

**EFFECT OF STRATEGIC CAPABILITY ON ELECTORAL TECHNOLOGY
MANAGEMENT IN KENYA**

AISHA ABUBAKAR SENGE

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF
BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF
NAIROBI**

2019

DECLARATION

This is my original work and has not been submitted for a degree in any other university.

Signature Date

AISHA ABUBAKAR SENGE

D61/73190/2014

This research project report has been submitted for examination with my approval as University Supervisor.

Signature Date

Dr. Joseph Aranga

Lecturer

Department of Business Administration

School of Business, University of Nairobi

DEDICATION

For my family whose support was excellent

ACKNOWLEDGEMENTS

I acknowledge my supervisor Dr. Joseph Aranga (PhD) for ably guiding from the beginning till I successfully completed the work. I also thank scholars in the University of Nairobi and abroad for I used their literature is writing this project. I thank, and greatly so, the Constituencies Elections Coordinators who participated in this research by completing questionnaires. Last, but equally importantly, I thank my family for standing by me while I burnt the midnight oil working on this project.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
LIST OF FIGURES	vii
LIST OF TABLES	viii
ABBREVIATIONS AND ACRONYMS	ix
ABSTRACT	x
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study	1
1.1.1 Strategic Capability.....	2
1.1.2 Electoral Technology Management	3
1.1.3 Independent Electoral and Boundaries Commission	4
1.2 Research Problem	5
1.3 Research Objectives.....	6
1.4 Value of the Study	6
CHAPTER TWO: LITERATURE REVIEW	8
2.1 Introduction.....	8
2.2 Theoretical Foundations of the Study.....	8
2.2.1 Five Forces Model	8
2.2.2 The Theory of Competitive Advantage	10
2.2.3 The Dynamic Capability Theory of the Firm	12
2.2.3 The Resource-Based View.....	14
2.3 Empirical Literature Review.....	16
2.4 Conceptual Framework.....	18
2.5 Summary of Literature Review and Research Gap.....	19
CHAPTER THREE: RESEARCH METHODOLOGY	21
3.1 Introduction.....	21
3.2 Research Design.....	21
3.3 Sampling Techniques and Sample Size	21

3.4	Data Collection	22
3.5	Data Analysis	22
CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND INTERPRETATION ..		24
4.1	Introduction.....	24
4.2	Questionnaire Return Rate	24
4.3	Demographic characteristics of the Respondent.....	24
	4.3.1 Gender of the Respondent.....	24
	4.3.2 Educational levels of Respondents	25
	4.3.3 Duration of Service in Current Position.....	26
	4.3.4 Trained on Electoral technology	26
4.4	Data Reliability	27
4.5	Strategic Capability.....	27
	4.5.1 Management Capability and Competence	28
	4.5.2 Logistical Competence.....	30
	4.5.3 Strategic Capability.....	32
	4.5.4 Electoral Technology Management	34
4.6	Correlation Analysis of the Study Variables	36
4.7	Regression Analysis.....	37
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS		39
5.1.	Introduction.....	39
5.2.	Summary	39
5.3.	Conclusion	40
5.4.	Recommendations.....	41
5.5.	Limitations	42
5.6.	Suggestions for Further Research	42
REFERENCES.....		43
APPENDICES		46
Appendix I: Questionnaire		46
Appendix II: Distribution of Constituencies per County		51

LIST OF FIGURES

Figure 1.1. Conceptual Framework of Variables.....	19
--	----

LIST OF TABLES

Table 3. 1. Operationalization of Variables	23
Table 4.1 Questionnaire Return Rate	24
Table 4.2 Gender of the Participants	25
Table 4.3 Education Level of Respondent	25
Table 4.4 Service Duration in Current Position	26
Table 4.5 Electoral Technology Training	26
Table 4.6 Summary of Cronbach’s Alpha Reliability Coefficients	27
Table 4.7 Mean and Standard Deviation of Management Capability and Competence ..	29
Table 4.8 Mean and Standard of Deviation of Logistical Competence	31
Table 4.9 Mean and standard deviation of Strategic Capacity.....	33
Table 4.10 Mean and standard deviation of Electoral Technology Management.....	35
Table 4.11 Correlation Table	36
Table 4.12 Model Summary.....	37
Table 4.13 ANOVA	37
Table 4.14 Coefficients	38

ABBREVIATIONS AND ACRONYMS

CEC	-	Constituency Elections Coordinators
CEO	-	Chief Executive Officers
IEBC	-	Independent Electoral and Boundaries Commission
IT	-	Information Technology
MNC	-	Multinational Companies
R&D	-	Research and Development
RBV	-	Resource Based View
USA	-	United States of America

ABSTRACT

Strategic capability of an organization focuses on the level to which they are able to contribute to improvement in core competences, competitive advantage and eventually the performance of an organization. This study intended to assess the influence of strategic capabilities on management of technology with focus on electoral technology. The study was a descriptive survey. The targeted population composed of 290 Constituency Elections Coordinators in Kenya's 290 constituencies. A sample of 73 elections coordinators took part in the study. Data were collected by a questionnaire. The study conducted the analysis of data using descriptive statistics and linear regression. Findings indicated that strategic capability did not have strong influence on management of electoral technology at IEBC. Specifically, regression analysis indicated that the coefficient of Management Capability and Competence was -0.0047 ($p = 0.9803$) which was not significant, the coefficient of Logistical Competence was 0.2102 ($p = 0.2726$) which was not significant and the coefficient of Strategic Capacity was 0.0901 ($p = 0.4856$) which was not significant. The study recommends the strengthening of management capability and competence, logistical competence and strategic capability to improve the management of electoral technology to enable the IEBC provide credible elections results to the electorate.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Strategic capability of an organization focuses on the level to which they can improve the core competences and the competitive advantage (Chen, Chen and Lee, 2008). An organization is strategically capable if it effectively deploys its internal resources in integration with its external resources to achieve the organization's objectives (Barney, 2010). Nubler (2016) argues that organizations are increasingly employing technology to provide services to clients in way that effectively meet the expectations of the clients. For this effectiveness to be well met the organization must possess the capacity to manage the technology they use. This indicates that strategic capability has strongly influenced the management of technology in an organization (Barney, 2010).

Three theories guided the study. These are the theory of competitive advantage, the capability theory of the firm and the Resource-Based Theory (RBT). The theory of competitive advantage suggests that there must be optimal utilization of resources with a globalized approach to meet the dynamic expectations of the consumers of an organization's products (Porter, 1985). The capability theory builds on the economic theory to assert that businesses and their management must always be consistent with the dynamic behavioural economics of the market they serve. The theory suggests that building and maintenance of competitive advantage in an organization is dependent upon innovative use of its resources as opposed to being subject to some static market restrictions (Richardson, 1972). The Resource-Based Theory suggests that an organization gains competitive advantage if it effectively its strategy matches to its internal resources, skills, opportunities and risks the external environment (Barney, 1991).

The Independent Electoral and Boundaries Commission (IEBC) of Kenya uses four fundamental technologies in carrying out its electoral mandate. The technologies are the Biometric Voter Registration System (BVR), the Candidates Registration System (CRS), the Electronic Voter Identification System (EVID) and the Results Transmission and Presentation (Odek, 2017). The technologies are designed to enable delivery of credible election results in Kenya's political dispensation. However, for the technologies to work effectively there must be in place strategic capability that is focused to make the technologies work. This study will determine how the strategic capability at IEBC contributes to the management of electoral technology.

1.1.1 Strategic Capability

According to Ansoff (1979) strategic capability can be looked at by focusing on the management capability and competence of an organization; the competence of its logistics; its strategic capacity and the dynamic contexts of each. However, the postulation of Ansoff ignored to differentiate individual competence from organizational competence. In the view of Hamel and Prahalad (1994) who encompassed individual competence and organizational competence strategic capability may be looked at in terms of core competencies which he defined as the collective learning in the organization. Their outlook made core competencies and core capability look the same. Stalk, Evan and Shulman (1992) differentiated the two types of competencies by noting that while core capability applies to the value chain, core competence focuses on specific functions.

This study adopted strategic capability as discussed by Ansoff (1979), but encompasses both individual and organizational competences and capability. It also encompasses core capability and core competence as defined by Stalk, Evan and Shulman (1992). At IEBC strategic capacity was viewed as the management core capability and core competence at individual and organizational

level, its logistical competence, its strategic capacity to manage the electoral technology used to deliver credible election results in Kenya.

1.1.2 Electoral Technology Management

According to Brey (2009) technology is difficult to clearly define. However, according to Volti (2009), technology is a man-made system and that applies knowledge and techniques that make the organization to realize its clearly specified goals. This definition ignores naturally occurring technologies. A more detailed definition by Bigelow (1829) defines technology as the principles, processes, and classification of prominent arts that involve application of science in ways that are useful to the society. Bleed (2008) argues that technology has both material and nonmaterial aspects. The material aspect involve actions, machines and products while the non-material aspects involve ideas that people possess regarding their culture.

