

THE EFFECT OF TECHNOLOGY ON RISK MANAGEMENT PRACTICES BY FUND MANAGERS IN KENYA

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Abstract

This study was conducted to understand the effect of technology on risk management practices of fund managers in Kenya. The study adopted a descriptive research design with a population of all the fund managers in Kenya. Currently there are twenty registered fund managers in Kenya (RBA, 2015) which were all included in the study. The study used Likert's scale based questionnaire for data collection. Regression equation was used to analyze the data. The results showed that technology, training and compliance have an insignificant relationship with risk management practices while effective data management has a significant relationship with risk management practices. The study concluded that technology has a negative relationship with risk management practices and that the type of technology adopted by fund managers in Kenya influences the risk level in the organizations. In addition, the study concludes that training and compliance with rules and regulations influence the risk level in fund organizations in Kenya since compliance makes sure fund managers operate according to specified rules thus minimizing compliance risks. Finally, the study concludes that effective data management significantly influences risk management practices by fund managers in Kenya since data is an asset to any organization hence effective management of this sensitive asset reduces risks.

Keywords: Technology, Risk, Fund managers, Data management, Training, Risk management practices

INTRODUCTION

Fund managers face various risks in their endeavor to meet the clients' target. Recently, technology advancement has led to change of the risk environment in the daily operations. The traditional risk management strategies have changed. Previously risk factors such as inflation, business risk, and financial risk were common. But today technological risk is one of the major risks facing asset managers. Among these changes cybercrime is the most common. Cybercrime is defined when computer is the object of crime. This can be viewed in terms of hacking, phishing or spamming. Most cybercrimes use computer technology to access personal information, business trade. Use of internet for malicious or exploitative purpose can be classified as cybercrimes (Chorafas, 2011). Normally computer crimes are very catastrophic and costly to the entity. According to a research carried in UK, the rate of cybercrimes is on the rise. Many firms are losing millions of sterling pounds on these malicious acts. Asset managers are not exemption and are vulnerable too. The dynamics of risk management have changed to keep vigil of this criminal acts carried out by hackers. Some of the common changes are use of cyber security to curb this technological risk (Chorafas, 2011).

The nature of business managers requires the need to hold and manage rapidly increasing volumes of data. This data comprise clients' information, the market data, the asset portfolio and numerous bank account transactions. These require a complex data management strategy that may be outsourced or at times managed by the firm. This has in turn increased the risk management spectrum to the asset managers. Data is normally an easy target by cyber criminals.

Though cloud computing has made it easy to access data from the server with much ease. Risk management is highly boosted by the ability to identify this risk due to availability of data (Chorafas, 2011). More so, monitoring of these data is becoming more efficient hence much more informed decisions are made. Thus the process of risk management has lowered the time schedule and cost. Cloud computing can be described as a model in which computing resources are abstracted from their underlying physical hardware elements. The act of virtualization services provide scalable, on-demand access to a pool of computing resources typically accessed over the Internet. The importance of cloud computing includes scalability, agility and speed-to-market, and cost control which is the main aim of risk management. Therefore technology enhances risk management process (IBM, 2011).

Fund managers serve numerous individual and corporate clients. Third parties such as custodians also interact with fund managers in their daily operations. Hence, need to communicate on frequently. Technology has made it possible to interact with these parties with ease. Information technology enabled by mobile gadgets such as iPhone has made it possible

to send information at any time. Social media is enhancing the speed of communication which in turn enhances the period of service delivery. This will help the asset managers to reduce cost on customer interaction (IBM, 2011). Communication is too enhancing risk management by reducing the information asymmetry. All fund managers are able to access the vital information for their daily transactions. These new technologies also present huge risks, however, when these benefits are offset by data management hurdles and customers expressing dissatisfaction online for all to see. The responses on social sites can lead to negative publicity which may increase to reputation risk. Hence need for risk management that caters for these new changes.

As high-risk activities increasingly occur beyond the boundaries where traditional control environments operate, these changes will tear up the rule book in the way successful enterprises think about and govern risks. Compliance with ISO27001, ITIL or adherence to Cobit standards within the IT function may no longer alone be sufficient to govern risks over IT services (Kouns & Minoli, 2011).

