

Strathmore University SU+ @ Strathmore University Library

Electronic Theses and Dissertations

2019

Determining the factors impacting the cost of compliance with Know Your Customer requirements in commercial banks

Caroline K. Dzanga Strathmore Business School (SBS) Strathmore University

Follow this and additional works at <u>https://su-plus.strathmore.edu/handle/11071/6588</u>

Recommended Citation

Dzanga, C. K. (2019). Determining the factors impacting the cost of compliance with Know Your

Customer requirements in commercial banks (Thesis, Strathmore University). Retrieved from

http://su-plus.strathmore.edu/handle/11071/6588

This Thesis - Open Access is brought to you for free and open access by DSpace @Strathmore University. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of DSpace @Strathmore University. For more information, please contact <u>librarian@strathmore.edu</u>

DETERMINING THE FACTORS IMPACTING THE COST OF COMPLIANCE WITH KNOW YOUR CUSTOMER REQUIREMENTS IN COMMERCIAL BANKS

BY

CAROLINE KAVUMBI DZANGA

(095033)

A THESIS SUBMITTED TO STRATHMORE UNIVERSITY BUSINESS SCHOOL

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTERS OF COMMERCE



JUNE, 2019

DECLARATION

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

© No part of this thesis may be reproduced without the permission of the author and Strathmore University.

Name : DZANGA CAROLINE KAVUMBI

Signature :....

Date :....

APPROVAL

The thesis of Dzanga Caroline Kavumbi was reviewed and approved by the following:

Dr. David Mathuva
Senior Lecturer, Strathmore University Business School,
Strathmore University
Dr. George Njenga
Dean, Strathmore University Business School,
Strathmore University
555-7
Prof. Ruth Kiraka
Dean, School of Graduate Studies, OMNES LAND SINC
Strathmore University

ACKNOWLEDGEMENT

First of all, for the gift He shed on me and protecting me during the research, I'm deeply in debt to God Almighty. Secondly, I would like to thank my lecturer and supervisor, Dr David Mathuva, who was extremely helpful in composing this thesis. I am very grateful for the time he took to peruse and rectify my research and thereby improve the accuracy and reliability of my work. At last, but most crucially, I am grateful to my husband Stephen Waweru for his continued support and understanding throughout this process and my daughter Heta Wambui for inspiring me to always be the best.



ABSTRACT

KYC compliance is no longer a suggestion for best practice but has instead become mandatory with regards to compliance for commercial banks in Kenya under POCAMLA 2009. Having an effective KYC requirement is a challenge to many commercial banks as the KYC guideline issued by the CBK appeared to be applied inconsistently depending on factors specific to the various commercial banks. In this regard, it has been noticed that commercial banks give an atmosphere desirable to the flow of that cash. This has turned the financial system into the key area in which illegal money is first introduced within the financial system for the anti-money laundering initiative. The overall aim of this study was to assess the impact on commercial banks ' compliance costs of knowing your client's requirements. This study was based on the basic theories of deterrence theory and cost of service theory. The study will employ descriptive research design. Both secondary and primary data were used in the analysis. The study targeted all the 43 commercial banks in Kenya. The study period was 2011 to 2017. The sample size was 80 respondents who were selected using simple random sampling. The study found that KYC requirements have a positive and significant influence on cost of compliance in the Kenyan commercial banks. The implication of the results is that effort by the banks to comply with the KYC policy is likely to be accompanied with increased cost of compliance. These costs could be attributed to number of awareness campaigns that banks organize, number of staff trainings held annually, number of staff in charge of IT systems, number of monitoring staff and number of fines and penalties accrued to the banks. Further, the study established that size of the banks measured in terms of total assets does not moderate the relationship between KYC and cost of compliance. All the control variables except profitability were found to have a positive (asset quality and ownership) and negative (bank age) significant influence on cots of compliance. Based on the findings, the study recommended that banks should come up with cost effective customer awareness strategies to ensure that they cut down on costs, should develop effective training programs, which will lead to cost reduction, should be able to source for highly competent IT experts to be in charge of the systems and should find ways of reducing the number of monitoring staff as a way of cutting cost.

DECLARATION		ii
ACKNOWLEDGEMENT		iii
ABSTRACT		iv
LIST OF TABLES		X
LIST OF FIGURES		xii
ABBREVIATIONS AND ACR	ONYMS	xiii
CHAPTER ONE		1
INTRODUCTION		
1.1 Background of the Study		1
1.1.1 Know your customer req	juirements	2
1.1.2 Cost of Compliance		
1.2 Problem Statement		4
1.3 Objective of the study		5
1.4 Research Question		
1.5 Scope of the Study		
1.6Significance of the Study		
1.6.1 Commercial banks		6
1.6.2 Customers		6
1.6.3 Investors		6
1.6.4 Regulator		6
1.6.5 Scholars and Academicia	ans	6
CHAPTER TWO		7
LITERATURE REVIEW		7

TABLE OF CONTENTS

2.1 Introduction7
2.2 Theoretical Review
2.2.1 Theory of Regulatory Compliance7
2.2.2 Deterrence theory
2.2.3 Theory of Economic regulation
2.3 Empirical Studies-hypothesis
2.3.1 Customer awareness of KYC requirements and cost of compliance in commercial banks
9
2.3. Staff competence of KYC requirements and cost of compliance in commercial banks 10
2.3.3 Information Technology and cost of compliance in commercial banks
2.3.4 Monitoring transaction and cost of compliance in commercial banks
2.3.5 Influence of fines and penalties on cost of compliance in commercial banks
2.4 Conceptual Framework
2.4.1 Customer awareness of KYC requirements
2.4.2 Staff competence on KYC requirements
2.4.3 Information Technology
2.4.4 Monitoring of Transaction in KYC requirements
2.4.6 Cost of Compliance
2.4.7 Firm Size
CHAPTER THREE
RESEARCH METHODOLOGY 17
3.0 Introduction
3.1 Research Philosophy17
3.1.1 Research Design

3.2 Target Population	
3.3 Sampling and Sampling Procedures	
3.4 Data Collection Procedure	19
3.5.2 Reliability	
3.6 Data Processing and Analysis	
3.7 Diagnostic Tests	
3.7.1 Normality Tests	
3.7.2 Multicollinearity	
3.8 Operationalization of Variables	
3.9 Ethical Considerations	
CHAPTER FOUR	
RESEARCH FINDINGS AND DISCUSSION	
4.1 Introduction	
4.2 Response Rate	
4.3 Demographic Information	
4.4 Diagnostic Tests	
4.4.1 Reliability Results	
4.4.2 Normality Tests	
4.4.3 Multicollinearity Test	
4.4.4 Heteroskedasticity Test	
4.4.5 Test for Autocorrelation	
4.5 Trend Analysis	
4.5.1 Cost of Compliance	
4.5.2 Customer Awareness	

4.5.3 Staff Competence	
4.5.4 Information Technology	
4.5.5 Monitoring of Transaction	
4.5.6 Fines and Penalties	
4.5.7 Firm Size	
4.6 Descriptive Statistic Results	
4.6.1 Customer Awareness of KYC requirements	
4.6.2 Staff competence on KYC requirements	
4.6.3 Information Technology	
4.6.4 Monitoring of Transaction in KYC Requirements	
4.6.5 Fines and penalties	
4.6.6 Firm Size	
4.6.7 Cost of compliance	
4.7 Factor Analysis	
4.7.1 Factor Analysis for Customer Awareness of KYC requirements	
4.7.2 Staff competence on KYC requirements	
4.7.3 Information Technology	
4.7.4 Monitoring of Transaction in KYC Requirements	
4.7.5 Penalties and Fines	
4.7.6 Firm Size	
4.7.7 Cost of Compliance	
4.8 Inferential statistics Results	
4.8.1 Correlation Analysis	
4.8.2 Multiple Regression Analysis	

4.8.3 Moderation Effect		
CHAPTER FIVE		
SUMMARY, CONCLUSIONS	AND RECOMMENDATIONS	
5.1 Introduction		
5.2 Summary of Major Findings.		
5.2.1 Customer Awareness of	KYC Requirements	
5.2.2 Staff Competence of KY	C Requirements	
5.2.3 Information Technology		
5.2.4 Monitoring of Transaction	n	
5.2.5 Fines and Penalties		
5.2.6 Firm Size		
5.3 Conclusion	<u> </u>	
5.4 Recommendations		
5.5 Limitation of the Study		
5.6 Suggested Areas for Further	Study	59
REFERENCES		60
Appendix I: Introduction Letter		65
Appendix 2: Questionnaire		66
Appendix 3: Turn it in Index		74

LIST OF TABLES

Table 3.1: Operationalization of Variables	
Table 4.1: Response Rate	
Table 4.2 Demographic Information	
Table 4.3: Reliability Results	
Table 4.4: Test for Normality	
Table 4.5: Multicollinearity Test	
Table 4.6: Breusch-Pagan / Cook-Weisberg test for Heteroscedasticity	
Table 4.7: Durbin-Watson Test for Autocorrelation	
Table 4.8: Influence of customer awareness on Cost of Compliance	
Table 4.9: Descriptive Results: Customer Awareness of KYC Policies	35
Table 4.10: Descriptive Summary: Number of Awareness Campaigns	35
Table 4.11: Influence of Staff Requirements on Cost of Compliance	
Table 4.12: Descriptive Results: Staff Competence	37
Table 4.13: Descriptive Summary: Number of Trainings	37
Table 4.14: Influence of Information Technology on Cost of Compliance	
Table 4.15: Descriptive Results: Information Technology	39
Table 4.16: Descriptive Summary: Number of IT staff	39
Table 4.17: Influence of Monitoring of Transaction on Cost of Compliance	40
Table 4.18: Descriptive Results: Monitoring of Transaction	41
Table 4.20: Descriptive Summary: Number of Monitoring Staff	41
Table 4.21: Influence of Fines and Penalties on Cost of Compliance	42
Table 4.22: Descriptive Results: Fines and Penalties	
Table 4.23: Descriptive Summary: Number of fines and penalties per year	

Table 4.24: Descriptive Summary: Number of fines and penalties per year	44
Table 4.25: Influence of Firm Size on Cost of Compliance	44
Table 4.26: Descriptive Results: Firm Size	45
Table 4.27: Descriptive Summary: Total Assets	45
Table 4.29: Descriptive Results: Cost of Compliance	46
Table 4.30: Descriptive Summary: Amount of money spent in compliance	47
Table 4.31: Factor loading: Customer Awareness	47
Table 4.32: Factor loading: Staff Competence	48
Table 4.33: Factor loading: Information Technology	48
Table 4.34: Factor loading: Monitoring of Transaction in KYC Requirements	49
Table 4.35: Factor loading: Fines and Penalties	49
Table 4.36: Factor loading: Firm Size	49
Table 4.37: Factor loading: Cost of Compliance	50
Table 4.38: Correlation Results	51
Table 4.39: Model of Fitness	52
Table 4.40: Analysi5s of Variance	52
Table 4.41: Regression of coefficients	52
Table 4.42: Moderation Results	54

LIST OF FIGURES

Figure 4.5: Cost of Compliance	30
Figure 4.6: Number of Customer Awareness Campaigns	30
Figure 4.7: Number of staff trainings	31
Figure 4.8: Information Technology	32
Figure 4.9: Monitoring of Transaction	32
Figure 4.10: Fines and Penalties	33
Figure 4.11: Firm Size	33



ABBREVIATIONS AND ACRONYMS

AML	Anti-Money Laundering
СВК	Central Bank of Kenya
CLRM	Classical Linear Regression Model
FFIEC	Commercial banks Examination Council
FICA	Financial Intelligence Centre Act
КҮС	Know Your Customer
NACOSTI	National Commission for Science, Technology and Innovation
NYS	National Youth Service
RM	Risk Management
SPSS	Statistical Package for Social Sciences
	VT OMNES WWW SINT

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Know your customer (KYC) refers to due diligence activities that commercial banks and other regulated companies must perform to ascertain relevant information from their clients for the purpose of doing business with them (Culp, 2014). The relevant authorities failed to generate special client verification requirements when KYC processes were initially implemented. This was done intentionally, inferring that monetary firms would only decide to fulfill minimum standards if certain KYC guidelines were implemented. The authorities were trying thought for themselves as well as economic organizations and to push the limits of accordance. This has lead to a compressed scheme which has constantly demonstrated that it does not comply with fundamental KYC norms. Therefore, a simplified method needs to be supported that involves particular demands continuously implemented across the economic range, from worldwide firms to smaller society banks (CBK, 2015).

The relevant authorities failed to generate special client verification requirements when KYC processes were initially implemented. This was done intentionally, inferring that monetary firms would only decide to fulfill minimum standards if certain KYC guidelines were implemented. The authorities were trying thought for themselves as well as economic organizations and to push the limits of accordance. This has lead to a compressed scheme which has constantly demonstrated that it does not comply with fundamental KYC norms. Therefore, a simplified method needs to be supported that involves particular demands continuously implemented across the economic range, from worldwide firms to smaller society banks (Mondal, Deb & Huda, 2016). The sorts of documentation normally required to validate KYC identities vary between banks. There are those that ask for social security cards or other kinds of domestic identity cards as well as government driver's permits, while others just ask for visas or birth certification. The system is far more complex for companies. Many KYC processes cause conflict and lead to negative user experience for clients who want to subscribe for finance products (Mondal, Deb & Huda, 2016).

Nevertheless, the pressure of compliance has for a long time remained a problem for monetary institutions. Lately, special focus was paid to compliance expenses for lower banks where it has more impact more than for bigger banks. These expenses have an important part in the United States ' legislative rollbacks. Congress (Banking, Housing, and Urban Affairs, 2017), United States U.S. Senate Committee Financial Institutes Examination Board (FFIEC), 2017. Treasury Department (2017) and Bank regulatory authorities (FFIEC).