Electoral technology management refers to the totality of the interrelated functions of creating policy; planning; controlling and directing electoral technology towards achieving set goals of an election process (Engwall, Kipping and Üsdiken, 2016). According to The Carter Center (2014) an election process must pass the test of being credible, free, fair and peaceful. The credibility, freedom, fairness and peace must be realized during the pre-election stage, during the election stage and in the post-election period. Electoral technology management, therefore, refers to the sum of the related tasks of creating policy, organizing, planning, controlling, and directing electoral technology used in all the phases of the electioneering process to achieve electoral objectives set by the IEBC.

1.1.3 Independent Electoral and Boundaries Commission

The Constitution of Kenya in Article 88 establishes the IEBC with the authority of conducting and/or supervising Kenyan elections and referenda (IEBC, 2016). In its terms of reference, the IEBC manages elections and referenda starting with voter registration to the pronouncement of results within the provided legal framework and under Kenya's Vision 2030 focus. The commission registers voters and updates voters roll; delimits constituency and ward boundaries; regulating candidate nomination at party level, registering nominated candidates for elections, educating voters on the election process, resolving electoral disputes that may arise, and handling any other matter that may arise due to elections process (IEBC, 2016).

In carrying out its mandate the IEBC aims that at least three quarters of Kenyans view elections as free, fair and credible and that the IEBC as independent, impartial, and efficient. The IEBC also targets that at least four out of every five registered Kenyans participate in general in general elections. As an indicator of efficiency, the commission aims at reducing invalid ballots to as little as 0.40 percent (IEBC, 2016).

According to IEBC (2016) the commission has invested in technologies that are to enable it to achieve its objectives in line with Kenya's aspirations regarding elections and in line with proper corporate management. The commission has in place five technologies for voter registration, nomination, voter identification, results transmission and risk management. However, while some of the technologies performed below expectation. To explain this variation in performance, there is need to assess the strategic capability of the IEBC vis-à-vis the management of the technologies put in place.

1.2 Research Problem

Strategic capability is the ability of organizations to execute their strategies (Barney, 2010). It is the ability to harness available skills, capability and resources and turn them into foundation for gaining and sustaining competitive advantage over time (Hareebin, Aujirapongpan and Siengthai, 2018). Strategic capability ensure resources in the organization, such as technology are effectively managed so as to contribute to the successful achievement of the organization in its dynamic business environment (Chen, Chen and Lee, 2008). This is because strategic capability is very closely related to strategic deployment of resources and, therefore, the achievement of competitive advantage (Barney, 2010).

Electoral technology is a key factor in ensuring that elections are conducted and results given according to legal and political expectations and within the context of good governance of the elections conducting body. If technology is well managed, it becomes a unique source of competitive advantage, but if poorly managed it is a great source of distress to management (Sahlman, 2010). The importance of electoral technology is not in the presence of the physical facilities, the knowledge or the networking, but in the ability of the organization to ably harness the three into a unique outfit that will satisfy the requirements of those it serves and gain competitive advantage (Barney, 1991).

Studies have shown very close relationship between strategic capability and the management organizational resources, including technology, to achieve competitive advantage. Studies by Gitau (2016) in Kenya and Kaur and Mehta (2017) in India demonstrated how strategic capability influences competitive advantage through the effective management of an organization's resources. Studies by Seyhan, Ayas, Sonmez, and Ugurlu (2017) in Turkey and Hareebin, Aujirapongpan and Siengthai (2018) in Thailand also showed how strategic capability enabled a

firm to harness its tangible and non-tangible assets to achieve and uphold competitive advantage. However, the studies focused on concepts that did not touch on electoral technology making their findings not applicable to the management of electoral technology. Secondly, the studies in profit-making businesses indicating that the measures used were basically with regard to profit generation. The findings may not be expressly applicable to the non-profit businesses which focuses on non-profit measures. The studies were conducted out of Kenya where the dynamics are different from the Kenyan context in non-profit making context. The studies did not directly connect strategic capability to management of technology and were not conducted in electoral organizations. This study addressed the research gaps by assessing the influence of strategic capability on management of electoral technology at the IEBC. It address the research gaps by replying to the question: how does strategic capability affect the management of electoral technology in Kenya?

1.3 Research Objectives

The study aims to assess the effect of strategic capability on managing electoral technology in Kenya. The specific objectives were:

- i. Determination of the extent of implementation of logistic competence at the Independent Electoral Boundaries Commission.
- ii. To establish the effect of strategic capability on electoral technology management at the Independent Electoral Boundaries Commission.

1.4 Value of the Study

This study will contribute to the knowledge regarding how strategic capability in an organization contribute to the management of its technological endowment to achieve set objectives. The study

will go out of the profit driven organizations and delve into the non-profit making organizations such as the IEBC to establish whether strategy drives the use of technology in the non-profit organizations. This will contribute to the scholarly dialogue of how strategic capability influences use of technology in an organization.

The study will influence policy making at the IEBC and other non-profit organizations in government and/or in private sector. These organizations have invested heavily in modern technology in conduction their business. However, a question that arises is whether the organizations have the strategic capability to ensure the technology is effectively working for them to achieve their objectives in efficient ways.

This study demonstrates how strategic capability in an organization contributes to how the technology in the organization helps in achieving targets and objectives. This is of importance since an organization such as the IEBC manages the sensitive issue of elections. It, therefore, does not just need the right technology, but needs the technology to work in order to deliver credible elections and paint itself as a fair and independent elections commission in Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter's focus is on the theories that guide the study, past research work concerning how strategic capability contributes to strategic competitiveness and the research gap that will be addressed; these are presented in three subsections that follow.

2.2 Theoretical Foundations of the Study

Four theories guide the study. These theories are, The Five Forces Model, The Theory of Competitive Advantage, The Capability Theory and The Resource-Based Theory.

2.2.1 Five Forces Model

This is a model by Porter (1985). The model is rooted in microeconomics and assumes that the five forces in the external environment of an enterprise strongly influences the development of its strategy. According to Porter (2008) the threat of new entrants is determined by the nature of the barriers to entry into the particular business environment. It is the barriers that determine the level of threat as opposed to the entrants themselves. An enterprise has to put in place mechanisms to address possible threats to its survival and profitability. The IEBC is protected by the Kenyan law to be the sole manager of elections in Kenya. This indicates it does not have a major threat to its survival in the name of other firms that may join the elections business as elections managers in Kenya.

Rivalry results from pricing, introduction of new products, advertising etc. (Porter, 2008). In the elections industry in Kenya rivalry would result if there were firms other than the IEBC that provide elections management services. This is because rivalry is shaped by the profile of existing

institutions and the context of the industry. Profile of existing institutions means the number of establishments in the pool while industry context refers to the political, economic, social and technological factors. Though rivalry from competing firms is nonexistent for IEBC, the political, economic, social and technological contexts play a big role in strategy creation. A substitute is a product performing the same or a similar task using different methods (Porter, 2008). A substitute is highly considered a threat when it provides a more cost-effective trade-off compared to the original product. To the IEBC the threat of substitutes would be another electoral commission that provides elections services with more cost-effective trade-offs. The trade-offs would be lower costs, higher accuracy, faster release of results etc. however, the sole mandate given to IEBC by the Kenyan law protects it from such threats.

For the IEBC, the buyer is the person who participates in the electoral process as a MCA, MP, Senator, Governor or President. The political parties that sponsor their candidates also make the group of buyers. Strong buyers have a strong influence on the strategy the IEBC will take in the attempt to satisfy them. Stronger candidates and political parties exert more pressure on the IEBC as compared to smaller parties and weaker candidates. The IEBC has to respond to the needs of the stronger candidates and the stronger political parties. Suppliers to the IEBC are entities that avail the requirements that enable it provide electoral services in Kenya (Martinez and Wolverson, 2009). The biggest supplier power to the IEBC are the firms that supply elections materials, technology and highly skilled labour. The incorporation of the five forces into the strategy of IEBC, coupled with its own ability to implement such strategy effectively determines how it will manage its electoral technology to the satisfaction of the Kenyan electorate.

2.2.2 The Theory of Competitive Advantage

The theory by Porter (1990) is a tool for scrutinizing the competitiveness of an organization. The theory approaches the understanding of competitive advantage by focusing on nations as they produce products and trade internationally. The theory applies principles of competitive advantage on individual industries, or sets of industries. As a result, the theory builds from individual industries towards the economy since its firms that compete in international trade and not nations. However, the contribution of situation in the economies to the capacity of firms and industries to achieve competitive advantage cannot be ignored.