The counterpoint of risk is opportunity and IT functions which can effectively manage their risks will enable their businesses to radically outperform those companies which are put off by or simply not up to the challenge. Companies where IT feels empowered to influence commercial decision-making by demonstrating how business enablement can be driven by effective management of technology risks, will prosper greatly at the expense of those companies where ignorance or fear of new or changing technology risk areas either prevents them from moving into new areas, or results in failures when they attempt to. This is the time for IT leaders to step up and put themselves and their function at the center of driving their business forward (Kouns & Minoli, 2011).

Research Problem

Risk management can be traced back in time immemorial. Various techniques have been applied to reduce and control the impact of uncertain future event. Risk management can be traced back to the Markowitz theory and modern portfolio theory that highlights the importance of risk mitigation in the market environment (Bodie, 1999). In the past risk management practices are changing. Among the many factors that affect risk management includes technology, organization structure and communication. Technology can be both information and infrastructure (Wariya and Ranoggi, 2009). These two have changed the way we conduct business. Technology has led to adoption of risk management software that is changing the face of risk management. Risk management programs are further improving process of risk identification in advance. Previous studies have identified various factors affecting risk management. Out of this information technology has been identified as one of the main factor,

though no research has linked how technology is impacting on risk management either positively or negatively. Currently, risk environment is shifting towards advance in technology. Technological risk is emerging has use of technology is advancing. Therefore there is a need to research on the effects of technology in risk management practices. Is technology worth investing into despite the risk threats?

The world is losing millions of dollars in form of technological risk. In Kenya, technology is gaining momentum. Widely institutions are adopting technology at high rate. Consumers too are well informed. Therefore technological risk is on the rise. Though little reports of fraud have been reported, financial institutions are losing a lot of millions in Kenyan Shillings. Asset management which is an emerging market in Kenya, and has potential for growth technology is inevitable. Fund managers act on fiduciary capacity for investors hence need to invest in technology to reduce agency cost and improve communication. Further it's an industry exposed both to market risks and firm risks (Ernst & Young, 2013). Risk management is a vital process to the functions of fund managers. In mitigating both the firm risk and market risk to maximize the investors returns. Thus need arises to study how the increased use of technology is impacting risk management practices.

Technology is one of the greatest innovations that are changing globally how we conduct business. From transportation to communication and modes of money transfer technology is the key driver. Over the years technology has been growing all over the world and hence need to understand its impact to the society. The following factors have been identified to impact on risk management communication, culture, information technology, training, organization structure, and commitment from management and trust (Wariya and Ranogi, 2009). It is further supported by (Ashoori and Teymouri, 2010) who narrows the research to impact of information technology to conclude a positive relationship between technology and risk management. The studies argue technology is impacting on competition, higher performance levels, globalization and effective data management. Locally the impact of technology is being felt to financial sector that has greatly improved its operation efficient. Though this too has its disadvantage, technological risk is on the rise. It has been identified Kenya is making loses associated with technology (Kiragu, Wanjau and Kanali, 2013). The study further find out our increased innovation can enhance competition among the players in the industry (Maingi and Wanjiru, 2013). To expound further on this studies is to find out how innovation in technology is affecting the risk management in fund managers.

In the last decade, scholars have identified an increase in technology in the daily life activities. This comprise of social media in communication, more advanced gadgets and friendly to users both for individuals and business. Technology is on the rise. Hence, need to

understand how the risk environment is changing due to the advance in technology. Previous studies have not identified a relation between technology and risk management. Further, is investing in technology commensurate with the cost of investing in risk management. Is technology impacting positively to risk management or negatively? Therefore, this study seeks to find out what is the effect of technology on risk management practices in the case of fund managers in Kenya?

Objective of the Study

To examine the effect of technology on risk management practices in the case of fund managers in Kenya.

