

**INFLUENCE OF COMPETITIVE INTELLIGENCE ACTIVITIES ON  
PERFORMANCE OF INDIGENOUS BANKS IN NAIROBI, KENYA**

**BY**

**KEVIN MUGO MAINA**

**MASTER OF SCIENCE IN KNOWLEDGE MANAGEMENT AND INNOVATION**

**KCA UNIVERSITY**

**2022**

**INFLUENCE OF COMPETITIVE INTELLIGENCE ACTIVITIES ON  
PERFORMANCE OF INDIGENOUS BANKS IN NAIROBI, KENYA**

**BY**

**KEVIN MUGO MAINA**

**21/01179**

**A RESEARCH DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE  
IN KNOWLEDGE MANAGEMENT AND INNOVATION, IN THE SCHOOL OF  
BUSINESS AND PUBLIC MANAGEMENT AT KCA UNIVERSITY.**

**OCTOBER, 2022**

**DECLARATION**

I declare that this dissertation is my original work and has not been previously presented or published for the award of any degree in this or any other university. I also declare that the information contained in this document has not been published elsewhere by other people except where due reference is made and authors duly acknowledged.

**Student Name: Kevin Mugo Maina**

**Reg. No. 21/01179**

**Sign: .....**      **Date: .....**

**Supervisor**

I do hereby confirm that I have examined the master's dissertation of

**Kevin Mugo Maina**

And have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed.

**Sign: .....**      **Date: .....**

Dr. Nyaribo Misuko  
Dissertation Supervisor

# INFLUENCE OF COMPETITIVE INTELLIGENCE ACTIVITIES ON PERFORMANCE OF INDIGENOUS BANKS IN NAIROBI, KENYA

## ABSTRACT

Indigenous banks in Kenya are facing intense competition in the Kenyan market and as such there is a concurrent need for competitive intelligence which is both a process and product, in their operation to guide in decision making and strategy formulation. The banks endeavor to address threats to the triple bottom line and in the same breath required to overpower the uncertainty presented by the host business atmosphere, technological advancement and economic changes as well as pandemics such as Covid-19 for their own survival. The indigenous banks are alive to the fact that local stakeholders' desires may affect their functioning adversely and therefore, they are required to examine their functions by adopting competitive intelligence activities in order to respond to their needs faster. The study therefore purposed to establish the influence that competitive intelligence subsets have on the performance of indigenous banks in Nairobi, Kenya. The research was done through the survey approach by distribution of questionnaires with Likert scale using the drop and pick later method and it targeted the senior staff at the managerial level in the six indigenous banks in Nairobi, Kenya. The sample size of the study was 90 respondents of which only 81 of them were retrieved and the primary data collected was analyzed using statistical package for Social sciences (SPSS) software. Figures and tables were used to summarize the data collected for additional analysis and comparison. Multiple regression was utilized with an intention of evaluating the aggregate effect and relationship between the independent variables and performance as a dependent variable. The findings of the study concluded that competitive intelligence subsets contributed towards the performance of the indigenous banks in Kenya. Results from the univariate analysis showed that product intelligence activities had a statistically significance influence on an individual basis of 30% on the performance of indigenous banks in Kenya, ( $p < 0.001$ ) this influential ability was also the case when combined with other variables, Organization intelligence individually would statistically significantly influence the performance of indigenous banks in Kenya at 25% ( $p < 0.001$ ) while market intelligence will influence at 14%,  $p = 0.001$  but when combined with others it had minimal influence on performance of indigenous banks. On the other hand, technological intelligence activities would have an individual effect of 3% on the performance of indigenous banks in Kenya, however this effect would not be significant ( $p = 0.106$ ). Jointly with others technology intelligence practice was found to result to an insignificant decrease in performance of indigenous banks in Nairobi, Kenya. That return on Return on Investment (ROI), customer retention and satisfaction among others were some of the results identified in regards to the impact of competitive intelligence on performance. The outcome concluded that there is a positive relationship between technological, product, organizational and marketing intelligences with the indigenous banks performance. Based on this therefore, the indigenous banks are encouraged to further deepen competitive intelligence activities and adopt them as part and parcel of their operational strategy by creating a competitive intelligence department in order to have a competitive edge.

**Keywords:** Competitive Intelligence, Product Intelligence, Market Intelligence, Organization Intelligence, Technology Intelligence, Organizational Performance.

## **ACKNOWLEDGEMENT**

I am most grateful to Christ Jesus for leading and guiding me through the entire MSc. Knowledge Management and Innovation program. I would like to jot my special gratitude to my supervisor Dr. Nyaribo Misuko for his supervision and guidance throughout the dissertation period. I am also forever grateful to my parents Mr. and Mrs. Maina for their moral encouragement during this whole duration of my master's degree. Finally, I am grateful to the indigenous banks here in Nairobi which gave me a chance to collect data from them that was used in making this research document.

## TABLE OF CONTENTS

<b>ABSTRACT.....</b>	<b>iii</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>iv</b>
<b>DEDICATION.....</b>	<b>viii</b>
<b>LIST OF TABLES.....</b>	<b>ix</b>
<b>LIST OF FIGURES.....</b>	<b>x</b>
<b>LIST OF ACRONYMS AND ABBREVIATIONS.....</b>	<b>xi</b>
<b>CHAPTER ONE.....</b>	<b>1</b>
<b>INTRODUCTION.....</b>	<b>1</b>
1.1 Background of the Study.....	1
1.1.1 Competitive intelligence.....	3
1.1.2. Organizational performance.....	5
1.1.3 Indigenous banks in Nairobi.....	7
1.2 Statement of the Problem.....	8
1.3 Research Objective.....	11
1.3.1. General objective.....	11
1.3.2. Specific objectives.....	11
1.4 Research Questions.....	12
1.5 Significance of the Study.....	12
1.6 Scope of the Study.....	13
<b>CHAPTER TWO.....</b>	<b>14</b>
<b>LITERATURE REVIEW.....</b>	<b>14</b>
2.1 Introduction.....	14
2.2 Theoretical Background.....	14
2.2.1 Knowledge Based Theory (KBT).....	14
2.2.2 Resource Based Theory (RBT).....	17
2.2.3 Open Systems Theory (OST).....	19
2.3 Empirical Review.....	22
2.3.1 Competitive Intelligence and Performance.....	22
2.3.6 Sources of Competitive Intelligence.....	31
2.4 Conceptual Framework.....	34
2.5 Operationalization of Variables.....	35

2.6 Hypotheses Statements.....	38
<b>CHAPTER THREE .....</b>	<b>39</b>
<b>RESEARCH METHODOLOGY .....</b>	<b>39</b>
3.1 Introduction .....	39
3.2 Research Design .....	39
3.3 Population of the Study .....	40
3.4 Sample and Sampling Procedure.....	40
3.5 Data Collection.....	42
3.6 Reliability and Validity Tests.....	42
3.6.1 Reliability .....	43
3.6.2 Validity .....	44
3.7 Data Analysis Procedures .....	45
3.8 Diagnostic Tests .....	46
3.8.1 Normality Tests .....	46
3.8.2 Linearity tests .....	46
3.8.3 Heteroscedasticity Tests .....	47
3.8.4 Multi-collinearity tests range.....	48
<b>CHAPTER FOUR.....</b>	<b>49</b>
<b>DATA ANALYSIS, PRESENTATION AND INTERPRETATION .....</b>	<b>49</b>
4.1 Introduction .....	49
4.2 Questionnaire Response Rate.....	49
4.3 Background Information of the Indigenous Banks .....	49
4.4 Competitive Intelligence Indicators Characteristics .....	50
4.5 Diagnostics Tests.....	51
4.5.1 Correlation analysis .....	51
4.5.2 Normality Test.....	52
4.5.3 Homoscedasticity Test.....	53
4.5.4 Multi-collinearity Test.....	53
4.6 Regression Analysis .....	54
4.6.1 Univariate Regression Analysis.....	54
4.6.2 Multiple Regression Analysis.....	55
4.7 Competitive Intelligence Practices and Performance.....	57
4.7.1 Technology intelligence practices and performance of indigenous banks in Kenya ...	57
4.7.2 Organization intelligence practices and performance of indigenous banks in Kenya..	57

4.7.3 Product intelligence practices and performance of indigenous banks in Kenya .....	58
4.7.4 Market intelligence and performance of indigenous banks in Kenya .....	59
<b>CHAPTER FIVE .....</b>	<b>60</b>
<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>60</b>
5.1 Introduction .....	60
5.2 Summary .....	60
5.2.1 Technological intelligence activities and performance .....	60
5.2.2 Organization intelligence activities and performance .....	61
5.2.3 Product intelligence activities and performance.....	62
5.2.4 Market intelligence activities and performance.....	63
5.3 Conclusions .....	63
5.4 Recommendations .....	64
5.5 Limitation of the Study .....	66
5.6 Suggestions for Further Research .....	66
<b>REFERENCES.....</b>	<b>67</b>
<b>APPENDICES .....</b>	<b>85</b>
Appendix I: Research Questionnaire.....	85

## **DEDICATION**

First and most importantly, I dedicate this study to my Heavenly Father for seeing me through this entire MSc. Knowledge Management Program. To my loving and supportive parents and my beautiful daughter Caitlin Amara Gathoni Mugo and beloved family.

## LIST OF TABLES

Table 2.1 Operationalization of Variables .....	35
Table 3.1 Sample Size.....	41
Table 4.1. Competitive Intelligence Indicators Characteristics .....	50
Table 4.2 Spearman Correlations Coefficient.....	52
Table 4.3 Tests of Normality .....	52
Table 4.4 Test of Homogeneity of Variances .....	53
Table 4.5 Collinearity Statistics .....	<b>Error! Bookmark not defined.</b>
Table 4.6 Univariate Regression Analysis.....	54
Table 4.7 Coefficient of Determination ( $R^2$ ) .....	55
Table 4.8 Analysis of Variance.....	55
Table 4.9 Multiple Regression Coefficients .....	56

## LIST OF FIGURES

Figure 2:1 Conceptual Framework .....	34
Figure 4:1 Gender and Academic Qualifications.....	50

## **LIST OF ACRONYMS AND ABBREVIATIONS**

<b>ANOVA</b>	Analysis of Variance
<b>ATM</b>	Automated Teller Machine
<b>CBK</b>	Central Bank of Kenya
<b>CI</b>	Competitive Intelligence
<b>CRB</b>	Credit Reference Bureau
<b>GoK</b>	Government of Kenya
<b>HR</b>	Human Resource
<b>ICT</b>	Information and Communication Technology
<b>IP</b>	Intellectual Property
<b>IPR</b>	Intellectual Property Rights
<b>ISO</b>	International Organization for Standardization
<b>KBT</b>	Knowledge Based Theory
<b>KCB</b>	Kenya Commercial Bank
<b>KM</b>	Knowledge Management
<b>MI</b>	Market Intelligence
<b>OI</b>	Organizational Intelligence
<b>R&amp;D</b>	Research and Development
<b>RBT</b>	Resource Based Theory
<b>ROA</b>	Return on Assets
<b>ROI</b>	Return on Investment
<b>SACCO</b>	Savings and Credit Cooperative Society
<b>SWOT</b>	Strengths, Weaknesses, Opportunities & Threats
<b>TI</b>	Technological Intelligence
<b>VIF</b>	Variance Inflation Factor
<b>VRIN</b>	Valuable, Rare, Inimitable & Non-substitutable

## DEFINITION OF TERMS

**Competitive Intelligence:** Competitive intelligence is the process of amassing, processing and evaluating information from and about the interior and exterior or competitive surroundings in order to assist policy makers in policy-making and to offer a competitive edge to the firm (Tahmasebifard, 2018) Its several subsets include MI, TI, structural organizational intelligence (SOI) and PI.

**Organizational Performance:** Mbithi (2014) defined the organization's performance as having achieved major outcomes in regards to financial position and delivery of service to clients through enhancing capabilities and including the zeal of worker.

**Technology Intelligence:** is the acquisition and conveyance of information in regards to technology as part of the procedure where an enterprise creates an awareness of threats and opportunities of technology (Kerr et al., 2006).

**Market Intelligence:** Fleisher (2003) defines MI as an industry oriented actionable insight that is created on instantaneous aspects of events that are competitive and are taking place amid the 4Ps of marketing mix (Pricing, Promotion, Product and Place) in the market so as to better comprehend the desirability of the market.

**Organization Intelligence:** defined as a method of converting data into knowledge and knowledge into deed for organizational development (De Angelis, 2013).

**Product Intelligence:** Mutua and Ngugi (2012) defines product intelligence as a mechanized or automatic system for collecting and interpreting actionable insight in regards to market performance of a product which is either intended or produced for purposes of apprising the production managers who are involved in the coming up of varieties of the same for the future.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

Competition is a situation that all business must constantly acknowledge as it forms a major part in defining the failure or prosperity of the business. Businesses face potency of competition known as competitive intensity and these in an industry is caused by various contesting firms and strategies adopted as well as forces behind competition within an industry.

Nhuta (2012) states that Michael Porter (1980) who has been regarded as an expert in competitive strategy, asserted that a firm is most worried with the magnitude of competition within given industry. The magnitude level is caused by key forces of competition. He continues to state that according to Porter the initial stage in structural analysis is an appraisal of the competitive atmosphere in which an organization carry out its business, the key competitive forces and the potency of each in determining the structure of the industry. The next step is an appraisal of the strategy deployed by the company and how well it has placed itself to thrive in such an environment and this is done by the management gathering and interpreting knowledge regarding the firm itself, its stakeholders, its rivals and the industry at large.

The nature of competition in an industry according to Porter (1979, 2008) depends on five key forces, that includes potential arrival of new players or entrants, influence of customers, influence of suppliers, potential introduction of alternative products and services and finally rivalry between current competitors. The combined potency that this forces make affects the basic potential of an industry to make profit.

According to Asri and Mohsin (2020) Competitive intelligence is a term that was discovered in the 1970s in USA and later embraced across the world. The Strategic and Competitive Intelligence Professionals (2004) termed competitive intelligence as a methodical and fitting set of actions which entails the amassing, evaluating, and overseeing external information that have an effect on the proposals, resolve, and procedures of the organization. Gatibu and Kilika (2017) on their article on competitive intelligence practices posited that firms today operate in an uncertain environment that is fast changing and characterized by developments in economic changes, technologies and shorter life cycles of products leading to dynamic competition and their findings were in tandem with those of McGonagle and Vella (2004). The two authors continued to say that as a result of this uncertain environment therefore it is prudent that firms must dedicate a greater percentage of their wealth to innovation and knowledge that is timely.

Gatibu and Kilika (2017) argued that a competitive advantage is achieved through the course of turning information into knowledge and this then is fashioned as important intelligence or actionable insights relevant to a firm or business atmosphere and thereafter reverting back new knowledge gotten from it into the business. Due to the increasing financial competition experienced in the contemporary economies that are knowledge oriented, many businesses are turning out to be more conscious to drying up budgets and the demand to invest in innovative competences to satisfy marketplace requirements. In addition, firms are engaging in business competitive intelligence to guide in decision-making and strategy formulation, survival, competitive edge and in order to know what their customers wants so as to be effective in their response. A firm which does not carefully observe and examine their major competitors is inadequately prepared to effectively adopt a competitive plan or strategy and this makes the firm to be vulnerable to attacks in the market.

Thus the chapter includes some basic notions about CI and performance with the intention of leading the reader to bank performance based on CI and its sub-categories. The first part will be on the definitions and brief explanation of competitive intelligence and organizational performance as well as on indigenous banks. The second part is on the statement of the problem and this is for explaining the gaps that has led to this study and the third part is on the research objectives and questions of this study. This part explains the purpose of this research and it also covers its scope and significance.

### ***1.1.1 Competitive intelligence***

According to Tao and Prescott (2000) the idea of CI can be discovered back over five thousand years of the past of the Chinese. Authors such as Sun Tzu who wrote more than two thousand years ago, “The Art of War”, provided a comprehensive information on how to create actionable actions or intelligence on military applications as a past example that speaks of intelligence terms. McGonagle and Vella (2004) postulates that C.I is a process for bolstering both tactical and strategic resolutions and that firms require processes and systems to amass and analyze timely, germane and reliable information or knowledge that is present in huge quantities about markets and rivals in order to support CI.

Tahmasebifard (2018) posits that CI involves intelligence on the rival, suppliers, clients, technologies, potential business contacts, environments and this principle involving a number of dimensions of CI pointers to several kinds such as rival actionable insights, technological, market, structural-organizational intelligences (Zangoueinezhad & Moshabaki, 2009), socio-intelligence and strategic intelligence (Rouach & Santi, 2001). Tahmasebifard (2018) continues to say that CI entails three key functions that includes the gathering and arrangement of data, its analysis and interpretation and distribution of intelligence and this collaborates the findings of Morgan and

Michael (2007). Competitive intelligence involves the following practices of outlining, collecting, interpreting and disseminating knowledge that are needed in making decision and thus, expedite strategic planning in a firm (Tahmasebifard, 2018). Therefore, Nasri (2011) resolved that CI is a major facet of tactical or planned administration and marketing since it functions as the initial nexus in the chain of insights and events that allows a company to acclimatize to its surroundings.

According to Asri and Mohsin (2020) Competitive Intelligence centers on observing a competitor to attain competitive advantage. Ghannay and Mamlouk (2015) posits that CI helps an organization to position itself competitively and to make planned judgement on elements that could have an effect on the business atmosphere by coming up with appropriate plans instantaneously. Patton and McKenna (2005) on the other hand noted that for competitive intelligence activities to be successful it is important to recognize and comprehend competitive inducements, their rivals and desist from arriving at a wrong decision. The two scholars continue to say that CI should contain a resolute objective of creating the plans and maneuvers necessary to shift profitability of the market share and constantly from particular rivals to the firm. Liebowitz (2006) states that CI is a structured and right procedure in gathering, assessing, and arranging data from outside and this in turn assists to assess competition from both the external and internal environment. CI has been stated by other scholars to be not only an activity or practice, but also a product. Some of the users of CI includes the senior management and all employees regardless of position in the value creation sections. Competitive has been termed as a means of competition amongst a minimum of two factions, individuals and corporations, while the term Intelligence implies to a firm's competence to anticipate change and take instantaneous actions.

