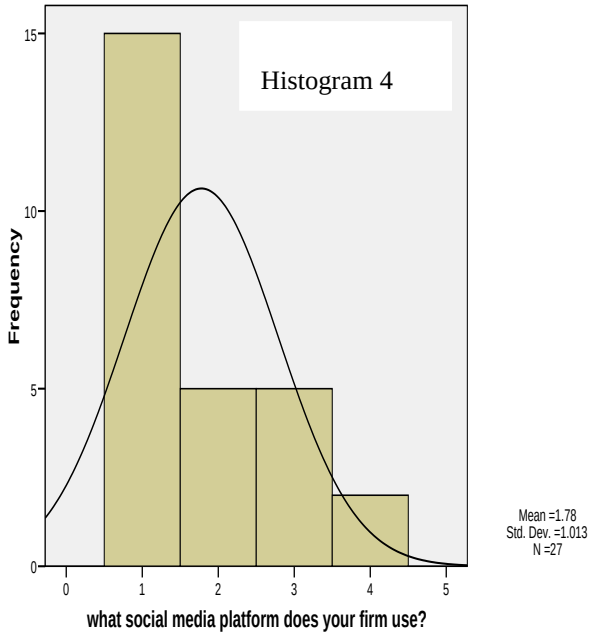
Does your organisation use any social media platform for communication?



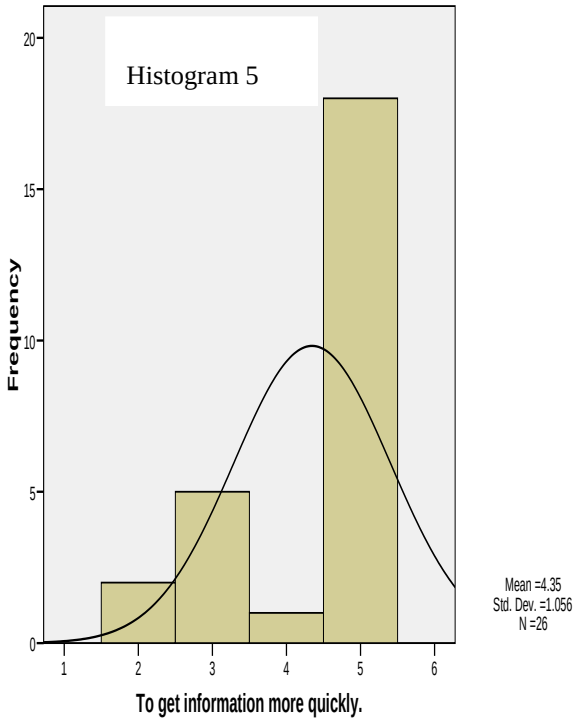
How many employees does the firm have?



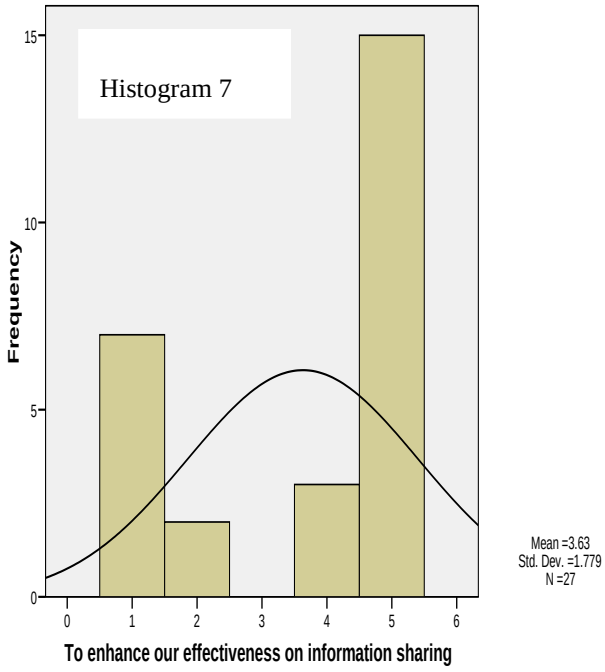
what social media platform does your firm use?



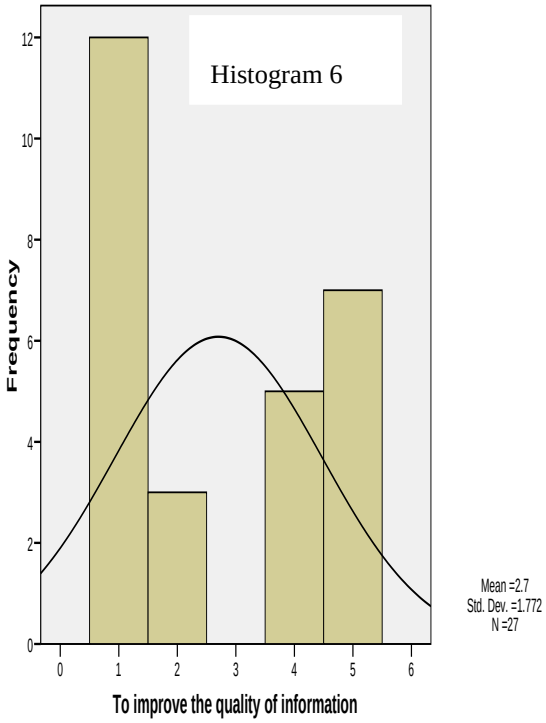
To get information more quickly.



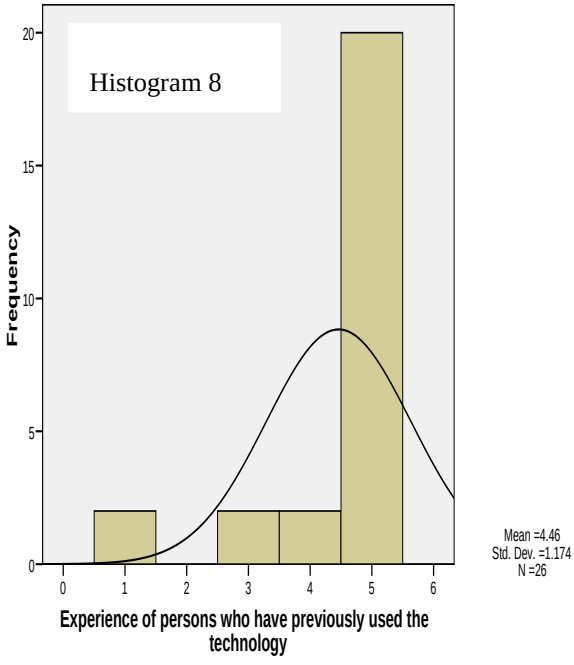
To enhance our effectiveness on information sharing