LITERATURE REVIEW

Modern Portfolio Theory

Modern portfolio theory was developed by Markowitz in 1952 and explains how to maximize returns for a given level of portfolio risk or on the other hand to minimize risk for a given level of return. It expounds on the importance of perfect asset selection in regard to the risk exposure of an investor. The theory argues that for assets with similar risk but different returns an investor will select an asset with less risk (Sharpe, 1963). It is a theory that has been used widely by fund managers to maximize value of their clients' portfolio. Later, Brom introduced the post modern portfolio theory that added the concept of intern rate of return to measure the link between assets and liabilities. It differs with modern portfolio theory in risk measurement by use of mean return. The use of this theory was made possible by the use of software developed by Rom that highly enabled market optimization. Unlike MPT, PMPT gave room for use of more sophisticated techniques in risk analysis (Sharpe, 1963).

Diffusion Theory

Diffusion of Innovation Theory was discovered by Rogers in 1962 expounds how an idea can be communicated over time and spreads through the population or social system. Diffusion can be described as the process which innovation spreads and is accepted in the society. Many factors interact to influence the spread or diffusion of technology (Rogers, 1995). It involves communicating the idea, the time it takes to spread and the nature of the society in which it's introduced. It goes farther to expound and investigate how the various factors interact, facilitate the new innovation and the effects of the invention. This inculcates a culture in people and adopts the idea or product over time. Over the years diffusion theory has been used extensively both in technology and economics. More theories have been derived out of diffusion to explain

spread of various innovations in the society. In Information technology, the use of developer based theory and adopter based theory. (Surry, 1997)

Further Rodgers explains the adoption using the rate of adoption theory that defines how innovations diffuse to form a pattern that is S shaped curve. It identifies how the idea follows a path from inception at a slow gradual growth before exploding into rapid growth (Rogers, 1995). Diffusion theory is further supported by theory of perceived attributes that explains the potential of innovation adopter's judge based on five attributes of invention. They comprise of relative advantage, compatibility, observability, complexity and lastly triability (Rogers, 1995). Surry supports this perception which plays a major role in the adoption of technologies in the society (Surry, 1997).

Situational Theory

Situational theory was well developed in the year 1984 by Hersey. It has been widely used to explain how internal and external dimensions to identify the problem, level of involvement, and constraint recognition. Further analysis of situational theory has identified three independent variables that expound on the external and internal dimensions could be altered through communication (Williams, 2015). Publics can be classified into those who are aware of the problem and what they do about the problem. Communication is identified as a means of creating awareness and effectively addressing such challenges. To expound further on the situational theory is the buildup of the contingency theory that states the best way to organize will depend on the nature of the environment in which an entity must relate. Build up on the theory identified factors that could alter environment uncertainty of an entity could influence performance of an organization. The main areas identified include technology, government, customers and competitors (Williams, 2015).

Empirical Review

A study carried out by Kontio and Basili (1997) recognizes three challenges namely technology awareness, limitations of risk management approaches and lack of empirical evidence on the usefulness of risk management methods. It highlights on the importance of risk management technology and discusses approaches that help overcome the shortcomings. It discuss Riskit method that allows thorough documentation of risk scenario, sound approach to ranking risk and supports multiple goals on stakeholders. Also it goes further to explain the difficulties in evaluating the risk management methods.

Bodie (1999) carried out a study to analyze changes in technology in the investment industry. The study highlights on the changes of the investment environment and how the

industry responded to some of the challenges at the time. Drastic increase in the level and volatility of interest rates commenced in the year 1965 and was more consistent in the early 1980s. It is believed the increase was as a result of the effect of the Vietnam War on the U.S. economy and the oil price crisis when the Middle East cartel was formed (Bodie, 1999). The price changes led to increased inflation that further led to increased nominal interest rates. New markets for the derivative security exchanges to trade listed futures and options were born in the 1970s. The new market traded in major currencies, treasury bills, bonds and stocks. Due to the volatility of the economic market, managing this risk was necessary. Financial models to manage these risks were developed (Bodie, 1999).

The computing and telecommunications industry had made some strides in development of personal computers that could process at a higher speed and memory. This was a boost to the financial sector. The processing of complex numerical solution and multivariate differential equations were made possible (Bodie, 1999). Real time estimation of prices and other ratios were enhanced. In the words of Merton it was described as the financial innovation spiral.