According to Porter (1990) competitiveness is a function of the five forces. Though the determinants actually affect the competitive advantage of the whole economy, they are more specific to a given industry as opposed to the whole economy. The reason is that the industry forms the basic unit upon which analysis of competitive advantage is analyzed, gained or lost (Mintzberg, Ahlstrand, and Lampel, 1998).

Factor conditions are inputs. The inputs are put into five broad categories. The human resources category is about the personnel and management with regard to their quantity, their skills, and their cost. The physical resources category refers to the abundance, the quality, the accessibility, and the cost of natural and natural and manmade resources of a nation. Knowledge resources focus on the scientific, the technical, and knowledge about the market accumulated by a firm with regard to the production of particular goods and services. Further, capital resources are the stocks of capital resources and the cost of deploying the stocks. Last, but not the least, infrastructure resources which are the features and the cost of using applying infrastructure available in production. The contribution of the inputs to competitiveness is about the degree to which they are efficiently and effectively deployed within an industry and not merely about their abundance (Porter, 1990).

Porter (1990) further discusses demand conditions. The composition of home demand contributes to how a firm perceives, interprets, and responds to the requirements of the buyers of its products. Features such as sophistication and anticipation of consumers will influence competitive advantage. Size of demand and pattern of growth focus on the magnitude of the domestic demand and its growth trend. These help in creating national competitive advantage. Internalization of domestic demand is about sustaining home demand while reaching out to international customers.

Related and supporting industries cannot be ignored as sources of competitive advantage. For instance, access to competitive supplier industries enables the firm to access inputs in a cost-effective way. Focus is not on the access to inputs locally or internationally, but on how effectively the inputs are utilized. There have to be effective linkages between a firm and its related and supporting firms in value creation. Linkages may be in the form of innovation and upgrading where firms in related and supporting industries influence technical efforts in testing new developments and ideas. Related industries are about firms with which a given firm can share activities in a coordinated when either competing or when they are producing products that complement each other. The activities shared may be in form of technology development, manufacturing, distribution, marketing or research and development (R&D). The larger the number of related industries, each with its competitive advantages in an economy, the better the chance that the economy will achieve sustainable competitive advantage in a specific industry (Porter, 1990).

Firm strategy, structure, and rivalry center on how firms in a given industry are created, organized, managed and how they rival each other. While goals, strategies, and organization of firms depend on national conditions, the achievement of national competitive advantage is determined by how they respond to their drivers of competitive advantage. A firm's goals are strongly influenced by ownership, owner's motivation, debt holders, the corporate governance, and the incentives within

the firm for senior management. National prestige and national priorities can also make a firm gain competitive advantage (Thompson and Strickland, 1993).

Porter (1990) completes the Competitive Advantage theory by adding chance and governance as factors that contribute to competitive advantage. Though not important determinants of competitive advantage, they shape the direction of the influence. Chance events are spontaneous developments beyond firms' e.g. pure inventions and breakthroughs in technologies. Government is about how policies of government influence the entire system of determinants towards competitive advantage.

This theory identifies strategy as a vital contributor to competitiveness in a firm. This indicates that looking into such factors can enable the understanding of the effectiveness of management of electoral technology at IEBC.

2.2.3 The Dynamic Capability Theory of the Firm

In this theory Teece (2019) aimed at addressing the economic outlook of the theory of the firm. According to Teece, taking the economic outlook of firms ignored the aspect of understanding differences in firms even when they had almost similar endowment of factors of production. Economists have been silent regarding managerial issues such as how firms innovate, why firms usually have capability that goes beyond and above the summation of the individual skills of staff and contractors and, more importantly, how each firm builds sustainable competitive advantage above other rival organizations.

Teece (2019) argues that Capability Theory provides a plausible explanation. The Capability Theory views strategic management of the firm's with minimum reference to economics. The theory goes further than the factors of production and the related functions that are at the core of

the economic outlook of the firm. It delves into organizational learning and how firms orchestrate assets to make it unique and non-replicable in the market. This learning empowers firms in realizing effective coordination and integration when developing and deploying non-marketable assets. These unique non-market qualities enables the firms to create and capture value driven by innovation.

The Capability Theory acknowledges technology and know-how as the outcome of deliberate value creation activities that include searching, learning, R&D and asset management. Innovators and imitators capture value depending on their knowledge, the assets owned by the firm, intellectual property controls, the set standards, the business model used by the firm and its decisions regarding venture (Teece, 2010). According to Capability Theory, these variations explain inter-firm heterogeneity using both economics and strategic management approaches.

Capability is divided into ordinary and dynamic capability. Ordinary capability refer to operations, administration and governance and they make the firm to produce and sell a certain product set. This capability is entrenched in a blend of skilled staff and independent contractors; available facilities; processes; and the coordination that gets things done. Ordinary capability is visible in the requirements of specific tasks. Benchmarking gives room to copying or imitation by rivals through consultancy and other knowledge sources. However, ordinary capability, even when excellently applied is generally insufficient in ensuring success and survival of a firm except in weak competitive markets (Wintey, 2003).

Dynamic capability allows for an organization to build and renew resources in a profitable manner and to reconfigure them innovatively in response to changes in the market (Pisano and Teece, 2007). Dynamic capability allows the organization to generate presumptions concerning changing

consumer preferences, business problems and technology. They also allow for validating and fine-tuning the presumptions and rearranging assets and activities. A firm with solid dynamic capability will likely experience high level of performance basing on new products and processes development, a change-orientation and an effective technological opportunities. The managerial modes in the dynamic context include effectual asset orchestration, agile entrepreneurship, and futuristic leadership. Dynamic capability is divided into three primary clusters. The first cluster includes identifying and appraising threats, opportunities, and customer requirements i.e. sensing. The second cluster includes mobilizing resources to capture the new opportunities i.e. seizing. The third cluster involves continuous organizational renewal i.e. transforming (Teece, 2007).

This theory is important because it put managerial orchestration at the center of the performance of the organization. When strategy is developed successfully scarce assets are deployed in calculated innovative ways and processes are aligned to outmaneuver competitors by way of capitalizing on their mistakes. At IEBC the success of management of electoral technology will depend on how the ordinary and dynamic competencies are applied to achieve organizational objectives within the dynamic elections environment in Kenya.

2.2.3 The Resource-Based View

Penrose (1959) who came up with the view submitted that resources possessed by organization and how they are deployed are more important in charting strategic direction than industry structure. Wernerfelt (1984) is the one who first used the term ‘resource-based view’ and he defined the firm as a package of assets that are loosely attached to the firm. Barney (1991) added to RBT when he posited that the primary foundation of competitive advantage for a firm is in its resources.

The Resource-Based Theory postulates that the internal environment of a firm drives its competitive advantage. The theory lays emphasis on the resources of a firm as its means of competition in its environment. Further, the theory posits that only the strategically important resources and skills determine competitive advantage (Barney, 1991). Strategically important assets refer to that set of assets that is difficult to trade and imitate. These resources are also scarce, untransferable and specialized in a unique way to enable the firm to gain competitive advantage above others (Amit and Shoemaker, 1993). The assets could be physical, knowledge and/or human resources which influence the capability of the firm.

According to Maier and Remus (2002) there are three steps regarding resources strategy of a firm. A firm should create competence and then realize its competence before competence transaction. Competence creation requires that the firm clearly defines and conducts an analysis of the markets, products and services. In competence realization the firm executes services, makes procurements and conducts production. Competence transaction is when the firm focuses on logistics, fulfillment of orders and maintenance of the orders (Maier and Remus, 2002).

According to Barney (1991) the resources of a firm become sustainable and strategic if they have valuable, uncommon, non-imitable and without substitute. Peteraf (1993) added that persistent competitive advantage is due to four underlying conditions. Recent works, for instance by Teece, Pisano and Shuen (1997) have added intangible assets on the list and focus on information, knowledge and dynamic capability.

The relevance of the RBV to this study is that it identifies the resources an organization has as a great cause of competitive advantage. The internal response of the organization to its market is a strong contributor to its strategy. It must, therefore, have clear strategies regarding its tangible and

intangible assets in order to effectively achieve its objectives. At IEBC, this theory suggests that the manner in which technology resources are managed depends on the strategy of managing the technology. The results of the management of the technology are seen in how the technology serves the Kenyan population during elections.

2.3 Empirical Literature Review

Different studies have been conducted to determine how strategic capability influences management of technology. A study conducted by (Sahlman, 2010) aimed at establishing the determinants of strategic technology management with focus on structures, impacts and objectives. The study was done on 39 companies in Finland which were involved in consumer and industrial electronics, telecommunications equipment and R&D subcontracting services. The companies had customers and competitors globally. The study was exploratory and descriptive in which data from company founders, owners, chairmen of boards, chief executive officers (CEOs) and R&D directors. The participants must have had an experience in technology management. Interviews, structured questionnaires and focus workshops were used to collect data. Results indicated that strategy had strong impact on management of technology in the organizations under study.