In the fourth month of the year 2014, the Reserve Bank sanctioned R125 million for failure to take adequate steps to comply with the Monetary Security Center Act (FICA), the quadruple large monetary institutions in South Africa. The lowest R60 m, FirstRand was imposed with R30 m, Nedbank R25 m and Absa R10 m. Standard Bank was the highest monetary punishment. Absa, FirstRand and Nedbank have also been penalized for maintaining insufficient information and transactional documents on client checking (CBJK, 2015).

The Kenyan Wall Street (2018) documents that Barclays Bank of Kenya resorted to increasing its sales volumes in the upper segments, increasing product penetration in current client base and increasing focus on transactional banking deposit to survive the turbulent times in the wake of compliance costs. Compliance to regulations however, has a direct impact on the strategy that banks adopt, and it is their onus to respond to the market changes as quickly as they can to ensure sustainable business models. KPMG (2016) opines that the process of adjusting to new regulatory requirements is not simply about completing compliance requirements, but also crafting dynamic processes and maximizing the use of next-generation analytics in order to track regulatory changes as they emerge. The current study will therefore seek to determine the effect of know your customer policies on cost of compliance in commercial banks.

1.1.1 Know your customer requirements

A policy is a scheme or way to proceed, a central tenet or a way of influencing and determining choices. It may as well be described as a strategy or rather as a collection of long-term or problem-oriented choices (Wawira, 2009). It is more or less like a strategy strategy. Prior to recruiting customers to become members of a commercial banks, banks must diligently scrutinize their identifications and make sure that the identity disclosed is truthful preceding any form of transaction. Insurgency funding and financial laundering are some of the outcomes that

results from poor strategy frameworks for client identification The aim of this strategy is to guide in avoidance, identification and management of the feasible smuggling of cash, corruption and funding of insurgency

CBK, SASRA and IRA require that these policies are enacted in all institutions dealing with money. The main aim for enacting such measures is to deter laundering of cash by developing suitable innate procedures to alleviate the three elements of fraud that offer a way for embezzlement, the streamlining of embezzlement, and the driving force for fraud because money laundering is the major of the many crimes(McLaughlin, Pavelka & Amoroso, 2010)..

KYC reforms that could be adopted to lower the rates of money laundering are inclusive of customer understanding of KYC measures, KYC policy personnel expertise, client recognition processes and transaction screening. In developing client consciousness, the KYC controls mechanism should never be viewed as a cumbersome and intentional hurdle on exposure to banking but as a significant commitment to the battle against criminal activities. Furthermore, financial firms have to provide routine training to employees to deter, identify and manage fraudulent transactions to uplift their staff competences. KYC begins simply by getting to know that the clients are actually the one they claim to be This significantly lowers the possibilities of money laundering The surveillance of businesses, however, entails a strong focus on all heavy and enormous transactions as well as uncommon trends which do not have an inherent legal fiscal purpose (McLaughlin, Pavelka & Amoroso, 2010). This can help to reduce the laundering of money.

1.1.2 Cost of Compliance

Compliance is described to be the effective application of the monetary entity's accountability strategy. The Compliance function has often been referred to as "an independent organization's function to investigate and promote compliance with financial firm's accountability guidelines" (CBFA, 2001). Compliance costs mean all costs incurred by a company with a view to adhering to the various regulations in the industry Compliance costs comprise payments of compliance workers, period and cash expended on investigating, new maintenance programs, etc. Worth noting, such costs go up with the escalation of the industrial regulations

Ferna'ndez et al. (2006) states that it is more than necessary to always have a rough figure of the money to be spent in compliance activities This is due to the idea that these expenditure eventually elevates the loan cost rendering it unaffordable to some potential debtors hence lowering the credit portfolio. This translates to a negative economic impact (Verhage, 2009).

In recent times, security requirements have risen for variety of sectors. Although these legislations are put forth with good intentions, the results for a number of organizations are consequently greater compliance costs. Financial firms included. this particular industry has been hit more by the compliance regulations Globally there was a rise in compliance costs of 14.9% between 2011-2017 as reported by Globalscape's Ponemon (2018).

Compliance costs have been going up considerably in Kenya over the last 2 decades in the financial sector. Most of these are aimed at combating laundering and terrorist funding to safeguard the world financial structure. Multinationals are seen to make heavy investment in compliance following realization that the costs associated with non compliance are so much more than the costs associated with compliance. Citibank, for example, has nearly 31,000 employees handling compliance and regulatory issues (Hannig & Jansen, 2010).

1.2 Problem Statement

Growing evidence indicates there has been hostility between the financial institution and cost of compliance. Corrupt officials in commercial banks do assist criminals to facilitate the process without the notice of the commercial banks these officials are operating in. This therefore has high consequences on the commercial banks if effective measures are not put in place to expose such corrupt officials (CBK, 2015). For example the Central Bank of Kenya has slapped hefty fines on five top banks that are alleged to have been involved in the transactions of the second phase of the National Youth Service scandal (CBK, 2015). Investigations by CBK revealed that the five banks were used by persons suspected of transacting illegally acquired NYS funds using the commercial banks. The banks had to pay a total fine of Ksh.394 million (CBK, 2015). These banks said have violated the requirements of Kenya's Anti-Money were to Laundering/Combating Financing of Terrorism laws and regulations. The CBK prudential guidelines state that commercial banks in Kenya must ensure that Customers are verified to confirm that they are not or never have been involved in illegal activities like money laundering,

fraud or crime, their applicant's identity must be verified and forms and steps of verification for KYC must be stored securely.

KYC compliance is no longer a suggestion for best practice but has instead become mandatory with regards to compliance for commercial banks in Kenya under POCAMLA 2009. Having an effective KYC requirement is a challenge to many commercial banks as the KYC guideline issued by the CBK appeared to be applied inconsistently depending on factors specific to the various commercial banks (Ngagi, 2009). In regards to this, commercial banks have been noticed to provide a favorable environment for this money to flow. This has made the financial system the pivotal area of anti-money laundering initiative where illegal monies are first familiarized into the financial system (Fundanga, 2003).

Though there has been previous research conducted on Anti-Money Laundering topics, more especially on the negative effects money laundering has on an economy, much focus has not been directed towards the impact of know your customer policies on detection and prevention of money laundering activities in commercial banks. More research is needed to inform scholars and commercial banks about the impact of KYC initiatives on the operations of commercial banks and on the larger economy. For this reason, the current study sought to determine the factors impacting the cost of compliance with know your customer requirements in commercial banks.

1.3 Objective of the study

The general objective of this study was the factors impacting the cost of compliance with know your customer requirements in commercial banks.

1.4 Research Question

What are the factors impacting the cost of compliance with know your customer requirements in commercial banks?

1.5 Scope of the Study

Scope of the study refers to all the items to be covered in a research study. This study focused on factors impacting the cost of compliance with know your customer requirements in commercial

banks. Particularly, the study concentrated on depository commercial banks in Kenya, due to the fact that money laundering is considered to be most rampant in this sector of financial services. The study was based in Nairobi, Kenya and data was collected for the period 2011 to 2017 as this was after the POCAMLA was passed in 2010 and thus this was considered to be the best time to assess compliance with the Act.

1.6 Significance of the Study

The findings of this study will benefit several groups.

1.6.1 Commercial banks

Commercial banks are likely to benefit from the study by highlighting loopholes and new strategies which can be adopted to enhance existing KYC requirements to make them effectively reduce cases of fraud and money laundering.

1.6.2 Customers

Commercial banks customers will also benefit since the study will be seeking to identify less cumbersome identification processes while transacting or opening bank accounts.

1.6.3 Investors

The study will also help investors identify areas to be keen on before making a decision to invest in any financial institution. This will ensure that their investments are secure. Returns from their investments will also be guaranteed.

1.6.4 Regulator

The industry regulator will also gain since the study will highlight areas in prudential guidelines which need enhancing or strict enforcement.

1.6.5 Scholars and Academicians

Finally, the results of the study could also be used as reference sources for other researchers because of the limited knowledge in the same field.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This area has a review of other work that relates to the examinations factors. It contains literature on the factors impacting the cost of compliance with know your customer requirements in commercial banks. The section is divided into: hypothesis review and prior works review.

2.2 Theoretical Review

A hypothetical model is a gathering of interconnected concepts. This study is built on regulatory compliance, deterrence theory and theory of economic regulation.

2.2.1 Theory of Regulatory Compliance

In the 1970's it was first advocated that the connection between compliance with rules and best practice standards and results data should be compared. The regulatory compliance theory was first suggested. This comparison showed that since facilities comply 100 percent with the rules, all best practice results and positive results have begun to decrease. There was also a "sweet spot" found at a significant level of conformity with best practices and positive results at its highest level. In statistical terms, the relationship was curvilinear rather than linear. This initial result has been confirmed many times over the past 40 years in different forms of human service facilities. This result also led to the conclusion that possibly being in "full" or 100% compliance with all rules was not necessarily a good policy and that all rules or regulations are not created equal (Sadiq & Governatori, 2015).

This theory informs the dependent variable which is cost of compliance. The theory suggest that compliance with all the set rules is not entirely a good thing and does not always lead to positive outcomes. Commercial banks should select the right rules and standards that have predictive validity and do no harm. It acknowledges that all rules and standards are not created equal and have a differential impact in a monitoring or licensing system. By following a differential monitoring approach of key indicators and risk assessment, the most cost efficient and effective system can be implemented

In this study, the researcher examined the factors impacting the cost of compliance with know your customer requirements in commercial banks. From the foregoing argument by the regulatory compliance theory, we can hypothesize that compliance of KYC requirements by the commercial banks is not entirely a good thing and may not lead to positive outcomes.

2.2.2 Deterrence theory

The hypothesis of deterrence was created by Becker (1968) in the criminology field. This belief is founded on an understanding that a person is prevented from engaging in criminal act if it outdoes the benefits of the particular crime. This is based on the notion that everyone knows what is different from right or wrong and what the result of the misconduct is. Advocates of this principle support that after evaluating the benefits and repercussions of their conduct people seem to want to follow or break the law.

The theory informs the current study since it brings out the consequences of non-compliance with the law. Non-compliance with the law would be considered as criminal offence and unnecessary costs incurred. In this study, the researcher sought to investigate factors impacting the cost of compliance with know your customer requirements in commercial banks. Based on the deterrence theory argument, commercial banks will choose either to comply or not to comply with the KYC guidelines depending on the accruing consequences. If the benefits from not complying outweigh the benefit from complying, then the banks will be reluctant to comply with the requirements. However, if they stand to lose more than they would gain, then the banks would most likely comply with the requirements.

2.2.3 Theory of Economic regulation

This theory, regarded market failure as the motivating reason for the entry of regulation. Once established, regulatory bodies were supposed to lessen or eliminate the inefficiencies engendered by the market failure (Sam Peltzman, 1985). Economic Regulation theory offers two complementary rationales for regulating commercial bank. This theory treats rules as governmental instruments for increasing fairness and efficiency across the society as a whole (Diamond & Dybvig, 1983). The theory assigns regulation to governmental entities that search for market failures and correct them. According to Jensen and Michael, (1994), economic

regulation theory portrays regulation as a way to raise the quality of financial services by improving incentives to perform contractual obligations in stressful situations. Stiger (2009) argues that the fundamental flaw in financial regulations is that it is based on assumptions that regulators are self-interested individuals.

Stiger (2009) further says that people think about regulation only in terms of how to engineer the incentives of the regulated and ignore the fact that the regulators themselves rarely have a stake in doing the job well, which in any other occupation would limit the motivation and type of individuals a position attracts (Edward, 1997). Two assumptions seem to have typified thought about economic policy. One assumption was that economic markets are extremely fragile and apt to operate very inefficiently (or inequitably) if left alone. Secondly, the government regulation is virtually costless (Richard, 1974). Richard (1974) further observes that with these assumptions, it was very easy to argue that the principal government interventions in the economy; trade union protection, public utility and common carrier regulation, public power and reclamation programs, farm subsidies, occupational licensure, the minimum wage, even tariffs were simply responses of government to public demands for the rectification of palpable, and remediable, inefficiencies and inequities in the operation of the free market. Economic regulation theory underpinned this study by explaining the need for regulations in the commercial banks for the purposes of compliance to KYC requirements.

2.3 Empirical Studies-hypothesis

2.3.1 Customer awareness of KYC requirements and cost of compliance in commercial banks

VIVVM SIN'

Michugu (2016) carried out a research paper on the financial implications of the economic performance of Kenya's Anti-Money Laundering Regulations with a special focus on chase bank. The paper unveiled that AML rules actually had an effect on the aforementioned bank the significant reduction of fraudulent acts was the main positive outcome, extended control framework, high levels of trust among customers and investors towards the banks as well as efficient operational procedures On the negative side, elevated cases of high costs of compliance accrued by the bank were found. Most importantly, the paper revealed that AML rules significantly impacted on the banks ' average cost. Banks ' costs went up as a consequence of

continued commitment in employees seminars to identify and mitigate risk, higher transaction costs, elevated monitoring and informing expenditures as well as increased opportunity costs As a result of AML regulations, Chase Bank enjoyed different benefits. Nevertheless, AML regulations were found to have benefited the bank.

H1: Customer awareness of KYC requirements has an influence on cost of compliance in commercial banks

2.3. Staff competence of KYC requirements and cost of compliance in commercial banks

Toroitich (2010) rolled out a survey on the problems of overcoming monetary crimes for the CBK. The report highlighted problems related to money laundering, such as inadequate legislation, delays in implementing the lately signed AML Law, absence of laws in the nearby nations on cash laundering, complexity encountered in controlling peoples migration like extremists, the existence of cash courier services as well as misreported incomes inflows The research much farther did establish that the key problem for reporting entities lies in the establishment of a right balance between implementation of the Act and retaining confidence among the customers.

H2: Staff competence of KYC requirements has an influence on cost of compliance in commercial banks

2.3.3 Information Technology and cost of compliance in commercial banks

The compliance study and AML in Belgium was carried out by Verhage, (2009) in Belgium's ailing economy. The research began in criminal terms and focused on compliance in commercial banks to explore the preventative AML policy. A test was administered to Belgian compliance officials, enquiring about their activities, to examine this preventative strategy more effectively. Secondly, the data obtainable for AML 13 years was examined in Belgium. The research unveiled that the official's role involves a range of problems, troubles in access to data, absence of authority responses, and restricted exploratory systems. In addition, while private investors in AML are significant, the results of the AML chain appear to be low key.