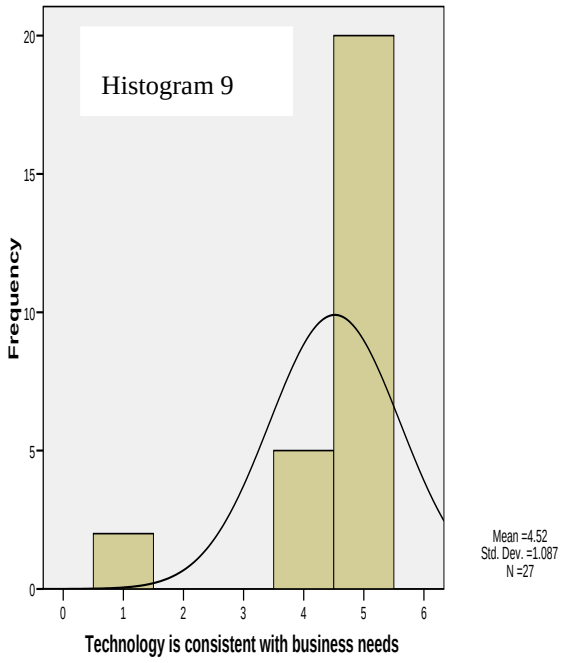
To improve the quality of information



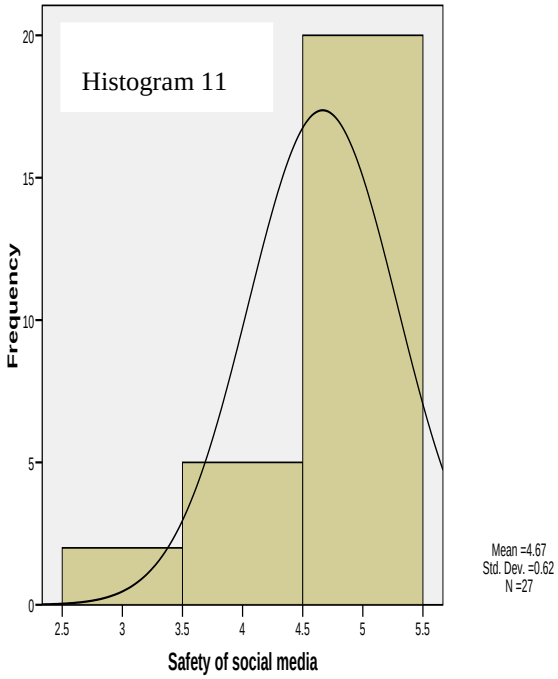
Experience of persons who have previously used the technology



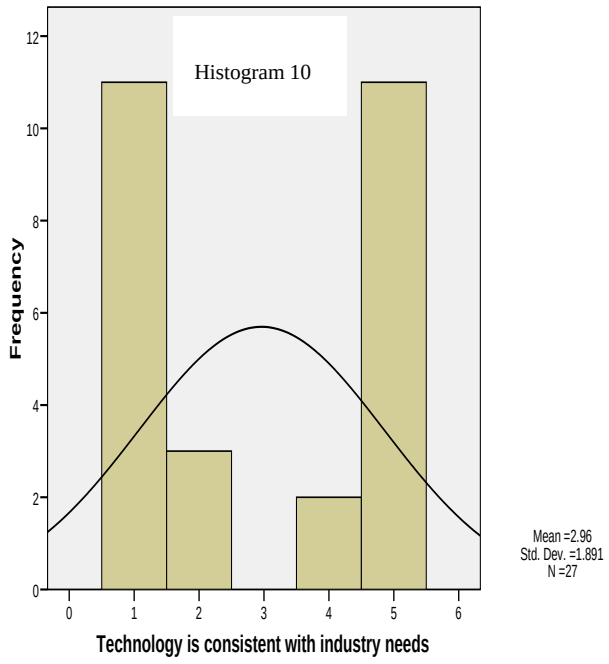
Technology is consistent with business needs



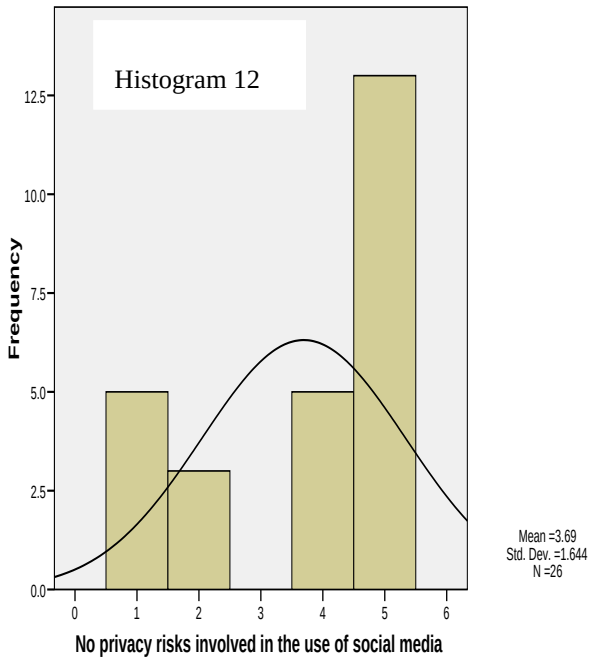
Safety of social media



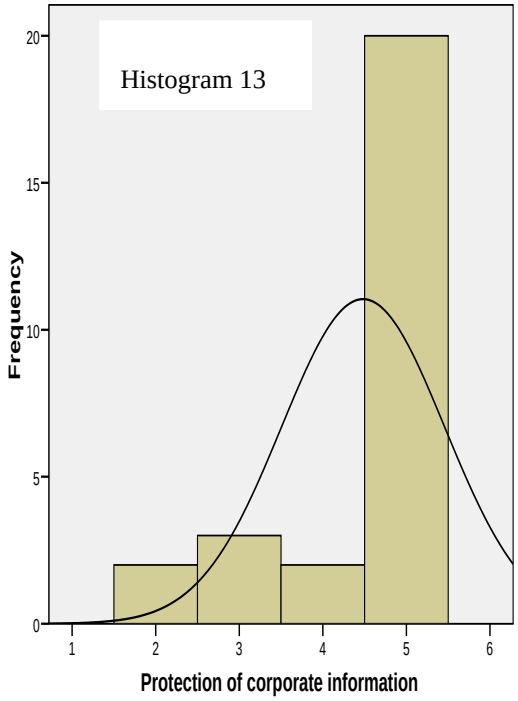
Technology is consistent with industry needs