In another study by Seyhan, Ayas, Sonmez, and Ugurlu (2017) sought to explore how strategic capability affected competitive performance and how internal collaboration contributed to the relationship. They conducted the study in machine-made carpets manufacturing firms in Turkey. The study was exploratory and applied survey methods. Data were obtained using structured questionnaires. A total of 203 questionnaires sent to top and mid-level managers of the firms provided data used in the analysis. The study established that marketing capability, market-linking capability, information technology capability and management related capability had positive effect on competitive performance of the firms.

As study conducted by Gitau (2016) aimed at determining the strategic capability present in the insurance industry in Kenya and assessing the extent to which the he strategic capability contributed to sustainable competitive advantage. The study was exploratory and used survey methods. The study population composed of 49 insurance companies operating in Kenya. Data collection was conducted using a structured questionnaire. The study established that advanced technology, effective marketing skills, quality customer service, efficiency in claim settlement and product diversity were the main strategic capability that sustained a competitive advantage in the insurance companies. These strategic capability strongly contributed to the competitive edge of the firms demonstrating that competitive advantage was due to strategic capability.

Another study conducted by Kaur and Mehta (2017) assessed the how dynamic capability determined competitive advantage of Multinational companies (MNC) in India. They compared MNCs that are of Indian origin with foreign ones that operated in India. The study focused on dynamic capability, the consequence of country-of-origin and level of employment of dynamic capability. The study was conducted on four main MNCs in the Indian Information Technology industry. Two of the companies were of Indian origin while two others were foreign. Survey methods were used to collect data from 260 members of staff at various ranks in the multinational companies. The employees were selected by stratified random sampling and data from them collected using structured questionnaires. The results the study revealed that dynamic capability significantly contributed to the competitiveness of the MNCs despite differences in countries of origin though the strength of contribution was higher in the foreign MNCs.

In a study by Hareebin, Aujirapongpan, and Siengthai (2018) the objective was to explore how successful entrepreneurs built their organization's strategic capability in order to achieve their sustained strategic competitiveness in their dynamic business environment. The study was a

qualitative study that employed survey methods. The study was conducted on 15 entrepreneurs in export, hotel, contractor, retail, hospital, and information technology (IT) parts businesses in Thailand. Data were collected using in-depth interviews. The results indicated that Strategic capability of the organizations drove competitive advantage. Their key capabilities were: resource-based capability, knowledge-based capability and network-based capability. The study demonstrated that strategic capability strongly contributed to competitive advantage.

A study conducted by Parnell (2011) assessed how strategic capability influenced business strategy and performance among retail firms in Argentina, Peru, and the United States of America (USA). The study was an exploratory study which utilized survey methods. Questionnaires were given to 277 people who attended a retail trade show in the USA. The study demonstrated that it was important for the firms to develop strategy-specific capability as the foundation for sustained competitive advantage.

2.4 Conceptual Framework

A conceptual framework graphically presents the relationships of the variables in a study. As shown in Fig 1.1 the independent variables are Management Capability and Competence, Logistical Competence and Strategic Capacity. The independent variable is management of electoral technology.

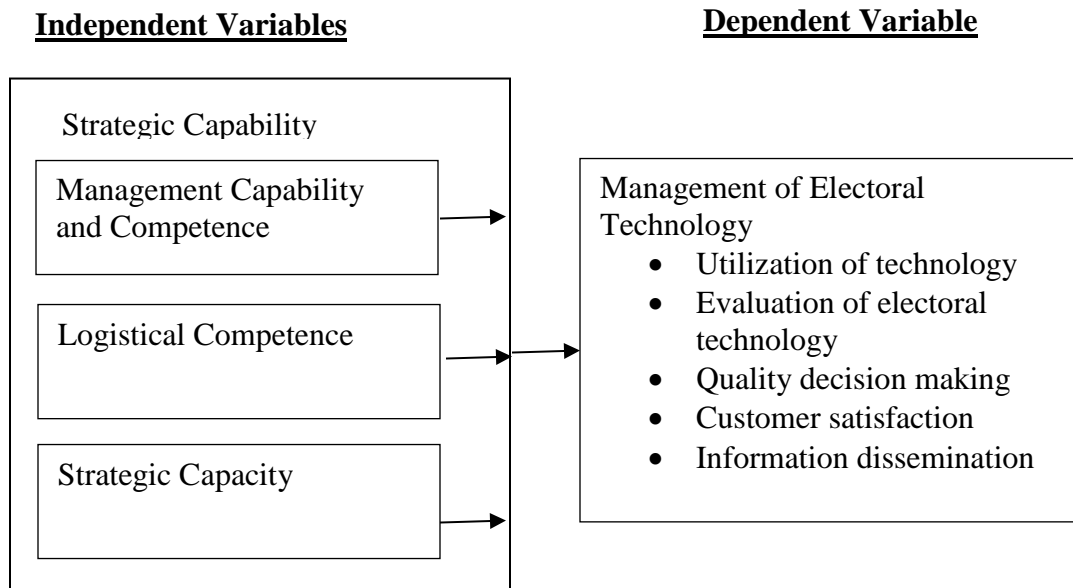


Figure 1.1. Conceptual Framework of Variables (Source: Researcher, 2019)

2.5 Summary of Literature Review and Research Gap

All the theories discussed show a close connection between strategy and factors in the operational environment of an enterprise. Various studies have also been reviewed. The studies have been selected from various countries in the world and they demonstrate that indeed strategic capacities are the foundation of competitive edge and they contribute to the effectiveness of utilization of resources. However, there are research gaps that this study focused on. First, none of the studies had shown the direct connection between strategic capability and management of electoral technology. It was not clear how strategic capability theoretically affects the management of electoral technology. Secondly, most of the studies reviewed focused on profit making enterprises. This study focused on a context that is non-profit making, but in which there is high sensitivity to the services it provides. It provided a proper context regarding how managerial capacities affect management of technology in a non-profit context. Thirdly, no known study had been conducted

in Kenya or elsewhere to explain how managerial capability influences the management of electoral technology. This study addressed these research gaps.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter is the methodology of the study. It focuses on the research design, the population, describes the sampling procedure. The chapter further discusses data collection and analysis.

3.2 Research Design

This study was a case study that utilized survey techniques. A case study refers to a research strategy in which the researcher investigates a phenomenon of interest as it occurs in its real-life context with focus on a single individual, group or event with the aim of exploring the causes of underlying principles (Creswell, 2014). A case study is useful when testing a theory using a specific case using thorough, meticulous and systematic methodology.

3.3 Sampling Techniques and Sample Size

According to Creswell (2014) a population refers is a well-defined collection of individuals or objects with similar characteristics that are the focus of a study. This study focused on the 290 constituency Elections Coordinators (CECs). This comprised a total of 290 officials. Random sampling technique was embraced for choosing CECs who were involved in the study because the technique ensured that the sample sufficiently characterized each and every employee. A sample is a set of items taken from the population by a researcher used in the actual study. It is very important that the sample is representative of the population in order to enable meaningful generalization of findings (Kothari, 2009). In this study the sampling was done according to counties as the unit of analysis. In each of the 47 counties, two constituencies were selected at random making 94 constituencies. In the selected constituency the Constituency Elections

Coordinator (CEC) was chosen to participate in the research. This study, therefore targeted a sample of 94 CECs.

3.4 Data Collection

Data were collected from the staff at the IEBC using a questionnaire. The questionnaire was given to each of the CECs by means of email or in person by the researcher. The questionnaire required IEBC staff to fill in blank spaces or tick options from a set of options provided by the questionnaire. Section one focused on collecting demographic data about each of the staff participating in the research. In this section the respondent filled in blank spaces or ticked on provided options. Section two of the questionnaire focused on management capability and competence. Section three was about logistical competence. Section four required the participating members of staff to provide information regarding strategic capacity at IEBC. Section five focused on electoral technology management. In each of the section two to five, the members of staff responded to Likert scale questions in which they ticked on options 1 to 5.

3.5 Data Analysis

Data obtained by questionnaires was securely stored in SPSS version 20. The study analyzed quantitative data using descriptive statistics. For instance, the mean was used to assess responses to given items on variables in the questionnaire. The data are presented using graphical presentations such as tables.