Harvey (2004) conducted a study on obedience and reportage matters cropping up for financial organizations from money laundering laws: a reconnaissance study. The work used qualitative

investigation methodology. It was unveiled that compliance had significant impact on money laundry.

H3: Technology adoption has an influence on cost of compliance in commercial banks

2.3.4 Monitoring transaction and cost of compliance in commercial banks

Mbwayo (2005) conducted a research of the anti-money laundering conformity schemes of large banks in Kenya. "As fraudulent transactions measures are enforced in banking institutions, he observed that the threat of detection for those seeking a banking system to launder terrorist profits is increased. The threat of identification is increased. Currency swindlers are increasingly looking for expert assistance to enable their trading activity. A survey on the prospects of monetary firms was carried out by Gill and Taylor in 2004 on know your clients methods. The research did unveil that financial company regulatory bodies ought to reevaluate the risk-based design to combat currency laundering in order to ensure suspected cash transfers are better identified in the financial firms.

Kisoso (2012) has carried out a systematic review of internal controls of local legislation with focus on banks the research concluded that locally regulated cash laundering in Kenya did have important influence. Zoning bylaws has also increased public consciousness of the issue of currency laundering; the clauses contained in the currency laundering act have dissuaded cash laundering while the law has had a very great effect on the fight against cash laundering pursuits, as stated by using or generating economic growth assets, and on how much this has lead to a stable society.

Bjelajac (2011) has also done a research using concise overview of classical trends in counterfeiting strategies and initiatives for its elimination. He has discovered that such act is crucial for criminal gangs, that is, the typical behavior. The application of technology functions is effectively suppressing olden day's monetary instruments. In answer to the transboundary character of this difficult phenomenon, he also asserted that it is vital to modify and cultivate international collaboration and communication.

H4: Monitoring transactions has an influence on cost of compliance in commercial banks

2.3.5 Influence of fines and penalties on cost of compliance in commercial banks

Sathye (2008) carried out a survey in Australia to estimate AML CTF compliance costs for monetary institutions. The survey followed a case study. The CC is calculated by use of the analogy technique. The report revealed that the law places substantial monetary regulatory burdens on Australian banking sector. The CC was also figured to be quite large and at 2007 it stood at approximately \$1.02 B. The financial strain per head of population is projected to be about A\$ 50. The guesstimate of the creator relates to other guesstimates publicly accessible.

He (2010) conducted research using the case study model of respective cash laundering strategies. He discovered that lawbreakers often want to wipe out money via non-facial exchanges. Currency embezzlement systems might also involve gaps in internal fiscal and managerial supervision and also gaps across jurisdictions. Criminal organizations actually love to steal cash with non face à face transactions via extensive use of digital money and the Web. Cindori (2012) carried out a survey by use of a case study strategy to study the connection between risk analysis and dubious exchanges. He did find a number of ways to turn bad money into actually acceptable one indicating that this laundering is a sophisticated exercise

H5: Fines and Penalties have an influence on cost of compliance in commercial banks

2.4 Conceptual Framework

In addition to a chart of the main inputs of a research study, Mugenda (2008) cited a concise description of the phenomena under study as a conceptual framework. The conceptual framework interprets the thoughts under research and their connection (Saunders, Lewis & Thornhill, 2009). This research was based on a framework aimed at clarifying the interaction between the dependent variable and the dependent variables. The conceptual framework is based on the research goals and articulated literature review.



Independent Variables

Dependent Variable

Figure 2.1: Conceptual Framework

2.4.1 Customer awareness of KYC requirements

AML is highly significant in customer consciousness. It is essential that core AML regulations, including KYC restrictions, are supported by the sectors as well as clients for its adequate implementation. Furthermore, KYC audits must be performed in a client-friendly way in order to encourage this consciousness and organizations operations should be developed. The research used numerous client educational programs in order to determine KYC needs for client consciousness (Jackson, 2015).

2.4.2 Staff competence on KYC requirements

The rules and the policies necessitate the structured, printed AML compliance systems of banking firms including coaching of suitable officers. An effective training schedule must comply with legislation and legal requirements, and also comply with administrative standard operating procedures, mitigating the threat of a money laundering saga. Coaching is the main way of gaining a better understanding of embezzlement and informing staff about what they can do if they face possible cases like such. The module describes not just formal training classes, but also networking for educating and informing workers, such as e-mails, bulletin boards and regular team gatherings and anything else that encourages knowledge exchange. The survey used range of coaching sessions per annum to gauge KYC pre requisites for personnel proficiency

2.4.3 Information Technology

Some scientists, such as Christensen 2010; Dogannis 2011; Werthner & Kllein 2015 had already sought to bring the preceding concept together by looking at ICT as a mix of components that include hard/software, interaction as well as individuals, who have to collaborate to provide details, product and programs to the entity etc. Werthner and Klein (2015) further submitted that the ICT module comprises hard/software, connections and humans which are to be integrated in one single entity in a clear process for linking to each other, to yield information that helps administrators, producing products and services to present, promote, control and achieve the objectives and objectives of the entity.

Firms must determine an intricate structure to comply with the rules and structure all control measures needful o perform the essential bookkeeping informatics audits. the two existing kinds of controls are IT general and application controls. the general one relate to the smooth running of IT facilities; they have to minimize system failure risk, unlawful getting to schemes and information ; The other one is designed to validate that financial apps, ERP systems and book keeping and production softwares are properly able to function. These systems ensure that financial data is comprehensive, accurate, authorized and cheap.

2.4.4 Monitoring of Transaction in KYC requirements

The transaction surveillance can be described as a structured system to detect suspected money exchanges and a reporting protocol within the exchange. Tracking implies an evaluation of exchanges between the client, to identify if operations seem suspicious from the point of view of AML or CFT (Jackson, 2015). Continuous monitoring remains important component of impactful KYC practices. Financial companies can regulate and lower the risk successfully only if they have a comprehension of the typical and rational business activities of the client so that they may identify exchanges which go beyond the typical business trend. The degree of the tracking nevertheless relies on the account's risk susceptibility.

Large banks are as well required to retain trading records and consumer risk analysis interventions to provide details. These specifications have to apply based on subjectivity and risk to all new clients as well as to current clients (Jackson, 2015).

2.4.5 Fines and Penalties

A fine is an infringement punishment. Failure to comply with CBK rules could result in punishment. The multiplicative links between civil penalties may take their place as long as none of these is fixed to zero (Kirchler et al, 2017). Larger fines will actually jeopardize tax avoidance and prevent taxpaying citizens from avoidance. It is factually impossible to defend the dissuasive impact of penalties. The notable effects are weaker than expected and certain researches show even more adverse effects and tax evasion (Kirchler et al, (2017).

2.4.6 Cost of Compliance

Compliance is defined as the actual implementation of the integrity policy of the financial institution. The study used amount of money spent in compliance to measure the cost of compliance (Jackson, 2015).

2.4.7 Firm Size

There are companies of different sizes in a sector. Operating expenses also vary in these companies. Economic experts are interested in the finest size of an enterprise, which means a company with the lowest production unit cost. Big companies have multi-layered management levels, more agencies and have more expertise and structures, more formalization and strategic planning control is highly centralized, making large companies highly bureaucratic than small companies, effectively missing chances which could be extremely profitable. Company size can be calculated by natural asset logarithm, sales volume or staff number. (Mahfoudh, 2013).



CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This area of report has the study method that will be applied, in a bid to get to the study aims. Attention will focus on study designs, populace or target population, sample size, sampling strategies, data collection devices, information acquiring procedure and its analysis and presentation.

3.1 Research Philosophy

Research philosophy relates to the development of knowledge and the nature of that knowledge, and contains important assumptions about the way in which researchers view the world (Saunders, Lewis & Thornhill, 2014). There are two extreme philosophical views regarding knowledge and reality (schools of thought). These are Positivism and Phenomenology.

This study will be guided by the positivist paradigm where scientific processes will be followed in hypothesizing fundamental laws then deducing the observations so as to determine the truth or falsify the said hypothesis about the relationship that exists between KYC policies and cost of compliance while taking into account the moderating effects of firm size.

VT OMINES WWW SINT

3.1.1 Research Design

The study employed descriptive research design which is non-experimental in nature to analyze the factors impacting the cost of compliance with know your customer requirements in commercial banks. A descriptive study approach is suitable if the research scientist attempts to explain how the situation works and to recognize the causal factors causing changes, so that the autonomous factor is not manipulated (Kerlinnger & Lee, 2000). A non-experimental research approach is a systemic empirical enquiry, where the exogenous factors are not directly under the researchers ' influence as they already have already taken place (Kerlinger & Lee 2000).

3.2 Target Population

Target population represents the collection of cases the researcher is interested and which they intend to make generalizations (Sim & Wright, 2000). The study targeted all the 43 commercial banks in Kenya. The study period was 2011 to 2017. The study targeted four employees working in the finance departments in these banks. Therefore, the total target respondents were 172(43*4 employees).

3.3 Sampling and Sampling Procedures

A sample is a subset of a population (Kothari, 2004). Since the population was less than 10,000, the fisher et al, (2003) formula was employed.

The Fisher formula is as follows:

$$n = \frac{z^2 p(1-p)}{d^2}$$

Where;

n= sample size

z= the standard normal deviate value for the level of confidence, for instance 95% level of confidence =1.96.

d= margin of error or level of precision at 0.8 for CI at 92%

p= proportion to be estimated, Israel (2009) recommends that if you don't know the value of p then you should assume p=0.5

Therefore, sample size is arrived at as follows:

$$n = \frac{(1.96^2)(0.5)(1 - 0.5)}{(0.8)^2}$$
$$n = 150$$

Since the population is less 10,000, the sample size is further adjusted as follows:

 $n_0 = n/(1 + ((n - 1)/N))$ $n_0 = 150/(1 + ((150-1)/172))$ $n_0 = 80$

Therefore the sample size was 80 respondents who were selected using simple random sampling.

3.4 Data Collection Procedure

For interpretation of the banks ' financial reports, the researcher employed a document review manual to obtain and collate the necessary information. The secondary data consisted of panel data The confluence of time series and cross-sections increases the reliability and volume of information to scales that would have not been feasible in just a single of the two aspects (Gujaratti, 2003).). Panel data was about companies whilst the time series one was from 2011 to 2017. Information was taken from the banking accounts from the CBK website for all factors in the research.

Primary information was also gathered using list of questions, a research helper did give out the questionnaires .The investigator notified the study participants that these tools was just for study purposes and that their answers would be kept in lock. In a bid to get field information, and then submit the questions to survey participants for completion and later collection, the researcher acquired an introductory document by the University.

3.5 Research Quality

3.5.1 Validity

Validity refers to the significant extent to which the test item sample represents the measuring content (Yin, 2013). This research paper maintained the validity of study tools by use of a jargon-free simple language, making it easy for the participants to understand. In order to make sure that queries are fit for measurement, the investigator involved specialists. The study took content validity which is the degree to which a study device sufficiently covers the subject under survey. The research also included validity of the various variable constructs. The questionnaire was broken down into certain segments in order to ensure that each of them evaluates details for a particular factor and also ensure that the same is related to the theoretical model for this survey.

3.5.2 Reliability

The reliability pertains to data consistency and stability. An investigator who measures a variable wants to see to it that the findings are dependable (Göncü Serhatlıoğlu *et al*, 2018). The degree of error affects reliability in research. Reliability declines with random error (Hendrikx, 2018). To be used in additional research stages, results must be reliable and valid. The data collection tool will be subject to a general internal coherence reliability analysis. The Cronbach alpha is measured as an internal coherence coefficient. Internal consistency analyses the causal relationships between different items in a single test (or the same sub scalar in the larger test) and whether there are similar results for various items which propose to measure the same general construct. It follows: > 0.8-Good, > 0.7-Acceptable, > 0.6-questionable, > 0.5-poor, and < 0.5-unacceptable. The research used this rule of thumb. For this study, the acceptable value of 0.7 will be used as a cut-off of reliability.

3.6 Data Processing and Analysis

For calculating the appropriate ratios, the supplementary information derived from CBK were utilized. The supplementary data included panel information. Descriptive stats, causation examination plus linear regression analysis were taken into account to analyze the collected panel results. STATA program backed the panel statistical analysis. The information to be derived from the CBK was included in Excel worksheets in order to calculate the ratios for the time span under evaluation for each company. STATA was utilized because the data was panel. The benefits of supplementary data are that it is accessible from many other sources and may already have been used in past studies, thus rendering further work simpler. This saved the researcher time and money.

Primary data was analyzed using SPSS program. The statistics applied included frequencies, average percentages and standard deviations. Component analysis was also used in the survey to elaborate the basic structure of the analysis factors. While factor testing can be applied with respect to confirmatory, this has been used to reduce the data available for further analysis in the study case for exploratory purposes. The information was condensed into smaller sets with a minimum loss of data. The main component analysis will be used by this study. Communalities

were extracted for each variable item and those items with values less than 0.4 were considered insignificant, so further examinations were dropped.

Regression model

 $Y = b_0 + b_1 X_1 + b_2 X_2 + B_3 X_3 + B_4 X_4 + B_5 X_5 + e.3.1$

Where;

- Y = Cost of compliance
- X1= customer awareness of KYC requirements

X₂= staff competence of KYC requirements

 $X_3 = information technology$

 X_4 = monitoring transactions with KYC requirements

 $X_5 =$ fines and penalties

Test for moderation using Baron and Kenny (2014) approach

The moderating regression using this approach is

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X + \beta_3 X.M + \varepsilon$$

Where

X₁= KYC requirements

M = Moderator (firm size)

3.7 Diagnostic Tests

It was essential to ensure non-violations of the assumptions of the classical linear regression model (CLRM) before attempting to estimate a regression equation. Estimating these equations when the assumptions of the linear regression are violated runs the risk of obtaining biased, inefficient, and inconsistent parameter estimates (Brooks, 2008). Consequently, normality, multicollinearity, autocorrelation, heteroscedasticity, were conducted.