The purpose of Competitive Intelligence according to Asri and Mohsin (2020); Gatsoris (2012) is to control and minimize on risk and to strategically put into use information within the

organization to increase a business competitiveness while plummeting the competitive edge of its peers. Intelligence which is seen as actionable insights is important in to overseeing shifts in an industry as found by Guimares (2000) and aids top bosses to come up with superior strategic decisions intended at increasing the overall innovation capabilities and competitiveness of a firm as suggested by Ferrier (2001). Thus, competitive intelligence should be seen as the capability of a business to reason, scheme, foresee and resolve an issue in an advanced manner (Popovič et al., 2012). Whichever strategic context or structure a company selects to incorporate in the running of its activities, no specific component stays more vital to competitive plans than competitive actionable insights or intelligence which is more focused with undertaking the correct thing rather than executing the thing correctly.

The purpose of a firm to analyze its competitors is to create a picture or report of the type of strategy changes each of the rival might embrace, the potential response that these rivals might make in regards to strategic actions other business entities could take and each of the rival likely response to shifts in the industry and shifts in the surroundings that might take place.

### ***1.1.2. Organizational performance***

Competitive intelligence has been found to significantly impact the long standing performance and ongoing activities of a firm and this is according to Waitthaka (2016). The author continues to say that competitive intelligence activities enable the business to control developing threats and opportunities through intelligence so as to be able to have a competitive edge and increase the performance of a business entity. Moreover, the application of these competitive intelligence related activities according to Ferrier (2001), facilitates the workers to produce dependable strategic results in enhancing the competitiveness and performance of the organization.

Ngamau (2015) and Gilbert et al. (2003) looked at organization performance as the degree to which executives in an organization utilize resources in an effective and not wastefully manner to please the customers and attain the goals set by the organization. Mbithi (2014) defined the organization's performance as having achieved major outcomes in regards to financial position and delivery of service to clients through enhancing capabilities and including the zeal of workers. He conceptualized performance of an organization from two angles that includes financial and non-financial viewpoints. Mbithi's assertion was in tandem with those of Rahman and Sohal (2001) who went further and sub divided these two metrics into three types that includes internal non-financial metric (output/productivity), external non-financial metric (client fulfilment) and financial metric (revenue/profit).

According to Irenaus et al. (2021); Tomal and Jones (2015) the performance of an enterprise includes evaluating the performance of the organization versus its goals and objectives as it consists of actual outputs as compared to projected output. Performance is the product of an organization's strategies and processes as well as the appraisal of set pointers of efficacy and environmental accountability which includes time of cycle, compliance of regulations and output. Kaplan and Norton (1996) postulates that the performance measurement system occurs at various levels of industry, company and business units and that the system indicators or measures are selected based on a firm's strategy and vision. That these selected measures are for gauging the success factors from diverse viewpoints including workers, business procedures, clients and financial prosperity on one hand, past, present and future performance on the other hand since these diverse viewpoints of the performance of an organization can be controlled and measured. Organizational performance therefore refers to the organization's capability to attain preset results within a given time frame. Thompson et al. (2007), came up with two unique indices of

performance relating to financial indices and strategic indices whose results indicate whether an organization is shoring up its marketing position, future business outlooks and competitive vigor or not.

According to Kaplan and Norton (2007) despite the fact that performance of an organization can be gauged using both the non-financial and financial metrics, the financial metrics was found to only mirror the performance of fiscal establishments such as banks in the past as contrasting the non-financial metrics which concentrates on the firms' present and future functioning settings as explained by Zhang and Li (2009). Further to this is that the non-financial metrics are wholly effected in the firm and it gives more robust and clear picture than the financial metric whose outcomes are trivial. Additionally, the financial measures which was a traditional means of gauging performance (Gitau, 2014) uses conventional practices of accounting while underscoring temporary pointers such as prices of shares, profit and cash flow which are deemed not to be fully appropriate for gauging the performance of an organization. However, flash forward new measurement structures have been developed and includes balanced score card, Standard Production Function Framework, satisfaction performance scale, Index of Corporate Innovation among others.

### ***1.1.3 Indigenous banks in Nairobi***

Rules and Guidelines published by the CBK put through banks to certain limitations, obligations, and guides. This supervisory framework creates openness amongst institutions in the banking sector and companies and the individuals with whom they do business with.

The banking sector institutions including the mortgage finance institutions and commercial banks are policed in accordance to the prerequisites of the Constitution of Kenya 2010, Banking

Act (2015) and Prudential Guidelines (2013) and the Regulations issued by CBK. These include the Constitution of Kenya (2010), Micro-finance Act (2006), CBK Act (2015), the National payment system (2011), Kenya Deposit Insurance Act of 2012, Banking Act of 2015 and Prudential Guidelines (2013) and Guidance Notes among other Regulations published thereunder.

According to the CBK annual report (2020), the Kenyan banking sector for the year ending 31<sup>st</sup> December, 2020 included the Central Bank of Kenya (CBK), as the regulator, seventeen Money Remittance Providers (MRPs), forty-two banking institutions (forty-one commercial banks and one mortgage finance company), fourteen Micro-finance Banks (MFBs), nine offices representative of foreign banks, eight none operating bank holding firms, three CRBs, sixty six foreign exchange (forex) bureaus and one Mortgage Refinance Company. Out of the forty-two banking institutions, forty were privately controlled while the GoK had the largest share of ownership in two firms. Of the forty privately controlled banks, twenty-three were locally controlled that is majority owners are based in Kenya while seventeen were externally controlled. The twenty-three locally controlled establishments included twenty-two commercial banks and one mortgage finance firm. Of the seventeen foreign controlled establishments, all of the banks are commercial with fourteen being local branches of international banks and three are subsidiaries of international banks. All accredited microfinance banks, forex bureaus, money remittance providers, CRBs, mortgage Refinance Company and none operating bank holding firms were privately owned.

## **1.2 Statement of the Problem**

Firms are engaging in competitive actionable insights or intelligence whose model and procedure examines all factors of the outward environment of a firm and considered still as new (Baars & Kemper, 2008) to guide in decision making and strategy formulation, survival,

competitive edge and in order to know what their customers wants so as to be effective in their response. A firm which does not carefully observe their major competitors is inadequately prepared to effectively adopt a competitive plan and this renders the firm vulnerable to attacks in the market. Regardless of the strategic structure that an organization follows, CI remains at the heart of competitive strategy and is more focused on accomplishing the right thing rather than doing the deed correctly.

Competition in any sector or industry constantly causes the level of return investment to shrink, this therefore has led to a situation where the management should monitor all manner of developments in the working environment of the business and that those together with other professionals should incorporate competitive intelligence to ensure profitability. The Kenyan banking sector is characterized by very high competition from SACCOs, apps for mobile lending like Tala, thus making CI practices a necessity in pursuit of competitive edge over competitors.

Abdullah et al. (2017) did a study on the role of CI types in marketing services in banking around the Kurdistan Region. They found that there exists a relationship between CI and its sub-categories at both the micro and macro level. Olofin (2017) did competitive intelligence in the banking industry, whose case study is a Nigerian bank and found that the use of CI aid the bank to create customer familiarity and solve issues of intricacy in customers' taste and preferences thus leading to satisfaction and retention of customers. Tolla (2019) did a research on framework for CI in strategic decision making in Ethiopian Conglomerate. The finding was that the application of CI is both contextual and subjective. In Kenya, various studies or investigations have been conducted on competitive intelligence in regards to the banking sector. In this regard, Ngugi et al. (2012) studied on the banking sector in Kenya in regards to how CI practices impacts on the profitability of banking institutions. Their findings showed that the various categories of CI have

a relationship and therefore an impact on the profitability of banks that are commercial in nature especially the technology category. The findings by these authors were in tandem with those of Chitechi (2017), Sande and Ragui (2018) and Mugo et al. (2012). These findings are expounding to those of Gathumbi (2008) who stated that CI function facilitates the positioning of a firm in the market since it generates relevant knowledge key to making competition irrelevant.

Gatibu and Kilika (2017) did a study focusing on the performance of Equity Bank Kenya and how it is affected by CI practices and they concluded that there exists a positive correlation involving CI practices and commercial banks performance. Their findings were that most of these banks have accepted these practices of CI and have developed a CI framework thus making CI key in management while research and development department a key contributor in regards to intelligence. These conclusions were in concurrence with the findings of Makori (2016). Boro (2013) researched on the extent to which CI practices influences competitive advantage in KCB bank Kenya. His findings were that the CI practices which KCB have embraced have elevated it to a leading institution in the banking industry and formed a unique competence. Finally, Wanjala and Miroga (2020) in their study found that CI strategies extensively affects growth, boost client base and leads to sufficient information on products and services thus retention of this client base and together all these strategies influence the expansion of these banks.

Even with the embracement of CI in Kenya, there is scarcity of literature or no research dedicated to the indigenous banks segment up till now and this is despite the fact that the major indigenous banks are performing well against the stiff competition from their foreign counterparts and thus making of massive profits running into billions of shillings and expansions into the region through mergers and takeovers. Also many banks have not taken the issue of creating a CI department seriously and even if it exists they may either be not operational or not fully involved

in CI related activities needed for a competitive edge. The research therefore in Kenya in regards to the banking sector tends to focus mostly on the relationship between CI strategies or activities or practices and commercial banks in general and secondly, equity bank has been used as a case study in many research at the expense of other indigenous banks thus leading to the scarcity of literature in regards to correlation between CI and performance of the indigenous segment of the banking sector. This research therefore seeks out to fill the prevalent gap in knowledge that explains the performance potency of these Kenyan grown banks by conducting a study or investigation or research on the linkage between C.I and performance of indigenous banks in Nairobi, Kenya. It also seeks to explain the degree to which these banks are embracing CI systems in gaining competitive edge, leadership and growth over those rivals that have roots outside the country.

### **1.3 Research Objective**

#### ***1.3.1. General objective***

To determine how competitive intelligence influences the performance of indigenous banks in Nairobi, Kenya.

#### ***1.3.2. Specific objectives***

1. To establish the influence of technology intelligence activities on the performance of indigenous banks in Nairobi, Kenya.
2. To establish the influence of organization intelligence activities on the performance of indigenous banks in Nairobi, Kenya.
3. To establish the influence of product intelligence activities on the performance of indigenous banks in Nairobi, Kenya.

4. To determine the influence of markets intelligence activities on the performance of indigenous banks in Nairobi, Kenya.

#### **1.4 Research Questions**

1. What is the influence of technology intelligence activities on the performance of indigenous banks in Nairobi, Kenya?
2. What is the influence of organization intelligence activities on the performance of indigenous banks in Nairobi, Kenya?
3. How do product intelligence activities influence the performance of indigenous banks in Nairobi, Kenya?
4. What is the influence of markets intelligence activities on the performance of indigenous banks in Nairobi, Kenya?

#### **1.5 Significance of the Study**

Firms are engaging in competitive intelligence to guide in decision making and strategy formulation, survival, competitive edge and in order to know what their customers wants so as to be effective in their response. A firm which does not carefully observe and examine their major competitors is inadequately prepared to effectively adopt a competition strategy and this renders the firm or organization vulnerable to attacks in the market. The study is therefore important to the indigenous banks from the executives to the workers of the banks and to the larger banking industry in Kenya. It will aid in the growth of new knowledge to the banks and its benefit in the decision making process since knowledge is critical in fostering and upholding competitive edge in the banking industry. The study will also create an awareness of the significance of competitive intelligence activities and how to collect, interpret and apply these actionable insights for the banks' performance and strategy in accessing both the internal and external environment. It will

also create an awareness for the need of a full-fledged and operational unit with enough budget to carry out this mandate. Furthermore, the study will be a basis of reference for other upcoming scholars in this field as it would also recommend further research areas.

### **1.6 Scope of the Study**

This study is designed to determine the influence of competitive intelligence in the performance of the top locally grown banks in Nairobi County. The unit of analysis are the top six indigenous banks in the city of Nairobi. The factors of competitive intelligence to be considered are the technology, organization, product alliance and market intelligence. The study targeted the management and senior employees as they are in a position to be familiar with the nexus between CI and its forms and the performance of indigenous banks in Nairobi, Kenya.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The chapter presents a theoretical basis in which the study is grounded. It also reviews extant literature as a prerequisite for a comprehensive and substantive research based on its specific objectives of to determine the gaps in knowledge.

#### **2.2 Theoretical Background**

A theoretical framework according to Neuman (1997) is for helping in having a scholarly underpinning for all sense making of value contained in a given set of data. It explains the reasons as to why the issue under research exists therefore acts as a basis of doing research (Ngatia et al., 2018). The theories under focus are Knowledge Based, Resource Based and Open Systems.

##### ***2.2.1 Knowledge Based Theory (KBT)***

This is a theory that was brought to perspective by James Grant in 1996 as growth from resource based view. This theory holds that knowledge is a strategic resource in an organization (Kaplan, Schenkel, Krogh & Weber, 2001) and Sveiby (2001). This is justified from its non-imitability quality of resources from the resource based view. The competitive intelligence perspective of a product defines data collected as knowledge which is therefore accumulated and protected by the management for strategic management processes (Nickerson & Zenger, 2004). It therefore follows that competitive intelligence as a system has come in to support organizations with their strategic management by increasing the potential of an organization's performance through knowledge management and improvement (Gisela, Gomez, Fernandez & Palomo, 2019). From the perspective of competitive intelligence as a product, the data produced by the process

has been positioned as kind of knowledge that is strategic in an organization due to its inimitability quality. The gathered knowledge plays an important role towards the success of strategic management in an organization. In summary, competitive intelligence can be used to create knowledge which will enable an organization to highlight its strengths and improve the weakness of their competitor (Johannesson, 2010). It is this usage of competitive intelligence that brings in the relationship between competitive intelligence and knowledge based theory. This knowledge comes in to enhance an organizational capability and hence an organizational ability to be precise in action.

There has existed a fostered focus on knowledge for some time now and this is due to elucidating the differences in performance among firms. Agbim and Idris (2015) argues that KBT explains how the prosperity of firms interested in generating, assimilating and disseminating knowledge is gauged by the capacity of the business to generate new knowledge in regards to its own wealth. Grant (1996) posits that this theory is an enhanced Resource based theory and it emphasizes on knowledge as the most tactically significant resources of a firm which is key in production and value creation. Drucker et al. (1997) on the other points to a divergent aspect of knowledge by stating that it will constantly be progressing as a significant driver of competitiveness but however it has its own shortcoming that includes becoming continuously outdated and present knowledge may not be relevant in the future. Meihami & Meihami (2013) further postulate that the joining of CI and knowledge management produces a satisfactory combination of correct information to the relevant levels of policy makers and that KM can involve the various subclass of competitive edge, business performance, innovation of a business and client gratification while Wernerfelt (1984) states that knowledge can be engrained in culture, systems, workers, and policies of an organization.

According to Obonyo and Kilika (2020) the CI viewpoint of a product expresses collected data that is then processed into knowledge which is then protected through various mechanisms by management so that it can be used for tactical management procedures (Nickerson & Zenger, 2004) thus CI systems assists the firm in enhancing the capability of its performance through KM systems. CI can be used therefore to generate knowledge necessary for a firm to engage in SWOT analysis by identifying its opportunities and threats on one hand and strength and weaknesses of their competitor (Johannesson, 2010) on the other hand. It is the utilization of CI that brings forth an association between it and knowledge based view. The transfer of explicit knowledge is inferred to affect the realization of competitive edge and studies done by Davenport and Prusak (1998) among others posits that knowledge oriented firms tend to be more resourceful or ingenious and have efficacy than other enterprises not engaged in the same.

To uphold on competitive advantage various factors, need to be brought together and these includes being knowledgeable than the rivals including the limitation of time to get hold of the same knowledge regardless of their budget to attain it. According to von Krogh and Grand (2002) the experience of the workers can be considered as a pillar in the KBT of the organization and this is supported by the findings of Sveiby (2001) who stated that in tactical design that is knowledge oriented the capability of the workers is a major intangible resource. The transfer of knowledge fosters the access of the same and its utilization in resolving certain undertakings in an effective way and better so as to perform exceedingly than the competitors. These findings were in concurrence with those of Sundiman et al. (2013); Agbim and Idris (2015) who posited that the generation and distribution of knowledge are key features in the competitiveness of a firm. This is because as goods and services continue to lose their uniqueness in the market, it's the features of knowledge key among them untouchable, inimitability and priceless characteristics that can

generate gratification in the market.

According to Kaplan et al. (2001) for any theory including KBT to constitute a theory, it ought to meet certain thresholds such as it has to elucidate the presence of a firm as also pointed out by Coase (1937). Secondly, the correlation between knowledge and range or boundaries of a firm. Followed by the correlation between the structure (designed or emergent) of an organization and knowledge (Grant, 1996). Fourth the impact of knowledge on the conduct of the firm and finally, the impact of knowledge towards performance so as to comprehend how some organizations have and sustain competitive edge over others. Thus CI as a product provides data that can be leveraged as knowledge that is tactical to banks due to its non-replica tendencies. The collected knowledge hence becomes key in strategic leadership in an organization.

### ***2.2.2 Resource Based Theory (RBT)***

The RBV was coined by Wernerfelt (1984) and it has emerged over the years as an acceptable theory of competitive edge. Its simple rationality is that the desired results of the efforts put by management within the business is for ensuring competitive edge that is sustainable since this allows the business to gain returns that are above average. The RBT asserts a firm as a combination of tangible resources, human capital and organizational capital (Amit & Shoemaker, 1993; Barney, 1991) and that firms having resources that have certain features like worthiness or value, infrequency, irreplaceability and non-duplicity as found by Fahy (2000) and Barney (1991) tend to have a sustainable competitive edge. Thus according to Fahy (2000) the key aspects of the RBT are competitive edge that is sustainable and performance that is outstanding, secondly, resources that are strategic and can generate an elevated position and strategic decisions made by the executive. Capabilities according to Kogut and Zander (1992) emanates from strategic information and procedures that cannot be touched and unique to an organization and are enhanced

through complex connections links midst the resources of an organization. Capabilities are seen as transitional goods manufactured by firms for fostering manufacturing of resources and upholding its output.