The study also used inferential statistics. In analyzing the relationship between strategic capability and managing electoral technology regression analysis was used. The conceptual model was $Y = f(X_1, X_2, X_3)$, where Y is managing electoral technology, X_1 is management capability and competence, X_2 is logistical competence while X_3 is strategic capacity. In the establishment of the

relationship between managing electoral technology and strategic capability, the analytical model $Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + e$ was applied. In the analytical model, α is the constant term while β_1 , β_2 and β_3 are the sensitivities of managing electoral technology (Y) to X_1 , X_2 and X_3 respectively. The term e represents the error term.

Diagnostics tests were used to test the significance of α , β_1 , β_2 and β_3 and to assess collinearity and correlations in the variables. The significance of α , β_1 , β_2 and β_3 was tested using the t -statistic at a confidence level of 95%. The strength of the relationship was assessed using the F -test. Before the use of the regression model the data were assessed correlation using the Pearson correlation coefficient.

3.6 Operational definition of variables

Table 3. 1. Operational definition of variables

Variable	Category	Indicator	Measurement	Type of analysis
Managing Electoral Technology	Dependent	Information dissemination Effective planning Staff accountability Effective management	Mean of choices in the Likert scale in the questionnaire	Descriptive
Strategic Capability	Independent	Management capability and competence Logistical competence Strategic Capability	Mean of choices in the Likert scale in the questionnaire	Descriptive

Source: Primary Data

CHAPTER FOUR
DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter lays out study findings, analysis, results and the discussions of the results according to study objectives. The chapter first demographically describes the sample and the response rate. Presentation of the data is then done through frequency tables and narrative analysis.

4.2 Questionnaire Return Rate

The research study aimed at involving a sample of 94 Constituency Elections Coordinators (CECs) from the 290 electoral sub counties in Kenya. Out of 94 CECs who were sampled, 74 questionnaires were successfully completed and returned. The received questionnaires response from the 74 participants represented a completion rate of 78.7 %. Table 4.1 displays response rate.

Table 4.1 Questionnaire Return Rate

Administered	Returned	Response Rate
94	74	78.7%

Source: Primary Data

4.3 Demographic characteristics of the Respondent

The study sought to determine the respondents' representation in terms of gender, the maximum level of education attained and the duration of time held by the respondent in the current position.

4.3.1 Gender of the Respondent

The representation of the CECs who participated in the study according to gender was as presented in Table 4.2.

Table 4.2 Gender of the Participants

Gender	Frequency	Percent
Male	45	60.8
Female	29	39.2
Total	74	100.0

Source: Primary Data

Table 4.2, indicates that 60.8% of the CECs who responded were male while 39.2% were female, hence discovered that majority of CECs staff from electoral sub-counties were male meaning gender imbalance in IEBC.

4.3.2 Educational levels of Respondents

The study aimed to determine the maximum level of education attained by the respondents. This was to enable the researcher describe the distribution of the human capital of the IEBC officials in the electoral board of sub-counties.

Table 4.3 Education Level of Respondent

Education Level	Frequency	Percent
Diploma	12	16.2
Degree	45	60.8
Post Graduate	17	23.0
Total	74	100.0

Source: Primary Data

The findings in Table 4.3 indicated that 60.8% of the CECs had attained University degree whereas 23% had post graduate qualifications. 16.2% of the respondents had a diploma qualification. Basing on the results in Table 4.3, we can conclude that bigger number of the participants have knowledge plus skills to execute their duties and responsibilities at IEBC.

4.3.3 Duration of Service in Current Position

The study desired to determine the length of time the CECs had served in their current position.

Respondents' lengthy service can be associated with experience and knowledge acquired over time which may be tied to superior organization performance.

Table 4.4 Service Duration in Current Position

Duration of service in Current Position	Frequency	Percent
1 to 5 Years	39	52.7
6 to 10 Years	22	29.7
Over 10 Years	13	17.6
Total	74	100.0

Source: Primary Data

Table 4.4 demonstrates that 52.7% of the CECs had served in their current position for 1-5 years; 29.7% had served for 6-10 years whereas 17.6% had served for more than 10 years.

4.3.4 Trained on Electoral technology

The study sought to establish whether or not the respondents had received any training on use of electoral technology.

Table 4.5 Electoral Technology Training

Trained on Use of Electoral Technology	Frequency	Percent
Yes	67	90.5
NO	7	9.5
Total	74	100.0

Source: Primary Data

Table 4.5, indicates that the majority of the respondents representing 90.5% were trained on use of electoral technology.

4.4 Data Reliability

The study sought to establish how reliable the data collection instrument was. Data reliability indicates whether data are sufficiently complete and error free. It also indicates consistency and repeatability of the results. In this study the reliability of the Likert scales used in measurement was assessed using the Cronbach's alpha.

Table 4.6 Summary of Cronbach's Alpha Reliability Coefficients

Section of Questionnaire	Variable	Number of Items	Cronbach's Alpha	Remarks
Section II	Management Capability and Competence	12	0.738	Reliable
Section III	Logistical Competence	13	0.862	Reliable
Section IV	Strategic Capacity	11	0.739	Reliable
Section V	Electoral Technology Management	12	0.847	Reliable

Source: Primary Data

From Table 4.6, the highest reliability was observed in Logistical Competence at 0.862 followed by Electoral Technology Management at 0.847 while the lowest alpha was observed in Management Capability and competence which was 0.738. All the variable of the study were reliable.

4.5 Strategic Capability

The study sought to assess the effect of strategic capability on Electoral Technology Management in Kenya. The respondents specified the level to which they agreed with the attributes of Strategic capability indicators and ranked their rating along a number of constructs. The study used a Likert scale rating varying from (1) Not at all to (5) Very great extent. The study involved computation

of average of all the attributes associated with each of the indicator. Moreover, the Standard Deviation was also computed.

4.5.1 Management Capability and Competence

Management of Electoral technology is about the totality of the interrelated functions at IEBC regarding creating policy; planning; controlling and directing electoral technology with the aim of achieving set and specific objectives. The results should be election processes and results that are credible, free, fair and peaceful as aided by the management of the technology used. The respondents specified the level to which they agreed with specific strategic capability statements. In measuring mean and standard deviation, the study used 12 items and results are in Table 4.7.

Table 4.7 Mean and Standard Deviation of Management Capability and Competence

	N	Mean	Std. Deviation
Staff have right experience training and knowledge regarding management of electoral technology	74	4.22	.580
Those involved in using electoral technology do it with strict professionalism	74	4.22	.556
The organization of IEBC ensures a formalized use of electoral technology	74	4.58	.641
The organization of IEBC regarding management of electoral technology ensures effective flexibility	74	4.78	.446
There is an effective advisory/staff support system regarding management of electoral technology	74	4.82	.533
IEBC has skilled leaders possessing an excellent grasp of people-oriented skills regarding management of electoral technology	74	4.38	.947
There are Team-based structures that enable decision-makers access required knowledge and information	74	4.55	.527
Staff have time and resources to enable them to learning new ways of doing things	74	4.81	.488
Staff demonstrate initiative in handling the technology	74	4.36	.804
Staff have effective support from senior leadership at IEBC	74	4.05	1.097
IEBC has enough resources to ensure competency building for its staff	74	4.57	.742
Staff have positive relations with consumers of their services	74	3.18	1.502
Valid N (listwise)	74		
Average Score		4.38	0.739

Source: Primary Data

The findings in Table 4.7 showed majority agreement with the attributes of management capability and competence, the highest mean of 4.81 (SD=0.488) was recorded on Staff have time and resources to enable them to learning new approaches to doing things. The statement on Staff having positive relations with consumers of their services had the smallest mean of 3.18 (SD=1.502). The average mean score was 4.28 (SD=0.739) which was a true indication that the respondents were in agreement.

4.5.2 Logistical Competence

Logistical competence is about how an organization implements operations regarding a complex task in a detailed way to ensure the task is completed effectively. It involves things like movement, equipment, and accommodation of staff. It involves transporting goods to customers and all other operations related to how products reach the customer. At IEBC it may include all the activities and processes that ensure election results are effectively and credibly delivered to the electorate.

The respondents specified the level to which they agreed with specific logistical competence statements. In measuring the mean and standard deviation, the study used 13 items and results are as shown in Table 4.8.