3.7.1 Normality Tests

The presumption of normality (ut~N $(0, \cdot 2)$) is needed I for one or joint assumptions on model metrics to be performed (Brooks, 2008). Two techniques were applied to verify that the data is uniformly distributed. First, ordinary statistical likelihood plots were used and, if a systemic deviance from a straight line is observed, the data is dispersion is not normal. Supposing these plots are acceptably near the line, they are well dispersed (Rupert, 2004). By use of Kolmogorow-Smirnov examination and the SPSS software Shapiro-Wilk test, tests were performed on the data. When the chance exceeds 0.05, the data is usually distributed (Saundeers & Thornhill, 2012).

3.7.2 Multicollinearity

The identification of multicollinearity in a model, according to Thmasebinejad and Tabrizi (2015), is important and the tolerance and fluctuation factor (VIF) diagnostic factors are being investigated. In a regression model, VIF measures the Multicollinearity effect between the variables. Although the tolerance values less than 1.0 and VIF values more than 10 routinely demonstrate significant multicollinearity, although no formal criterion exists for determining the final tolerance value of VIF; a conclusion that was supported by Tavakol and Dennick (2011). Thus, a multi-linearity test among the study variables is conducted in this study.

3.7.3 Autocorrelation

Cameron (2015) described auto-correlation as a relationship between members of a series of observations ordered in time or space. The Durbin Watson statistics, according to Cameron (2015), range from 0 to 4. The Durbin Watson statistics, according to Cameron (2015), range from 0 to 4. Non-auto correlation is indicated with a value almost 2. A value closer to 0 is positive, whereas a value closer to four is negative autocorrelation.

VIVW SIN

VT OMNES

3.7.4 Heteroscedasticity

Given that the information collected for this study is paneled, the presence of heteroscedasticity is possible CLRM presumes error term is homoskedastic, meaning the difference is steady. If the variance of the error is not consistent, the data is heteroscedasticity. The running of a regression model could result to to objective parameters estimates with no taking into account
of heteroscedasticity. The Breusch-Pagan / Cook-Weisberg test was used for heteroscedasticity testing. The null hypothesis of this study was the homoskedastic variance of error. If the null hypothesis is dismissed and the heteroscedasticity found the FGLS model may be used.

3.8 Operationalization of Variables

The operationalization of variables was done as shown in Table 3.1 below

Variable	Dimensions	Measurement
Customer awareness	• Number of	Questionnaire – likert scale
	awareness	Secondary data-panel
	campaigns in a year	
Staff competence	• No of staff trainings	Questionnaire – likert scale
	on staff competence	Secondary data-panel
	of KYC Policies	
Information Technology	• Number of staff in	Questionnaire – likert scale
	charge of IT systems	Secondary data-panel
Monitoring of transaction	• Number of	Questionnaire – likert scale
	monitoring staff	Secondary data-panel
	A &	7
Fines and penalties	• Number of fines and	Questionnaire – likert scale
	penalties per year	Secondary data-panel
2	Amount of fines and	5-4
	penalties per year	SINT
	VI GAME	
Firm Size	Total Asset	Questionnaire – likert scale
		Secondary data-panel
Cost of Compliance	• Amount of money	Questionnaire – likert scale
	spent in compliance	Secondary data-panel
	•	
Profitability	• ROA	Secondary data-panel
Bank age	Years of operation	Secondary data-panel
Asset Quality	• Number of	Secondary data-panel
	Performing loans	
Ownership	• Foreign	Secondary data-panel
	State owned	

Table 3.1: Operationalization of Variables

3.9 Ethical Considerations

Ethical considerations relate to the ethical norms that the researcher ought to consider in all examination strategies in all phases of the research design (Fellows & Liu, 2015). In this study, the researcher sought permission from the University in order to carry out the study. Further, the researcher obtained a research permit from the National Commission for Science, Technology and Innovation (NACOSTI) before commencing the data collection exercise. Contact time was to be observed to avoid inconveniencing the respondents work schedules. This was achieved by contacting the respondents during lunch breaks. Outmost level of honesty was observed and level of integrity was maintained.



CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter captures the research findings and interpretation. Results are presented in tables and diagrams. It presents results on response rate, demographic information, diagnostic tests, descriptive, trend analysis, factor analysis, correlation and regression. The findings are presented in line with the study objectives.

4.2 Response Rate

Out of the 80 questionnaires administered, 70 were properly filled and returned while 10 were not returned. The returned questionnaires represented a response rate of 88% as shown in Table 4.1. According to Babbie (2004), return rates of 50% are acceptable to analyze and publish, 60% is good and 70% is very good. Therefore, a response rate of 88% was sufficient for the analysis.

Table4.1: Response Rate

Response	Frequency	Percent	
Returned	70	88%	
Unreturned	VT OMNES TOWVM SINT	12%	
Total	80	100	

4.3 Demographic Information

		Frequency	Percentage
Gender	Male	42	60
	Female	28	40
Age	18- 30 years	19	27.1
	31- 40 years	32	45.7
	41- 50 years	19	27.1
Academic	Bachelor's degree	15	21.4%
Qualification			
	Master's degree	52	74.3%
	PhD	13	4.3%
Years worked in	less than 2 years	4	6%
Current Position	VT OMNESI (NVM SINT	
	3 to 5 years	26	37%
	over 5 years	40	57%

Table 4.2 Demographic Information

Results reveal that 45.7% of the respondents were aged 31 to 40 years while 27.1% were aged 18 to 30 years and 41 to 50 years respectively. This implies that majority of employees working in the banks are relatively young. Having a relatively young workforce implies that a company is able to maximize on employees energy. However, it could also mean that firms risk incurring additional costs owing to mistakes committed by the inexperienced workforce.

The above results indicate that majority (60%) of the respondents were male while 40% were female. This shows male dominance in the banking sector, despite the fact that a one-third minimum threshold as per the Kenyan Constitution is met.

From the results, a majority of the respondents who were 74.3% noted that they were master's degree holders, 21.4% had bachelor's degree while only 4.3% were PhD holders. The results imply that bank employees have adequate academic qualification with the lowest being bachelor's degree.

Based on the findings, 57% of the respondents had worked in their current position for over 5 years, 37% had worked for 3 to 5 years while 6% had worked for less than 2 years. This implies that most of the bank employees have adequate experience on banking operations.

4.4 Diagnostic Tests

Diagnostic tests were conducted to ensure that spurious results are not obtained. The tests included; reliability tests, normality test, multicollinearity test, heteroscedasticity and test for autocorrelation.

4.4.1 Reliability Results

Reliability of the questionnaire items was checked using Cronbach Alpha which measures the internal consistency. Results in Table 4.2 reveal that Customer Awareness items had alpha value of 0.759; staff competence, 0.822; information technology, 0.713; monitoring of transactions, 0.762; fines and penalties, 0.756; firm size, 0.710; and cost of compliance, 0.788. All variable items depicted alpha value above 0.7, thus reliable (Castillio, 2009).

Variable	No of Items	α=Alpha	Comment
Customer Awareness of KYC requirements	5	0.759	Reliable
Staff competence on KYC requirements	5	0.822	Reliable
Information Technology	5	0.713	Reliable
monitoring of transaction in KYC requirements	5	0.762	Reliable
Fines and penalties	4	0.756	Reliable
Firm Size	3	0.710	Reliable
Cost of compliance	5	0.788	Reliable

Table 4.3: Reliability Results

4.4.2 Normality Tests

Test for normality was cone using the Kolmogorov-Smirnov test and the Shapiro-Wilk test. A probability greater than 5% means that data is normally distributed (Saunders & Thornhill, 2012). Results in Table 4.4 indicate that data was not normally distributed (p<0.05). However, normality of the data was assumed since the number of observations was large.

Table 4.4: Test for Normality

	Kolmog	Kolmogorov-Smirnov ^a		Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Cost of Compliance	0.166	70	0.000	0.919	70	0.000

4.4.3 Multicollinearity Test

Multicollinearity was assessed using the variance inflation factors (VIF). According to Field (2009) VIF values in excess of 10 is an indication of the presence of Multicollinearity. Results in Table 4.5 indicate that the average VIF for all variables was 1.056 which is less than 10 and therefore no Multicollinearity.

Table 4.5: Multicollinearity Test

VI OMIN	
Variable	VIF
Customer Awareness of KYC requirements	1.098
Staff competence on KYC requirements	1.015
Information Technology	1.036
monitoring of transaction in KYC requirements	1.052
Fines and penalties	1.073
Firm Size	1.060
Average	1.056

4.4.4 Heteroskedasticity Test

The Breusch-Pagan / Cook-Weisberg test was used to test for Heteroscedasticity where the null hypothesis was that error terms have a constant variance (i.e. should be Homoskedastic). Results

in Table 4.6 indicate that the error terms are homoskedastic, given that the p-value is more than 0.05.

Table 4.6: Breusch-Pagan / Cook-Weisberg test for Heteroscedasticity

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity	
Ho: Constant variance	
chi2(1)	7.47
Prob > chi2 =	0.0563

4.4.5 Test for Autocorrelation

To establish whether or not the residual are serially correlated, Durbin-Watson test for autocorrelation was conducted. The Durbin Watson test reports a test statistics, with a value from 0 to 4, where: 2 denotes no autocorrelation; 0 to 2<2 denotes a positive autocorrelation; while >2 denotes a negative autocorrelation. The decision rule is that test statistic values in the range of 1.5 to 2.5 are relatively normal. Values outside this range could be cause for concern (Field, 2009). Results in Table 4.6 reveal a Durbin-Watson value of 2.083, therefore the null hypothesis of no autocorrelation is accepted and that residuals are not auto correlated.

Table 4.7: Durbin-Watson Test for Autocorrelation

Durbin-Watson Test for autocorrelation
H0: no first-order autocorrelation
Durbin-Watson = 2.083

4.5 Trend Analysis

4.5.1 Cost of Compliance

Figure 4.5 shows the trend of cost of compliance for the banks between 2011 and 2017



Figure 4.5: Cost of Compliance

The above diagram indicates a general increase in the banks cost of compliance over the study period. This is attributable to cost of KYC requirements that banks have to adhere to.

4.5.2 Customer Awareness

Figure 4.6 shows the trend of number of customer awareness campaigns that banks organized between 2011 and 2017.



Figure 4.6: Number of Customer Awareness Campaigns

The above diagram indicates a general increase in the number of customer awareness campaigns organized by the banks. This is likely to increase the banks' cost of compliance. The increase in

number of awareness campaigns is attributable to the need to reduce the number of risky transactions.

4.5.3 Staff Competence



Figure 4.7 shows the trend of number of staff trainings held by banks between 2011 and 2017

Figure 4.7: Number of staff trainings

The figure shows an increasing trend in the number of staff trainings over the measurement period. This is likely to increase the banks' cost of compliance. The increasing trend could have been brought about by the need to sensitize staff on matters of due diligence.

4.5.4 Information Technology

Figure 4.8 shows the trend of number of IT staff working in the banks between 2011 and 2017.



Figure 4.8: Information Technology

The above figure shows an increasing trend in the number of IT staff over the measurement period. This is likely to increase the banks' cost of compliance. This could be attributed to the increased rates of technology adoption in the banks.

4.5.5 Monitoring of Transaction

Figure 4.8 shows the trend of number of IT staff working in the banks between 2011 and 2017



Figure 4.9: Monitoring of Transaction

The above figure shows a general decline in the number of monitoring staff over the measurement period. This is likely to reduce the banks' cost of compliance. The decline trend could be attributed to the risk management practices adopted by the banks.

4.5.6 Fines and Penalties

Figure 4.10 shows the trend of number of banks' fines and penalties per year between 2011 and 2017.



The above figure shows a general increase in the number of fines and penalties per year over the measurement period. This is likely to increase the banks' cost of compliance. The increasing trend could have been brought about by non compliance practices by the banks.

4.5.7 Firm Size





Figure 4.11: Firm Size

The above figure shows a general increase in the value of banks total assets over the measurement period. Large firms are expected to incur high cost of compliance compared to small firms. The increase in value of total assets is attributable to increased number of branches.

4.6 Descriptive Statistic Results

4.6.1 Customer Awareness of KYC requirements

The participants were requested to assess the magnitude to which KYC policies affect customer consciousness of the bank's CC. Table 4.8 outcomes show that 45.7% showed a large, 30% very large, 17.1% moderate, and 4.3% little and 2.9% did not quote a large number of indicators.

	Frequency	Percent	
No extent	2	2.9	
Little Extent	3	4.3	
Moderate Extent	12	17.1	
Great Extent	32	45.7	
very great extent	21	30	
Total	70	100	

Table 4.8: Influence of customer awareness of	on Cos	t of	Compliance
---	--------	------	------------

VT OMN

Further, respondents were asked to rate statements presented in Table 4.8. Results indicate that 88.6% of the respondents agreed that the number of customer awareness campaigns on KYC requirements have been increasing for the past five years in their bank, 91.4% agreed that Customer checks are done in a friendly way in the bank, 87.2% noted that banks' procedures are designed accordingly, 88.6% cited that cost of creating awareness has been increasing in the bank while 85.7% of the respondents agreed that customer awareness would impact AML

The average of the replies was 4.3, which shows that most survey participants made an agreement with the declarations. In addition, a standard 0.8 deviation shows that the answers were different. These outcomes indicate a significant aspect of KYC expectations in terms of client consciousness.