From a business perspective, the possessions of the firm such as competencies, asset, knowledge, procedures and assets as well as the technical expertise are key in the execution of the various set plans and fostering competitiveness within the business and the SC levels. Priem and Swink (2012) shares in these conclusions and postulates that the efficacy in using and distribution of these key possessions especially knowledge will lead to competitive edge and knowledge management practices. The resources of a firm such as social capital, finances, human capital, technological and structural capitals are factors that facilitates firms to engage in value creation for their stake-holders key among them customers. These resources according to Jones and Hill (2009) are either physical including land or machines or non-physical in form including IP or knowledge which are either patented or trademarked as well as copyrighted. Makhija (2003) further asserts that these tangible resources may be as a results of above average returns however this is not the case with the non-physical ones which are created through a conventional sequence and having a socially complicated aspect that is responsible for developing and maintaining competitive edge. Further to this is that competitive edge is only assured when a firm is executing a plan that is able to ensure value creation and is not at the same time being executed by any of the potential rival and whose benefits cannot be copied (Barney, 1991). The RBT therefore looks at an organization in regards to its resources which can be converted by management into potencies and impotencies and asserts that corporates receive sustainable competitive edge by owning and distributing these resources with the VRIN characteristics and supply that is inelastic (Grunert and Hildebrandt, 2004). Dess et al. (2012) compares effectiveness in an organization with having

infrequent and priceless resources which can be effectively combined and managed. Barney (1986) thus asserts further by saying that the resources in question should be strategic or be in a way that they can enable a firm to engage in activities that can lead to margins that are high, low costs and add value of financial nature to the firm in addition to implementing plans that can enhance effectiveness and efficiency of the firm (Barney, 1991). RBT helps appreciate the fact that related historical experiences and culture of the organization expertise are significant for the prosperity of an organization (Campbell and Luchs, 1997). Michalisin et al. (1997) posits that at times there are firms that experience advantages based on resources while others will be disadvantaged and this can be caused by entrance period of the firm, systems of learning and the various levels of knowledge in addition to decisions made.

Therefore, the RBT was relevant for this study in that it steers how business enterprises such as the indigenous banks can make use of their resources in designing feasible competitive strategies to support their growth in the cut throat competition in the banking industry in Kenya. CI and its system can be a resource that when enjoined into the key management process would lead to creation and execution of value creating plans that has not been seen before or utilized by any potential rival (Barney, 1991). The value creation plans therefore will create an edge and this in turn leads to better performance. With CI being a key resource of any organization and its entrenchment in the strategic planning and programs of the organization, it can therefore be backed by this resource based theory.

### ***2.2.3 Open Systems Theory (OST)***

Open systems theory was primarily advanced by a biologist called Bertalanffy in the year 1956 but it later became acceptable amongst all disciplines. Johnson et al. (1964) suggested that the basis of this theory was that an organism that is living is not a composite of distinct elements

but a system, organization that is possessing and fullness. They continue to say that an organism retains a persistent nature while energy and matter which go in it keeps transforming in what is being referred to as dynamic equilibrium and that it is affected and it affects the atmosphere as it reaches this equilibrium. This depiction of a system according to them, adequately describes an average corporate as a system that is made by human and has a vibrant interaction with its environment including clients, government, business rivals and suppliers among others entities. Thus an organization is a system of interconnected parts operating in harmony with one another so as to attain set objectives of both the firm and individuals in it. According to Nzewi et al. (2016) these organizations are in the midst of a competitive international surroundings whose features includes complexity and erraticism as well as intense rivalry for resources, experts and markets. The environment that these organizations operate in according to Nzewi et al. (2016) can be in sectors such as in social-cultural, economic, technological, regulatory and rivalry among competitors. Cornell and Jude (2015) adds to this by saying an organization is an assembly of different departments, divisions, sections and sub-sections constituted by persons and group of individuals which are autonomous but correlating with each other to accomplish the laid down objectives with the purpose of accomplishing the vision of the organization. Nzewi et al. (2016) continue to state that organizations derive or obtain competency from its surroundings which they interact with and that this experience or competency is made possible by obtaining knowledge necessary to change it into anticipated results through CI. Obonyo and Kilika (2020) further states there are aspects within the surroundings that affects the attainment of competitive edge and anticipated results while implementing CI system as part of the strategic actions, and that these aspects can only be attainable in an open system. Gibson et al. (2011) advances the significance of feedback by saying that organizations rely on their surroundings for the demand of their outputs

and this can be possible if they positively respond to the environmental requirements. By feedback they meant information that exhibits the results of an action by persons, groups and organization and this information can also be attained in an open system where there is a sustained contact with the external atmosphere and the sub-systems are operating in harmony to aid in the survival and prosperity of the organization in its entirety while implementing CI practices. Bertalanffy (1973) was also of the idea that for companies to survive like living organism, they should operate in open systems as this facilitates the departure from mechanistic structures to organic and ensures efficacy in the dynamic and erratic environments and this finding of operating in open systems was also shared by Harcourt and Cornell (2015) who posited that it is in this system that strategic processes management can be successful.

In today's contemporary organizations the open system of directing resourceful persons whose activities emanates from applying their rare elucidations to various situations affecting them helps in the survival of the organization (Cornell & Jude, 2015) since an organization that is ignorant of its environment will be subject to attacks and won't be able to mount meaningful responses and thus will hardly survive. For example, technology and socio-economic aspects are not dynamic and this therefore requires organization to engage in CI practices so as to know new trends in technology including current versions, technological practices and systems in the market and those utilized by competitors. According to Mele et al. (2010) this theory presupposes that organizations which are able to convert information to knowledge about their surroundings tend to be more adaptive to changes in relative situations. They develop two levels of these adaptive state, one being counteraction which includes the ability to convert information from the environment into knowledge and the second level is amplification. Cornell and Jude (2015) looked at open system in relation to the organization's exterior environment and referred to reasons why

living organisms survive in this system and they stated that this is due to the conduct of responding to threats and wealth available in the surroundings which they belong thus making CI a necessity and not a choice. CI practices are also important since quality and cost are looked at as outwardly driven propelled variables that must be controlled by comprehending the impact caused to them by the environment. The environment is seen to be the fundamental source of order, energy, materials and information which are necessary for the continuity of the system (Scott & Davis, 2016).

During the running of the CI system into the strategic management program, there are various operational factors that impacts the realization of competitive edge and the eventual results. These elements come from the open system and in this regard therefore, the theory will be important in explaining the management of competitive intelligence anchored on it.

## **2.3 Empirical Review**

### ***2.3.1 Competitive Intelligence and Performance***

Changes in client taste, emergence of new technologies, extreme worldwide competition and increased attention on client contentment has dotted the business landscape in the last twenty-five years and this is according to Shih et al. (2010). Nzewi et al. (2016) posits that these changes have put contemporary businesses under immense pressure leading to prioritization of various aspects of competition including reduction in cost, efficient service delivery, productivity, agility in response to needs of the customers and innovation (Alsoboa & Aldehayyat, 2013).

According to Waithaka (2016) CI activities are highly linked to performance and outcomes and this is supported by findings from various scholars such as Vezmar (1996) who said that actionable insight is a prerequisite for survival, Prescott et al. (2001) who said that it is key for

growth that is profitable and sustainable, Gieskes (2000) who found it to be critical for strategy and Miller (2000) who saw it as a driver for competitive edge. Other scholars such as Kahaner (1996, 1997), Shaker and Gembicki (1999) found CI to be vital for enterprises and its success including growth in market share (Pellissier & Kruger, 2011), Maune (2014) asserted that CI is key for winning economic wars while Nasri (2011) posited that it is significant for achieving higher performance. Herring (1999) explained that CI is involved in creating customers associated plans that are focused on the growth of the market size so as to position the organization for competitive edge.

Obonyo and Kilika (2020) postulated that CI system provides information that is converted to knowledge which in turn is used to strengthen the firm's attractiveness or competitiveness through strategic processes (Weiss, 2002) for countering strategic plans of their rivals (Nzewi et al., 2016). Obonyo and Kilika (2020) further asserts that CI appraises the strategic management process by enhancing the quality of both its practices and results in a manner desired by the management. Tahmasebifard (2018) in his study found that CI facilitates the executives of a firm regardless of size to make intelligent decisions regarding research and development, marketing, investment tactics and whole performance of the firm. Autio et al. (2000) concurred and further stated that knowledge gained through CI activities has the potential of making a firm be knowledge oriented and this in turn makes it enjoy quicker growth in market performance key among them growth in sales.

### ***2.3.2 Technological Intelligence Activities and Performance***

According to Abdullah et al. (2017); Hadi and Ebrahimpour (2014) constant innovation has led to technological changes which has affected businesses. Veugelers et al. (2010) further suggests that organizations which are intelligent do not just sit and wait for change but keenly

observe the changes in their surroundings and new innovations in order to gain from them. Technology intelligence according to Hadi and Ebrahimpour (2014) is that sensitive information for a business in regards to exterior sciences and technology that can impact a firm's competitive position. They posit that technology intelligence is an unofficial way of checking technology and involves planning, arranging and implementing CI activities, secondly, collecting of information regarding actionable insights, thirdly, data analysis and finally, releasing of the findings to guide decision making (Norling et al, 2000). Hadi and Ebrahimpour (2014) continue to say that these processes add knowledge to the already existing ones and this in turn enhances capabilities of firms and gives a clear scenario of the present and future nature of competition program for executives so that they can be able to make decisions faster and earlier in order to foster growth and expansion for their businesses. Leandro and Fernando (2019) in their study found Technological Intelligence to be those actions that assist in decision making in regards to technology and management in general by utilizing relevant knowledge on technological threats and opportunities as well as facts of the organization's surroundings by gathering, interpreting and distribution of information.

According to Tahmasebifard (2018) Technological intelligence focus on gauging the benefit and costs of present and new technologies and prognoses on the future breaks in technology (Rouach & Santi, 2001). Taney and Bailetti (2008) in their research found a correlation between technological intelligence collection and performance of innovation and this is due to new technologies, new processes and methods that enables companies to locate new prospects inside the market and maximize on them by making available new products quicker than their rivals (Chen et al., 2004). TI and solutions has been found to give an organization competitive edge through technology management and producing outstanding and distinct products from current ones which can foster excellent performance in the market (Hamel & Prahalad, 1994). This is in

addition to TI facilitating in gaining knowledge regarding preferences of clients (Paiva & Goncalo, 2008). Tahmasebifard (2018) further asserts that companies with excellent infrastructure in technology are likely to be more innovative and therefore tend to perform highly and this is also due to the usage of new technologies which impacts how intelligence is collected and distributed across the organization thus impacting on CI performance. Wahome (2012); Boro (2013); Sande and Ragui (2018) in their studies suggested that firms should integrate their client value-innovation (Kim and Mauborgne, 1999) with technological intelligence so as enhances their opportunities of gaining sustainable profit and development.

Technology intelligence impacts can be felt in technological innovation which in turn ensures the survival of a firm and its business ecology which then is established on accomplishing sustainable performance in financial aspect. Technological innovation has been linked to growth in employment rate, performance and developments driven by productivity, market positioning and share and efficacy in processes (Adam et al., 2000). According to Nyawira (2011); Ngugi et al. (2012) banks have been using technological intelligence which has led to innovations in their functions such as intelligent ATM withdrawals and deposits, monitoring systems and custodial services. Muller (2006) states that the systematic competitive technology intelligence is important in constant observation of the business and competitive ecology since it facilitates early recognition of prospects for technological innovation key among them pattern of new products and processes, apprised decisions, knowledge for decision making and detection of fresh fields of research. Ashton and Klavans (1997) posited that competitive technology intelligence enhances clarity among the managers of organizations so as to act in a manner that will usher prospects to defend, enhancing competition intensity capabilities of the organization and business assets development.

### ***2.3.3 Product Intelligence Activities and Performance***

Competitive intelligence and its subset including product intelligence have the competence to collect customer's opinion (Nemutanzhela & Iyamu, 2011). Cavalcanti (2005) posits that this opinion can provide intuition into the values of a service or a product in addition to utilization trends and future fantasies. The fantasies and intuition are at the center of the process of innovation which in turn focuses on gratifying the needs of customers. Thus product intelligence which inspires product innovation and by extension competitive intelligence addresses matters to do with marketing, sales and development of a product. Innovation on the other hand has been credited with the survival of the firm since firms that do not innovate end up perishing and losing its consumer base. Chapman et al. (2001) supports this stance and asserts that effective product innovation has for two decades been deemed to be a significant prerequisite for business success. Mutua and Ngugi (2012) posits that product intelligence entails mechanized or automatic system for collecting and interpreting actionable insight in regards to market performance of a product which is either intended or produced for purposes of apprising the production managers who are involved in the coming up of varieties of the same for the future. The authors further assert that product intelligence accelerates the level of innovation for a product and this in turn makes the product more attractive for the market thus increasing its competitive edge.

Ndegwa and Muathe (2018) in their study of airline companies in Kenya, looked at product intelligence and said product design, consumer satisfaction estimation, product differentiation, new product innovation and advertising as well as branding all together impacts the performance of these companies. The two further posit that the embracement of product intelligence increases the returns whether in form of profit or ROI and this entails involving customers in the design of the product to ensure conformity to their specifications. Referring to the works of other scholars

the two equates product intelligence to the worthiness of the business entity and a factor for increasing the performance of the business entity. Increment in product intelligence affects performance of a business due benefits such as economies of scale, market potency and reduction of risks (Wanjala & Miroga, 2020). Sande and Ragui (2008) infers that other benefits are better performance, in addition to economies of scope and integration where the former offers a firm with reduced production costs. However, on the negative side the two found that product intelligence has a negative correlation with firm's value and happens in firms with reduced stakeholder ownership of assets. Wanjala and Miroga (2020) while referring to a study on Dell Company, the two found that firms that implement product intelligence always design their products in a manner that pleases the customer leading to development and competition domination over rivals in addition to consistent launching of innovative products.

### ***2.3.4 Market Intelligence Activities and Performance***

According to Hadi (2014) market intelligence illustrates the border, present and future trends, client demands, likings, new or novel markets, market divisions, significant steps and shifts in distribution and marketing. Ettorre (1995) infers that MI is a means of comprehending what your rivals are doing so as to leap ahead of them by collecting information about the rivals in order to use it in both short and long run strategic planning and occurrences in the marketing atmosphere. Caudron (1994) asserts that MI purposes include rivals' evaluation and following, prior notices of threats and opportunities, provision for tactical design and execution and finally, facilitation of tactical decision making.

Katsikea et al. (2019) states that MI creation and distribution are actionable insights activities of a firm and that these activities entails gathering and distribution of information which is vastly linked to a firm's capacity to choose and execute marketing strategies in addition to

improved performance as found by Li and Calantone (1998). MI was found to aid firms respond to both present and future demands of customers and pinpoint trends in foreign market faster and this responsiveness in turn helps in developing a strategy aimed at customers such as effective division of customers, choosing and tracking of the most profitable ones and fostering successful association all aimed at improving performance and wellbeing of a business in relation to its rivals. Cornish (1997) continues to suggest that information or feedback gathered through MI activities helps to recognize qualities of a product that are cherished by consumers so as to concentrate on development of a new differentiated product and incremental innovation in markets that have a higher potential which leads to a faster expansion and growth than rivals.

According to Droge et al. (2008) and Yap et al. (2018) a firm ought to possess excellent gathering methods in MI and innovation capacities so as to survive in the extremely ambiguous atmosphere and develop quality decisions regarding the market so as to be successful. MI has been found to have a positive correlation with the success of a new product in low tumult enterprises (Droge et al., 2008), performance of new products (Brockman & Morgan, 2003), competitive advantage (Maltz & Kohli, 1996) and new market development and segmentation (Moorman, 1995). Navarro-García et al. (2016) posits that MI generated information on customers, suppliers and competition is key for industrial Small and Medium sized enterprises exporters when venturing in new market and countries (Fish & Ruby, 2009) and market performance. This information when properly distributed will enhance inter-departmental management and decision making fostering superior products and services (Slater & Narver, 2000) as well as influence export performance (Hughes et al., 2008). Thus MI has been seen as an important factor in decreasing ambiguity in foreign market and management of tactical marketing in exporting firm. Additionally, the information provides an avenue for elements adoption of marketing mix to the divergent needs in

each market or country thus helping the business gain share of the market, advance its competitiveness and positioning internationally (Navarro-García et al., 2016).

Silva et al. (2009) looked at the works of Perin and Sampaio (2001) who researched on the level of influence of the dimensions of market orientation key among them market intelligence creation, distribution and reaction on performance using a small representation of B2C and B2B Brazilian markets. In their findings the three dimensions were found to have a positive correlation with performance, market intelligence creation was seen to be more appealing and impactful against performance with marketing intelligence distribution seen as a contributor to topmost heights in innovation and make for association of clients' relationship thus significantly affecting performance and finally, market intelligence reaction seen as having the greatest impact on the performance of management in the two markets.

According to Kohli and Jaworsk (1990) market orientation whose dimensions include market intelligence creation, distribution and responsiveness is only relevant if the advantages supersede the costs or disadvantages of the resources. That is where competition is limited, less market turbulence, industries that are turbulent technologically, and prospering economies, market orientation may not correlate strongly with performance of a business. Maltz and Kohli (1996) continue to say that competitive edge is brought about by MI utilization and not in its access only.