Table 4.8 Mean and Standard of Deviation of Logistical Competence

	N	Mean	Std. Deviation
The IEBC has warehouse the appropriate management systems for electoral technology	74	4.36	.713
Those managing electoral technology work closely with distribution partners in establishing an effective distribution center and network	74	4.09	.894
There is in place a distribution-oriented analytical support system for electoral technology	74	4.09	.847
The IEBC maintains only adequate inventories in its distribution channels	74	3.68	1.240
Staff work closely with internal teams and third party logistics providers	74	4.27	.983
The logistics network is optimized to ensure efficient and controlled flow of supplies and deliveries	74	4.54	.666
Staff closely analyze the effects of security requirements and compliance regulatory of logistics	74	3.66	1.417
Staff thoroughly understand the factors and key influencers of sourcing technology	74	4.20	1.072
Staff promptly identify high risk events, products and processes	74	3.16	1.562
Staff have in place effective mitigation plans for high risk products, events and processes	74	4.16	1.073
Staff effectively monitor compliance of carriers and logistics service providers to contracts	74	4.36	.713
Staff resolve most contractual issues and are entirely familiar with required terms and conditions	74	4.09	.894
Staff works with its law department to effectively accomplish tasks	74	4.09	.847
Valid N (listwise)	74		
Average Score		4.058	0.994

Source: Primary Data

Table 4.7 shows majority agreement with most of the statements on their contribution on management of electoral technology at IEBC. The logistics network is optimized to ensure efficient and controlled flow of supplies and deliveries had the biggest mean of 4.54 (SD=0.666), followed by Staff effectively monitor compliance of carriers and logistics service providers to

contracts with mean of 4.36 (SD=0.713). Staff promptly identify high risk events, products and processes had the smallest mean of 3.16 (1.562). Majority respondents agreed with the statements with an average mean of 4.058 (SD=0.994).

4.5.3 Strategic Capability

Strategic capacity focuses on the IEBC in light of its strategic capacity to manage the electoral technology for delivery credible election results in Kenya. It is about resources at IEBC that maintain current strategic positions and those available for strategic exploration. It is also about the various potential strategic directions through which IEBC can expand or advance into.

The respondents specified the level to which they agreed with how specific strategic capability statements contributed to management of electoral technology. In measuring measure mean and standard deviation the study used 11 items. The study results are presented in Table 4.9.

Table 4.9 Mean and standard deviation of Strategic Capacity

	N	Mean	Std. Deviation
Staff develop new effective processes in light of changes in the electoral environment	74	4.62	.542
IEBC invests in new equipment that effectively address issues in the electoral environment	74	4.81	.428
Staff have created a strong brand that resonates with IEBCs stand on elections	74	4.72	.731
IEBC has put in place a strategy ensure a close relationship with consumers of its products	74	4.59	.639
Staff have a strategy to ensure close relationship with its suppliers	74	4.42	.702
There is a strategy to ensure contract evolution to address issues with consumers of their products and suppliers	74	4.78	.603
Staff have a strategy in place to build trust with the electorate	74	4.27	.816
Staff demonstrate high level of commitment to delivery of accurate and credible election results	74	4.09	.924
IEBC has a clear strategy regarding communicating with the electorate on election matters	74	4.72	.562
Coordination strategies used by staff ensure efficient delivery of results	74	4.05	.792
There is a clear strategy regarding joint problem solving approaches to election challenges	74	4.12	.827
Valid N (listwise)	74		
Average Score		4.472	0.688

Source: Primary Data

Table 4.9 shows majority agreement and to a large extent with statements on strategic capacity contributing to management of electoral technology management which had a composite mean of approximately 4.472 (SD=0.668). Statement on IEBC investing in new equipment that effectively address issues in the electoral environment had the biggest mean of 4.81 (SD=0.428) followed by statement on there is a strategy to ensure contract evolution to address issues with consumers of their products and suppliers with a mean of 4.78 (SD=0.603) whereas Coordination strategies used by staff ensure efficient delivery of results had the least mean of 4.05 (SD=0.792).

4.5.4 Electoral Technology Management

Management of Electoral technology is about the totality of the interrelated functions at IEBC regarding creating policy; planning; controlling and directing electoral technology with the aim of achieving set and specific objectives. The results should be election processes and results that are credible, free, fair and peaceful as aided by the management of the technology used.

The respondents specified the level to which they had agreed with the given statements on management of electoral technology in IEBC. In measuring mean and standard deviation the study used 12 items and results are in Table 4.10.

Table 4.10 Mean and standard deviation of Electoral Technology Management

	N	Mean	Std. Deviation
Elections technology evaluation and assessment is always and effectively conducted	74	4.69	.521
Staff have ensured that electoral Technology is effectively protected	74	4.82	.383
Organization of technological activities at IEBC is highly effective	74	4.86	.344
Technology at IEBC is properly utilized and properly integrated with IEBC organization	74	4.66	.668
The acquisition, transfer and dissemination of technology at IEBC are effectively done	74	4.58	.574
Technology planning and forecasting are effectively carried out	74	4.93	.253
The electoral technology used is responsive to current requirements	74	4.46	.706
Communication regarding electoral issues reaches the targeted audience as accurately as intended	74	4.35	.971
High quality of decision making process regarding electoral technology is ensured	74	4.88	.404
Staff have a high sense of accountability for results	74	3.62	1.478
Consumers of products of electoral technology at IEBC are always satisfied	74	3.89	1.245
There is effective management of conflict arising due to the use of electoral technology at IEBC	74	4.59	.618
Valid N (listwise)	74		
Average Score		4.528	0.681

Source: Primary Data

From Table 4.10, the results show majority agreement to a large extent on the statements regarding management of electoral technology at IEBC with an average mean of 4.528 (SD=0.681). Statement on technology planning and forecasting being effectively carried out had the biggest mean of 4.93 (SD=0.253). This was followed by Organization of technological activities at IEBC being highly effective with a mean of 4.86 (SD=0.344) whereas the respondents agreed in a

moderate extent that Staff have a high sense of accountability for results with a mean of 3.62 (SD=1.78).

4.6 Correlation Analysis of the Study Variables

A correlation examination of all the variables was conducted to determine the relationships that existed between them. The results of the examination are in Table 4.11.

Table 4.11 Correlation Table

		Electoral Technology	Management Capability Competence	Logistical Competence	Strategic Capacity
Electoral Technology Management	Pearson Correlation	1			
	Sig. (2-tailed)				
Management Capability Competence	Pearson Correlation	.459**	1		
	Sig. (2-tailed)	.000			
Logistical Competence	Pearson Correlation	.493**	.609**	1	
	Sig. (2-tailed)	.000	.000		
Strategic Capacity	Pearson Correlation	.349**	.477**	.609**	1
	Sig. (2-tailed)	.000	.000	.000	

** . Correlation is significant at the 0.05 level (2-tailed).

Source: Primary Data

The correlation examination results in Table 4.11 show existence of moderate positive linear relationship which is significant between Management Electoral Technology and the independent

variables; logistical competence $r = 0.493$, $p < 0.05$, Management Capability and Competence $r = 0.459$, $p < 0.05$ and strategic Capacity $r = 0.349$, $p < 0.05$.

4.7 Regression Analysis

Regression analysis investigates and models the relationship between variables. Since there existed relationship between variables, linear regression was conducted to determine the relationship between electoral technology management and strategic capability. The objective was to assess how strategic capability affected managing electoral technology in Kenya. The results are presented in the Tables 4.12, 4.13 and 4.14.

Table 4.12 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.575 ^a	0.331	0.315	0.41093

Source: Primary Data

From results on Table 4.12, $R = 0.575$ represents the simple correlation, which is a moderate positive relationship between strategic capability and electoral technology management. $R^2 = 0.331$, this indicates that strategic capability explained 33.1% of the variability in Electoral technology management and 66.9% variation in Electoral technology management being explained by extraneous factors.

Table 4.13 ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	20.233	6	3.372	19.969	.000 ^b
Residual	40.865	242	.169		
Total	61.098	248			

Source: Primary Data

The ANOVA test in Table 4.13 gives the F-Ratio that tests the fitness of the overall regression model. Results indicate statistically significantly prediction of the dependent variable by the independent variables, $F(6, 242) = 19.969, p < .0005$ (indicating that the regression model fits the data).

Table 4.14 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.235	.246		9.078	.000
Management Capability	.169	.074	.197	2.305	.022
Logistical competence	.127	.038	.227	3.304	.001
Strategic Capacity	.186	.052	.230	3.575	.000

a. Dependent Variable: Electoral technology management

Source: Primary Data

Table 4.14 displays the beta coefficients of constructs that constitute the independent variable (Strategic capability) that predict the dependent variable (Management of Electoral technology).

The regression model equation given below.

$$Y = 2.235 + 0.169X_1 + 0.127X_2 + 0.186X_3$$

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter summarizes the study and presents conclusions made from the study. It also highlights the weaknesses of the research. Further, it makes suggestions further research suggestions.

5.2. Summary

Regarding the effect of management capability and competence on the management of electoral technology, this study established that staff have positive relations with consumers of their services and that the staff have effective support from senior leadership at IEBC. Further, the study established that staff have room and indeed demonstrate initiative when handling the technology that IEBC had enough resources to ensure competency building for its staff. However, there are no effective team-based structures that enable decision-makers' access required knowledge and information. Also IEBC does not ensure effective flexibility regarding management of electoral technology. Management capability and competence do effectively contribute to the management of electoral technology.