VM SIN

	Strongly				Strongly		
Statement	Disagree	Disagree	Neutral	Agree	Agree	Μ	S.D
The number of customer							
awareness campaigns on KYC							
requirements have been							
increasing for the past five years							
in our bank	0.0%	4.3%	7.1%	38.6%	50.0%	4.3	0.8
Customer checks are done in a							
friendly way in our bank	0.0%	7.1%	1.4%	50.0%	41.4%	4.3	0.8
Our banks' procedures are							
designed accordingly	0.0%	2.9%	10.0%	38.6%	48.6%	4.3	0.8
Cost of creating awareness has							
been increasing in our bank	0.0%	4.3%	7.1%	54.3%	34.3%	4.2	0.7
Customer awareness would							
impact AML	2.9%	5.7%	5.7%	41.4%	44.3%	4.2	1.0
Average						4.3	0.8

Table 4.9: Descriptive Results: Customer Awareness of KYC Policies

Table 4.10 presents descriptive summary of Number of awareness campaigns in a year in terms of means and standard deviations for all the banks from 20111 to 2017. Results indicate that on average, banks conduct eight awareness campaigns in a year. The number of awareness campaigns is attributable to high cost of compliance. Thus, banks holding more campaigns in a year are expected to incur higher costs of compliance. The mean number of awareness campaigns was 8.6; however, there was a standard deviation of 2.263.

		THE AND ES DIVIUM ON TO		
Year	Ν	Mean	Std. Deviation	
2011	43	7.88	2.373	
2012	43	8.79	1.971	
2013	43	8.72	2.453	
2014	43	8.86	1.934	
2015	43	8.26	2.29	
2016	43	8.49	2.364	
2017	43	9.19	2.312	
Average		8.6	2.263	

Table 4.10: Descriptive Summary: Number of Awareness Campaigns

4.6.2 Staff competence on KYC requirements

Respondents were asked to rate the extent to which staff competence of KYC requirements influence cost of compliance in the bank. Results in Table 4.11 reveal that 38.6% of the

respondents indicated great extent, 35.7% very great extent, 21.4% moderate extent, while 4.3% cited little extent.

	Frequency	Percent
Little Extent	3	4.3
Moderate Extent	15	21.4
Great Extent	27	38.6
very great extent	25	35.7
Total	70	100

 Table 4.11: Influence of Staff Requirements on Cost of Compliance

Further, respondents were asked to rate statements presented in Table 4.11. Results indicate that 85.7% of the respondents agreed that the number of staff trainings on staff competence of KYC Requirements has been increasing in our banks for the past five years, 87.1% noted that cost of staff training have been increasing in our bank for the past five years, 80% agreed that Our bank usually employees competent staff, 77.1% agreed that use of emails serves as a form of communication that educate employees on KYC policies while 71.5% of the respondents agreed that use of newsletters in our bank serves as a form of communication that inform employees on KYC policies.

The overall mean of the responses was 4.1, which indicates that majority of the respondents agreed with the statements. Additionally, a standard deviation of 0.9 indicates that the responses were varied. The results herein imply that staff competence is an important component of KYC requirements.

Table 4.	12: De	scriptive	Results:	Staff	Competence

	Strongly				Strongly		
Statement	Disagree	Disagree	Neutral	Agree	Agree	Mean	S.D
The number of staff trainings on							
staff competence of KYC							
Requirements has been							
increasing in our banks for the							
past five years	0.0%	5.7%	8.6%	44.3%	41.4%	4.2	0.8
Cost of staff training have been							
increasing in our bank for the							
past five years	1.4%	4.3%	7.1%	40.0%	47.1%	4.3	0.9
Our bank usually employees							
competent staff	1.4%	5.7%	12.9%	34.3%	45.7%	4.2	1.0
Use of emails serves as a form of							
communication that educate							
employees on KYC policies	0.0%	7.1%	15.7%	45.7%	31.4%	4.0	0.9
Use of newsletters in our bank		() ()					
serves as a form of							
communication that inform							
employees on KYC policies	0.0%	0.0%	28.6%	38.6%	32.9%	4.0	0.8
Average	ka	3.5	÷30			4.1	0.9
	NO.	(A 8 3 9	W STO				

Table 4.13 presents descriptive summary of Number of staff trainings on staff competence of KYC Policies in a year in terms of means and standard deviations for all the banks from 2011 to 2017. Results indicate that on average, banks conduct 28 trainings per year. The number of staff trainings on staff competence is attributable to high cost of compliance.

Table 4 13: Descriptive Su	nmarv	• Number (of Training	I STU
	N MAR	OWNES	1 VARY	" OINT

Year	Ν	Mean	Std. Deviation
2011	43	27.65	7.727
2012	43	28.3	4.296
2013	43	28.42	5.137
2014	43	28.02	5.453
2015	43	27.91	5.159
2016	43	27.95	5.728
2017	43	28.44	6.731
Average		28.1	5.791

4.6.3 Information Technology

Respondents were asked to rate the extent to which information technology influence cost of compliance in the bank. Results in Table 4.14 reveal that 47.1% of the respondents indicated very great extent, 32.9% great extent while 20% cited moderate extent.

	Frequency	Perc	ent
Moderate Extent		14	20
Great Extent		23	32.9
very great extent		33	47.1
Total		70	100
	~~ ~~ /		

Further, respondents were asked to rate statements presented in Table 4.15. Results indicate that 88.6% of the respondents agreed that money spent by bank for anti-money laundering software has been increasing over the past five years, 85.8% noted that our bank has been increasing the number of machines used for AML, 80% agreed that use of IT in most banking procedures have reduced AML, 90% cited that no unauthorized person can be able to access the banks passwords while 77.1% agreed that high security is kept on AML software

The overall mean of the responses was 4.2, which indicates that majority of the respondents agreed with the statements. Additionally, a standard deviation of 0.8 indicates that the responses were varied. The results herein imply that information technology is an important component of KYC requirements.

Table 4.15: Descriptive Results: Information Technology

	Strongly				Strongly		
Statement	Disagree	Disagree	Neutral	Agree	Agree	Mean	S.D
Money spent by bank for anti							
money laundering software has							
been increasing over the past five							
years	0.0%	4.3%	7.1%	38.6%	50.0%	4.3	0.8
Our bank has been increasing the							
number of machines used for							
AML	0.0%	7.1%	7.1%	42.9%	42.9%	4.2	0.9
Use of IT in most banking							
procedures have reduced AML	0.0%	7.1%	12.9%	38.6%	41.4%	4.1	0.9
No unauthorized person can be							
able to access the banks							
passwords	0.0%	2.9%	7.1%	47.1%	42.9%	4.3	0.7
High security is kept on AML							
software	0.0%	10.0%	12.9%	47.1%	30.0%	4.0	0.9
Average		a second	$\mathbf{\nabla}$			4.2	0.8

Table 4.16 presents descriptive summary of number of staff in charge of IT system in terms of means and standard deviations for all the banks from 2011 to 2017. Results indicate that on average, banks have 32 IT staff. The number of IT staff is attributable to high cost of compliance. The mean of the IT staff was 31 with a standard deviation of 0.8.

Table 4.16: Descriptive Summary: Number of IT staff						
VT OMINES TVNVM SINT						
Year	Ν	Mean	Std. Deviation			
2011	43	31.21	11.079			
2012	43	31.67	10.56			
2013	43	29.91	10.284			
2014	43	31.98	10.391			
2015	43	31.86	10.721			
2016	43	31.63	10.931			
2017	43	32.35	12.081			
Average		31.51	10.794			

4.6.4 Monitoring of Transaction in KYC Requirements

Respondents were asked to rate the extent to which monitoring of transaction in KYC requirements influence cost of compliance in the bank. Results in Table 4.16 reveal that 35.7%

of the respondents indicated very great extent, 31.4% moderate extent, 30% great extent while 2.9% cited little extent.

	Frequency	Percent
Little Extent	2	2.9
Moderate Extent	22	31.4
Great Extent	21	30
very great extent	25	35.7
Total	70	100

Table 4.17: Influence of Monitoring of Transaction on Cost of Compliance

Further, respondents were asked to rate statements presented in Table 4.18. Results indicate that 81.5% of the respondents agreed that Cost of audit and compliance has been increasing for the past five years in our banks, 87.1% agreed that Cost of money laundering reports has been increasing in our bank, 92.8% agreed that our bank has employed competent internal auditors to monitor transactions while 42.9% noted that Employees always report suspicious transactions and procedures.

The overall mean of the responses was 4.1, which indicates that majority of the respondents agreed with the statements. Additionally, a standard deviation of 0.8 indicates that the responses were varied. The results herein imply that monitoring of transaction is an important component of KYC requirements.

VT OMINES VIVYM SIN

Table 4.10. Descriptive Results. Monitoring of fransaction
--

	Strongly				Strongly		
Statement	Disagree	Disagree	Neutral	Agree	Agree	Mean	S.D
Cost of audit and compliance							
has been increasing for the past							
five years in our banks	0.0%	7.1%	11.4%	38.6%	42.9%	4.2	0.9
Cost of money laundering							
reports has been increasing in							
our bank	1.4%	2.9%	8.6%	47.1%	40.0%	4.2	0.8
Our bank has employed							
competent internal auditors to							
monitor transactions	0.0%	4.3%	2.9%	55.7%	37.1%	4.3	0.7
Our bank hires competent							
external auditors to monitor							
transactions	1.4%	2.9%	4.3%	42.9%	48.6%	4.3	0.8
Employees always report				7			
suspicious transactions and		(=)					
procedures	0.0%	21.4%	35.7%	28.6%	14.3%	3.4	1.0
Average						4.1	0.8
			100				

Table 4.19 presents descriptive summary of number of monitoring staff in terms of means and standard deviations for all the banks from 2011 to 2017. Results indicate that on average, banks have 125 monitoring staff per year. The number of monitoring staff is attributable to high cost of compliance. The average response rate for five point measure was 4.1, which means that most participants in the study consented on the large percentage of the assertions; the answers, nevertheless, varied according to the standard 0.8 deviation

Table 4.20: Descriptive Summary: Number of Monitoring Staff

Year	Ν	Mean	Std. Deviation
2011	43	113.02	46.174
2012	43	132.02	47.688
2013	43	140.14	46.167
2014	43	134.51	47.018
2015	43	122.79	39.99
2016	43	119.28	46.689
2017	43	112.49	44.75
Year		124.89	46.211

4.6.5 Fines and penalties

The participants were requested to assess to what extent fines and sanctions affect the Bank's CC. Table 4.19 outcomes show that 41.4% of participants have reported a very large amount, 32.9% and 25.7% cited a moderate degree.

	Frequency	Percent
Moderate Extent	18	25.7
Great Extent	23	32.9
very great extent	29	41.4
Total	70	100

Table 4.21: Influence of Fines and Penalties on Cost of Compliance

Further, respondents were asked to rate statements presented in Table 4.20. Results indicate that 47.2% of the respondents agreed that our bank has never been fined on AML in the past five years, 73.4% agreed that our bank does not violate the AML policies, 71.4% agreed that bank managers are usually very keen not to violate CBK rules while 60% of the respondents agreed that increase in number of fines and penalties would lead to increase in cost of compliance

The overall mean of the responses was 3.7, which indicates that majority of the respondents agreed with the statements. Additionally, a standard deviation of 1.1 indicates that the responses were varied. The results herein imply that fines and penalties is an important component of KYC

VT OMNES WAVM SINT

requirements.

Table 4.22: Descriptive Results: Fines and Penalties

	Strongly				Strongly		
Statement	Disagree	Disagree	Neutral	Agree	Agree	Mean	S.D
Our bank has never been							
fined on AML in the past five							
years	17.1%	15.7%	20.0%	38.6%	8.6%	3.1	1.3
Our bank does not violate the							
AML policies	0.0%	11.4%	15.7%	37.1%	35.7%	4.0	1.0
Bank managers are usually							
very keen not to violate CBK							
rules	0.0%	12.9%	15.7%	35.7%	35.7%	3.9	1.0
Increase in number of fines							
and penalties would lead to							
increase in cost of compliance	0.0%	17.1%	22.9%	32.9%	27.1%	3.7	1.1
Average						3.7	1.1

Table 4.23 presents descriptive summary of number of fines and penalties per year in terms of means and standard deviations for all the banks from 2011 to 2017. Results indicate that on average, banks are fined and penalized at least ones per year. The number of fines and penalties per year is attributable to high cost of compliance. On average, the number of fines were 5.25 with a standard deviation of 1.318.

Table 4.23: Descriptive Summary: Number of fines and penalties per year

Year	Ν	Mean	Std. Deviation	
2011	43	4.79	1.552	
2012	43	TOWNES 58 VAUNA SINT	1.2	
2013	43	5.26	1.136	
2014	43	5.3	1.319	
2015	43	5.37	1.196	
2016	43	5.3	1.44	
2017	43	5.16	1.29	
Average		5.25	1.318	

Table 4.24 presents descriptive summary of amount of fines and penalties per year in terms of means and standard deviations for all the banks from 2011 to 2017. Amount of fines and penalties per year is attributable to high cost of compliance.

On average, the amount of fines were 810,750 with a standard deviation of 703,726.

Year	Ν	Mean	Std. Deviation
2011	43	644,710	441,255
2012	43	938,841	845,263
2013	43	914,081	900,251
2014	43	684,450	589,742
2015	43	599,293	462,365
2016	43	950,869	830,254
2017	43	943,007	856,958
Average		810,750	703,726

 Table 4.24: Descriptive Summary: Number of fines and penalties per year

4.6.6 Firm Size

Respondents were asked to rate the extent to which firm size influence cost of compliance in the bank. Results in Table 4.25 reveal that 41.4% of the respondents indicated very great extent, 40% great extent, 12.9% cited moderate extent while 5.7% cited little extent. The mean number of fines was 5.25 but the fines were varied as shown by the standard deviation of 1.315

Table 4.25: Influence of Firm Size on Cost of Compliance

	Frequency	Percent	
Little Extent	4	5.7	
Moderate Extent	9	12.9	
Great Extent		40	
very great extent	VT OMNES 29 WVM SINT	41.4	
Total	70	100	

Further, respondents were asked to rate statements presented in Table 4.23. Results indicate that 88.5% of the respondents agreed that our firms' asset has been increasing in the past five years, 78.6% agreed that large firms have high cost of compliance while 45.7% noted that big firms are able to comply with KYC policies

The overall mean of the responses was 3.8, which indicates that majority of the respondents agreed with the statements. Additionally, a standard deviation of 1.0 indicates that the responses were varied. The results herein imply that firm size is an important determinant of cost of compliance by banks.