### ***2.3.5 Organizational Intelligence Activities and Performance***

McMaster (1996) defines OI as the ability of an enterprise in its entirety to collect information, to create knowledge, to innovate and take action effectively using the generated knowledge. OI has further been defined as ability of an enterprise to learn, control and utilize knowledge for making effective decisions and adapting to shifts in the business atmosphere. It is

the ability of an enterprise to estimate that which can be used to information gathered externally or within the firm to adapt to the atmospheric surroundings of the market and for survival purposes. According to Zangoueinezhad and Moshabaki, (2009) structural organizational intelligence includes set aside knowledge in the firm comprising databases, strategies, charts, creativity, intellectual capital, innovation, renewal and cultural intelligence, patent right and efforts to do with education (Roos et al., 1997).

Maja (2001) asserts that structural organizational intelligence entails infrastructures of information and tools of communication which has changed the manner in which enterprises collect, create and disseminate competitive intelligence. It provides barriers to rivals in regards to going through the market, functional relation and business process re-engineering such as electronic selling, cost reduction and quality enhancement. Structural organizational intelligence (SOI) is a communication tool within an industry that accelerates the cycle of production and amplifies the capacity of an organization (Dyk & Conradie, 2007). Zangoueinezhad and Moshabaki (2009) further states that SOI helps enterprises to gain knowledge on the preference of customers through customer relations management information systems in the organization and these systems further provides information that enables progressive anticipation of sales leading to competitive edge entailing efficient strategic production and minimum supplies inventory (Maja & Zabkar, 2001). SOI also enables producers to enhance their list of suppliers and understand technologies used by their rivals for their processes in addition to top executives having significant knowledge and trends in the economy relevant for efficacy in tactical planning.

According to silva al. (2015); Soltani et al. (2020) OI tends to focus on the fragile and solid points of the enterprise and provides necessary strategic plans to assist organizational operations by computing the state of intelligence of the enterprise. It gives a process for converting data to

relevant information, then information to knowledge and knowledge into action for improving performance such as innovations key for enterprises to be experienced in global markets (Kalkan, 2005). Che et al. (2015) continues to say that enterprises that utilize OI practices are more harmonious, intelligent and have substantial capability to face both interior and exterior intricacies or complexities thus enabling them to be swift, empowered during time of crisis and competitive intensity leading to higher heights in success.

### ***2.3.6 Sources of Competitive Intelligence***

Adidam et al. (2012) states the information that is sought after by competing firms in an industry are prices of products of the competitor, customers' details, new product development strategies, manufacturing costs and sales as well as profits. Other information that firms look for are advertising and sales publicity activities, financing plans, market growth plans (including mergers and acquisitions) and distribution channels as well as information on suppliers.

According to Joao (2017) information from a competitive intelligence standpoint can have two bases that includes primary (offer most germane information) and secondary (offer general information) where the former which is primary includes that information collected from people and offers actionable insights while the later consist majorly of published information (Bernhardt, 1994) such as magazines, books, newspapers and databases. Joao (2017) posits that the secondary source offers 85% of information required but only 10% of value is added to the created actionable insights. On the other hand, the primary side consist of 95% of CI activities information gathered and can be received through individuals such as executives and workers from various departments in an organization like the finance, manufacturing, HR, Marketing, R&D, ICT and sales. Adidam et al. (2012) and Cronin et al. (1994) posit that CI information that is from open source entails 95% and can be accessed without much hustle. Cronin et al. (1994) further observes that this

information collected from individuals especially informally, a number of times tend to be the best actionable competitive insights and it includes applying it within the firms supply network. Tan and Ahmed (1999) infers further to say that workers hold between 70 and 80 percent of the total actionable insights of an enterprise who gather it in the process of relating with the merchants, clients and their industrial contacts. Still on employees but this time ex-employees the authors state that during conversations with these rich and trustworthy source, relevant information can be generated without any pressure. They conclude by saying that firms should also consider part time interviewers in marketing research as they can provide information on the performance of a rival firm, its current list of customers and functional procedures and shifts in employees. Examples of primary sources includes government reports, financial reports, observations and interviews radio or telephone. Bernhardt (1994) lists the rival firm, rivals' clients, trade shows, representatives and merchants from both sides as key primary bases of information when it comes to MI while patents were considered to be key in regards to TI.

Kahaner (1996) and Joao (2017) mention databases as a source for information that can be used for intelligence activities. They distinguish between two types of databases where one is that which contains articles such as press release, media and government reports. This type to them is a secondary source of information while the other type contains patents, financial, advertising, sales, stock market and statistics information and is considered a primary source of information. In organization where changes in management is expected or are going through turmoil or turbulences in the market can be uncovered through massive coverage in both print and online media through articles, press release and paper works, a case in mind here is that of Tuskys supermarket. Adidam et al. (2012) asserts that the internet has become a key or central source of actionable competitive intelligence especially in the face of shifts in technology and enhanced

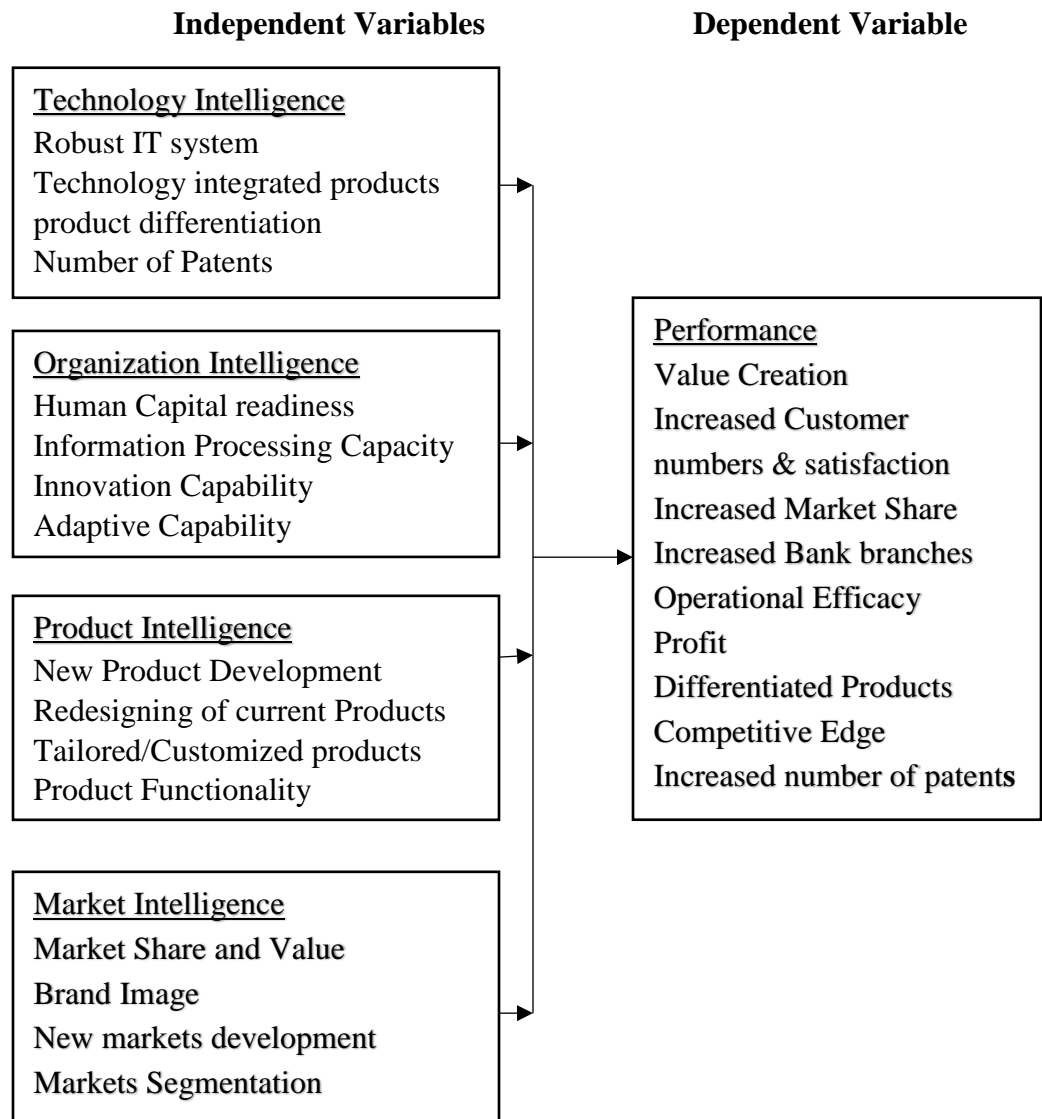
dispersion of internet and this is inclusive of profiles in the social networks, websites, news alert/Google Alert, database as mentioned earlier. They further state that experts especially in an industry are another set of key source of actionable competitive insights in addition to trade journals, seminars and publicity resources and trade fairs. The authors also mentioned the utilization of private contacts and sales workers by firms as important in gathering intelligence on their rivals' products and this is in line with the findings of Kahaner (1996) who stated that the workers have a consistent interaction with them and customers. Thus Adidam et al. (2012) identifies analyses of trade articles, financial reports, rivals advertising and hiring plans including employees and consultants, interview past workers of rival firms, patent searches (Cronin et al., 1994; Powell, 1992) as sources of CI.

Joao (2017) also suggests asking for catalogues and brochures from a rival after proper identification, enlisting for email updates about products and services, trade fairs, conferences and observation such as satellite images of rivals' facilities and location through Google maps are significant source of actionable competitive insights for management. Others sources include newspaper, libraries and business brainstorming sessions, court records, filing with regulatory and government institutions (Johannesson, 2010). Johannesson (2010) also suggests further CI sources and they include agencies dealing with advertising, experts in security and bankers (Keegan, 1978; Porter, 1980). In regards to advertising, the author states that it helps to create a picture of the intentions of the advertising firms as the adverts produces information on the targeted audience, claims in regards to the product and its impacts (Britton, 2002). Priporas (2019) adds to the above mentioned sources of CI by including receipts and anonymous shoppers where he states that receipts from rival firms tend to reveal the number of clients and an estimation of revenue generated thus offering significant information necessary for tactical planning and survival. This

author continues to state that further to the information receipts provide are the customers who I have mentioned earlier in regards to their role in giving information on prices and products. He says that customer can provide information in regards to availability of a product, variety of a product and flavor that can be helpful to a rival firm.

## 2.4 Conceptual Framework

**Figure Error! No text of specified style in document.:1 Conceptual Framework**



Source: (Author, 2022)

## 2.5 Operationalization of Variables

**Table 2.1 Operationalization of Variables**

Type of Variable	Indicators	Measurement Method
<b>Independent (Competitive Intelligence)</b>		
<b>Technology Intelligence</b>	<ul style="list-style-type: none"> <li>• Robust IT systems/databases &amp; intranets,</li> <li>• Artificial Intelligence/Smart machines/products,</li> <li>• Mass market reach, automated services,</li> <li>• web platforms, software development,</li> <li>• Online payment service, mobile banking technologies,</li> <li>• Technology &amp; R&amp;D resources/budget, competitive edge,</li> <li>• Processes innovations/new and effective processes/operations,</li> <li>• Product differentiation, technology integrated products/Internet-enabled product/intelligent ATMs/internet banking,</li> <li>• Number of Patents/trademarks, superior technological capabilities,</li> <li>• ISO 27001 certification, value creation, quality technological management systems,</li> <li>• Detection of prevailing technological opportunities and threats, survival of the firm</li> </ul>	<ul style="list-style-type: none"> <li>• The Value Explorer,</li> <li>• Balanced Score Card,</li> <li>• Technology Broker,</li> <li>• Intangible Asset Monitor,</li> <li>• Meritum guidelines,</li> <li>• Calculated Intangible Value,</li> <li>• Citation Weighted Patents</li> </ul>
<b>Organization Intelligence</b>	<ul style="list-style-type: none"> <li>• IPR enforcement (Patents, Copyrights, Geographical indication &amp; Trademarks),</li> <li>• information processing capacity, organization innovation-capability,</li> </ul>	<ul style="list-style-type: none"> <li>• Balanced Score Card,</li> <li>• Intangible Asset Monitor,</li> </ul>

	<ul style="list-style-type: none"> <li>• Human Capital readiness,</li> <li>• Process efficacy,</li> <li>• Training &amp; development, adaptive capability, employee motivation, satisfaction,</li> <li>• Flexibility, efficient organizational/leadership structure,</li> <li>• Quality management system, organizational culture, strategies, procedures,</li> <li>• Customer satisfaction rates, market expansion, financial performance,</li> <li>• Effective decision-making, ISO 9001 certification</li> </ul>	<ul style="list-style-type: none"> <li>• organizational learning scale,</li> <li>• Skandia Navigator,</li> <li>• Dynamic monetary model,</li> <li>• The Value Explorer,</li> <li>• Citation Weighted Patents</li> </ul>
<b>Product Intelligence</b>	<ul style="list-style-type: none"> <li>• New Product Development, Product Redesigning/relaunching and reviewing of existing products, tailored/customized products, competitive/product differentiation,</li> <li>• Quality, Product functionality,</li> <li>• Low production cost, Revenues based on add-on products,</li> <li>• IPR enforcement (Patents, Copyrights, Geographical indication &amp; Trademarks),</li> <li>• Product life cycle extension, new service development</li> <li>• Economies of scope and scale, economies of integration, organic growth</li> <li>• Customer satisfaction &amp; retention,</li> <li>• Product branding,</li> </ul>	<ul style="list-style-type: none"> <li>• Value Chain Scoreboard,</li> <li>• Balanced Score Card,</li> <li>• Skandia Value Scheme,</li> <li>• Skandia Navigator,</li> <li>• Calculated Intangible Value</li> </ul>

<b>Market Intelligence</b>	<ul style="list-style-type: none"> <li>• Market Share and Value, Market demand,</li> <li>• Supplier relation,</li> <li>• Increased sales results, operational efficacy,</li> <li>• Increase in customer base, customer retention, customer and product awareness,</li> <li>• Brand image, advertising, product publicity,</li> <li>• New markets development investment, market segmentation,</li> <li>• New Product Development &amp; Introduction,</li> <li>• Qualitative feedback, quick response to market needs, public relations,</li> <li>• Growth, ROA,</li> <li>• Market/distribution channels, product pricing &amp; packaging,</li> </ul>	<ul style="list-style-type: none"> <li>• Balanced Score Card,</li> <li>• Skandia Navigator</li> <li>• Skandia Value Scheme,</li> <li>• Intangible Asset Monitor,</li> <li>• Tobin's q,</li> <li>• Input-output ratios,</li> <li>• Calculated Intangible Value,</li> <li>• Market-to-book Value,</li> </ul>
<b>Dependent Variable (Performance)</b>		
<b>Performance</b>	<ul style="list-style-type: none"> <li>• Fiscal Performance (Cash Flow, Profit)</li> </ul>	<ul style="list-style-type: none"> <li>• Economic Value Added (EVA),</li> <li>• Balanced Score Card,</li> <li>• Cash Flow Return on Investment (CFROI),</li> <li>• Accounting for the Future (AFTF)</li> </ul>
	<ul style="list-style-type: none"> <li>• Internal Non-Fiscal Performance (Productivity, regulatory compliance, Stakeholder Satisfaction)</li> </ul>	<ul style="list-style-type: none"> <li>• Human Capital Index,</li> <li>• Intangible Asset Monitor,</li> <li>• Standard Production Function Framework,</li> <li>• Balanced Score Card</li> </ul>
	<ul style="list-style-type: none"> <li>• External Non-Fiscal Performance (Customer Satisfaction &amp; loyalty)</li> </ul>	<ul style="list-style-type: none"> <li>• Unipolar/Bipolar scale,</li> <li>• satisfaction performance scale,</li> </ul>

		<ul style="list-style-type: none"> <li>• Skandia Navigator,</li> <li>• Balanced Score Card,</li> <li>• Intangible Asset Monitor</li> </ul>
	<ul style="list-style-type: none"> <li>• Market Share, market value added,</li> <li>• Return on Shareholder, Return on Investment (ROI), Return on Asset (ROA)</li> </ul>	<ul style="list-style-type: none"> <li>• Balanced Score Card,</li> <li>• Investor Assigned Market Value (IAMV),</li> <li>• Value Creation Index,</li> <li>• Input-Output Ratio,</li> <li>• Economic value added (EVA),</li> <li>• Tobin's q</li> </ul>
	<ul style="list-style-type: none"> <li>• Growth, Learning,</li> <li>• Product and Process Innovation</li> </ul>	<ul style="list-style-type: none"> <li>• Organizational Learning Scale,</li> <li>• Intangible Asset Monitor,</li> <li>• Balanced Score Card,</li> <li>• Index of Corporate Innovation</li> </ul>

**2.6 Hypotheses Statements**

*H<sub>01</sub>: Technology intelligence activities have no influence on the performance of indigenous banks in Nairobi, Kenya.*

*H<sub>02</sub>: Organization intelligence activities have no influence on the performance of indigenous banks in Nairobi, Kenya.*

*H<sub>03</sub>: Product intelligence activities have no influence on the performance of indigenous banks in Nairobi, Kenya.*

*H<sub>04</sub>: Markets intelligence activities have no influence on the performance of indigenous banks in Nairobi, Kenya.*

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The main rationale of conducting this research was to study the correlation between competitive intelligence and performance of indigenous banks in Nairobi, Kenya. This chapter illustrates the means that was used to address the research questions that were raised in chapter one and the design of the study, population targeted for the study, sampling methods, techniques and methods for data collection and analysis as well as validity and reliability tests.

#### **3.2 Research Design**

To elucidate the effect or influence that competitive intelligence has on the performance of locally grown banks in Nairobi, the research used a descriptive research design. Research design has been defined as a platform for investigation aimed at answering precise research questions and connecting the objectives of the research to the data (Yin, 2009). The author further postulates that it offers guidance through data gathering, evaluation, interpretation and offers a dialect for making extrapolations on relations. In this study, a cross-sectional survey was used because it enables the analysis of more than one case in a given or solo point in time and as a research design it represents a portrait of the populations in which gathering of data takes place (Cooper & Schindler, 2006). Thus descriptive research design was ideal for this study since it assisted in determining CI and its sub-categories as well as their indicators that affects performance of the indigenous banks in Nairobi and this will enable making of conclusions or generalizing the results to a bigger population. A questionnaire which is a survey method was utilized in gathering primary data from sampled respondents.