Wariya and Ranoggi (2009) carried out a study in Thailand to establish critical success factors in risk management for financial institutions. Risk management has become an important topic for financial institutes, especially since the business sector of financial services is related to conditions of uncertainty. The uncertainty in financial industry emphasizes on the importance of effective risk management procedure to curb the turmoil. The research highlights various critical success factors for effective risk management and how they impact the industry. The research question highlighted seeks to expound and gain a better understanding of risk management procedures and to examine the critical success factors for effective risk management procedures. To explore the importance of these factors use of quantitative method to analyze data collected using self-completion questionnaire to financial institutions in Thailand. The selected institutions comprised of banks, stock securities exchange, asset management and insurance. The study found out seven factors that play a major role in effective risk management. These factors are Commitment and support from top management, Communication, Culture, Information technology, Training, Organization structure and Trust. The importance for effective risk management to financial institution is also highlighted. The study is aimed to change the procedures adopted to address the need for effective risk management practices in financial institutions in Thailand. It further expounds on how both IT and Infrastructure helps in increasing competition, higher performance levels, globalization and data management. These achievements help the firm to reduce cost of documentation and further reduce time in carrying out risk identification and analysis. This concludes IT is crucial for firms to establish sound risk management practices at all levels.

Ashoori and Teymouri (2010) in their study on the IT impacts on risk management in Iraq found out in many organizations, information system and IT infrastructure have been considered as the most strategic capital. Valid information is an important factor that leads to business success. Risk management involves identifying the potential risks, measuring, monitoring and controlling them in an organization to meet its strategies and objectives and causes to decrease the undesired effects in project life cycles. The study further emphasizes the importance of risk management in strategic management of the organization by controlling the threads. The study was to estimate the effects of IT usage on 50 Iranian oil companies by analyzing the data which was collected by use of questionnaires. Information technology impact on risk management was summarized into three components mainly cost, time, and performance. It concluded that there is a positive impact of information technology on risk management especially in optimizing time of process rather than cost and performance.

Feringa and Goguen (2012), define risk management as the process of identifying risk, assessing risk, and taking steps to reduce risk to an acceptable level. To identify the risk in organizations, risk assessment is used to determine the extent of the potential threat, vulnerabilities, and the risk associated with an information technology system. The second step which involves risk mitigation utilizes the output of the first process to help identify appropriate controls for reducing or eliminating risk. The ultimate goal is to help organizations to better manage IT-related mission risks. Organizations may choose to expand or abbreviate the comprehensive processes and steps suggested in this guide and tailor them to their site environment in managing IT-related mission risks. In addition, this guide provides information on the selection of cost-effective security controls. These controls can be used to mitigate risk for the better protection of mission-critical information and the IT systems that process, store, and carry this information. The third step in the process is continual evaluation and assessment. In most organizations, IT systems will continually be expanded and updated, their components changed, and their software applications replaced or updated with newer versions. In addition, personnel changes will occur and security policies are likely to change over time. These changes mean that new risks will surface and risks previously mitigated may again become a concern. They conclude that risk management process is ongoing and evolving.

A study carried out by Rono and Bittok (2010), on Impact of RBA guidelines on the return on investments of both pension funds under management and those for pension schemes in Kenya summarizes on the importance of regulations to financial performance. The study was conducted on a sample of fund managers and fund trustees in Kenya and determined a return of about 10 to 21.52 %. The study highlighted how the overall weighted returns changed on implementation of the RBA guidelines. This research further highlights the need