Table 4.26: Descriptive Results: Firm Size

	Strongly	Disag			Strongly		
Statement	Disagree	ree	Neutral	Agree	Agree	Mean	S.D
Our firms asset has been							
increasing in the past five							
years	0.0%	2.9%	8.6%	51.4%	37.1%	4.2	0.7
Large firms have high cost of							
compliance	4.3%	8.6%	8.6%	45.7%	32.9%	3.9	1.1
Big firms are able to comply							
with KYC policies	12.9%	17.1%	24.3%	34.3%	11.4%	3.1	1.2
Average						3.8	1.0

Table 4.26 presents descriptive summary of total assets in terms of means and standard deviations for all the banks from 2011 to 2017. Results indicate that on average, the value of banks total assets is Kes 78,148,928,571. Large banks are expected to incur high cost of compliance compared to small banks. The mean of the responses was 3.8 implying that majority of the respondents agreed with the statements. The responses were varied as shown by a standard deviation of 1.0.

Table 4.27: Descriptive Summary: Total Assets

Year	Ν	Mean	Std. Deviation	
2011	43	46,536,261,628	62,743,424,493	
2012	43	77,487,441,860	98,067,878,263	
2013	43	85,177,488,372	(111,283,812,315	
2014	43	73,649,627,907	90,408,921,860	
2015	43	81,325,255,814	108,682,204,706	
2016	43	87,820,906,977	117,365,909,398	
2017	43	95,045,517,442	129,423,996,047	
Average		78,148,928,571	104,460,183,489	

4.6.7 Cost of compliance

Further, respondents were asked to rate statements presented in Table 4.28 Results indicate that 84.3% of the respondents agreed that the amount of money spent on compliance by our banks has been increasing in the past five years, 85.7% agreed that the expenses that the bank incurs in order to adhere to CBK regulations has been increasing in the past five years, 84.3% noted that the expenses that the bank incurs in order to adhere to CBK regulations has been increasing in the past five years, 37.7% cited that time spent on reporting compliance has been increasing in

the past five years while 84.2% noted that compliance officers act as gatekeepers for the AML chain.

The overall mean of the responses was 4.2, which indicates that majority of the respondents agreed with the statements. Additionally, a standard deviation of 1.9 indicates that the responses were varied.

	Strongly				Strongly		
Statement	Disagree	Disagree	Neutral	Agree	Agree	Me	S.D
The amount of money spent on							
compliance by our banks has							
been increasing in the past five \mathbb{N}							
years	1.4%	7.1%	7.1%	30.0%	54.3%	4.3	1.0
The expenses that the bank							
incurs in order to adhere to							
CBK regulations has been							
increasing in the past five years	0.0%	7.1%	7.1%	44.3%	41.4%	4.2	0.9
salaries of people working in		것). 좋	5.3.50				
compliance in our bank has	- 80		243 V				
been increasing in the past five		67 - 3	WL (V)				
years	0.0%	7.1%	8.6%	48.6%	35.7%	4.1	0.9
Time spent on reporting		P	12 6				
compliance has been increasing		/ Q3					
in the past five years	0.0%	8.6%	15.7%	38.6%	37.1%	4.0	0.9
compliance officers act as							
gatekeepers for the AML chain	0.0%	1.4%	14.3%	47.1%	37.1%	4.2	0.7
Average		me Th	Landard Street	22		4.2	0.9
	VT OMS	A Design Contraction	NAM 21	N.F.			

Table 4.30 presents descriptive summary of amount of money spent in compliance per year in terms of means and standard deviations for all the banks from 2011 to 2017. Results indicate that on average, banks spend Kes 11,938,590,241 on compliance with KYC requirements. The average amount of money spent on compliance was 11,938,590,241 but the amount varied across the years as shown by the standard deviation of 16,296,745,377.

Year	Ν	Mean	Std. Deviation
2011	43	7,832,309,419	10,356,658,507
2012	43	12,139,939,419	17,146,273,459
2013	43	13,507,576,279	19,112,542,838
2014	43	11,187,813,488	13,078,320,978
2015	43	12,292,327,209	16,824,187,333
2016	43	13,466,356,744	19,219,900,792
2017	43	13,143,809,128	16,810,008,911
Average		11,938,590,241	16,296,745,377

 Table 4.30: Descriptive Summary: Amount of money spent in compliance

4.7 Factor Analysis

Component examination was applied to sum up data which makes it easy to manage and to facilitate hypothesis testing without loss of any necessary data (Field, 2009).

4.7.1 Factor Analysis for Customer Awareness of KYC requirements

Table 4.31 shows the set items under the variable Customer Awareness of KYC requirements. All the items had communality values more than 0.4 and therefore they were accepted.

Table 4.31: Factor loading:	Customer Awareness
-----------------------------	---------------------------

Items	$2 \ge 1$	Jak		Initial	Communalities
The number of customer awa	reness campa	igns on KYC req	uirements have)	
been increasing for the past f	ive years in o	ır bank	A INT CATTA ST	1	0.455
Customer checks are done in	a friendly wa	y in our bank		1	0.651
Our banks' procedures are de	signed accord	lingly		1	0.432
Cost of creating awareness ha	as been increa	sing in our bank		1	0.469
Customer awareness would in	mpact AML			1	0.746

4.7.2 Staff competence on KYC requirements

Table 4.32 shows the set items under the variable Staff competence on KYC requirements. All the items had communality values more than 0.4 and therefore they were accepted.

Table 4.32: Factor loading: Staff Competence

Items	Initial	Communalities
The number of staff trainings on staff competence of KYC Requirements		
has been increasing in our banks for the past five years	1	0.553
Cost of staff training have been increasing in our bank for the past five		
years	1	0.64
Our bank usually employees competent staff	1	0.481
Use of emails serves as a form of communication that educate employees		
on KYC policies	1	0.696
Use of newsletters in our bank serves as a form of communication that		
inform employees on KYC policies	1	0.471

4.7.3 Information Technology

Table 4.33 shows the set items under the variable information Technology. All the items had communality values more than 0.4 and therefore they were accepted.

Table 4.33: Factor loading: Information Technology

Items	Initial	Communalities
Money spent by bank for anti money laundering software has been		
increasing over the past five years	1	0.482
Our bank has been increasing the number of machines used for AML	1	0.487
Use of IT in most banking procedures have reduced AML	1	0.54
No unauthorized person can be able to access the banks passwords	, 1	0.418
High security is kept on AML software	1	0.461

4.7.4 Monitoring of Transaction in KYC Requirements

Table 4.34 shows the set items under the variable Monitoring of Transaction in KYC Requirements. All the items had communality values more than 0.4 and therefore they were accepted.

Table 4.34:	: Factor loading:	Monitoring of	Transaction in	KYC Requirements

Items	Initial	Communalities
Cost of audit and compliance has been increasing for the past five		
years in our banks	1	0.855
Cost of money laundering reports has been increasing in our bank	1	0.62
Our bank has employed competent internal auditors to monitor		
transactions	1	0.633
Our bank hires competent external auditors to monitor		
transactions	1	0.743
Employees always report suspicious transactions and procedures	1	0.811

4.7.5 Penalties and Fines

Table 4.35 shows the set items under the variable fines and penalties. All the items had communality values more than 0.4 and therefore they were accepted.

Table 4.35: Factor loading: Fines and Penalties

Items	Initial	Communalities
Our bank has never been fined on AML in the past five years	1	0.561
Our bank does not violate the AML policies	1	0.459
Bank managers are usually very keen not to violate CBK rules	1	0.552
Increase in number of fines and penalties would lead to increase in cost of		
compliance	1	0.777
VT OMINES WWW SINT		

4.7.6 Firm Size

Table 4.36 shows the set items under the variable firm size. All the items had communality values more than 0.4 and therefore they were accepted.

Table 4.36: Factor loading: Firm Size

Items	Initial	Communalities
Our firms asset has been increasing in the past five years	1	0.513
Large firms have high cost of compliance	1	0.488
Big firms are able to comply with KYC policies	1	0.44

4.7.7 Cost of Compliance

Table 4.37 shows the set items under the variable cost of compliance. All the items had communality values more than 0.4 and therefore they were accepted.

Table 4.37: Factor loading: Cost of Compliance

Items	Initial	Communalities
The amount of money spent on compliance by our banks has been		
increasing in the past five years	1	0.661
The expenses that the bank incurs in order to adhere to CBK regulations		
has been increasing in the past five years	1	0.612
salaries of people working in compliance in our bank has been increasing		
in the past five years	1	0.466
Time spent on reporting compliance has been increasing in the past five		
years	1	0.498
compliance officers act as gatekeepers for the AML chain	1	0.447

4.8 Inferential statistics Results

4.8.1 Correlation Analysis

Table 4.34 presents the relationship examination results. The discoveries demonstrate a positive and noteworthy relationship between client consciousness of KYC prerequisites and cost of consistence as bolstered by a connection estimation of 0.779 and p estimation of 0.000. The outcomes likewise show a positive and noteworthy relationship between staff ability of KYC prerequisites and cost of consistence as upheld by a connection estimation of 0.811 and p estimation of 0.000. Further, results demonstrate a positive and huge relationship between data innovation and cost of consistence as upheld by a connection estimation of 0.745 and p estimation of 0.0000. What's more, discoveries demonstrate a positive and critical relationship between observing of exchange and cost of consistence as bolstered by a connection estimation of 0.640 and p estimation of 0.000. At long last, a positive and noteworthy relationship among fines and punishments and cost of consistence was found as upheld by a connection estimation of 0.662 and p estimation of 0.000.

In light of the discoveries in Table 4.34, all the KYC necessities segments were found to have a solid and positive relationship with expense of consistence. This suggests client mindfulness,

staff skill, data innovation, observing of exchanges and fine and punishments have increments in the meantime with increment in expense of consistence in budgetary organizations.

		Cost of	Customer	Staff		Monitoring	
		complian	Awarenes	Compete	Information	of	Fines and
		ce	S	nce	Technology	Transactions	Penalties
	Pearson						
Cost of	Correlati	1					
compliance	on	1					
	Sig. (2-tail Pearson	ed)					
Customer	Correlati						
Awareness	on	.779**	1				
	Sig. (2-		000	30			
	tailed)	0					
	Pearson						
Staff	Correlati						
Competence	on	.811**	.783**	- <u>1</u>			
	Sig. (2-		- (1971) -	1 2 4 3 3			
	tailed)	0	0	2200	311		
. .	Pearson			3 mil			
Information	Correlati	745**	(07**	75544	10		
Technology	on	./45**	.68/**	./33**	1.0		
	Sig. $(2 - toilad)$	0	0	6	7		
Monitoring	Deerson	U	0	0			
of	Corrolati			6	7		
01 Transactions	on	640**	722**	765**	788**	1	
Tansactions	Sig (2-	.0+0	OWNES	- Unrow	I SINT	1	
	tailed)		OWDU	- 0	0.0		
	Pearson	0	0	0	0.0		
Fines and	Correlati						
Penalties	on	.662**	.857**	.756**	.773**	.738**	1
	Sig. (2-						1
	tailed)	0	0	0	0.0	0	

Table 4.38: Correlation Results

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

4.8.2 Multiple Regression Analysis

Results in Table 4.35 indicate the model of fitness results. The results indicate an R^2 of 0.75, which implies that jointly KYC requirements explain 75% of the total variations in cost of compliance in commercial banks. On the other hand, 25% of the variations in cost of compliance

in commercial banks are explained by other factors not included in the model. The adjusted R2 of 73.9% one of the independent variables has improved the model by less than expected by chance.

Table 4.39: Model of Fitness

Indicator	Coefficient
R	0.866
R Square	0.75
Adjusted R Square	0.739
Std. Error of the Estimate	0.230463

Table 4.40 indicate the analysis of the variance (ANOVA) results. Based on the findings, the overall model was statistically significant as supported by a p value of 0.000 which is lesser than the critical p value of 0.05. Further, the results imply that the KYC requirements are good predictors of cost of compliance in commercial banks. This was supported by an F statistic of 39.123 and the reported p value of 0.000<0.05 at 5% level of significance.

Table 4.40: Analysis of Variance

Indicator	Sum of Squares	Df	Mean Square F	Sig.
Regression	10.566	9	2.113 39.12	3.000b
Residual	3.457	291	0.054	
Total	14.023	300		

Table 4.41: Regression of coefficients

Variable	В	Std. Error	Т	Sig
(Constant)	-0.723	0.44	-1.642	0.106
Customer Awareness of KYC requirements	0.598	0.191	3.129	0.003
Staff competence on KYC requirements	0.472	0.219	2.158	0.035
Information Technology	0.729	0.188	3.882	0.000
monitoring of transaction in KYC requirements	0.442	0.181	2.441	0.017
Fines and penalties	0.236	0.14	1.681	0.048
Bank Age	-0.298	0.154	-1.529	0.001

Profitability	0.172	0.148	1.158	0.335
Asset Quality	0.429	0.188	2.282	0.000
Ownership	0.342	0.167	2.042	0.017

Table 4.41 demonstrates the relapse coefficients results. The discoveries show a positive and critical connection between client attention to KYC necessities and cost of consistence as upheld by a beta coefficient of 0.598 and p estimation of 0.003. The outcomes additionally show a positive and noteworthy connection between staff fitness of KYC prerequisites and cost of consistence as upheld by a beta coefficient of 0.472 and p estimation of 0.035.

Further, results demonstrate a positive and huge connection between data innovation and cost of consistence as bolstered by a beta coefficient of 0.729 and p estimation of 0.000. Moreover, discoveries demonstrate a positive and critical connection between observing of exchange and cost of consistence as bolstered by a beta coefficient of 0.442 and p estimation of 0.017. At long last, a positive and noteworthy connection among fines and punishments and cost of consistence was found as bolstered by a beta coefficient of 0.236 and p estimation of 0.048.

This discoveries suggest that an expansion in KYC necessities (client mindfulness, staff fitness, data innovation, checking of exchange and fines and punishments) by a unit would prompt an expansion in the expense of consistence by the individual beta coefficients expressed previously.