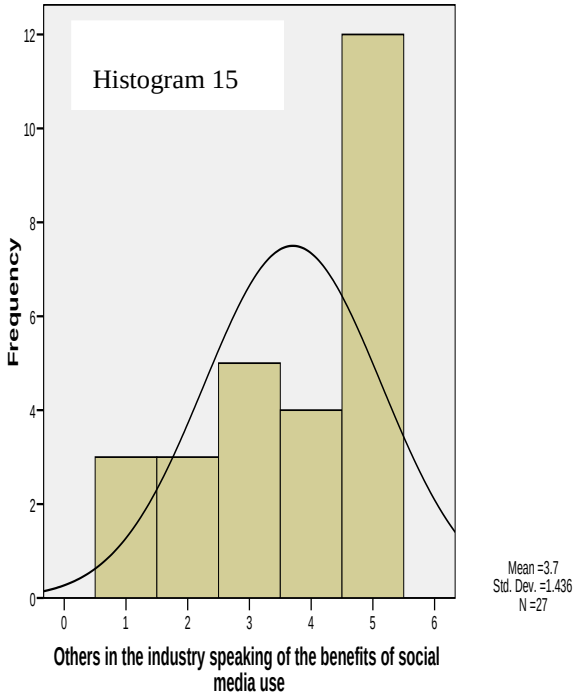
No privacy risks involved in the use of social media



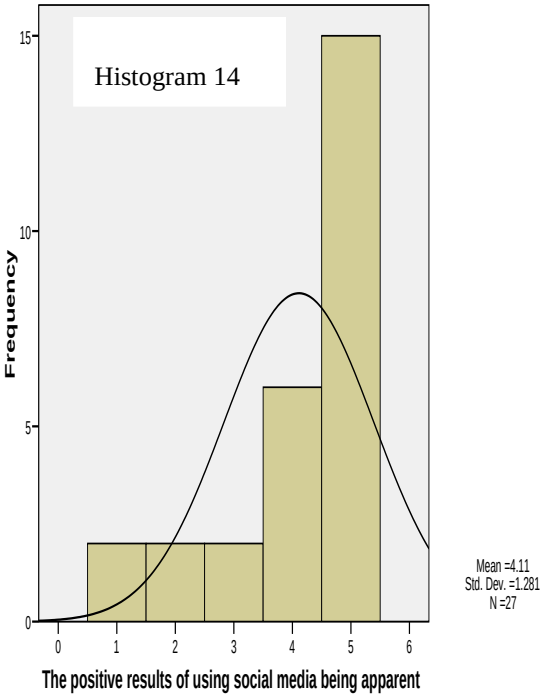
Protection of corporate information



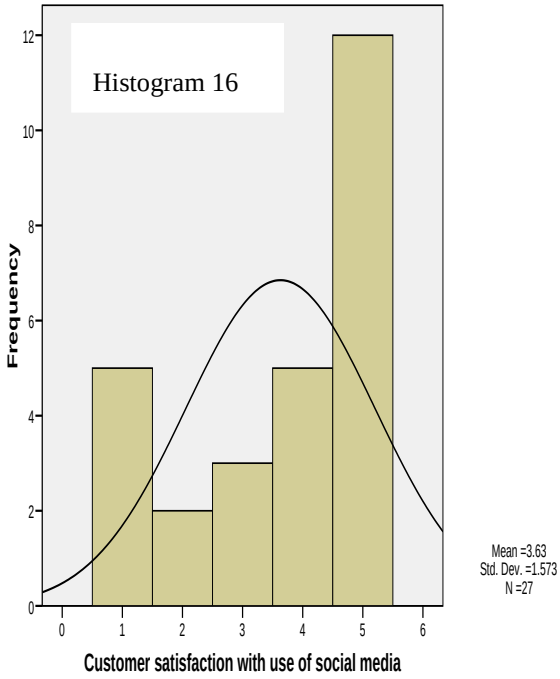
Others in the industry speaking of the benefits of social media use



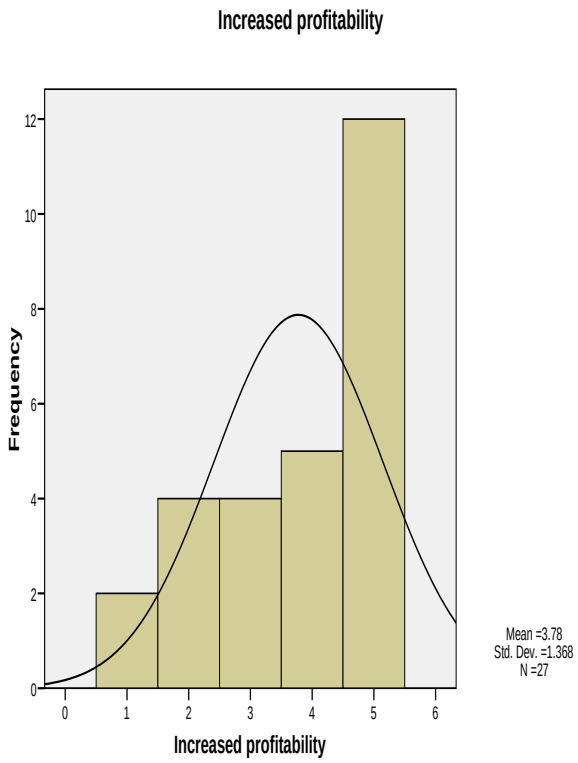
The positive results of using social media being apparent



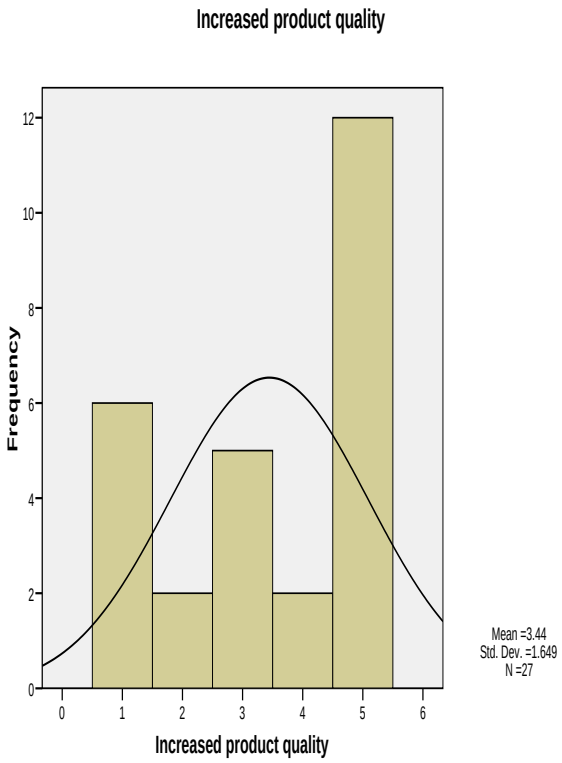
Customer satisfaction with use of social media