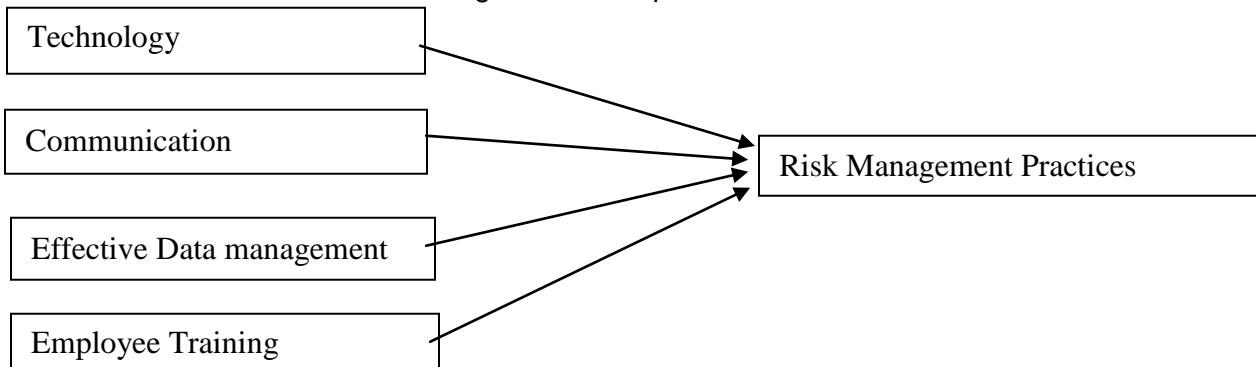
harmonize on legislation that ensures schemes are encapsulated from risk. It touches on the importance of risk management to the firm and schemes. The study is generally based on how to improve on productivity and returns of the different schemes. It helps understand that risk management is necessary for firms to ensure they achieve targeted returns. It further summarizes on the expected growth in the industry hence need to address a large population in the future. It concludes by touching on the need to address and strengthen compliance and enforcement to cater for emerging issues in the market in the future.

A study carried out in Kenya to establish financial innovation as a competitive strategy has highlighted the importance of technology in enhancing competition (Maingi and Wanjiru, 2013). It recognizes rapid change in the world business environment and becoming intensely competitive. In this context, most organizations are realizing that knowledge is the most important resource in creating sustainable competitive advantage. It defines knowledge management as a discipline designed to provide strategy, process, and technology to increase organizational efficiency and effectiveness. The survival and success of a firm are dependent on the capacity of management to generate new ideas. One such a topical idea is financial innovations. Economies and businesses across the world have embraced creativity and innovation to circumvent market imperfections. Kenya as an economy has been hailed as a regional financial hub. This paper is a narrative review seeking to establish the extent of financial innovation in Kenya and how this enhances competitiveness. The research finds out that the Kenyan financial sector has made some remarkable strides towards financial innovations which are enhanced by changing and embracing of technology. However, it is noted that there is still enormous untapped potential that can enhance Kenya's economy further (Maingi and Wanjiru, 2013).

Kiragu, Wanjau and Kanali (2013) highlights global statistics shows that the banking sector has the highest occupational fraud incidence compared to other sectors and that an organization loses at least 5% of its annual revenues to fraud. In Kenya, applying this statistic to consolidated commercial banks revenue for the year 2011, the loss is approximately Kshs 13 Billion. Further studies shows that occupational fraud incidence is growing faster in Africa as a continent while Kenya reported the highest fraud incidence in Africa. In the country recently, Commercial banks have experienced a phenomenal growth over the last ten years. The study set to find if commercial banks growth has had an effect on occupational fraud in the commercial banks. Occupational fraud can be associated with the change in risk environment. Many attributes can be associated with the growth of Banks and one of the many factors identified is the adoption of technology and competition. A representative sample of 30 banks out of the 43 commercial banks licensed by Central Bank of Kenya by June 30, 2012 was used

in this study. The test statistic used was bivariate linear regression was used the relationship between bank growth and occupational fraud risk in commercial banks. The findings from this study are the negative and not significant effect of bank growth on occupational fraud risk in commercial banks in Kenya. These results provide important insights on to management on the overall effect of customer base expansion and occupational fraud risk and further provide a pointer to the regulatory authorities as to what their efforts should be in deterring occupational frauds in Kenya.