Further, the examination tried to build up the impact of control factors on expense of consistence. Results show a negative and critical connection between bank age and cost of consistence as upheld by a beta coefficient of - 0.298 and p estimation of 0.001. This infers banks that have been in presence for long bring about less expense of consistence contrasted with moderately youthful banks.

The discoveries further show a positive and huge connection between resource quality (β =0.429, 0.000); possession (β =0.342, 0.017) and cost of consistence. In any case, the connection among productivity and cost of consistence was observed to be unimportant (p=0.335>0.000).

The model without Moderation:

Cost of Compliance=-0.723+0.598 Customer Awareness+0.472 Staff Comptence+0.729 Information Technology+0.442 monitoring of Transaction+0.236 Fines and Penalties -0.298 Bank Age+0.429 Asset Quality+0.342 Ownership Results in Table 4.38 indicate the multivariate regression results after moderation

4.8.3 Moderation Effect

In testing for moderation effect, Baron and Kenny (2014) approach was adopted. Results in Table 4.38 indicate that firm size does not have a significant moderating effect on the relationship between know your customer policies and cost of compliance in commercial banks. This is indicated by the p value of the interaction term (KYC Requirements*Firm Size) of 0.639>0.05 at 5% level of significance. The findings are further supported by an R^2 of 75% which is the same as the R^2 before moderation (see Table 4.35).

Further, results reveal that firm size does not have a significant moderating effect on the relationship between control variables (bank age, profitability, asset quality and ownership) and cost of compliance in commercial banks. The p values 0.677, 0.532, 0.621 and 0.117 were greater than 0.05.

	Not.	3MK ~)		
	В	Std. Error	Т	Sig.
(Constant)	0.652	2.046	0.318	0.751
KYC Requirements	0.216	0.501	0.432	0.667
Firm Size	0.971	0.611	1.59	0.117
Bank Age*Firm Size	-0.179	0.552	-0.324	0.677
Profitability *Firm Size	0.325	0.474	0.154	0.532
Asset Quality*Firm Size	0.435	1.272	0.342	0.621
Ownership*Firm Size	0.324	0.917	0.353	0.117
KYC Requirements*Firm Size	-0.066	0.14	-0.471	0.639
R2	0.75			

Table 4.42: Moderation Results

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter deals with the summary of the findings, the conclusion and recommendations. This was done in line with the objectives of the study. Areas of further research were also suggested.

5.2 Summary of Major Findings

This section summarizes the major findings of the study in line with the study objectives.

5.2.1 Customer Awareness of KYC Requirements

The first objective was to examine the influence of customer awareness of KYC requirements on cost of compliance in commercial banks. Results revealed a positive and significant correlation between the two variables. Further, the findings indicated a positive and significant relationship between customer awareness of KYC requirements and cost of compliance in commercial banks.

The findings imply that increase in the number of customer awareness campaigns increases the overall cost of compliance in commercial banks. The findings agree with Mbwayo (2005) who concluded that the cost incurred by the banks in creating awareness to their customers increases the banks overall cost of compliance.

5.2.2 Staff Competence of KYC Requirements

The second objective was to find out the influence of staff competence of KYC requirements on cost of compliance in commercial banks. Results revealed a positive and significant correlation between the staff competence of KYC requirements and cost of compliance in commercial banks. Further, the findings indicated a positive and significant relationship between staff competence of KYC requirements and cost of compliance in commercial banks.

The findings imply that increase in the number of staff trainings on staff competence of KYC Policies increases the overall cost of compliance in financial institution. The findings agree with Kisoso (2012) conclusion that staff competence as a KYC requirement play a critical role in influencing firms' performance. However, the firms have to incur cost in ensuring staff competence.

5.2.3 Information Technology

The third objective assessed the influence of information Technology on cost of compliance in commercial banks. Results revealed a positive and significant correlation between information technology and cost of compliance in commercial banks. Further, the findings indicated a positive and significant relationship between information technology and cost of compliance in commercial banks.

The findings imply that increase in the number of IT staff in charge of IT systems increases the overall cost of compliance in commercial banks. The findings agree with Toroitich (2010) who concluded that information technology increases the cost of compliance among firms.

5.2.4 Monitoring of Transaction

The fourth objective evaluated the influence of monitoring transaction on cost of compliance in commercial banks. Results revealed a positive and significant correlation between monitoring transaction and cost of compliance in commercial banks. Further, the findings indicated a positive and significant relationship between monitoring transaction and cost of compliance in commercial banks.

The findings imply that increase in the number of monitoring staff increases the overall cost of compliance in commercial banks. The results agree with Michugu (2016) findings that indicated that monitoring of transaction increases the cost of compliance among firms.

5.2.5 Fines and Penalties

The fifth objective determined the influence of fines and penalties on cost of compliance in commercial banks. Results revealed a positive and significant correlation between fines and penalties and cost of compliance in commercial banks. Further, the findings indicated a positive and significant relationship between fines and penalties and cost of compliance in commercial banks.

The findings imply that increase in the number of fines and penalties per year increases the overall cost of compliance in commercial banks. The study findings agree with Kirchler et al, (2017) suggestion that an increase of penalties can have undesirable effect and result in more tax avoidance. Further, Alms (2009) supports the evidence that fines do affect tax compliance though the impact was virtually zero.

5.2.6 Firm Size

The sixth objective established the moderating influence of firm size on the relationship between know your customer policies and cost of compliance in commercial banks. The findings established that firm size has no significant moderating influence on the relationship between know your customer policies and cost of compliance in commercial banks. This imply that the size of the banks does not have a significant influence on the cost of compliance.

VT OMNES TUNVM SINT

5.3 Conclusion

The general objective of this study is to determine the factors impacting the cost of compliance with know your customer requirements in commercial banks. Based on the findings, the study concluded that KYC requirements have a positive and significant influence on cost of compliance in the Kenyan commercial banks. The implication of the results is that effort by the banks to comply with the KYC policy is likely to be accompanied with increased cost of compliance. These costs could be attributed to number of awareness campaigns that banks organize, number of staff trainings held annually, number of staff in charge of IT systems, number of monitoring staff and number of fines and penalties accrued to the banks. The study also concluded that size of the banks measured in terms of total assets does not moderate the relationship between KYC and cost of compliance. This implies that size of the firm is not a

significant factor in influencing the cost of compliance in commercial banks. However, it could also imply that there is no much difference in the value of assets between the banks and therefore it would not make significant impact in influencing their cost of compliance.

5.4 Recommendations

Based on the findings, the study makes several recommendations.

It is evident from empirical data that customer awareness of KYC requirements has a significant direct influence on the cost the compliance in commercial banks. Banks should therefore come up with cost effective customer awareness strategies to ensure that they cut down on costs. Also, banks should get people with the right skills to implement the strategies.

Staff competence of KYC requirements was also found to be critical in influencing cost of compliance. As such, banks should develop effective training programs, which will lead to cost reduction.

Information technology was identified as a significant KYC requirements and which increases cost of compliance. Banks should be able to source for highly competent IT experts to be in charge of the systems. They should also consider reducing the number of IT staff by automizing most of the technical operations.

Monitoring of transaction was also found to have a significant influence on cost of compliance. Banks should find ways of reducing the number of monitoring staff as a way of cutting cost. Further, they should encourage culture of honesty and integrity which implies that they would not require a lot of monitoring.

5.5 Limitation of the Study

The study was limited to primary data only due to the fact the compliance cost disclosed in the financial statements of the commercial banks could not be directly attributed to compliance with KYC requirements. Cases of respondents not cooperating were experienced at a very low rate. The high return rate was largely influenced by the nature of information asked for in the questionnaire together with an assurance by the researcher that the information collected was purely for academic purposes.
5.6 Suggested Areas for Further Study

The study sought to determine the factors impacting the cost of compliance with know your customer requirements in commercial banks. Further studies should consider other financial institutions such as SACCOs and MFIs.



REFERENCES

- Alms, James, "Tax Compliance and Administration, '2009, in Handbook of Taxation, edited byW .Bartley Hildreth and James A. Richardson 9 (New York: Marcel Dekker,).
- Anderson, B. D., & Moore, J. B. (2007). *Optimal control: linear quadratic methods*. Courier Corporation.
- Anderson, B. D., & Moore, J. B. (2007). *Optimal control: linear quadratic methods*. Courier Corporation.
- Bjelajac, Z. D. (2011). Contemporary tendencies in money laundering methods: review of the methods and measures for its suppression. Research Institute for European and American Studies.
- CBFA (2001). Circulaire D1 2001/13 aan de kredietinstellingen, CBFA.
- Central Bank. (2015). Regulations and Guidelines. Retrieved October 27th, 2015, from Central Bank of Kenya: https://www.centralbank.go.ke/index.php/regulations-and-guidelines
- Cressey, D. R. (1953). Other people's money: A study of the social psychology of embezzlement. New York, NY: Free Press.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334.
- Edward, 1. K., (1997) "Ethical foundations of financial Regulations" Working paper 1620.
- Fundanga, C. M. (2003, January). The Role of the Banking Sector in Combating Money Laundering. In Speech at Seminar Organized by C and N Centre for Advanced International Studies, Lusaka (Vol. 23).
- Geister, D. (2008). Concepts in customer due diligence: Meeting the challenge of regulatory expectations. LexisNexis® Risk & Information Analytics Group, p.2, http://www.aba.com/NR/rdonlyres/9B9355AC-FB65-4680

- Gill, M., & Taylor, G. (2004). Preventing money laundering or obstructing business? Financial companies' perspectives on 'know your customer' procedures. *British Journal of Criminology*, 44(4), 582-594.
- Gujarati, D. N. (2003). Basic Econometrics, McGraw-Hill. New York.
- Gujarati, D. N., & Porter, D. C. (2003). Basic Econometrics. 4th.
- Hannig, A., & Jansen, S. (2010). Financial inclusion and financial stability: Current policy issues.
- Harvey, J. (2004). Compliance and reporting issues arising for commercial banks from money laundering regulations: a preliminary cost benefit study. *Journal of Money Laundering Control*, 7(4), 333-346.
- He, P. (2010). A typological study on money laundering. *Journal of Money Laundering Control*, 13(1), 15-32.
- Imala, O. (2004). The role of the financial services sector in com bating money laundering in Nigeria, the banking industry. Paper presented at the 4th national seminar on economic crime
- Jackson, A. (2015). Recognizing and reporting money laundering: How well should you know your customer? *Journal of Money Laundering Control*, 3(4), 317-324.
- Jansson, T. & Mark, W. (2004), Financial Regulations and its significance for microfinance in Latin America and the Caribbean
- Kenyan Wall Street. (2018). Barclays Kenya reports FY pre-tax profit of Sh 10.6 Billion amid political uncertainties. Retrieved from http://kenyanwallstreet.com/barclayskenyareports-fy-pre-tax-profit-of-sh-10-6-billion-amid-political-uncertainties
- Kerlinger, F. N., & Lee, H. B. (2000). Survey research. *Foundations of behavioral research*, 599-619.
- Kirchler, E. (2007). *The Economic Psychology of Tax Behavior, Cambridge University Press, Cambridge*. KRA Domestic Taxes department; Income Tax at a glance
- Kisoso, M. (2012). Roaring to life: Growth and innovation in African retail banking. *McKinsey* & *Company*.

Kothari, C. R. (2004). Research methodology: Methods and techniques. New Age International.

- Mahfoudh, I. O. (2013). Effect of selected firm characteristics on financial performance of firms listed in the agricultural sector at the Nairobi securities exchange. *Unpublished MBA Project*.
- Masciandaro, D., & Filotto, U. (2015). Money laundering regulation and bank compliance costs: What do your customers know? Economics and the Italian experience. *Journal of Money Laundering Control*, 5(2), 133-145.
- Masciandro, D. (1999). Money laundering: the economics of regulation. *European Journal of Law and Economics*, 3, 225-240.
- Mbwayo, M. M. (2005). Strategies applied by commercial banks in Kenya in anti money laundering compliance programs. *Unpublished MBA project*.
- McLaughlin, J. S., & Pavelka, D. (2013). The Use of Customer Due Diligence to Combat Money Laundering. *Accountancy Business and Public Interest*, 57-84.
- McLaughlin, J., Pavelka, D., & Amoroso, L. (2010). Money laundering: Strategic initiatives for preventing a growing menace. In Stachowica-Stanusch, A. (Ed.). Organizational Immunity to Corruption: Building Theoretical and Research Foundations. US: Information Age Publishing.
- Mentzer, J. T., Stank, T. P., & Esper, T. L. (2008). Supply chain management and its relationship to logistics, marketing, production, and operations management. *Journal of Business Logistics*, 29(1), 31-46.
- Michugu, T. M. (2016). *The Impact of Anti-Money Laundering Regulations on Financial Performance in Kenyan Banks: A Case Study of Chase Bank* (Doctoral dissertation, United States International University-Africa).
- Mondal, P. C., Deb, R., & Huda, M. N. (2016,). Know your customer (KYC) based authentication method for financial services through the internet. In 2016 19th International Conference on Computer and Information Technology (ICCIT) (pp. 535-540). IEEE.
- Muia, M. M., & Yabs, D. J. (2008). Perceived Effects of Money Laundering On International Business: A Case Study of Banks in Kenya.