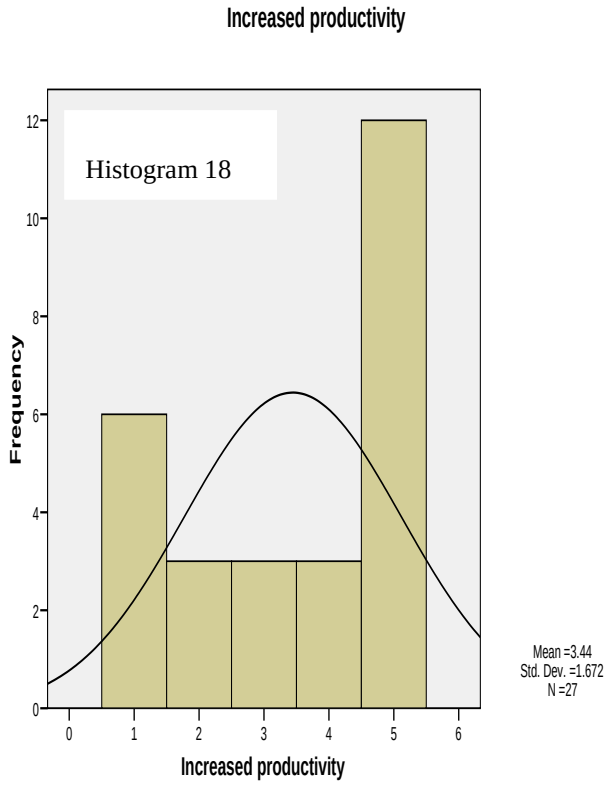
Histogram 17



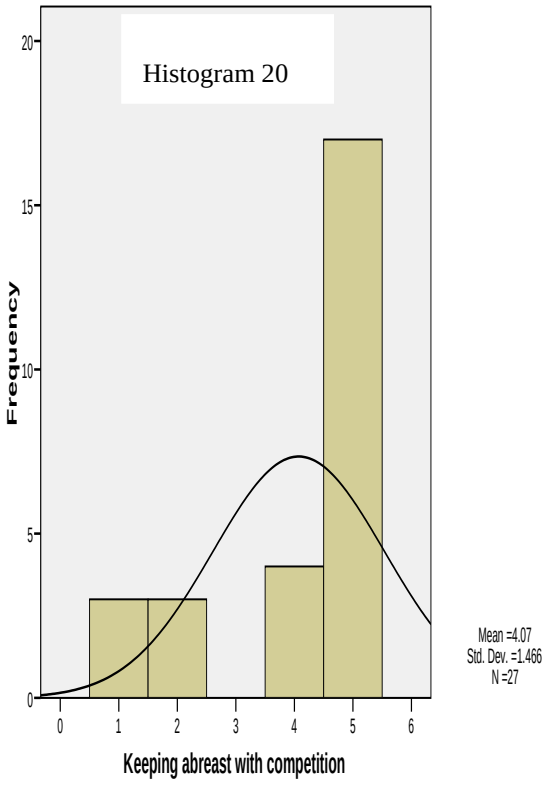
Histogram 19



Histogram 18

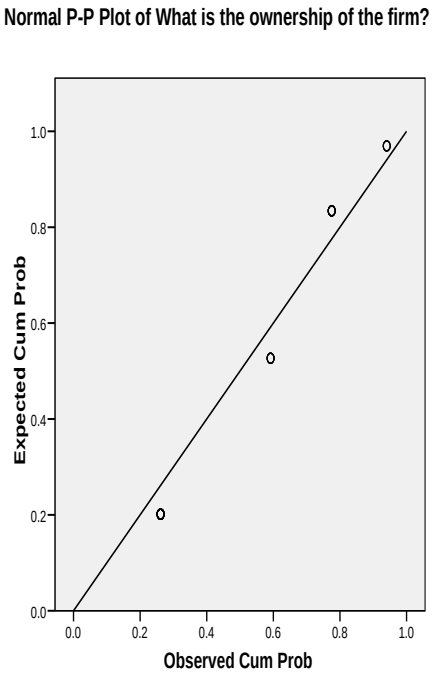


Histogram 20

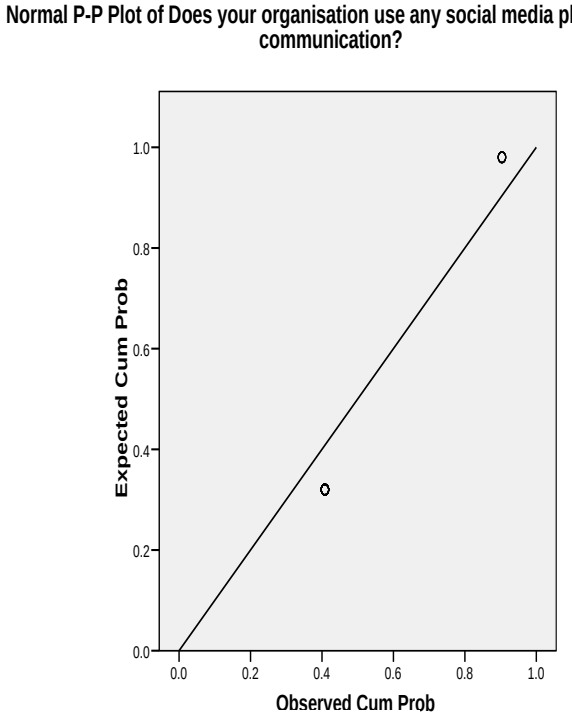


APPENDIX 4: P-P PLOTS

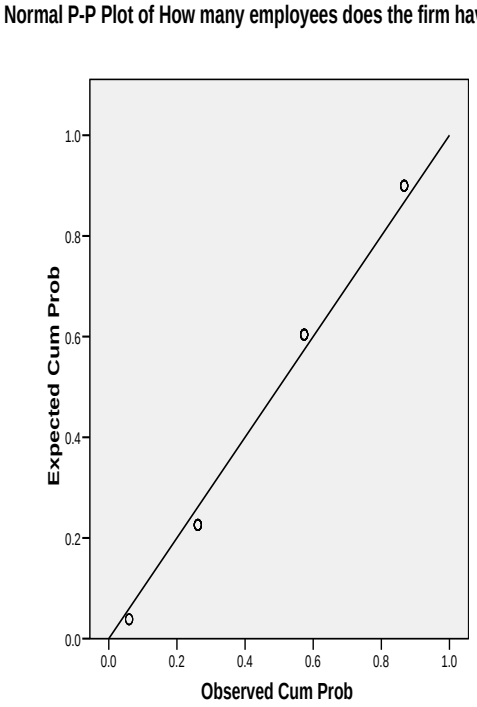
P-P Plot 1



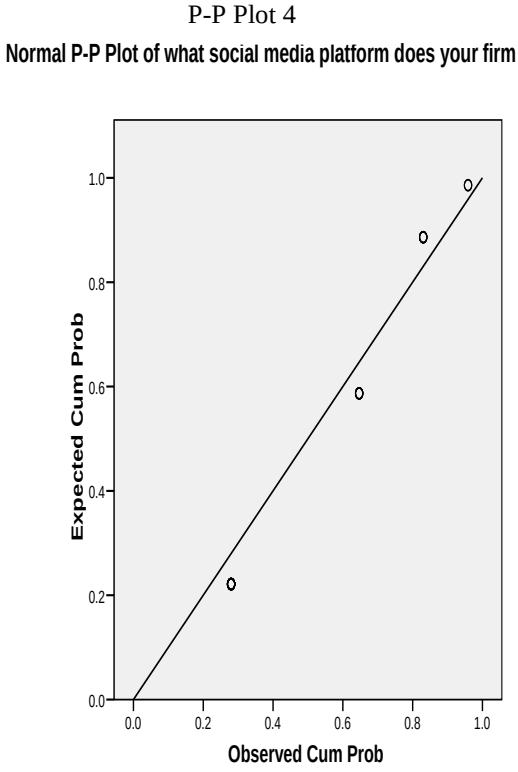
P-P Plot 2



P-P Plot 2

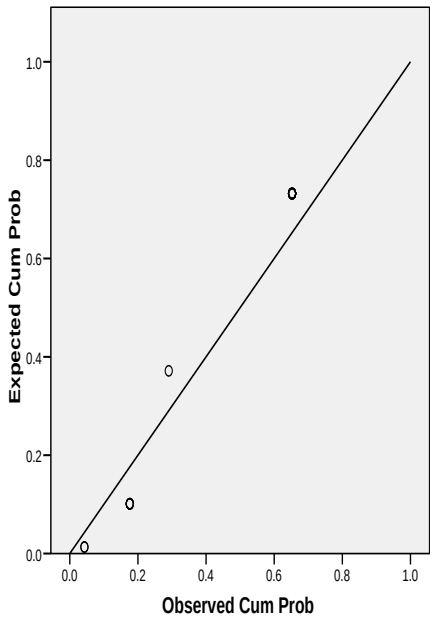


P-P Plot 4



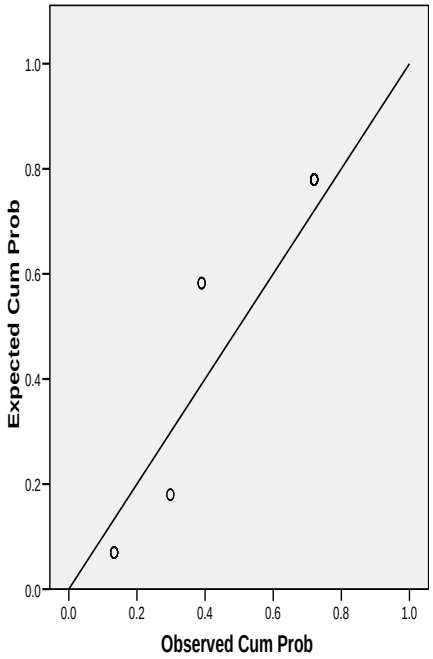
P-P Plot 5

Normal P-P Plot of To get information more quickly.