### **3.3 Population of the Study**

Mugenda and Mugenda (2009) states that population is a clique of individuals, events or items having mutual observable traits. The population of interest was the twenty-four indigenously owned banks as per the CBK 2020 annual report at their main/headquarter offices since these are well placed to help obtain the findings. The respondents were managers of the various departments in the banks since they are aware of the CI practices in their areas of control.

### **3.4 Sample and Sampling Procedure**

The sample size included 90 respondents from six selected indigenous banks in Nairobi, Kenya constituting 25% of the twenty-four indigenously owned banks in Nairobi, Kenya and these includes Cooperative bank, Equity bank, Family bank, Consolidated bank, KCB and National bank and this was with the notion that they are representative of this banking segment in terms of traits and inferences about the whole population can be made. They were also chosen due to their large size in terms of structure and number of employees as well as their performance against the stiff competition from their foreign counterparts as this will offer adequate base for collecting data and making generalizations. According to Mugenda and Mugenda, (2003), a sample size of 10-30% is deemed to be sufficient for generalization of the study results. Nairobi was chosen simply because this is where majority of these locally grown banks are headquartered thus giving a good sized population from which a proportional sample was to be drawn. The selected banks formed strata from which subsets were drawn from namely: IT, operations, human resources, supply chain/procurement, finance, business strategists, R&D, corporate banking, retail banking, credit department, risk management, merger & acquisition, marketing, compliance and branch services. The study therefore used the stratified random sampling technique so that the population may be divided into strata or groups with similar traits and this was boosted by using simple random

sampling so as to ensure that the sample is impartial and every member or element of the population has even opportunity of being chosen. One respondent was taken from each sub-set to form a total of fifteen respondents from each stratum leading to the grand total sample of ninety respondents.

**Table 3.1 Sample Size**

<b>NO.</b>	<b>Departments</b>	<b>Position</b>	<b>Equity</b>	<b>Coop</b>	<b>KCB</b>	<b>Family</b>	<b>NBK</b>	<b>Consolidated</b>	<b>Total</b>
1.	IT	Managers	1	1	1	1	1	1	6
2.	Operations	Managers	1	1	1	1	1	1	6
3.	Human resources	Managers	1	1	1	1	1	1	6
4.	Supply chain/procurement	Managers	1	1	1	1	1	1	6
5.	Finance	Managers	1	1	1	1	1	1	6
6.	Business strategists	Managers	1	1	1	1	1	1	6
7.	R&D	Managers	1	1	1	1	1	1	6
8.	Corporate banking	Managers	1	1	1	1	1	1	6
9.	Retail banking	Managers	1	1	1	1	1	1	6
10.	Risk management	Managers	1	1	1	1	1	1	6
11.	Credit department	Managers	1	1	1	1	1	1	6
12.	Merger & acquisition	Managers	1	1	1	1	1	1	6
13.	Marketing	Managers	1	1	1	1	1	1	6
14.	Compliance	Managers	1	1	1	1	1	1	6
15.	Branch services	Managers	1	1	1	1	1	1	6
<b>Total</b>			<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>90</b>

### **3.5 Data Collection**

The research used a questionnaire which is a survey method to gather primary data. It was preferred because of privacy, time saving, uniformity in the manner the questions are invited, congruency in responses and results are easily measurable. It was split into three sections according to the objectives being studied. Section one entails the general information; section two entails the CI subsets activities used by these locally grown banks in Nairobi and section three covers the performance of the banks. A Likert scale was utilized having divergent guides for different sections in the questionnaire since it is for ranking purposes. The respondents comprised of executives, managers and other staff in the units, divisions or departments mentioned earlier due to their roles in CI activities in the bank. The questionnaires were handed out through electronic mail and drop and pick technique.

### **3.6 Reliability and Validity Tests**

According to Joao (2017) the development of a questionnaire entails an analysis of item, validity and reliability (Rattray & Jones, 2007) where the item analysis is expected to distribute feedbacks past all options, have relevance and lucidity of the items and abstain from social aptness bias. Reliability denotes to the constancy of a measure where the measure is free from sampling errors and generates similar or comparable results over time (Adams et al., 2007), distinct methods and through several measures. Joao (2017) states that reliability of a questionnaire is the ability to repeat and be constant. On the other hand, validity is the ability to which results from a measure epitomize the variable they are supposed to. Mugenda and Mugenda (2009) infers that it is the precision or exactness and meaningfulness of conclusions or inferences grounded on the research scores. Thus it affects the degree a test measures the hypotheses it is proposed to address and evaluates how correct were the collection and analysis of data processes. Joao (2017) refers to

validity of a questionnaire as the degree of correlation among the items in it and the theoretical framework (Rattray & Jones, 2007).

### **3.6.1 Reliability**

In reliability the scholars measure a concept that they think to be constant across time, then afterwards the results they get should be constant through a time period. Test-retest reliability is the degree in which it is ascertained to be the case. Gauging the test-retest reliability needs the making use of the measure on a clique of individuals at one period, using it a second time on the same individuals at a future time and then focusing at the test-retest association among the two set of scores. This is usually done by data representation in a scatterplot and calculating the Pearson Correlation Coefficient or Pearson's  $r$ . Another technique for ensuring reliability of an instrument is pilot test.

**Internal consistency:** Measures uniformity or homogeneity of items, similar concepts which is the constancy of individual's responses over the items on a manifold item measure. The entire items on these measures are intended to replicate the same fundamental concept, so individuals' results on those items should be related to one another and this can be looked at using split-half correlation method. The method entails dividing the items into two parts, in a manner like having the first and second halves or the odd and even numbered items. This is followed by applying a score for every set of items and the correlation among the two set of results is examined. The alternative approach is the use of Cronbach's  $\alpha$  (Alpha) where  $\alpha$  is conceptually the mean of the split half correlations for a group of items. According to Olouasa (2020) the alpha value equal to or greater than 0.7 is satisfactory for investigative study. Finally, the other approach that can be used here is the KR-20 test which is applied to dichotomous items. Sekaran (2003) posits that when the reliability coefficient gets nearer to 1.0, the reliability becomes better while one which

is less than 0.6 is seen as poor. Serakan therefore infers that reliability coefficient of the range 0.70 is acceptable and that which is above 0.80 is seen as good.

**Equivalence:** Measures how much error is caused by utilizing various approaches or investigators while on the other hand, **Inter-rater/Inter-Observer Reliability** is used to evaluate the level to which various observers or raters give constant approximations to the similar occurrence or event. **Stability over time** which measures constancy of items results over time and looks at how to apply an instrument to similar units at different times.

### ***3.6.2 Validity***

The research used a **supervisor** (expert) and proof reading to test and confirm that both face validity (is the extent to which the measure items look to reasonably mirror what it is that the evaluation should measure that is to look good) and content validity (is the extent to which measure items satisfactorily reflect the whole range or group of items that could have been suitably included) of the data gathering instrument or tool. The expert opinion was taken into account so as to make needed modifications on the instrument for example taking off the vague items, reassessing constructs and their corresponding measures in accordance with the theoretical underpinnings of the research. Other types of validity for noting are criterion validity which is the degree to which a measure can forecast an outcome. It is also where scores are correlated with other variables that were expected to be correlated with. Finally, construct validity which is when a measure truly evaluates the construct it asserts to measure and Confirmatory Factor Analysis (CFA) is used to check it (Tahmasebifard, 2018).

### 3.7 Data Analysis Procedures

The first step was to check the filled questionnaires for completeness and constancy that is proper data entry. The collected data was then coded to enable the answers to be arranged into a number of categories. The data collected was quantitative due to the use of Likert scale and thus justified the use of descriptive statistics to analyze the data including the use of Statistical package for social sciences (SPSS) software to describe it and determine the level of use and this led to the application of measures of central tendencies of mean, mode, percentages, frequencies and standard deviation. The results were represented in tables, charts and graphs. Furthermore, a correlation analysis and a multiple regression analysis were carried to determine the influence of competitive intelligence and its sub-sets on performance of the indigenous banks.

The regression equation that was used here is:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon. \quad (1)$$

Where:

Y = Performance;

$\beta_0$  = Intercept;

$\beta_1, \beta_2, \beta_3, \beta_4$  are regression co-efficient,

$\varepsilon$  is the error term;

$X_1$  = Technology intelligence activities;

$X_2$  = Organization intelligence activities;

$X_3$  = Product intelligence activities;

X<sub>4</sub> = Market intelligence activities.

### **3.8 Diagnostic Tests**

The research carried out normality test, linearity, multi-collinearity and heteroscedasticity tests to ascertain the aptness of the data for additional statistical analysis.

#### ***3.8.1 Normality Tests***

The testing of normality of competitive intelligence as a predictor variable and performance as a dependent variable was done using the Shapiro Wilk test where samples that are small are considered to be not normally distributed thus checks if the variables are distributed normally. The rule of thumb here is that the null hypothesis is rejected if  $p < 0.05$  of level of confidence. The other test is Kolmogorov-Smirnov which compares data or scores with a given distribution so as to ascertain whether the data or scores have the same distribution. The rule of thumb here also is that the null hypothesis is rejected if  $p < 0.05$  of level of confidence. The Pearson Chi Square test checks the probability that an observed distribution is as a result of chance, it measures how good the observed distribution of scores or data fits an expected distribution when the variables are independent. Another test to consider is the Q-Q plot (Quantile-Quantile plot) which is a tool that is graphical in nature that helps to evaluate whether a data set is possibly from a normal distribution by plotting a quantile against another one. When the two quantiles form a line then the assumption is that they are from similar distribution.

#### ***3.8.2 Linearity tests***

To determine the linear relationship of a model the Pearson product correlation was used. The test was done to identify variables with a low correlation of  $<0.2$  and those that have  $>0.9$  whose correlation is considered very high with other variables (Wanambiro, 2019). The Pearson

product correlation determines the extent to which a relationship is linear or whether there is a linear part of association between two variables. It measures the potency and direction of association that occurs between two variables of interest. It attempts to come up with a line of best fit over the two variables and a coefficient  $r$  shows how well all the data points fit the line of best fit.

### ***3.8.3 Heteroscedasticity Tests***

According to Glen (2022) Breusch Pagan Test in regression measures the heteroscedasticity of errors and assumes that these errors are distributed normally. Wanambiro (2019) explains that heteroscedasticity is a methodical shift in the extent of the residuals over the set of values being measured. It becomes an issue and for the assumptions of regressions to be fulfilled the residuals should have a variance that is constant. Thus when these assumptions are violated regression analysis cannot be used (Glen, 2022). The test therefore measures how the errors variances are as a result of linear function of one or many variables in the regression model. That is to say if the errors variances from a regression are determined by the values of variables (independent).

The F-test presupposes that the errors are independent and that they are distributed identically. The test can be used with the incorporated values of the model, the predictors and a sub-category of the independent variables. ANOVA uses this test to statistically examine the equality of means when given groups of three or above.

Glejser test is grounded on weak assumptions and checks for the existence of a logical pattern in the variances of the residuals of the key equation in the dependent variable (Furno, 2005). It therefore checks that the model is devoid of the problem of heteroscedasticity.

#### ***3.8.4 Multi-collinearity tests range***

The Variance inflation factor (VIF) measures the range of multi-collinearity (is the existence of a correlation among independent variables/predictors in a model). It estimates the level of a variance of a regression coefficient whether it is overstated due to multi-collinearity presence in the model since its presence has the potential to negatively affect the regression scores and make a feature that is statistically important be considered as statistically unimportant. According to Glen (2022) a rule of thumb for deciphering variance inflation factor is that when the value is 1 then it is not correlated, when it is between one and five then it is moderately correlated while it is greater than five then it is considered as highly correlated. Thus as VIF increases the scores of regressions becomes less dependable and a VIF of 10 is a sign of highly correlated and a problem or issue of concern.

## **CHAPTER FOUR**

### **DATA ANALYSIS, PRESENTATION AND INTERPRETATION**

#### **4.1 Introduction**

This chapter discusses the data analysis, the outcomes, and the resulting findings. To illustrate the analysis and interpretation of the data, frequency tables and pie charts are shown. The findings are according to the responses/feedback from the respondents and connects them to the study's objectives.

#### **4.2 Questionnaire Response Rate**

In total 90 questionnaires were distributed and out of the selected sample, 9 (10%) of respondents, did not answer. As a result, only 81 (90 %) surveys/questionnaires were included in the subsequent study after checking whether they were completely filled.

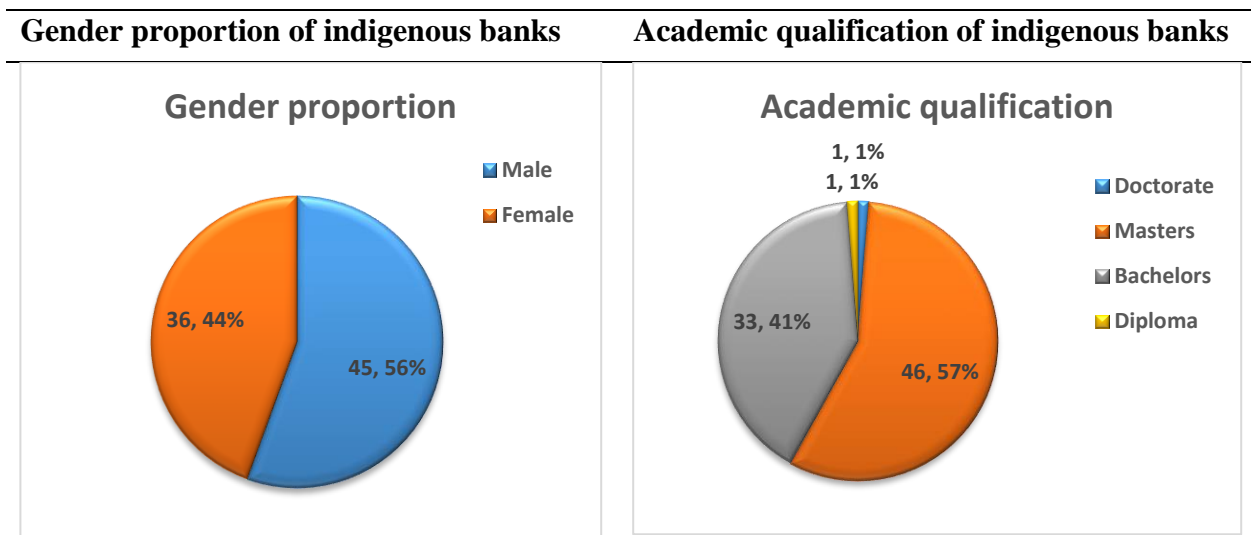
#### **4.3 Background Information of the Indigenous Banks**

The study sought to analyze the gender and academic qualification of the respondents in the area of study. The results show that a higher proportion 45 (56%) were male employees whereas 36 (44%) were female employees. Out of the 81 respondents, 46 had masters, 33 had bachelor's degrees (undergraduate) qualifications while 1 had a Doctorate and diploma qualification. This indicates that most of the employees in each and every department among the indigenous banks have at least a degree (undergraduate) qualification. This is presented on the pie charts below (Figure 4.1).

Other finding showed that on average most of the employees had an experience of 8 years working in the banking industry. The study also sought to ascertain the departments in which the respondents belong to in their respective banks in the area of study. Out of the total sample of 81,

15 departments were selected which include; (IT, Operations, HR, Supply chain/procurement, Finance, Business strategist, R&D, Corporate banking, Retail banking, Risk management, Credit department, Merger & acquisition, Marketing, Compliance, Branch services) with each department having at least 6 representative respondents, however some departments experienced low representation. This results in a normal distribution, which makes the information acquired valid and representative of other indigenous banks in Kenya.

**Figure Error! No text of specified style in document.:1 Gender and Academic Qualifications**



#### 4.4 Competitive Intelligence Indicators Characteristics

**Table Error! No text of specified style in document..1.Competitive Intelligence Indicators Characteristics**

Competitive intelligence indicators characteristics						
Competitive intelligence practices	N	Mean	Median	Std. Deviation	Cronbach's Alpha	
Technological intelligence	81	3.77	4	0.58	0.81	
Product intelligence	81	4.03	4	0.45	0.81	
Market intelligence	81	4.01	4	0.5	0.84	
Organization intelligence	81	3.95	4	0.49	0.81	
Bank's performance	81	4.02	4	0.6	0.92	

Table 4.1 above, shows that overall the competitive intelligence practices were implemented to a greater extent across the indigenous banks (mean=4, median=4). The results show that on average the bank has implemented Product intelligence activities (such as new product development, redesigning of current existing products, aligning products with customer needs) and Market intelligence activities (such as concentration on market share and value, brand image, new market developments and market segmentation) to a great extent. A similar case was observed in terms of Technological intelligence (such as developing technology integrated products/Internet-enabled, influence on the ability to innovate and embracement of ISO 27001 in its operations), and Organization intelligence (such as human capital readiness, information processing capacity, innovation and adaptive capability) which was implemented to a greater extent however slightly below the mean of four.

Cronbach's alpha test was performed to measure the internal consistency ("reliability") of the five scales. Cronbach's alpha of more than 0.8 was reported across the five scales, which indicates a high level of internal consistency for our scales.

## **4.5 Diagnostics Tests**

### ***4.5.1 Correlation analysis***

Spearman correlation coefficients shows that there was a significant moderate positive correlation between bank performance and Product intelligence ( $r = 0.527$ ), Market intelligence ( $r = 0.329$ ) and Organization intelligence ( $r = 0.461$ ). However, a weak insignificant positive correlation was observed between bank performance and Technological intelligence ( $r = 0.18$ ).