Regarding the effect of logistical competence on the management of electoral technology the study established that the staff works very closely with its law department so as to effectively accomplish tasks and that the IEBC has the appropriate warehousing management systems for electoral technology. Further, those managing electoral technology work closely with distribution partners. However, staff do not thoroughly understand the factors and key influencers for sourcing technology and there is the absence of a distribution-oriented analytical support system for electoral technology. Logistical competence does not effectively contribute to the management of electoral technology.

With regard to the influence of strategic capacity on the management of electoral technology the study established that there is a clear strategy regarding joint problem solving approaches in face of election challenges and the staff have a clear strategy to aid in building trust with the electorate. The staff is also highly committed to delivery of accurate and credible election results. The IEBC invests in new equipment that effectively addresses issues in the electoral environment. However, the staff does not have a strategy to ensure close relationship with its suppliers and that coordination strategies used by staff do not ensure efficient delivery of results. Generally, strategic capacity does not have strong influence on the management of electoral technology.

5.3. Conclusion

From the findings the following conclusions are dawn. First, management capability and competence do effectively contribute to the management of electoral technology. Specifically, though the staff positive relations with consumers of electoral services, with support from senior leadership and with room to demonstrate initiative when handling the technology, there is poor use of team spirit to decision-makers' access required knowledge and information. Further, there is inflexibility regarding management of electoral technology.

Regarding the effect of logistical competence on the management of electoral technology the study concludes that logistical competence does effectively contribute to the management of electoral technology. However, the staff works very closely with its law department, there are in place appropriate warehousing management systems for electoral technology and those managing electoral technology work closely with distribution partners. Weakness is realized given that staff do not thoroughly understanding the key factors influencing sourcing technology and the absence of a distribution-oriented analytical support system for electoral technology.

This study further concludes that strategic capacity has strong effect on the management of electoral technology. Though there is a clear strategy regarding joint problem solving approaches in face of election challenges, the staff have a clear strategy and commitment to aid in delivery of accurate and credible election results and heavy investment in new equipment there is no strategy to ensure close relationship with its suppliers. Further, coordination strategies used by staff do not ensure efficient delivery of results.

5.4. Recommendations

First, management capability and competence has to be strengthened to ensure effective management of electoral technology in IEBC. Specifically, improvement of relations with the electorate should be improved, support of staff by senior leadership enhanced and staff be more intensively trained in electoral technology. Team approach in decision-makers' access required knowledge and information be enhanced and more flexibility regarding management of electoral technology be part of decision making.

Regarding the effect of logistical competence on the management of electoral technology the study recommends that logistical competence be improved. The staff works even more closely with its law department. There should be appropriate warehousing management systems for electoral technology put in place and those managing electoral technology should work closely with distribution partners. More importantly, the staff should be assisted to thoroughly understanding the key factors influencing sourcing technology. An effective distribution-oriented analytical support system should be put in place for electoral technology.

This study, further recommends that strategic capacity be enhanced to make it have effective contribution to the management of electoral technology. There should be improvement regarding

how to jointly solve problems arising election challenges. The staff should be more committed to the in delivery of accurate and credible election results. Even with investment in new equipment there is need for a clear strategy to ensure close relationship with the suppliers of the technology. Further, coordination strategies used by staff for ensure efficient delivery of results should be improved.

5.5. Limitations

The study was descriptive nature. The use of primary data subjects the findings to the biases and opinions of the Constituency Elections Coordinators who participated in the study. The findings can, therefore, be true to the extent to which the Constituency Elections Coordinators accurately provided data.

The degree of generalizability of findings to other elections bodies elsewhere is also a limitation. The perpetually changing nature of strategy makes findings short-lived. Given the dynamic nature of elections, what might transpire in future elections may not be explained by the findings of this study.

5.6. Suggestions for Further Research

To moderate the shortcomings, a longitudinal study should be conducted. A study can also conducted that will employ secondary data from audited records at IEBC to eliminate the probable biases in the responses of the Constituency Elections Coordinators. A cross-sectional study can be conducted by focusing on electoral bodies in the East African Community.

REFERENCES

- Akpobi, T. C. (2017). Dynamic Capabilities and Strategic Management: Explicating the Multi-Level Nature of Dynamic Capabilities – Insights from the Information Technology Security Consulting Industry. *Stirling Management School, University of Stirling*, 1-350.
- Amit, R., & Shoemaker, P. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14(1), 33-46.
- Ansoff, H. I. (1979). *Strategic management*. London: The MacMillan Press Ltd.
- Barney, J. B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120.
- Barney, J. B. (2010). *Gaining and Sustaining Competitive Advantage* (4th ed.). Edinburgh: Pearson.
- Bigelow, J. (1829). *Elements of Technology* (2nd ed.). Boston: Hilliard, Gray, Little & Wilkins.
- Bleed, P. (2008). Content as Variability, Result as Selection: Toward a Behavioral Definition of Technology. *Archeological Papers of the American Anthropological Association*, 7(1), 95-104.
- Brey, P. (2009). Philosophy of Technology Meets Social Constructivism: A Shopper's Guide. In D. M. Kaplan, *Readings in the Philosophy of Technology* (pp. 268–324). Lanham: Rowman & Littlefield Publishers.
- Chen, L. J., Chen, C. C., & Lee, W. R. (2008). Strategic Capabilities, Innovation Intensity, and Performance of Service Firms. *Journal of Service Science and Management*, 1(1), 111-122.
- Cochran, W. G. (1963). *Sampling Techniques* (2nd ed.). New York: John Wiley and Sons, Inc.
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (4th ed.). New York, USA: SAGE Publications.
- Engwall, L., Kipping, M., & Üsdiken, B. (2016). *Defining Management*: . New York: Routledge.
- Gitau, K. W. (2016). Strategic Capabilities for Sustainable Competitive Advantage. *University of Nairobi MBA Project*.
- Hamel, G., & Prahalad, C. K. (1994). *Competing for the future*. Boston: Harvard Business School Press.

- Hareebin, Y., Aujiropongpan, S., & Siengthai, S. (2018). Creating sustained strategic capabilities through organisational dynamic capabilities and strategies: A case study of rubber wood export industry in Thailand. *Asian Academy of Management Journal*, 23(1), 117–150.
- IEBC. (2016, March 21st). *Election Operations Plan 2015-2017*. Retrieved from <https://www.iebc.or.ke/uploads/resources/MC8LvUGsDx.pdf>
- Kaur, V., & Mehta, V. (2017). Dynamic Capabilities for Competitive Advantage: A Comparative Study of IT Multinationals in India. *Paradigm*, 21(1), 35-51.
- Kothari, C. K. (2009). *Research Methodology* (2nd edition ed.). New Age International Pvt Ltd Publishers.
- Maier, R., & Remus, U. (2002). Defining process-oriented knowledge management strategies. *Knowledge and Process Management*, 9(2), 103-118.
- Martinez, M., & Wolverson, M. (2009). Enriching planning through industry analysis. *Planning for Higher Education*, 38(1), 23-30.
- Mintzberg, H., Ahlstrand, B., & Lampel, J. (1998). *Strategy Safari: a guided tour through the wilds of Strategic Management*. New York: Free Press.
- Nübler, I. (2016). New technologies: a jobless future or golden age of job creation? *International Labour Organization, Research Department WP 13*, 1-28.
- Odek, O. (2017). Election technology law and the concept of "Did the Irregularity Affect the Results of the Elections?". *The Judiciary of Kenya*.
- Parnell, J. A. (2011). Strategic capabilities, competitive strategy, and performance among retailers in Argentina, Peru and the United States. *Management Decision*, 49(1), 130-155.
- Penrose, E. T. (1959). *The Theory of Growth of The Firm*. Blackwell: Oxford.
- Peteraf, M. A. (1993). The cornerstones of competitive advantage: a resource-based view. *Strategic Management Journal*, 14(3), 179-192.
- Pisano, G., & Teece, D. (2007). How to capture value from innovation: Shaping intellectual property and industry architecture. *California Management Review*, 50(1), 278-296.
- Porter, M. E. (1985). *Competitive advantage: creating and sustaining superior performance*. New York: The Free Press.
- Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. TORONTO : The Free Press, Maxwell Macmillan International.
- Porter, M. E. (1990). *The Competitive Advantage of Nations*. New York: Free Press.