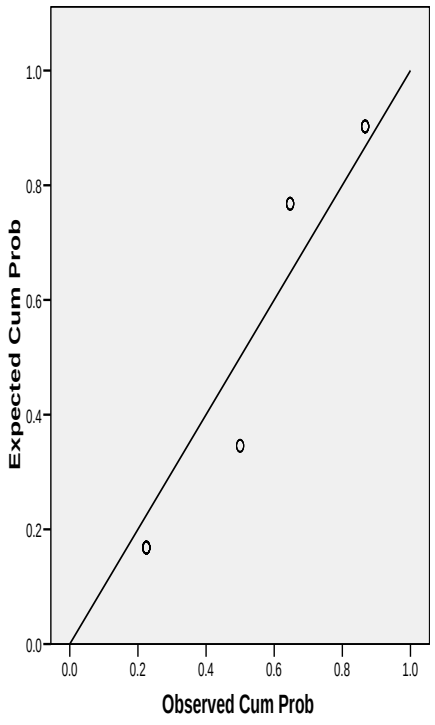
P-P Plot 7

Normal P-P Plot of To enhance our effectiveness on information sharing



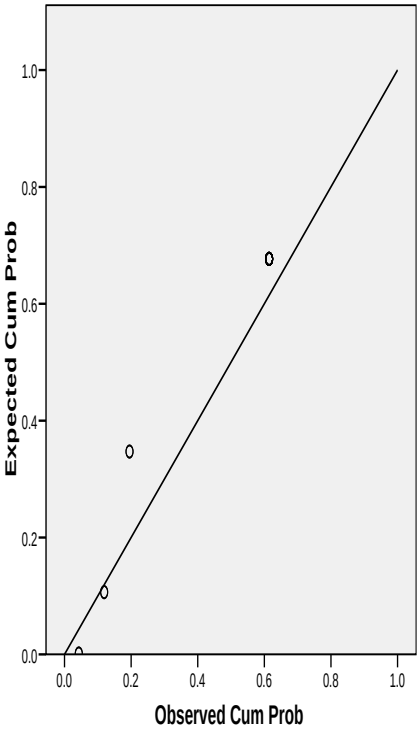
P-P Plot 6

Normal P-P Plot of To improve the quality of information

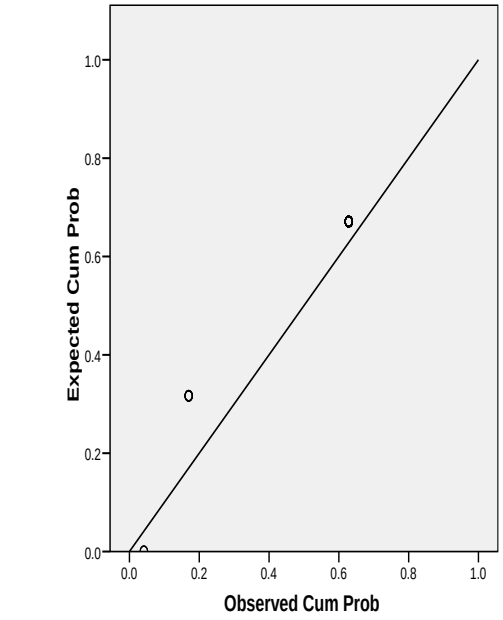


P-P Plot 8

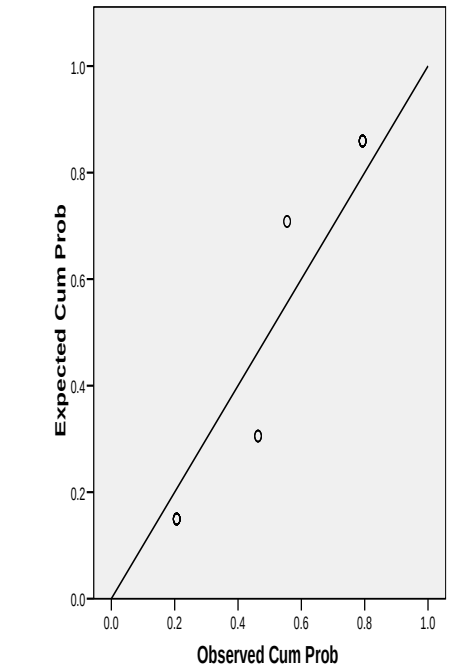
Normal P-P Plot of Experience of persons who have previously used the technology