Figure 1-Conceptual Framework



RESEARCH METHODOLOGY

Descriptive research was identified for the study as it explains the relation between technology and risk management practices. It demonstrates how changes in technology will impact on the risk management practices. The population of the study was all the registered fund managers in Kenya. In Kenya there are twenty registered fund managers (RBA, 2015). Due to small population size, the study used census for data collection. Data collection was from both primary and secondary source of data. Questionnaires sent through email or administered personally were used to collect data. Questionnaires included both closed and open ended questionnaires. In our research we used regression equation to interpret and analyze the findings. This section is categorized into analytical model and test of significance. Below is a representation of the multivariate function model used:

$$Y = A + B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 + B_5 X_5 + E_e$$

Y =Risk Management Practices

Risk management practices will be measured in terms of its effectiveness and efficiency, which is measured in cost incurred, effect on returns and time taken to carry out the process.

$B_{1,2,3,4}$ =Coefficient Variable

X_1 =Technology

Technology is determined by increased social media, information technology and technological risk. Technological risk is accessed by cost incurred when it occurs and cost of investing in technology.

X_2 =Communication

Communication is measured by change in time and accuracy of risk management process

X_3 =Effective Data management which is determined by the time and cost in risk management practices

X_4 =Employee Training is measured by level of education attained

E_e =Error term

ANALYSIS AND RESULTS

Response rates

A total of 20 questionnaires were administered to the 20 registered fund managers in Kenya and all of them were returned fully responded to hence a 100% response rate. This data was considered adequate for the study.

Reliability Analysis

The Cronbach Alpha Coefficient was used to establish the instruments reliability. A coefficient of 0.797 was obtained which is an indication that the instrument was reliable since coefficient of 0.7 is considered an indication of reliability. Table 1 shows the results obtained

Table 1. Reliability Analysis

Cronbach's Alpha	N of Items
.797	23

Descriptive statistics

Table 2. Descriptive Summary Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Risk Management Practices	20	.786	11.707	2.42071	3.350777
Technology	20	1.0	1.8	1.370	.2452
Training and compliance	20	1.50	2.25	1.8375	.21877
Effective data management	20	1.0	2.5	1.625	.5821

According to the results on table 2, risk management practices had a mean of 2.42 and standard deviation of 3.35 with the minimum and maximum values being 0.786 and 11.707 respectively. Technology had a mean of 1.370 and standard deviation of 0.245 with minimum and maximum values of 1.0 and 1.8 respectively. Additionally, training and compliance had a mean value of 1.8375 with standard deviation of 0.219 and minimum and maximum values of 1.50 and 2.25 in that order. Further, effective data management had a mean value of 1.625 with a standard deviation of 0.582 and minimum and maximum values of 1.0 and 2.5 correspondingly. The summary statistics results indicate that the values were evenly distributed.

Regression Analysis

Table 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.587 ^a	.345	.222	2.955913

a. Predictors: (Constant), Effective data management, Training and compliance, Technology

As per study findings in table 3, R-Square (coefficient of determination) has a value of 0.345 which indicates that 34.5% of the variation in the dependent variable (Risk management practices) is explained by the independent variables (technology, training and compliance and effective data management) while 65.5% of the variation is explained by other factors not considered by the model and the error term. The correlation coefficient of 0.587 which indicates that there is a strong positive correlation between technology and risk management practices in the case of fund managers in Kenya.

Table 4. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	73.528	3	24.509	2.805	.073 ^a
	Residual	139.799	16	8.737		
	Total	213.326	19			

a. Predictors: (Constant), Effective data management, Training and compliance, Technology

b. Dependent Variable: Risk Management Practices

According to the table 4, the f statistics value of 2.805 is insignificant at 5% level of significance since the P-value of 0.073>0.05. This indicates that the study model is poor and there is no significant relationship between technology and risk management practices by fund managers in

Kenya. In addition the regression sum of square value (73.528) is less than the residual indicate that the study variables explain less of the variation in the regression model.