- Porter, M. E. (2008). The five competitive forces that shape strategy. *Harvard Business Review*, 89(1), 79-93.
- Richardson, G. (1972). The Organisation of Industry. *The Economic Journal*, 82(327), 883-896.
- Sahlman, K. (2010). Elements of strategic technology management. *University of Oulu, Finland* .
- Seyhan, M., Ayas, S., Sonmez, U., & Ugurlu, O. Y. (2017). The Relationship between Strategic Capabilities and Competitive Performance: The Moderating Role of Internal Cooperation. *International Journal of Academic Research in Economics and Management Sciences*, 6(1), 146-161.
- Shang, K. C., & Marlow, P. B. (2007). The effects of logistics competency on performance. *Journal of International Logistics and Trade*, 5(2), 45-66.
- Stalk, G., Evans, P., & Shulman, L. (1992). Competition on capabilities the new rules of the corporate strategy. *Harvard Business Review*, 70(2), 57-69.
- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350.
- Teece, D. J. (2010). Business Models, Business Strategy and Innovation. *Long Range Planning*, 43(3), 172-194.
- Teece, D. J. (2019). A capability theory of the firm: an economics and (Strategic) management perspective. *New Zealand Economic Papers*, 53(1), 1-43.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- The CarterCenter. (2014). *Elections Obligations and Standards; A Carter Center Assessment Manual*. Atlanta: The Carter Center.
- Thompson, E. R., & Strickland, P. (1993). National competitive advantage and the roles of economic and political freedom: evidence from Hong Kong. *Public Coice*, 120, 401–437.
- Volti, R. (2009). *Society and Technological Change*. New York: Worth Publishers.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171-180.
- Wintey, S. G. (2003). Understanding dynamic capabilities. *Strategic Management Journal*, 20(10), 991-995.

APPENDICES

Appendix I: Questionnaire

You have been selected to complete this questionnaire regarding how strategic capability influences management of electoral technology at IEBC. Complete the questionnaire by ticking or filling in the spaces as appropriate. DO NOT WRITE YOUR NAME ANYWHERE ON THE PAPER. Give information as truthfully as possible for it will be kept confidentially. The information you provide is for academic purposes only. Thank you.

SECTION I: DEMOGRAPHIC INFORMATION

1) Indicate your Gender by ticking (✓)

Male	
Female	

2) Indicate the highest Education level you have achieved (Tick one)

Primary	
Secondary	
Certificate	
Diploma	
Degree	
Post Graduate	

3) Indicate the name of the constituency you are deployed in by IEBC

4) How long you have held current position? _____

5) Have you had any training on use of electoral technology

Yes	
No	
Not sure	

SECTION II: MANAGEMENT CAPABILITY AND COMPETENCE

Indicate using a tick (✓) the extent to which each of the following contributes to management of electoral technology at IEBC

(Key: 1= not at all; 2= little extent; 3= moderate extent; 4= great extent; 5= very great extent)

MANAGEMENT CAPABILITY AND COMPETENCE	1	2	3	4	5
Staff have right experience training and knowledge regarding management of electoral technology					
Those involved in using electoral technology do it with strict professionalism					
The organization of IEBC ensures a formalized use of electoral technology					
The organization of IEBC regarding management of electoral technology ensures effective flexibility					
There is an effective advisory/staff support system regarding management of electoral technology					
IEBC has skilled leaders possessing an excellent grasp of people-oriented skills regarding management of electoral technology					
There are Team-based structures that enable decision-makers access required knowledge and information					
Staff have time and resources to enable them to learning new ways of doing things					
Staff demonstrate initiative in handling the technology					
Staff have effective support from senior leadership at IEBC					
IEBC has enough resources to ensure competency building for its staff					
Staff have positive relations with consumers of their services					

What other management capability and competence issue contributes to management of electoral technology at IEBC (Please specify how it contributes)

SECTION III: LOGISTICAL COMPETENCE

Indicate using a tick (✓) the extent to which each of the following contributes to management of electoral technology at IEBC

(Key: 1= not at all; 2= little extent; 3= moderate extent; 4= great extent; 5= very great extent)

LOGISTICAL COMPETENCE	1	2	3	4	5
The IEBC has warehouse the appropriate management systems for electoral technology					
Those managing electoral technology work closely with distribution partners in establishing an effective distribution center and network					
There is in place a distribution-oriented analytical support system for electoral technology					
The IEBC maintains only adequate inventories in its distribution channels					
Staff work closely with internal teams and third party logistics providers					
The logistics network is optimized to ensure efficient and controlled flow of supplies and deliveries					
Staff closely analyze the effects of security requirements and compliance regulatory of logistics					
Staff thoroughly understand the factors and key influencers of sourcing technology					
Staff promptly identify high risk events, products and processes					
Staff have in place effective mitigation plans for high risk products, events and processes					
Staff effectively monitor compliance of carriers and logistics service providers to contracts					
Staff resolve most contractual issues and are entirely familiar with required terms and conditions					
Staff works with its law department to effectively accomplish tasks					

What other logistical competence issue contributes to management of electoral technology at IEBC
(Please specify how it contributes)

SECTION IV: STRATEGIC CAPACITY

Indicate using a tick (✓) the extent to which each of the following contribute to management of electoral technology at IEBC

(Key: 1= not at all; 2= little extent; 3= moderate extent; 4= great extent; 5= very great extent)

STRATEGIC CAPACITY	1	2	3	4	5
Staff develop new effective processes in light of changes in the electoral environment					
IEBC invests in new equipment that effectively address issues in the electoral environment					
Staff have created a strong brand that resonates with IEBCs stand on elections					
IEBC has put in place a strategy ensure a close relationship with consumers of its products					
Staff have a strategy to ensure close relationship with its suppliers					
There is a strategy to ensure contract evolution to address issues with consumers of their products and suppliers					
Staff have a strategy in place to build trust with the electorate					
Staff demonstrate high level of commitment to delivery of accurate and credible election results					
IEBC has a clear strategy regarding communicating with the electorate on election matters					
Coordination strategies used by staff ensure efficient delivery of results					
There is a clear strategy regarding joint problem solving approaches to election challenges					

What other strategic capacity issue contributes to management of electoral technology at IEBC (Please specify how it contributes)

SECTION V: ELECTORAL TECHNOLOGY MANAGEMENT

Indicate using a tick (✓) the extent to which you agree with each of the following regarding management of electoral technology at IEBC

(Key: 1= not at all; 2= little extent; 3= moderate extent; 4= great extent; 5= very great extent)

ELECTORAL TECHNOLOGY MANAGEMENT	1	2	3	4	5
Elections technology evaluation and assessment is always and effectively conducted					
Staff have ensured that electoral Technology is effectively protected					
Organization of technological activities at IEBC is highly effective					
Technology at IEBC is properly utilized and properly integrated with IEBC organization					
The acquisition, transfer and dissemination of technology at IEBC are effectively done					
Technology planning and forecasting are effectively carried out					
The electoral technology used is responsive to current requirements					
Communication regarding electoral issues reaches the targeted audience as accurately as intended					
High quality of decision making process regarding electoral technology is ensured					
Staff have a high sense of accountability for results					
Consumers of products of electoral technology at IEBC are always satisfied					
There is effective management of conflict arising due to the use of electoral technology at IEBC					

What else indicates excellent or ineffective management of electoral technology at IEBC (Please specify)

Appendix II: Distribution of Constituencies per County

COUNTY	SUBCOUNTES	SAMPLE CONSTITUENCIES	CECs
Mombasa County	6	2	2
Kwale County	5	2	2
Kilifi County	7	2	2
Tana River County	3	2	2
Lamu County	2	2	2
Taita-Taveta County	4	2	2
Garissa County	6	2	2
Wajir County	6	2	2
Mandera County	6	2	2
Marsabit County	4	2	2
Isiolo County	2	2	2
Meru County	9	2	2
Tharaka-Nithi County	3	2	2
Embu County	4	2	2
Kitui County	8	2	2
Machakos County	8	2	2
Makueni County	6	2	2
Nyandarua County	5	2	2
Nyeri County	6	2	2
Kirinyaga County	4	2	2
Murang'a County	7	2	2
Kiambu County	12	2	2
Turkana County	6	2	2
West Pokot County	4	2	2
Samburu County	3	2	2
Trans-Nzoia County	5	2	2
Uasin Gishu County	6	2	2
Elgeyo-Marakwet	4	2	2
Nandi County	6	2	2
Baringo County	6	2	2
Laikipia County	3	2	2
Nakuru County	11	2	2
Narok County	5	2	2
Kajiado County	5	2	2

Appendix II continued

COUNTY	SUBCOUNTES	SAMPLE CONSTITUENCY	CECs
Kericho County	6	2	2
Bomet County	5	2	2
Kakamega County	12	2	2
Vihiga County	5	2	2
Bungoma County	9	2	2
Busia County	7	2	2
Siaya County	6	2	2
Kisumu County	7	2	2
Homa Bay	8	2	2
Migori County	8	2	2
Kisii County	9	2	2
Nyamira County	4	2	2
Nairobi County	17	2	2
TOTAL	290	94	94

(Source: IEBC, 2019)