**Table 2.2 Spearman Correlations Coefficient**

<b>Spearman Correlations coefficient</b>					
	<b>Technological intelligence</b>	<b>Product intelligence</b>	<b>Market intelligence</b>	<b>Organization intelligence</b>	<b>Bank's performance</b>
Technological intelligence	1				
Product intelligence	.478**	1			
Market intelligence	.320**	.585**	1		
Organization intelligence	.428**	.549**	.567**	1	
Bank's performance	0.18	.527**	.329**	.461**	1

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

*Source: (Research Data, 2022)*

#### **4.5.2 Normality Test**

Observations on all the five variables technological intelligence, product intelligence, market intelligence, organization intelligence, bank's performance were found to be not normally distributed, as indicated by the p-values that are less than 0.05. The assumption of normality may have been violated by looking at Kolmogorov-Smirnov test and Shapiro-Wilk of the model. However, as only extreme deviations from normality are likely to have a significant impact on the findings, the results are considered still valid.

**Table 4.3 Tests of Normality**

<b>Tests of Normality</b>	<b>Kolmogorov-Smirnov<sup>a</sup></b>			<b>Shapiro-Wilk</b>		
	<b>Statistic</b>	<b>df</b>	<b>Sig.</b>	<b>Statistic</b>	<b>df</b>	<b>Sig.</b>
Technological intelligence	0.349	81	0.000	0.740	81	0.000
Product intelligence	0.342	81	0.000	0.768	81	0.000
Market intelligence	0.347	81	0.000	0.748	81	0.000
Organization intelligence	0.330	81	0.000	0.806	81	0.000
Bank's performance	0.298	81	0.000	0.806	81	0.000

*Source: (Research Data, 2022)*

### 4.5.3 Homoscedasticity Test

The test for heteroscedasticity was conducted and all the five variables namely; technological intelligence, product intelligence, market intelligence, organization intelligence, bank's performance were found to have constant variance in the residuals. Also during the regression analysis, standardized residuals vs standardized plot predicted values showed no any signs of funneling, indicating the assumption of homoscedasticity was met.

**Table 4.4 Test of Homogeneity of Variances**

<b>Test of Homogeneity of Variances</b>				
	<b>Levene Statistic</b>	<b>df1</b>	<b>df2</b>	<b>Sig.</b>
Technological intelligence	3.060	1	79	0.084
Product intelligence	0.961	1	79	0.330
Market intelligence	0.056	1	79	0.814
Organization intelligence	2.323	1	79	0.131
Bank's performance	1.256	1	79	0.266

*Source: (Research Data, 2022)*

### 4.5.4 Multi-collinearity Test

Analysis of collinearity statistics show there is no multi-collinearity in the data, as VIF scores were well below 10, and tolerance scores above 0.2. The Durbin-Watson statistic also showed that the values of the residuals are independent, as the obtained value was close to 2 (Durbin-Watson = 1.50). The Cook's Distance values were all less than one, indicating that individual cases were not unduly influencing the model.

**Table 4.5 Collinearity Statistics**

<b>Collinearity Statistics</b>		
	<b>Tolerance</b>	<b>VIF</b>
Technological intelligence	0.733	1.365
Product intelligence	0.536	1.865
Market intelligence	0.531	1.884
Organization intelligence	0.585	1.708

*Source: (Research Data, 2022)*

## 4.6 Regression Analysis

### 4.6.1 Univariate Regression Analysis

A univariate regression analysis was performed to measure the effect of individual competitive intelligence practices on banks performance. A correlation test was performed which showed that all four factors had a positive linear relationship with bank's performance. From the results, it shows that product intelligence activities had the highest statistically significance influence on an individual basis of 30% on the performance of indigenous banks in Kenya, ( $p < 0.001$ ). Organization intelligence and market intelligence activities individually would statistically significantly influence the performance of indigenous banks in Kenya at 25% and 14% respectively,  $p < 0.001$  and  $p = 0.001$  respectively. On the other hand, technological intelligence activities would have an individual effect of 3% on the performance of indigenous banks in Kenya, however this effect would not be significant ( $p = 0.106$ ).

In reality for banks to perform effectively and optimally, it needs to operate with more than one competitive intelligence practices. This study sort to understand the effect of the four CI practices on the banks performance. This led to our next step of performing a multiple regression analysis to understand the overall effect.

**Table 4.6 Univariate Regression Analysis**

<b>Univariate regression analysis</b>						
<b>Model</b>	<b>R Square</b>	<b>Unstandardized Coefficients B</b>	<b>Std. Error</b>	<b>Standardized Coefficients Beta</b>	<b>t</b>	<b>Sig.</b>
Technological intelligence	0.03	0.187	0.115	0.181	1.634	0.106
Product intelligence	0.3	0.723	0.125	0.545	5.776	<0.001
Market intelligence	0.14	0.442	0.126	0.369	3.525	0.001
Organization intelligence	0.25	0.601	0.119	0.495	5.063	<0.001

Source: (Research Data, 2022)

#### 4.6.2 Multiple Regression Analysis

The study intended to determine the extent of influence of four CI activities on the success of indigenous banks in Kenya: technology, product, market, and organization intelligence activities using multiple regression controlling for academic education and gender of the employees.

The results on multiple regression analysis are presented below.

**Table 4.7 Coefficient of Determination (R<sup>2</sup>)**

Coefficient of Determination (R <sup>2</sup> )						
R	R Square	Adjusted R Square	Std. Error of the Estimate		Sig.	Durbin-Watson
.661 <sup>a</sup>	0.438	0.392	0.46503		<0.001	1.504

Source: (Research Data, 2022)

Statistically, these variables significantly predicted bank's performance,  $F(6, 74) = 9.59$ ,  $p < 0.001$ ,  $R^2 = .438$ . According to the  $R^2$ , the four independent variables investigated explain 43.8% of indigenous Banks of Kenya performance. This suggests that other factors which were not investigated in this study contribute 56.2% of the productivity of Kenyan indigenous banks.

**Table 4.8 Analysis of Variance**

ANOVA <sup>a</sup>						
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.448	6	2.075	9.594	.000 <sup>b</sup>
	Residual	16.003	74	0.216		
	Total	28.451	80			
<i>a. Dependent Variable: performance</i>						
<i>b. Predictors: (Constant), organization, technology, market, product</i>						

Source: (Research Data, 2022)

The above table 4.8 illustrates that the regression model is significant with F value/statistic of 9.594 and p value of 0.000 lesser than the significant value of 0.05 ( $P < 0.05$ ). This therefore shows the level of influence and prediction abilities that predictors OI, TI, MI and PI have on the dependent variable of performance of indigenous banks in Nairobi, Kenya.

**Table 4.9 Multiple Regression Coefficients**

<b>Multiple regression coefficients</b>							
	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>		<b>Collinearity Statistics</b>		
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>t</b>	<b>Sig.</b>	<b>Tolerance</b>	<b>VIF</b>
(Constant)	0.315	0.565		0.558	0.579		
Technological intelligence	-0.201	0.105	-0.194	-1.908	0.060	0.733	1.365
Product intelligence	0.597	0.158	0.450	3.781	0.000	0.536	1.865
Market intelligence	0.021	0.144	0.018	0.150	0.881	0.531	1.884
Organization intelligence	0.449	0.138	0.370	3.247	0.002	0.585	1.708

*Source: (Research Data, 2022)*

Multiple regression analysis determining the relationship between performance of indigenous Banks in Kenya and the four variables is presented above.

As per the SPSS generated table, the equation ( $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$ .) becomes:

$$Y = 0.315 - 0.201X_1 + 0.449X_2 + 0.597X_3 + 0.021X_4.$$

Where Y = Performance of indigenous Banks in Kenya;  $X_1$  = Technology intelligence activities;  $X_2$  = Organization intelligence activities;  $X_3$  = Product intelligence activities;  $X_4$  = Market intelligence activities.

According to the multiple regression equation, the performance of banks as a result of competitive intelligence practices would be at 0.315 units if all components (technology

intelligence, organization intelligence, product intelligence, and market intelligence,) are held constant at zero. Moreover, if all other independent factors remain constant, a unit increase in technology intelligence practice results in a 0.201 units decrease in performance (p value=0.060). A unit increase in organization intelligence will improve performance by 0.449 units (p value=0.002); a unit increase in product intelligence will increase performance by 0.597 units (p value<0.001); and a unit increase in market intelligence practice would increase profitability by 0.021 units (p value=0.881).

## **4.7 Competitive Intelligence Practices and Performance**

### ***4.7.1 Technology intelligence practices and performance of indigenous banks in Kenya***

The first specific objective of the study was to determine the influence of TI activities on the performance of indigenous banks in Nairobi, Kenya. According to the multiple regression equation, a unit increase in technology intelligence practice results in a statistically insignificant 0.201 units (p value=0.060) decrease in performance. This however was not in agreement with the literature since technological innovation has been linked to growth in employment rate, performance and developments driven by productivity, market positioning and share and efficacy in processes (Adam et al., 2000). According to Nyawira (2011); Ngugi et al. (2012) banks have been using technological intelligence which has led to innovations in their functions such as intelligent ATM withdrawals and deposits, monitoring systems and custodial services. This has been the case in this study using technology as only predictor of performance, however not significant.

### ***4.7.2 Organization intelligence practices and performance of indigenous banks in Kenya***

The second specific objective of the study was to evaluate the influence that organization intelligence has on performance of indigenous banks in Nairobi, Kenya. The study findings show

that a unit increase in organization intelligence will statistically significantly improve productivity of indigenous banks in Kenya by 0.449 units (p value=0.002). The univariate regression analysis done on organization intelligence activities individually, found that OI would statistically significantly influence the performance of indigenous banks in Kenya at 25%. The findings concur with the literature review where Che et al. (2015) said that enterprises that utilize OI practices are more harmonious, intelligent and have substantial capability to face either interior and exterior intricacies or complexities thus enabling them to be swift, empowered during time of crisis and competitive intensity leading to higher heights in success.

#### ***4.7.3 Product intelligence practices and performance of indigenous banks in Kenya***

The third specific objective was to determine the influence PI activities have on the performance of indigenous banks in Nairobi, Kenya. The study outcome shows that a unit increase in product intelligences activities employed by indigenous banks will statistically significantly increase productivity by 0.597 units (p value<0.001). Product intelligence which inspires product innovation and by extension competitive intelligence has been credited with the survival of the firm since firms that do not innovate end up perishing and losing its consumer base. These findings concur with the literature review. Increment in product intelligence affects performance of a business due benefits such as economies of scale, market potency and reduction of risks (Wanjala & Miroga, 2020). Chapman et al. (2001) supports this stance and asserts that effective product innovation has for two decades been deemed to be a significant prerequisite for business success. Ndegwa and Muathe (2018) also in their study of airline companies in Kenya, looked at product intelligence and said product design, consumer satisfaction estimation, product differentiation, new product innovation and advertising as well as branding all together impacts the performance of these companies.

#### ***4.7.4 Market intelligence and performance of indigenous banks in Kenya***

The fourth specific objective was to determine the influence MI activities have on the performance of indigenous banks in Nairobi, Kenya. According to the findings a unit increase in market intelligence practice statistically insignificantly increase profitability by 0.021 units ( $p$  value=0.881). These findings suggest that market intelligence had a minimal influence on performance of indigenous banks in Kenya when combined with the other three factors, however looking at market intelligence individual influence on performance, a statistically significant effect was observed on performance of indigenous banks. According to univariate regression analysis, Market intelligence activities individually would statistically significantly influence the performance of indigenous banks in Kenya at 14%,  $p=0.001$ . According to the findings on previous studies, Silva et al. (2009) in their findings found market intelligence reaction to have a positive correlation with performance, and having the greatest impact on the performance of management combined with market orientation and market intelligence creation. Maltz and Kohli (1996) continue to say that competitive edge is brought about by MI utilization and not in its access only.

## CHAPTER FIVE

### CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

The purpose of this study was to assess the impact of competitive intelligence activities on the performance of indigenous banks in Nairobi. The specific objectives were to establish a relationship between product intelligence practices and indigenous bank performance in Nairobi Kenya, investigate whether markets intelligence practices used by indigenous banks have an effect on indigenous bank performance in Nairobi Kenya, and assess whether technology and organizational intelligence practices affect indigenous bank performance in Nairobi Kenya.

#### 5.2 Summary

The study sought to determine the influence that CI and its sub-set have on the performance of indigenous banks in Nairobi, Kenya. There were 81 questionnaires that were retrieved from a sample of 90 that were distributed to respondents who were senior staff at the managerial level in the indigenous banks selected and these included Cooperative bank, Equity bank, Family bank, Consolidated bank, KCB and National bank. The respondents belonged to fifteen different departments within the banks including: IT, Operations, Human resources, Supply chain/procurement, Finance, Business strategists, R&D, Corporate banking, Retail banking, Risk management, Credit department, Merger & acquisition, Marketing, Compliance and Branch services. The data collected was analyzed using MS Excel and SPSS software.

##### *5.2.1 Technological intelligence activities and performance*

The first specific objective of the study was to determine the influence of TI activities on the performance of indigenous banks in Nairobi, Kenya. The findings revealed that an increase in

unit of TI leads to a statistically insignificant 0.201 units (p value=0.060) decrease in performance of the indigenous banks. A correlation test that was performed revealed that all the four factors had a positive linear relationship with bank's performance. The univariate regression analysis done revealed that TI effect on performance would not be significant. This however was not in agreement with the literature where technological innovation was linked to increase in the rate of employment, productivity and efficacy in processes (Adam et al., 2000). According to Hamel and Prahalad, (1994) TI has been found to give an organization competitive edge through technology management and producing outstanding and distinct products from current ones which can foster excellent performance in the market. Additionally, Nyawira (2011); Ngugi et al. (2012) posited that banks have been using technological intelligence which has led to innovations in their functions such as intelligent ATM withdrawals and deposits, monitoring systems and custodial services.

### ***5.2.2 Organization intelligence activities and performance***

The second specific objective of the study was to evaluate the influence that organization intelligence has on performance of indigenous banks in Nairobi, Kenya. The study results show that a unit increase in organization intelligence will statistically significantly improve productivity of indigenous banks in Kenya by 0.449 units (p value=0.002). The univariate regression analysis done on organization intelligence activities individually, found that OI would statistically significantly influence the performance of indigenous banks in Kenya at 25%. This was in agreement with the literature review where Kalkan, (2005) suggested that knowledge acquired and put into action improves performance such as innovations key for experience in global markets while Che et al. (2015) further suggested that OI empowers enterprises to have the capacity to face

either interior and exterior intricacies or complexities thus enabling them to be swift, empowered during time of crisis and competitive intensity leading to higher heights in success.

### ***5.2.3 Product intelligence activities and performance***

The third specific objective was to determine the influence PI activities have on the performance of indigenous banks in Nairobi, Kenya. From the results, it shows that product intelligence activities had the highest statistically significance influence on an individual basis of 30% on the performance of indigenous banks in Kenya and a unit increase in product intelligence will increase performance by 0.597 units ( $p$  value $<0.001$ ). This is in concurrence to the findings of Mutua and Ngugi (2012) who asserted that product intelligence accelerates the level of innovation for a product and this in turn makes the product more attractive for the market thus increasing its competitive edge. Chapman et al. (2001) supports this stance and asserts that effective product innovation has for two decades been deemed to be a significant prerequisite for business success.

Increment in product intelligence affects performance of a business due to benefits such as economies of scale, market potency and reduction of risks (Wanjala & Miroga, 2020). Ndegwa and Muathe (2018) also in their study of airline companies in Kenya, looked at product intelligence and said product design, consumer satisfaction estimation, product differentiation, new product innovation and advertising as well as branding all together impacts the performance of these companies. The two further posit that the embracement of product intelligence increases the returns whether in form of profit or ROI and this entails involving customers in the design of the product to ensure conformity to their specifications.

#### ***5.2.4 Market intelligence activities and performance***

The third specific objective was to determine the influence MI activities have on the performance of indigenous banks in Nairobi, Kenya. According to the findings a unit increase in market intelligence activities statistically insignificantly increase profitability by 0.021 units ( $p$  value=0.881). These findings suggest that market intelligence had a minimal influence on performance of indigenous banks in Kenya when combined with the other three factors, however looking at market intelligence individual influence on performance, a statistically significant effect was observed on performance of indigenous banks. According to univariate regression analysis, Market intelligence activities individually would statistically significantly influence the performance of indigenous banks in Kenya at 14%,  $p=0.001$ . According to extant literature on MI, Maltz and Kohli (1996) asserts that competitive edge is brought about by MI utilization and not in its access only. MI has been found to have a positive correlation with the success of a new product in low tumult enterprises (Droge et al., 2008), performance of new products (Brockman & Morgan, 2003), competitive advantage (Maltz & Kohli, 1996) and new market development and segmentation (Moorman, 1995).

### **5.3 Conclusions**

From the study it implies that product and organizational intelligence contributed more to bank performance with a statistically significant effect than technology and market intelligence, which had minimal statistically significant effect on indigenous bank performance in Nairobi, Kenya.

The study concludes that technology intelligence activities have minimal significant impact on the performance of Kenyan indigenous banks through the use of technology-enabled products such as (Internet-enabled product/intelligent ATMs/internet/mobile banking, Artificial

Intelligence/Smart machines), competitive/product differentiation, and ISO certification (27001, 9001). Deploying Market intelligence strategies as the only factor on performance, was discovered to improve the performance of indigenous banks by increasing client loyalty and happiness. However, when including other factors such as TI, OI and PI, the impact on the banks is minimal.

Product intelligent activities make indigenous banks more competitive and profitable through increased sales results/revenue and profit, Return on Investment (ROI) and Return on Assets (ROA). Banks are able to experience increased customer base and retention, quality new products/services and market development. Organization intelligence approaches employed by indigenous banks have an impact on their performance through more bank branches, utilization of the resources and competencies related to knowledge and learning leading to innovation capability, organic growth/market expansion and positioning and most importantly, improved tactical/strategic planning and decision-making.