Table 5. Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	-3.126	7.097		-.441	.665
Technology	-5.809	3.509	-.425	-1.656	.117
Training and compliance	3.422	3.616	.223	.946	.358
Effective data management	4.442	1.559	.772	2.849	.012

a. Dependent Variable: Risk Management Practices

Based on multiple regression analysis done to establish the impact of technology on risk management on fund managers in Kenya, the following equation was derived using SPSS;

$$Y = -3.126 - 5.809X_1 + 3.422X_2 + 4.442X_3.$$

Table 5 indicates that technology has a negative insignificant relationship with risk management as indicated by beta value of -5.809 and the p value of 0.117>0.05. Training and compliance has a positive insignificant relationship with risk management practices as indicated by the beta value of 3.422 and the p value of 0.358>0.05. Effective data management has a positive significant relationship with risk management practices as indicated by the beta value of 4.442 and the p-value of 0.012<0.05. This shows that technology and training and compliance have an insignificant relationship with risk management practices while effective data management has a significant relationship with risk management practices.

SUMMARY OF THE FINDINGS

The study findings have established technology has a negative and insignificant relationship with risk management whereas training and compliance has been found to have positive and insignificant relationship with risk management practices. On the other hand effective data management has been found to have a positive and significant relationship with risk management practices. Thus, the study has revealed that technology and training and compliance have an insignificant relationship with risk management practices while effective data management has a significant relationship with risk management practices.

The above findings are similar to those of Kouns and Minoli (2011) who established that the Information Technology (IT) function may no longer alone be sufficient to govern risks over IT services. IBM (2011) also posited that data input checks such as field validation and naming policies minimize errors and risk and that effective data management is a strategy that can improve on better risk management strategies by offering data security. In Kenya, Kiragu, Wanjau and Kanali (2013) also established that there is negative and insignificant effect of technology on occupational fraud risk in commercial banks in Kenya However, the findings are in contrast to those of Ashoori and Teymouri (2010) established a positive relationship between technology and risk management.

CONCLUSION

The study findings established that technology has a negative insignificant relationship with risk management with a beta value of -5.809 and the p value of $0.117 > 0.05$. The study findings also established that training and compliance has a positive insignificant relationship with risk management practices with a beta value of 3.422 and the p value of $0.358 > 0.05$. Additionally, the study established that effective data management has a positive significant relationship with risk management practices with a beta value of 4.442 and the p-value of $0.012 < 0.05$.

Based on the study findings the study concludes that technology has a negative relationship with risk management practices and that the type of technology adopted by fund managers in Kenya influences the risk level in the organizations. In addition, the study concludes that training and compliance with rules and regulations influence the risk level in fund organizations in Kenya since compliance makes sure fund managers operate according to specified rules thus minimizing compliance risks. Finally, the study concludes that effective data management significantly influences risk management practices by fund managers in Kenya since data is an asset to any organization hence effective management of this sensitive asset reduces risks.

RECOMMENDATIONS FOR POLICY AND PRACTICE

Based on the study findings the study recommends that fund managers should regularly carry out technological risk audit risks to establish the effect of technology on risk management practices. This is because technology is highly dynamic and adoption of new technologies may increase risk or reduces the risk the organization is facing.

The study also recommends that fund managers should develop effective training and development policies to ensure that employees have knowledge on various aspects on risk

management. In addition effective training policies would ensure compliance with procedures and regulations.

Additionally, the study recommends that fund managers should develop effective policies on data management and security. This is because data is a valuable asset to any organization which should be highly protected to ensure only authorized personnel have access. Access of data by unauthorized persons may lead to increased risks.

LIMITATION FOR THE STUDY

This study used primary data collected through the use of questionnaires which had structured questions and required specific responses. Structured questions require specific answer hence qualitative and in-depth views by the respondents was not captured by the study.

The study focused on risk management practices by fund organizations in Kenya and sought the views of fund managers hence the findings are limited to fund organizations and may not be generalized to other organizations. This is because all organizations face different risks and use different technologies and risk management practices.

SUGGESTIONS FOR FURTHER RESEARCH

Risks and risk management remains a wide and open research area. Thus, this study suggests an additional research on risk management practices used by fund managers to reduce risk facing fund organizations. This is because an investigation into the risk management practices would help fund managers to identify the appropriate risk management strategies.

Additionally, the study suggests further research on the effect of risk management on the performance of fund organizations in Kenya. This would provide an insight on the effects of risk management practices on the performance of fund organizations.

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