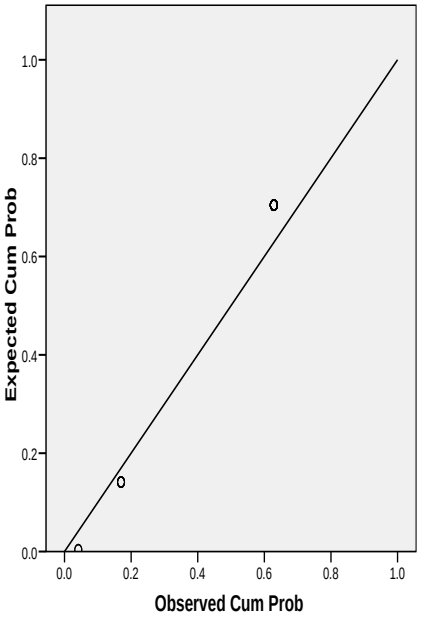
P-P Plot 9



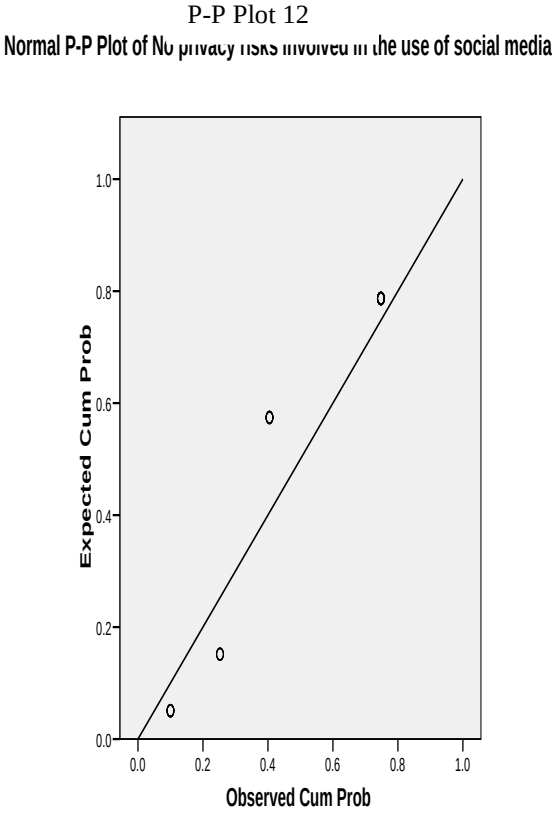
P-P Plot 10



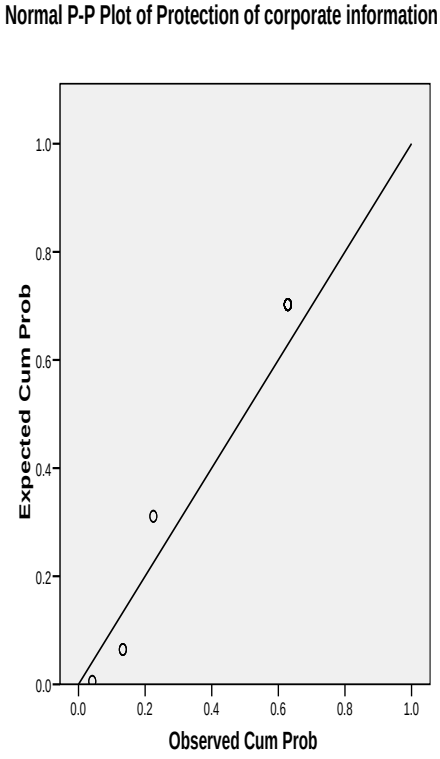
P-P Plot 11



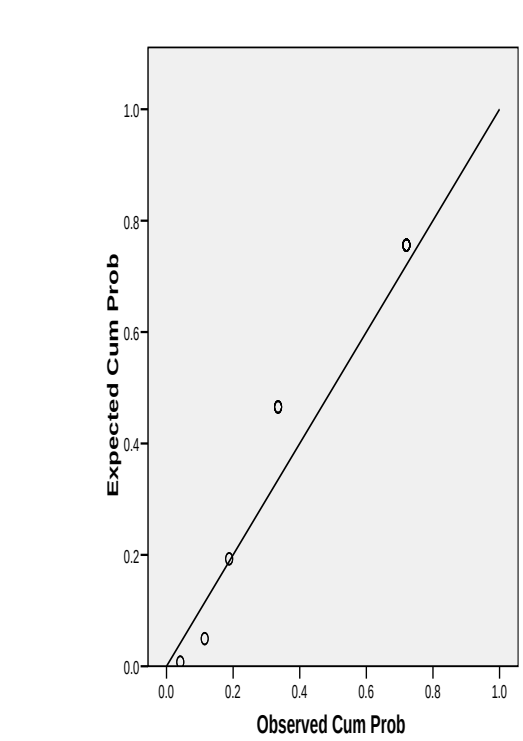
P-P Plot 12



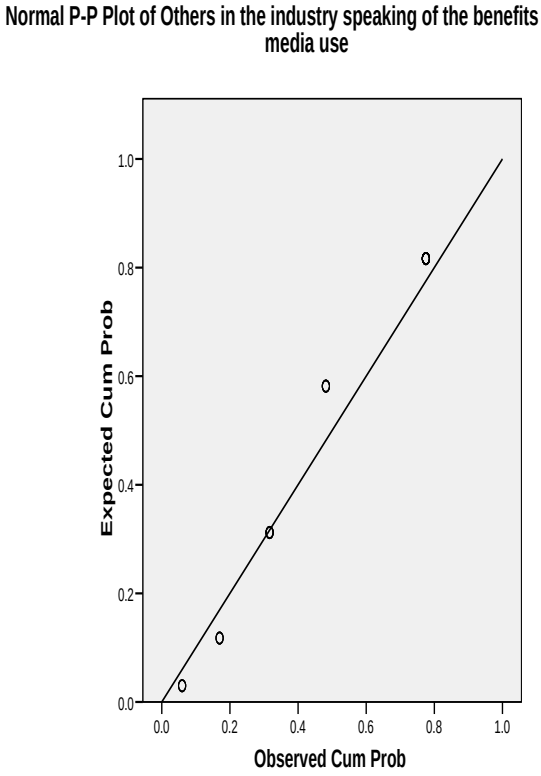
P-P Plot 13



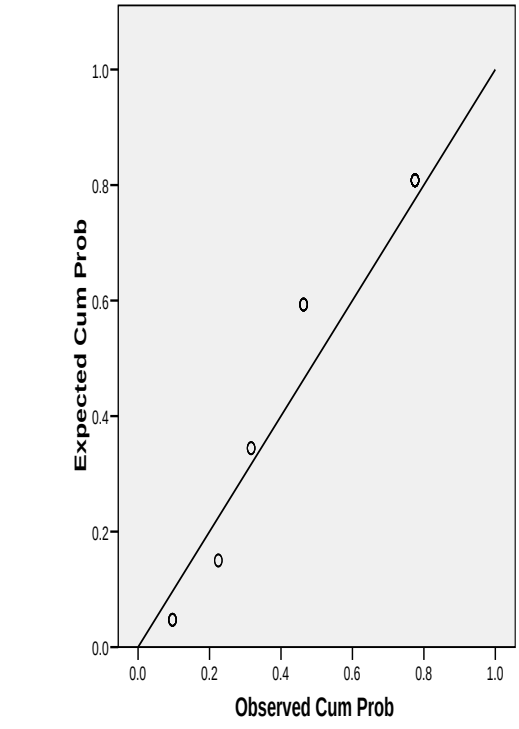
P-P Plot 14



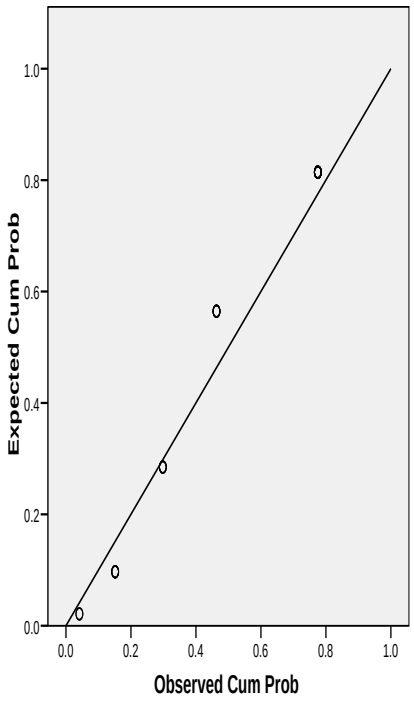
P-P Plot 15



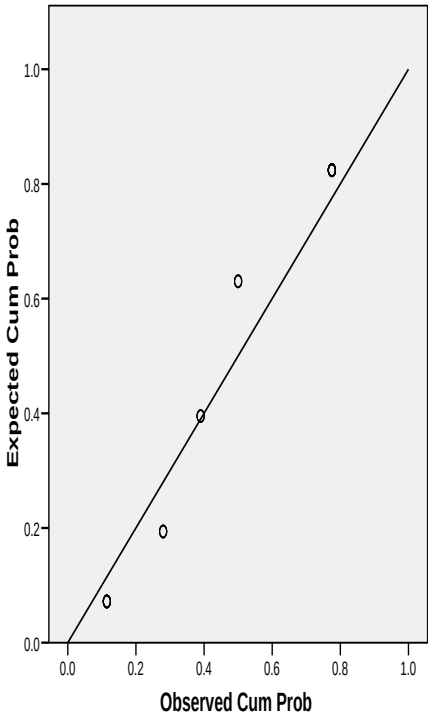
P-P Plot 16



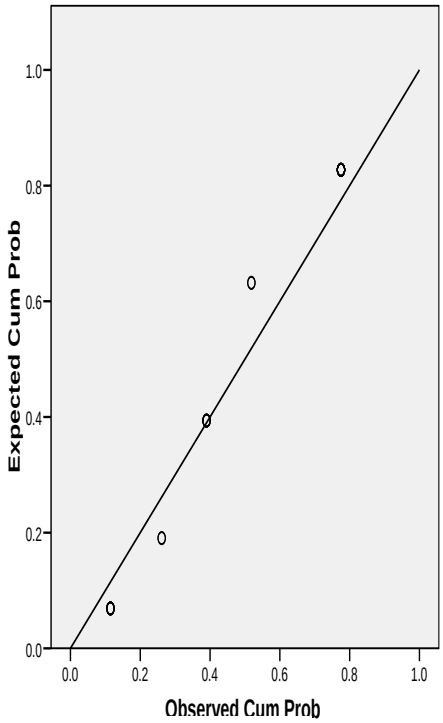
P-P Plot 17



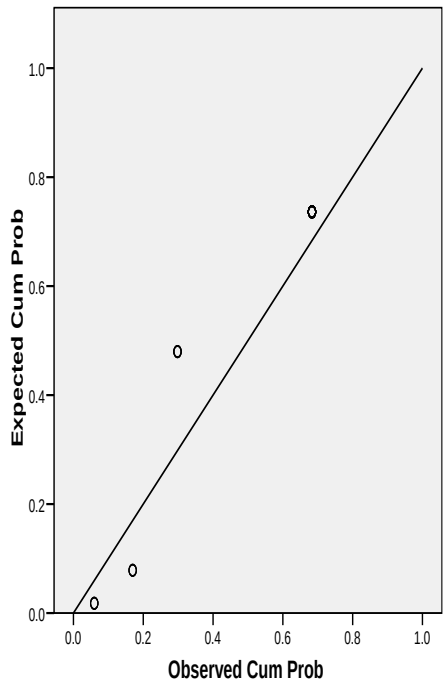
P-P Plot 18



P-P Plot 19



P-P Plot 20



APPENDIX 5: NSE COMPANIES SAMPLED

1. Kenya Power & Lighting Ltd
2. Liberty Kenya Holdings Limited
3. Access Kenya Group
4. Unga Group
5. Eveready East Africa
6. Mumias Sugar Company Limited
7. East African Breweries
8. Jubilee Holdings Limited
9. Uchumi Supermarkets
10. Standard Group Limited
11. Longhorn Kenya Limited
12. Kakuzi Limited
13. Kapchorua Tea Company Limited
14. Marshalls East Africa
15. CMC Holdings
16. Barclays Bank
17. CFC Stanbic Holdings
18. Equity Bank Group
19. CIC Insurance Group
20. Housing Finance Company of Kenya
21. I&M Holdings Limited
22. Diamond Trust Bank Group
23. Kenya Commercial Bank Group
24. Cooperative Bank of Kenya
25. Hutchings Biemer Limited
26. Kenya Airways
27. Athi River Mining Limited
28. Bamburi Cement Limited
29. KenolKobil
30. Nation Media Group

APPENDIX 6: COMPANIES LISTED IN THE NSE

Agricultural

Symbol	Listing	Notes
EGAD	Eaagads Limited	Coffee growing and sales
KUKZ	Kakuzi Limited	*Coffee, tea, passionfruit, avocados, citrus, pineapple, others*
KAPC	Kapchorua Tea Company Limited	*Tea growing, processing and marketing*
LIMT	Limuru Tea Company Limited	*Tea growing*
REA	Rea Vipingo Sisal Estate	*Sisal*
SASN	Sasini Tea and Coffee	*Tea, coffee*
WTK	Williamson Tea Kenya Limited	*Tea growing, processing and distribution*

Automobiles and Accessories

Symbol	Listing	Notes