#### **5.4 Recommendations**

From the study findings, a number of recommendations are suggested; first that the adoption of competitive intelligence activities as a whole in indigenous banks in Nairobi Kenya is critical in attaining competitive edge. It is clearly noted that the four sub-set of CI when combined tend to give excellent results in the performance of the indigenous banks with product and organizational intelligence taking key roles. Increase in market share and customer satisfaction among other indicators of performance has been witnessed when these activities have been executed. The study also recommends that the banks should constantly apply these intelligence activities to increase their profitability and response to the tastes and preferences of their customers, innovation, customer retention and customer base among other benefits. These intelligences activities enable the detection of opportunities and threats in the environment in

which they operate as well as develop on their own potency and abilities.

Another recommendation is that the banks should create a whole unit or department dedicated to competitive intelligence and knowledge management and manned by a senior manager of the rank of a director. The department should be well funded and the staff deployed there well trained to ensure smooth operation and proper utilization of knowledge acquired. Staff should be given a free will in implementation of the knowledge gained and given an opportunity to give suggestions. To complement this, there should be installation of knowledge management systems or database and an effective ICT system in addition to an effective structure for dissemination of the actionable insights acquired to all necessary departments for action.

The study further recommends that banks engage in product intelligence practices such as new product development, aligning products with customer needs (customized products), redesigning current existing products, introducing new products based on customer needs, and product functionality in order to increase profits. According to the study, indigenous banks should be more aggressive in developing organizational intelligences through human capital preparedness, information processing ability, innovative capabilities, and adaptable capabilities.

According to the study's findings and discussions, technology intelligence leads to the use of technology integrated products such as (Internet-enabled product/intelligent ATMs/internet/mobile banking, Artificial Intelligence/Smart machines), competitive/product differentiation, and ISO certification (27001, 9001). Market intelligence has also aided in the development of market share and decision making. The study found that indigenous banks prioritize product and organizational intelligence activities above technology and market intelligence techniques, which were found to have lesser impact on the performance of indigenous

banks in Kenya as compared to the product and organizational intelligence. This is therefore to recommend more investment on both technological and marketing intelligence activities.

The study recommends that there is need to intensify awareness on competitive intelligence activities on the enhancement of performance in the indigenous banks in Kenya, this will assist in improved tactical/strategic planning and decision-making.

### **5.5 Limitation of the Study**

The researcher encountered various challenges that had the effect of impeding access to information needed for the study. Some respondents approached were reluctant in giving information due to suspicions in regards to the utilization of the sought after information and thus the study did not achieve 100% response.

Despite the above challenge, the quality of the research was not compromised and thus the study has made an enormous contribution to the extant body of knowledge.

### **5.6 Suggestions for Further Research**

Recommendation for more research: The study suggests that additional research be conducted to analyze a wide sample of indigenous Kenyan banks and other competitive intelligence strategies among other Kenyan financial organizations such as insurance companies, SACCOS, SMEs among other financial institutions.

The study recommends that similar research be done in regards to non-indigenous banks only in order to ascertain the impact of CI and its sub-set on their performance.

Another area of study could be challenges or factors impeding the adoption of CI activities among the indigenous Kenyan banks.

## REFERENCES

- Abdullah, K. M. M., Alsamarai, S., & Abdullah, M. (2017). The role of competitive intelligence types in marketing of banking services. *International Journal of Business and Social Science*, 8(10), 98-118.
- Adams, J., Khan, H. T. A., Raeside, R., & White, D. (2007). *Research methods for graduate business and social science students*. New Delhi: SAGE Publications India Pvt Ltd.
- Adam, M. C., Farber, A., & Khallil, T. (2000). *Financing technological innovation. management of technology II*, Institute of Industrial Engineers, USA.
- Adidam, P. T., Banerjee, M., & Shukla, P. (2012). Competitive intelligence and firm's performance in emerging markets: an exploratory study in India. *Journal of Business & Industrial Marketing*, 27(3), 242–254.
- Agbim, K. C., & Idris, A. J. (2015). Competitive advantage through knowledge dissemination: An empirical analysis of hotels in Makurdi Metropolis, Benue State, Nigeria. *European Journal of Business and Innovation Research*, 3(1), 22-35.
- Alsoboa, S. S., & Aldehayyat, J. S. (2013). The impact of competitive business strategies on managerial accounting techniques: A study of Jordanian public industrial companies. *International Journal of Management*, 30(2), 545-555.
- Amit, R., & Schoemaker, P. J. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14(1), 33-46.
- Ashton, W. B., & Klavans, R. A. (1997). *Keeping abreast of science and technology: Technical intelligence for business*. Columbus, Ohio: Battelle Press.
- Asri, D. A., & Mohsin, A. M. (2020). Competitive intelligence practices and organizational performance linkage: A Review. *Jurnal Intelek*, 15(2), 101-115.

- Autio, E., Sapienza, H., & Almeida, J. (2000). Effects of age at entry, knowledge intensity, and imitability on international growth. *Academy of Management Journal*, 43(5), 909–924.
- Baars, H., & Kemper, H.G. (2008), Management support with structured and unstructured data – An integrated business intelligence framework. *Information Systems Management*, 25(2), 132-148.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Barney, J. B. (1986). Strategic factor markets: Expectations, luck, and business strategy. *Management Science*, 32(10), 1231-1242
- Bernhardt, D. (1994). *Perfectly legal competitor intelligence*. How to get it, use it, and profit it from it. London: Pitman Publishing.
- Bertalanffy, L. V. (1950). An outline of general system theory. *The British Journal for the Philosophy of Science*, 1(2), 134–165
- Bertalanffy, V. L. (1973). *General system theory: Foundations, development, applications* (Rev. ed.). NY: George Braziller.
- Boro, I. M. N. (2013). *Extent to which competitive intelligence practices influence achievement of competitive advantage in KCB bank Kenya limited*. (Masters Dissertation). Retrieved from <https://erepository.uonbi.ac.ke>
- Bose, R. (2008). Competitive intelligence process and tools for intelligence analysis. *Industrial Management and Data Systems*, 108(4), 510-528.
- Britton, C. (2002). Deconstructing advertising: what your competitor’s advertising can tell you about their strategy. *Competitive Intelligence Magazine*, 5(1), 15-19.

- Brockman, B. K., & Morgan, R. M. (2003). The role of existing knowledge in new product innovativeness and performance. *Decision Sciences*, 34(2), 385–419.
- Campbell, A., & Sommers Luchs, K. (1997). Understanding competencies. In Campbell, A. & Luchs, K. S. (Eds.). *Core competency-based Strategy*. London: International Thompson Business Press.
- Caudron, S. (1994). I spy, you spy: Business espionage, *Industry Week*, 243(4), 35-40.
- Cavalcanti, P. E. (2005). The relationship between business intelligence and business success. *Journal of Competitive Intelligence and Management*, 3(1), 6-15.
- Chapman, R. L., O'mara, C. E., Ronchi, S., & Corso, M. (2001). Continuous product innovation: A comparison of key elements across different contingency sets. *Measuring business excellence*, 5(3), 16-23.
- Che, M. S., Rahimi, F., & Amirnejad, G. (2015). The impact of organizational intelligence and its components on the competitive advantage of all the branches of Khuzestan Sina bank. *Cumhuriyet Science Journal*, 36(3), 402-408.
- Chen, J., Zhu, Z., & Xie, H. Y. (2004). Measuring intellectual capital: A new model and empirical study. *Journal of Intellectual Capital*, 5(1), 195–212.
- Chitech, J. W. (2017). *Competitive intelligence practices and performance of commercial banks in Nairobi, Kenya*. (Masters Dissertation). Retrieved from <https://ir-library.ku.ac.ke/>
- Coase, R. H. (1937). The nature of the firm, *Economica*, new series, 4(16), 386-405.
- Cooper, D. R., & Schindler, P. S. (2011). *Business research methods* (8<sup>th</sup> ed.). New York: McGraw-Hill.

- Cornell, C., & Jude, N. (2015). The systems theory of management in modern day organizations - A study of Aldgate congress resort limited Port Harcourt. *International Journal of Scientific and Research Publications*, 5(9), 1-7.
- Cornish, S. L. (1997). Product innovation and the spatial dynamics of market intelligence: Does proximity to markets matter? *Economic Geography*, 73(2), 143-165.
- Cronin, B., Overfelt, K., Fouchereaux, K., Manzvanzviike, T., Cha, M., & Sona, E. (1994). The internet and competitive intelligence: A survey of current practice. *International Journal of Information Management*, 14(3), 204-222.
- Davenport, T. H., & Prusak, L. (1998). *Working Knowledge: How organizations manage what they know*. Boston: Harvard Business School Press.
- De Angelis, C.T. (2013). Knowledge management and organizational intelligence model for public administration. *International Journal of Public Administration*, 36(11), 807-819.
- Definitions of Marketing (2022). Retrieved April 18, 2022, <https://www.ama.org/the-definition-of-marketing-what-is-marketing/>
- Dess, G. G., Lumpkin, G. T., Eisner, A. B., & McNamara, G. (2012). *Strategic management: Text and cases* (6<sup>th</sup> ed.). New York: McGraw-Hill Irwin.
- Droge, C., Calantone, R., & Harmancioglu, N. (2008). New product success: Is it really controlled by managers in high turbulence environments? *Journal of Product Innovation Management*, 25, 272–286.
- Drucker, P. F., Dyson, E., Handy, C., Saffo, P., & Senge, P. M. (1997). Looking ahead: Implications of the present. *Harvard Business Review*, 75(5), 18-32.
- Dyk, L. V., & Conradie, P. (2007). Creating business intelligence from course management systems. *Campus-Wide Information Systems*, 24(2), 120-133.

- Ettorre, B. (1995). Managing competitive intelligence. *Management Review*, 4(1), 15-19.
- Fahy, J. (2000). The resource-based view of the firm: some stumbling-blocks on the road to understanding sustainable competitive advantage. *Journal of European Industrial Training*, 24, 94-104.
- Ferrier, W. (2001). Navigating the competitive landscape; the drivers and consequences of competitive aggressiveness. *Academy of Management Journal*, 44, 858–877.
- Fish, K., & Ruby, P. (2009). An artificial intelligence foreign market screening method for small businesses. *International Journal of Entrepreneurship*, 13, 65-81.
- Furno, M. (2005). The glejser test and the median regression. *The Indian Journal of Statistics*, 67(2), 335-358.
- Gathumbi, A. (2008). *Competitive intelligence practices adopted by commercial banks in Kenya*. (Masters Dissertation). Retrieved from <https://erepository.uonbi.ac.ke>
- Gatibu, J., & Kilika, J. (2017). Competitive intelligence practices and performance of Equity Bank in Kenya. *International Academic Journal of Human Resource and Business Administration*, 2(4), 219-239.
- Gatsoris, L. (2012). Competitive intelligence in Greek furniture retailing: A qualitative approach. *EuroMed Journal of Business*, 7, 224–242.
- Ghannay, J. C., & Mamlouk, Z. B. A. (2015). Influence of organizational culture on competitive intelligence practice: A conceptual framework. *International Journal of Innovation, Management and Technology*, 6(1), 35-39.
- Gibson, J. L., Ivancevich, J. M., Donnelly, J. H., & Konopaske, R. (2011). *Organizations: Behaviour, structure, processes* (14<sup>th</sup> ed.). NY: McGraw-Hill

- Gieskes, H. (2000). Competitive Intelligence at Lexis-Nexis. *Competitive Intelligence Review*, 11 (2), 4-11.
- Gilbert, D. R., Stoner, J. A. F., & Freeman, R. E. (2003). *Management*, (6<sup>th</sup> ed.). Pearson India
- Gitau, A. (2014). Agency banking and operational performance of commercial banks in Kenya. *International Journal of Business and Social Research*, 2(3), 17–25.
- Glen, S. (2022). *Breusch-Pagan-Godfrey Test*: Definition. Retrieved April 30, 2022, from [StatisticsHowTo.com](https://www.statisticshowto.com/breusch-pagan-godfrey-test/)
- Glen, S. (2022). *Variance Inflation Factor*. Retrieved April 30, 2022, from [StatisticsHowTo.com](https://www.statisticshowto.com/variance-inflation-factor/)
- Grant, R. (1996b). Prospering in dynamically competitive environments: Organizational capability as knowledge integration. *Organization Science*, 7, 375- 387.
- Grant, R. M. (1996a). Toward a knowledge-based theory of the firm, *Strategic Management Journal*, 17(winter special issue), 109-122.
- Grunert, K. G., & Hildebrandt, L. (2004). Success factors, competitive advantage and competence development. *Journal of Business Research*, 57(5), 459–461.
- Guimares, T. (2000). The impact of competitive intelligence and IS support is changing small business organizations. *Logistics Information Management*, 13, 117–125.
- Hadi, F., & Ebrahimpour, H. (2014). Investigating the relationship between technology intelligence and business performance. *Singaporean Journal of Business Economics and Management Studies*, 2(11), 207-215.
- Hamel, G., & Prahalad, C. K. (1994). *Competing for the future*. Boston, Massachusetts: Harvard Business School Press.
- Herring, J.P. (1999). Key intelligence topics: A process to identify and define intelligence needs, *Competitive Intelligence Review*, 10(2), 4-14.

- Hughes, P., Morgan, R. E. & Kouropalatis, Y. (2008). Market knowledge diffusion and business performance. *European Journal of Marketing*, 42(11/12), 1372-1395.
- Irenauss, O. N., Ikechukwu, E. O., & Ndubuisi, P. O. (2021). Competitive Intelligence and organizational performance in small and medium enterprises in South East Nigeria, *International Journal of Research in Management*, 1(11), 43-64.
- Joao, G. S. (2017). *A survey on competitive intelligence practices for strategic decisions*. (Ph.D. Thesis). Retrieved from <https://www.repository.utl.pt/bitstream/10400.5/13216/1/TD-GCSJ-2017.pdf>
- Johannesson, J. (2010). Competitive intelligence for small business management in the global environment. *Journal of Institute of Environment and Management*, 3(1).
- Johannesson, J. (2010). Competitive intelligence for small business management in the global business environment. *Journal of Institute of Environment and Management*, 3(1), 0974-4029.
- Johnson, R. A., Kast, F. E., & Rosenzweig, J. E. (1964). Systems theory and management. *Management Science*, 10(2), 367-384.
- Kahaner, L. (1996). *Competitive intelligence: From black ops to boardrooms: How businesses gather, analyze, and use information to succeed in the global marketplace*. NY: Simon & Schuster.
- Kahaner, L. (1997). *Competitive Intelligence: How to gather, analyze and use information to move your business to the top*. New York: Touchstone.
- Kalkan, V. D. (2005). Organizational Intelligence: Antecedents and consequences. *Journal of Business & Economics Research*, 3(10), 43-54.

- Kaplan, R.S., & Norton, D. (1996). Using the balanced scorecard as a strategic management system. *Harvard Business Review* 74, 75-85.
- Kaplan, R.S., & Norton, D. (2007). Using the balanced scorecard as a strategic management system. *Harvard Business Review*, 85.
- Kaplan, S., Schenkel, A., Krogh, G., & Weber, C. (2001). *Knowledge-based theories of the firm in strategic management: A Review and extension*, submission to the academy of management review, 1-48.
- Kaplan, S., Schenker, A., Von, G., & Weber, C. (2001). Knowledge-based theories of the firm in strategic management: A review and extension. *Academy of Management Review*, 1(1), 1-48.
- Katsikea, E., Theodosiou, M., & Makri, K. (2019). The interplay between market intelligence activities and sales strategy as drivers of performance in foreign markets. *European Journal of Marketing*, 53(10), 2080-2108.
- Keegan, W. J. (1974). Multinational Scanning: A study of the information sources utilized by headquarters executives in multinational companies. *Administrative Science Quarterly*, 19(3), 411-421.
- Kerr, C.I.V., Mortara, L., Phaal, R., & Probert, D. R. (2006). A conceptual model for technology intelligence. *International Journal of Technology Intelligence and Planning*, 2(1), 73.
- Kim, W. C., & Mauborgne, R. (1999). Strategy, value innovation, and the knowledge economy. *MIT Sloan Management Review*, 40(3), 41-54.
- Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization science*, 3(3), 383-397.

- Kohli, A. K., & Jaworski, B. J. (1990). Market orientation: The construct, research propositions, and managerial implications. *Journal of Marketing*, 54, 1-18.
- Leandro, R. G., & Fernando, C. (2019). How technology intelligence is applied in different contexts? *International Journal of Innovation*, 7(1), 104-122.
- Li, T., & Calantone, R.J. (1998). The impact of market knowledge competence on new product advantage: Conceptualization and empirical examination. *Journal of Marketing*, 62(4), 13-29.
- Maja, M., & Zabkar, V. (2001). Competitive advantage as a result of non-price factors: Application of structural equation model. *Economic and Business Review*, 3(1), 25-44.
- Maja, M. B. (2001). Analyzing competitive advantage on the basis of resource-based view: The concept of price and non-price factors. *Journal for East European Management Studies*, 6(3), 313-330.
- Makhija, M. (2003). Comparing the resource-based and market-based views of the firm: Empirical evidence from Czech privatization. *Strategic Management Journal*, 24, 433-451.
- Makori, O. M. (2016). *Competitive intelligence practices and performance of commercial banks in Kenya: A case of Equity Bank*
- Maltz, E., & Kohli, A. K. (1996). Market intelligence dissemination across functional boundaries. *Journal of Marketing Research*, 33(1), 47-61.
- Maune, A. (2014). Competitive intelligence in South Africa: A historiography, corporate ownership and Control, 11(4), 635-641

- Mbithi, M. (2014). Transformational leadership, organizational characteristics, employee outcomes, leader-member relations and performance of universities in Kenya. *International Journal of Business and Social Sciences*, 1(2), 34–39.
- McGonagle, J. J., & Vella, C.M. (2004). Competitive intelligence in action. *The Information Management Journal*, 38(2), 64-68.
- McMaster, M. D. (1996). *The intelligence advantage: Organizing for complexity*. Newton, MA: Butterworth-Heinemann.
- Meihami, B., & Meihami, H. (2013). Knowledge management a way to gain a competitive advantage in firms (evidence of manufacturing companies). *International Letters of Social and Humanistic Sciences*, 14, 80-91 doi:10.18052/www.scipress.com/ILSHS.14.80
- Mele, C., Pels, J., & Polese, F. (2010). A brief review of systems theories and their managerial applications. *Service Science* 2(1-2), 126-135.
- Michalisin, M., Smith, R., & Kline, D. M. (1997). In search of strategic assets. *International Journal of Organizational Analysis*, 5(4), 338-360.
- Miller, J. P. (Ed.) (1999). *Millennium intelligence: Understanding and conducting competitive intelligence in the digital age*. Medford, NJ: Cyberage Books.
- Moorman, C. (1995). Organizational market information processes: Cultural antecedents and new product outcomes. *Journal of Marketing Research*, 32(3), 318–335.
- Morgan, S., & Michael, S. (2007). Effect of marketing-manufacturing integration on new product development time and competitive. *Journal of Operations Management*, 25, 203–217.
- Mugenda M.O., & Mugenda A. (2003); *Research methods: Qualitative and quantitative approaches*. Nairobi: Africa center for technology studies.