- Muriithi, R. (2013). The effect of Anti-Money Laundering regulation implementation on the financial performance of commercial banks in Kenya. A Master's Thesis, University of Nairobi.
- Nemana, V., & Nadiri, I. (2011). Pakistan: From In Danger to Development.
- Ngagi, L. W. (2009). Effectiveness of Know Your Customer (KYC) polices adopted by commercial banks in Kenya in reducing money laundering and fraud Incidences. Unpublished MBA project. University of Nairobi
- Ranong, Z. and Phuenngam, A. (2009). An Introduction to Islamic Finance: Theory and *Practice*, 2nd ed., Wiley, Singapore.
- Sadiq, S., & Governatori, G. (2015). Managing regulatory compliance in business processes. In Handbook on Business Process Management 2 (pp. 265-288). Springer, Berlin, Heidelberg.
- Sathye, M. (2008). Estimating the cost of compliance of AMLCTF for commercial banks in Australia. *Journal of Financial Crime*, *15* (4), 347-363.
- Saunders, M., Lewis, P., & Thornhill, A. (2007). Collecting primary data using semi-structured and in-depth interviews. *Research methods for business students*, 310-352.
- Sim, J., & Wright, C. (2000). Research in health care: concepts, designs and methods. Nelson Thornes.
- Simkins, J & Fraser P.K (2010). Recognizing financial distress patterns using a neural network tool. *Financial Management Journal*, 22 (3), 142-55.
- Stiger J. G. (1971), The Theory of Economic Regulation Bell Journal of Economics and Management Science. University of Chicago.
- Takáts, E. (2009). A theory of "Crying Wolf": The economics of money laundering enforcement. *The Journal of Law, Economics, & Organization, 27*(1), 32-78.
- Thmasebinejad, Tabriz, E. (2015). Sensitivity analysis in correlated bivariate continuous and binary responses. *Applications and Applied Mathematics Journal*, *10*(*1*), *609-619*.
- Toroitich, E. K. (2010). *Challenges faced by Central Bank of Kenya in combating money laundering* (Doctoral dissertation, University of Nairobi, Kenya).

- Verhage, A. (2009). Compliance and AML in Belgium: a booming sector with growing pains. *Journal of Money Laundering Control*, 12(2), 113-133.
- Wawira, N. L. (2009). Effectiveness of know your customer (kyc) policies adopted by commercial banks in Kenya in reducing money laundering and fraud incidences. *University of Nairobi*.
- Wenk, L.A.M. (2010), "Risk exposure during the global financial crisis: the case of Islamic banks", *International Journal of Islamic and Middle Eastern Finance and Management*, 3 (4), 321-33.
- Wooldridge, J. M. (2005). Fixed-effects and related estimators for correlated random-coefficient and treatment-effect panel data models. *Review of Economics and Statistics*, 87(2), 385-390.
- Yin, R. K. (2013). Validity and generalization in future case study evaluations. *Evaluation*, 19(3), 321-332

OMNE

APPENDICES

Appendix I: Introduction Letter



1 February, 2019

TO WHOM IT MAY CONCERN

Academic Reference for Dzanga Caroline Kavumbi Student No. 095033

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

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

The research study is entitled "Influence of Know your customer requirements on cost of compliance in financial institutions."

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

Yours faithfully,

Quindos Karanja Strathmore University Business School Email: qkaranja@strathmore.edu

Appendix 2: Questionnaire

Kindly answer the following questions as honestly and accurately as possible. The information given will be treated with a lot of confidentiality. Please do not write your name anywhere on this questionnaire. You are encouraged to give your honest opinion.

SECTION A: PERSONAL INFORMATION

1. What is your age in completed years?

a) 18 to 30 years	
b) 31 to 40 years	
c) 41-50 years	
d) Over 50 years	
2. What is your Ger	nder?
a) Male	
b) Female	
3. What is your high	hest academic qualification?
a) Certificate	VI ONN
a) Certificateb) Diploma	
 a) Certificate b) Diploma c) Bachelor's Degree 	
 a) Certificate b) Diploma c) Bachelor's Degree d) Masters Degree 	
 a) Certificate b) Diploma c) Bachelor's Degree d) Masters Degree e) PhD 	

- 6. How many years have you worked in your current position?
- a) Less than 2 Years
- b) 3-5 Years

c) Over 5 Years

Section B: Customer Awareness of KYC requirements

To what extent does customer awareness of KYC policies influence cost of compliance in your bank?

No extent () Little Extent () Moderate extent () great extent () very great extent ()

Rate the following statements on a scale of 1-5 where;

5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree, 1= Strongly Disagree

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		2	3	4	5
The number of customer awareness campaigns on KYC requirements have been increasing for the past five years in our bank					
Customer checks are done in a friendly way in our bank					
Our banks' procedures are designed accordingly	y I	L.			
Cost of creating awareness has been increasing in our bank		PV L	57		
Customer awareness would impact AML	MNEST	VNVM S	INT		

Section C: Staff competence on KYC requirements

To what extent does staff competence on KYC requirements influence cost of compliance in your bank?

No extent () Little Extent () Moderate extent () great extent () very great extent ()

Rate the following statements on a scale of 1 - 5 where;

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
The number of staff trainings on staff competence of KYC Requirements has been increasing in our banks for the past five years					
Cost of staff training have been increasing in our bank for the past five years					
Our bank usually employees competent staff					
Use of emails serves as a form of communication that educate employees on KYC policies					
Use of newsletters in our bank serves as a form of communication that inform employees on KYC policies					

Section D: Information Technology

To what extent does information technology influence cost of compliance in your bank?

No extent () Little Extent () Moderate extent () great extent () very great extent ()

Rate the following statements on a scale of 1-5 where;

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
Money spent by bank for anti money laundering software has been increasing over the past five years					
Our bank has been increasing the number of machines used for AML					
Use of IT in most banking					

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
procedures have reduced AML					
No unauthorized person can be able to access the banks passwords					
High security is kept on AML software					

Section E: monitoring of transaction in KYC requirements

To what extent does monitoring of transaction in KYC requirements influence cost of compliance in your bank?

No extent () Little Extent () Moderate extent () great extent () very great extent ()

Rate the following statements on a scale of 1-5 where;

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	> 2	-73	4	5
Cost of audit and compliance has been increasing for the past five years in our banks	MNES	VIVVM S	INT		
Cost of money laundering reports has been increasing in our bank					
Our bank has employed competent internal auditors to monitor transactions					
Our bank hires competent external auditors to monitor transactions					
Employees always report suspicious transactions and procedures					

Section F: Fines and penalties

To what extent do fines and penalties influence cost of compliance in your bank?

No extent () Little Extent () Moderate extent () great extent () very great extent ()

Rate the following statements on a scale of 1-5 where;

5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree, 1= Strongly Disagree

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
Our bank has never been fined on AML in the past five years					
Our bank does not violate the AML policies	50				
Bank managers are usually very keen not to violate CBK rules					
Increase in number of fines and penalties would lead to increase in cost of compliance					

Section G: Firm Size

To what extent does firm size influence cost of compliance in your bank?

No extent () Little Extent () Moderate extent () great extent () very great extent ()

Rate the following statements on a scale of 1-5 where;

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
Our firms asset has been increasing in the past five years					
Large firms have high cost of compliance					
Big firms are able to comply with					

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
KYC policies					

Section H: Cost of compliance

Rate the following statements on a scale of 1-5 where;

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
The amount of money spent on compliance by our banks has been increasing in the past five years					
The expenses that the bank incurs in order to adhere to CBK regulations has been increasing in the past five years					
salaries of people working in compliance in our bank has been increasing in the past five years			5		
Time spent on reporting compliance has been increasing in the past five years	MNEST	VNVM S	INT		
compliance officers act as gatekeepers for the AML chain					

Appendix 3: Turn it in Index

Thesis

ORIGIN	ALITY REPORT	
2 SIMILA	5% 17% 3% 22% INTERNET SOURCES PUBLICATIONS STUDENT F	APERS
PRIMAR	Y SOURCES	
1	Submitted to Kenyatta University Student Paper	5%
2	Submitted to Saint Paul University Student Paper	2%
3	Submitted to Laureate Higher Education Group	1%
4	ir.jkuat.ac.ke Internet Source	1%
5	Submitted to Mount Kenya University Student Paper	1%
6	www.ijsrp.org Internet Source	1%
7	strategicjournals.com	1%
8	Submitted to Strathmore University Student Paper	1%
9	Submitted to IPMC Kumasi	1%

10	Submitted to Mesa State College Student Paper	1%
11	Submitted to RDI Distance Learning Student Paper	< 1 %
12	erepo.usiu.ac.ke	<1%
13	Submitted to Masinde Muliro University of Science and Technology Student Paper	< <mark>1</mark> %
14	Jan Szczepanski, Christine Wehlburg, Martin Vala. "C Carbon Cluster Anion: Structure and Asymmetric Stretching Mode Frequency ", The Journal of Physical Chemistry A, 1997 Publication	< <mark>1</mark> %
15	erepository.uonbi.ac.ke	<1%
16	citeseerx.ist.psu.edu Internet Source	<1%
17	Submitted to University of KwaZulu-Natal Student Paper	<1%
18	ifrnd.org Internet Source	<1%
19	erepository.uonbi.ac.ke:8080	< 1 %

20	www.slideshare.net	<1%
21	ro.uow.edu.au Internet Source	< 1 %
22	bankinginkenya.com Internet Source	< 1 %
23	ir.cuea.edu Internet Source	< 1 %
24	www.emeraldinsight.com	<1%
25	Submitted to Africa Nazarene University Student Paper	< 1 %
26	mafiadoc.com Internet Source	< 1 %
27	Submitted to Midlands State University Student Paper	<1%
28	Submitted to University of Newcastle upon Tyne Student Paper	<1 %
29	insuranceplanstodays.blogspot.com	< 1 %
30	febelfin.be Internet Source	< 1 %

31	Submitted to KCA University Student Paper	<1%
32	ir.knust.edu.gh Internet Source	< 1 %
33	repository.mua.ac.ke	<1 %
34	pdfs.semanticscholar.org	< 1 %
35	citizentv.co.ke Internet Source	<1 %
36	Submitted to Kisii University Student Paper	<1%
37	Submitted to CVC Nigeria Consortium Student Paper	< 1 %
38	visar.csustan.edu Internet Source	< 1 %
39	www.suerf.org	< 1 %
40	www.mobt3ath.com	< 1 %
41	karuspace.karu.ac.ke	<1%



uir.unisa.ac.za

		<1%
43	Submitted to The University of Buckingham	< 1 %
44	www.rich.co.ke	<1%
45	41.204.187.24 Internet Source	< 1 %
46	www.onlinejournal.in	< 1 %
47	rafikulislam.com	< 1 %
48	oro.open.ac.uk Internet Source	< 1 %
49	enemsmicrosystresearchspot.blogspot.com	< 1 %
50	www.capitalfm.co.ke	< 1 %
51	phd.lib.uni-corvinus.hu Internet Source	< 1 %
52	www.scribd.com Internet Source	<1%
53	gupea.ub.gu.se	<1%

54	Submitted to University of Mauritius Student Paper	<1%
55	Submitted to Segi University College Student Paper	< 1 %
56	eprints.utar.edu.my	< 1 %
57	Submitted to University of Wales Institute, Cardiff Student Paper	<1 %
58	eastcentraldistricthealth.com	< 1 %
59	Submitted to De Montfort University Student Paper	< 1 %
60	mdpi.com Internet Source	< 1 %
61	etd.aau.edu.et	<1%
62	www.austrac.gov.au	<1 %
63	ageconsearch.umn.edu	< 1 %
64	www.uri.edu Internet Source	<1%

65	irti.org Internet Source	<1%
66	finance.expertjournals.com	<1%
67	Submitted to Intercollege Student Paper	< 1 %
68	Submitted to Kwame Nkrumah University of Science and Technology Student Paper	< 1 %
69	ir.dut.ac.za:8080 Internet Source	< 1 %
70	Anil Markandya, Alexander Golub, Suzette Pedroso-Galinato. "Empirical Analysis of National Income and SO2 Emissions in Selected European Countries", Environmental and Resource Economics, 2006 Publication	< 1 %
71	studenttheses.cbs.dk	<1%
72	Submitted to University Der Es Salaam Student Paper	< 1 %
73	Submitted to University of Northampton Student Paper	< 1 %
74	www.mku.ac.ke	< 1 %

75	es.scribd.com Internet Source	<1%
76	Submitted to Indian Institute of Technology, Madras Student Paper	<1%
77	stratfordjournals.org	<1%
78	www.odbms.org Internet Source	< <mark>1</mark> %
79	chss.uonbi.ac.ke Internet Source	<1%
80	Submitted to University of Durham	<1%
81	link.springer.com	<1%
82	Submitted to University of Lugano	< 1 %
83	tampub.uta.fi Internet Source	<1%
84	Submitted to University of South Australia Student Paper	<1%
85	Submitted to University of Wollongong Student Paper	<1%

86	issuu.com Internet Source	< 1 %
87	Submitted to South Bank University Student Paper	< 1 %
88	baadalsg.inflibnet.ac.in	< 1 %
89	Submitted to University of Hull Student Paper	<1%
90	Submitted to Copperbelt University Student Paper	<1%
91	Submitted to London School of Marketing Student Paper	<1%
92	69.36.77.223 Internet Source	<1%
93	docplayer.net Internet Source	<1%
94	Submitted to University of Liverpool Student Paper	< 1 %
95	www.organized-crime.de	<1%
96	Submitted to University of Wolverhampton Student Paper	<1%



theinformer.co.ke

		<1%
98	Submitted to Majan College Student Paper	< 1 %
99	Submitted to University of East London Student Paper	<1%
100	Submitted to Universiti Sains Malaysia Student Paper	< 1 %
101	Submitted to University of Limerick Student Paper	<1%
102	Submitted to Northern Consortium UK Student Paper	< 1 %
103	hal.archives-ouvertes.fr	< 1 %
104	Wang Ching-Yung. "The Effect of IPR on the Condition of SMEs Survival; An Empirical Study of 800 SMEs of Company A from 1991 to the End of 2017 in Taiwan", Advanced Journal of Social Science, 2018 Publication	< 1 %
105	Submitted to Cedar Valley College Student Paper	<1%
106	Submitted to Universiti Teknologi MARA Student Paper	<1%

107	Submitted to Western International University Student Paper	< <mark>1</mark> %
108	Submitted to University of Salford Student Paper	< 1 %
109	Submitted to Donelson Christian High School Student Paper	<1%
110	Submitted to Multimedia University Student Paper	<1%
111	Submitted to University of Malaya	< 1 %
112	Submitted to Imperial College of Science, Technology and Medicine Student Paper	<1%

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	On		