G&G	Car & General Kenya	*Automobiles, engineering, agriculture*
CMC	CMC Holdings	*Automobile distribution*
MASH	Marshalls East Africa	*Automobile assembly*
FIRE	Sameer Africa Limited	*Tires*

Banking

Symbol	Listing	Notes
BBK	Barclays Bank (Kenya)	*Banking, finance*
CFC	CFC Stanbic Holdings	*Banking, finance*
DTK	Diamond Trust Bank Group	*Banking, finance*
EQTY	Equity Bank Group	*Banking, finance; crosslisted at the Uganda Securities Exchange*
HFCK	Housing Finance Company of Kenya	*Mortgage financing*
I&M	I&M Holdings Limited	*Banking*, *Financial services*
KCB	Kenya Commercial Bank Group	*Banking & finance*. Crosslisted on the Uganda Securities Exchange, the Dar es Salaam Stock Exchange and the Rwanda Over The Counter Exchange
NBK	National Bank of Kenya	*Banking, finance*
NIC	National Industrial Credit Bank	*Banking, finance*
SCBK	Standard Chartered Kenya	*Banking, finance*
COOP	Cooperative Bank of Kenya	*Banking, finance*

Commercial and Services

Symbol	Listing	Notes
XPRS	Express Kenya Limited	*Logistics*
HBER	Hutchings Biemer Limited	*Furniture*
KQ	Kenya Airways	*Kenya's flagship airline; crosslisted at Uganda Securities Exchange and Dar es Salaam Stock Exchange*
LKL	Longhorn Kenya Limited	*Publishing*
NMG	Nation Media Group	*Newspapers, magazines, radio stations, television stations*
SCAN	Scangroup	*Advertising and marketing*
SGL	Standard Group Limited	*Publishing*
TPSE	TPS Serena	*Hotels & resorts*
UCHM	Uchumi Supermarkets	*Supermarkets*

Construction and Allied

Symbol	Listing	Notes
ARM	Athi River Mining Limited	*Cement, fertilizers, minerals; mining and manufacturing*
BAMB	Bamburi Cement Limited	*Cement*
BERG	Crown-Berger (Kenya)	*Paint manufacturing*

CABL	East African Cables Limited	*Cable manufacture*
PORT	East African Portland Cement Company	*Cement manufacture and marketing*

Energy and Petroleum

Symbol	Listing	Notes
KEGN	Kengen	*Electricity generation*