- Mugenda M.O., & Mugenda A. (2009); *Research methods: Qualitative and quantitative approaches*. Nairobi: Africa center for technology studies.
- Mugo, H. W., Wanjau, K., & Ayodo, E. M. A. (2012). An investigation into competitive intelligence practices and their effect on profitability of firms in the banking industry: A case of Equity Bank, *International Journal of Business and Public Management*, 2(2), 61-71.
- Muller, M. (2006). Building blocks of competitive intelligence – competitive technical intelligence. *South African Journal of Information Management*, 8(3).
- Mutua, M. T., & Ngugi, K. (2012). Influence of competitive intelligence on profitability of mobile telecommunication companies in Kenya. *International Journal of Innovative Research & Development*, 1(11), 229-250.
- Nasri, W. (2011). Competitive intelligence in Tunisian companies. *Journal of Enterprise Information Management*, 24, 53–67.
- Navarro-García, A., Peris-Ortiz, M. & Barrera-Barrera, R. (2016). Market intelligence effect on perceived psychic distance, strategic behaviours and export performance in industrial SMEs. *Journal of Business & Industrial Marketing*, 31(3), 365–380.
- Ndegwa, M. M., & Muathe, S. (2018). Competitive intelligence practices and performance of airlines in Kenya: Case of Air Kenya Express Limited. *European Journal of Business and Management*, 10(9), 23-38.
- Nemutanzhela, P., & Iyamu, T. (2011). The impact of competitive intelligence on products and services innovation in organizations. *International Journal of Advanced Computer Science and Applications*, 2(11), 38-44.

- Neuman, W. L. (1997). *Social research methods: Qualitative and quantitative approaches* (3<sup>rd</sup> ed.). Boston: Allyn and Bacon.
- Ngamau, P. N. (2015). *Influence of strategic partnerships on performance of insurance companies in Kenya*. (Masters Dissertation). Retrieved from <https://erepository.uonbi.ac.ke>
- Ngatia, E. W., Muya, J., & Ngacho, C. (2018). Relationship between competitive strategies and performance of savings and credit co-operative societies: A case of mwalimu national SACCO in Kenya, *International Journal of Social Sciences and Information Technology*, IV(X), 1-17.
- Ngugi, J. K., Gakure, R. W., & Mugo, H. (2012). Competitive intelligence practices and their effect on profitability of firms in the Kenyan banking industry, *International Journal of Business and Social Research*, 2(3), 11-18.
- Nhuta, S. (2012). An analysis of the forces that determine the competitive intensity in the airline industry and the implications for strategy. *International Journal of Physical and Social Sciences*, 2(9), 433-469.
- Nickerson, J., & Zenger, R. (2004). A Knowledge-based theory of the firm: The problem-solving perspective. *Organization Science*, 15(6), 617-632.
- Norling, P. M., Herring, J. P., Rosenkrans, W. A., Stellpflug, M., & Kaufman, S. B. (2000). Putting competitive technology intelligence to work. *Research Technology Management*, 43(5), 23-28.
- Nyawira, K. J. (2011). *The relationship between the level of technological innovation and financial performance of commercial banks in Kenya*. (Masters Dissertation). Retrieved from <https://erepository.uonbi.ac.ke>

- Nzewi, H. N., Chiekezie, O. M., & Anizoba, A. S. (2016). Competitive intelligence and performance of selected aluminum manufacturing firms in Anambra State, *Nigeria International Journal of Business Administration*, 7(3), 62-70.
- Obonyo, M. O., & Kilika, J. M. (2020). Competitive intelligence and corresponding outcome in a strategic management process: A Review of literature, *Journal of Economics and Business*, 3(4), 1689-1707.
- Olofin, B. (2017). Competitive intelligence in the banking industry: A case study of a Nigerian bank. *Researchfora international conference*, 1-9.
- Olouasa, L. S. (2020). Effect of competitive intelligence strategy on growth of local Airlines operating in Kenya. (Masters Dissertation). Retrieved from <http://repository.anu.ac.ke>
- Paiva, E. L., & Goncalo, C. R. (2008). Organizational knowledge and industry dynamism: An empirical analysis. *International Journal of Innovation and Learning*, 5(1), 66–80.
- Patton, K.M., & McKenna, T.M. (2005). Scanning for competitive intelligence, *Competitive intelligence magazine*, 8(2), 24-29.
- Pellissier, R., & Kruger, J. P. (2011). Understanding the use of strategic intelligence as a strategic management tool in the long-term insurance industry in South Africa, *SA Journal of Information Management*, 13(1), 1- 13.
- Popovič, A., Hackney, R., Coelho, P. S., & Jaklič, J. (2012). Towards business intelligence systems success: Effects of maturity and culture on analytical decision making. *Decision Support Systems*, 54(1), 729–739.
- Porter, M. E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. New York: The Free Press.

- Porter, M. E. (1980). *Competitive strategy: Techniques of analyzing industries and competitors*. New York, NY: The Free Press.
- Porter, M. E. (2008). *The five competitive forces that shape strategy*. Boston: Harvard Business Review.
- Porter, M.E. (1979). *How competitive forces shape strategy*. Boston: Harvard Business Review.
- Powell, T. C. (1992). Research notes and communications strategic planning as competitive advantage. *Strategic Management Journal*, 13(7), 551-558.
- Prescott, J. E., & Miller, S.H. [eds.], Society of Competitive Intelligence Professionals (2001). *Proven strategies in competitive intelligence: Lessons from the trenches*. NY: Wiley.
- Priem, R. L., & Swink, M. (2012). A demand-side perspective on supply chain management. *Journal of Supply Chain Management*, 48(2), 7-13.
- Priporas, C. V. (2019). Competitive intelligence practice in liquor retailing: Evidence from a longitudinal case analysis. *International Journal of Retail & Distribution Management*, 47(9), 997-1010.
- Rahman, S., & Sohal, A. (2001). Total quality management practices and business outcome: evidence from small and medium enterprises in Western Australia. *Total Quality Management*, 12(2), 201-210.
- Rattray, J., & Jones, M. C. (2007). Essential elements of questionnaire design and development. *Journal of clinical nursing*, 16, 234-243.
- Roos, J., Roos, G., Dragonetti, N., & Edvinsson, L. (1997). *Intellectual capital: Navigating in the new business landscape*. Basingtoke: Macmillan.
- Rouach, D., & Santi, P. (2001). Competitive intelligence adds value: Five intelligence attitudes. *European Management Journal*, 19(5), 552–559.

- Sande, G., & Ragui, M. (2018). Competitive intelligence practices and performance of Equity Bank Limited. *International Academic Journal of Human Resource and Business Administration*, 3(1), 282-302.
- Scott, W. R., & Davis, G. F. (2016). *Organizations and organizing rational, natural, and open system perspectives*. NY: Routledge
- Sekaran, U. (2003). *Research Methods for Business: A skill-building approach* (4<sup>th</sup> ed.). New York: John Wiley & Sons.
- Shaker, S. M., & Gembicki, M.P. (1999). *The war room guide to competitive intelligence*. NY: McGraw-Hill.
- Shih, M., Liu, D., & Hsu, M. (2010). Discovering competitive intelligence by mining changes in patent trends. *Expert Systems with Application*, 37(4), 2882–2890.
- Silva, M., Moutinho, L., Coelho, A., & Marques, A. (2009). Market orientation and performance: modelling a neural network. *European Journal of Marketing*, 43(3/4), 421-437.
- Slater, S. F., & Narver, J. C. (2000). Intelligence generation and superior customer value. *Journal of the Academy of Marketing Science*, 28(1), 120-127.
- Soltani, Z., Zareie, B., Rajabiun, L., & Fashami, A. A. M. (2020). The effect of knowledge management, e-learning systems and organizational learning on organizational intelligence. *Kybernetes*, 49(10), 2455-2474.
- Sundiman, D., Idrus, M. S., Troena, E. A., & Rahayu, M. (2013). The role of knowledge management in individu, the community and the organization. *International Organization of Scientific Research Journal of Business and Management*, 7(1), 47-54.

- Sveiby, K. (2001). A knowledge based theory of the firm to guide in strategy formulation, *Journal of Intellectual Capital*, 2(4), 344-358.
- Tahmasebifard, H. (2018). The role of competitive intelligence and its sub-types on achieving market performance. *Cogent Business & Management*, 5:1, 1540073, DOI: 10.1080/23311975.2018.154007
- Tahmasebifard, H. (2018). The role of competitive intelligence and its sub-types on achieving market performance. *Cogent Business & Management*, 5:1, 1540073, DOI: 10.1080/23311975.2018.154007
- Tan, T. T. W., & Ahmed, Z. U. (1999). Managing market intelligence: An Asian marketing research perspective. *Marketing Intelligence & Planning*, 17(6), 298-306.
- Tao, Q., & Prescott, J. E. (2000). China: Competitive intelligence practices in an emerging market environment. *Competitive Intelligence Review*, 11(4), 65-78.
- Thompson, A. A., Strickland, A.J., & Gamble, J.E. (2007). *Crafting and executing strategy: The quest for competitive advantage: Concepts and cases*. (15<sup>th</sup> ed.). New York: McGraw-Hill Irwin Publisher.
- Tolla, B. B. (2019). *A framework for competitive intelligence in strategic decision-making (SDM) in an Ethiopian Conglomerate*. (Ph.D. Thesis). Retrieved from <https://uir.unisa.ac.za/>
- Tomal, D.R., & Jones, K.J. (2015). A comparison of core competencies of women and men leaders in the manufacturing industry. *The coastal business journal*, 14(1), 13-25.
- Veugelers, M., Bury, J., & Viaene, S. (2010). Linking technology intelligence to open innovation. *Technological Forecasting & Social Change*, 77, 335–343.
- Vežmar, J. M. (1996). Competitive intelligence at Xerox, *Competitive Intelligence Review*, 7(3), 15-19.

- Von Krogh, G., & Grand, S. (2002). From economic theory towards a knowledge based theory of the firm. In Choo and Bontis (Eds.). *The strategic management of intellectual capital and organizational knowledge*: 163-184. New York: Oxford University Press.
- Wahome, H. W. (2012). *Competitive intelligence practices adopted by Safaricom limited in Kenya*. (Masters Dissertation). Retrieved from <https://erepository.uonbi.ac.ke/>
- Waithaka, P. (2016). Competitive intelligence practices and performance of firms listed on the Nairobi Securities Exchange, Kenya. *European Scientific Journal*, 12(19), 107-126.
- Wanambiro, R. V. (2019). *Influence of intellectual capital initiatives on value creation in universities in Kenya*. (Ph.D. Thesis). Retrieved from <http://ir.jkuat.ac.ke/>
- Wanjala, E. B., & Miroga, J. (2020). Influence of competitive intelligence strategy on growth of listed commercial banks in Kenya. *The Strategic Journal of Business & Change Management*, 7(2), 222 – 239.
- Weiss, A. (2002). A brief guide to competitive intelligence: how to gather and use information on competitors. *Business Information Review*, 19(2), 39-47.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2): 171-180.
- Yap, C. S., Cheng, B. L., Hussain, N. M., & Ahmad, R. (2018). Innovativeness, market intelligence practices, and firm performance of small and medium-sized tour operators. *Tourism and Hospitality Research*, 18(2), 143–151.
- Yin, R. K. (2009). *Case study research: Design and methods* (4<sup>th</sup> ed.). Thousand Oaks, CA: Sage Publications.

Zangouinezhad, A., & Moshabaki, A. (2009). The role of structural capital on competitive intelligence. *Industrial Management and Data Systems*, 109(2), 262–280.

Zhang, Y., & Li, S. (2009). High performance work practices and firm performance: Evidence from the pharmaceutical industry in China, *The International Journal of Human Resource Management*, 20(11), 2331-2348.



The bank's TI applications & implementation of developments has led to value creation, an increase in brand image and cost savings					
The bank TI activities is a driver to the embracement of ISO 27001 in its operations					
TI assists in monitoring changes in technology and developments to detect the prevailing technological opportunities and threats in the market					
Increased visibility of the bank through search engine platforms					
TI enables gaining knowledge of customers favorites through collaborative systems of information					
TI leads to technological innovation which in turn leads to the survival of the bank and its ecosystem					
There has been reduced costs in advertising, publicity and marketing					

## Section II: Product intelligence activities

10. Indicate to what extent the bank has implemented these product intelligence activities.

1 = Very low extent 2 = Low extent 3 = Moderate extent 4 = Great extent 5 = Very great extent

<b>Product intelligence (PI) activities</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The aim of product intelligence is to fast-track the level of product innovation leading to competitive edge					
There is a rise of new product and service introductions, design & technology based on customer needs					
Increment in product intelligence affects the bank's performance due to benefits such as economies of scale, market potency and reduction of risks					
There is establishment of products to fit markets through branding and differentiation of products which attains customer gratification					
Product intelligence increases the returns of the bank whether in form of profit or return on investment					
The numbers of new product launches has enhanced customers loyalty to diverse brands					
Product leadership intelligence assists the bank to keep up with industry trend					

The Bank gathers information from its clients to guide its banking services & products					
The bank has developed its market share and value after adoption of the product intelligence strategy					
Product intelligence has increased customer satisfaction & retention					

### Section III: Market intelligence activities

11. Indicate to what extent the bank has implemented these market intelligence activities.

1 = Very low extent 2 = Low extent 3 = Moderate extent 4 = Great extent 5 = Very great extent

<b>Market intelligence (MI) activities</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Market intelligence provides guidelines for present and future patterns in customers' demands and likings and respond to them quickly					
There is new markets creation, segmentation creativity prospects and key changes in distribution & marketing					
Focus on market intelligence assist the bank to adjust appealing marketing mix (pricing, place, promotion, and product) for customers					
Knowledge derived from customers' feedback, market trends and changes in patterns of consumption assist the bank to develop products attached with a focused market's need that causes heightened market performance					
Intelligence acquired assist to formulate future plans related to the bank's strategic interests at the market and the environment as a whole.					
MI capacities assists the bank in penetration of markets through provision of knowledge on culture and competition in each market/locality					
Market intelligence reduces market uncertainty, facilitates strategic marketing management & decision-making, tactical planning in the bank					
Market intelligence avails unique opportunities for the bank in linking with and developing lasting relationships with suppliers & clients					
Market intelligence may lead to higher customer loyalty, base, value and return on investment					
Market intelligence gathering assist in the survival of the bank in the highly uncertain environment through prompt notices of prospects and threats					

**Section IV: Organization intelligence activities**

12. Indicate to what extent the bank has implemented these organization intelligence activities.

1 = Very low extent 2 = Low extent 3 = Moderate extent 4 = Great extent 5 = Very great extent

<b>Organization intelligence (OI) activities</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The bank OI activities is a driver to the embracement of ISO 9001 in ensuring constancy, good quality services & products leading to business benefits					
The ISO 9001 principles of quality management applied are a strong client focus, the process approach and continuous development, the enthusiasm and implication of top executives					
OI has enhanced the ability of the bank to learn, control and utilize knowledge for making effective decisions and adapting to shifts in the business atmosphere					
Organizational intelligence enables the bank to increase its capabilities by increasing knowledge and awareness					
Organizational intelligence assists the bank to recognize both its weak and strong points and how to strengthen both					
Organizational intelligence assists in gathering information, produce knowledge and to effectively act grounded on that generated knowledge.					
Organizational intelligence increases the utilization of the resources and competencies related to knowledge & learning leading to innovation capability					
OI tools for competitive edge, have more action, compatibility, actionable insights and have considerable ability to challenge the inside and outside complications.					
Organizational intelligence directly and positively affects the financial and growth performance of the bank					
OI can help in strategic adaptation with the uncertain environment to meet the tasks of survival					

**PART C: BANK'S PERFORMANCE**

13. Indicate to what extent the bank gained the following benefits from the implementation

1 = Very low extent 2 = Low extent 3 = Moderate extent 4 = Great extent 5 = Very great extent

<b>Performance</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Increased customer loyalty & satisfaction					
Increased sales results/revenue & Profit					
Increase in Return on Investment (ROI) & Return on Assets (ROA)					
Increased bank branches					
Increased customer numbers/base & retention					
Increased market share and value					
Increase in value creation & quality of products/services					
New Product/Service & market development					
Competitive/product differentiation					
Organic growth/market expansion & positioning					
Technology integrated products/Internet-enabled product/intelligent ATMs/ internet/mobile banking, Artificial Intelligence/Smart machines					
ISO certification (27001, 9001)					
Market segmentation & sustainability					
Improved tactical/strategic planning & decision-making					