KENO	KenolKobil	*Petroleum importation, refining, storage & distribution*
KPLC	Kenya Power and Lighting Company	*Electricity transmission, distribution and retail sale*
TOTL	Total Kenya Limited	*Petroleum importation and distribution*
UMME	Umeme	*Electric power distribution*. Crosslisting from Uganda Securities Exchange[1]

Insurance

Symbol	Listing	Notes
BRIT	British-American Investments Co.(Kenya)	*Insurance*
CIC	CIC Insurance Group	*Insurance*
CFCI	Liberty Kenya Holdings Limited (formally CFC Insurance)	*Insurance*
JUB	Jubilee Holdings Limited	*Insurance, investments; crosslisted at the Uganda Securities Exchange*

KNRE	Kenya Re-Insurance Corporation	*Reinsurance*
PAFR	Pan Africa Insurance Holdings	*Insurance*

Investment

Symbol	Listing	Notes
ICDC	Centum Investment Company	*Investments*
OCH	Olympia Capital Holdings	*Construction and building materials*
TCL	TransCentury Investments	*Investments*

Manufacturing and Allied

Symbol	Listing	Notes
BAUM	A Baumann and Company	*Machinery distribution and marketing*, *investments*
BOC	BOC Kenya	*Industrial gases*, *welding products*
BAT	British American Tobacco Limited	*Tobacco products*
CARB	Carbacid Investments Limited	*Carbon dioxide manufacturing*
EABL	East African Breweries	*Beer, spirits; crosslisted at Uganda Securities Exchange and Dar es Salaam Stock Exchange*
EVRD	Eveready East Africa	*batteries*
ORCH	Kenya Orchards Limited	*Fruit growing, preservation and distribution, fruit-juice manufacture and marketing*

MSC	Mumias Sugar Company Limited	*Sugar cane growing, sugar manufacture & marketing*
UNGA	Unga Group	*Flour milling*

Telecommunication and Technology

Symbol	Listing	Notes
ACCS	Access Kenya Group	*Internet service provider*
SCOM	Safaricom	*Mobile telephony*

Fixed income security market segment

(FISMS)

Symbol	Listing	Notes
KPLC-P4	Kenya Power & Lighting Ltd 4% Pref 20.00	--
KPLC-P7	Kenya Power & Lighting Ltd 7% Pref 20.00	----