

**CHALLENGES OF THE IMPLEMENTATION OF E-BUSINESS STRATEGY,
BY COMPANIES LISTED IN THE NAIROBI SECURITIES EXCHANGE**

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DECLARATION

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

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D61/60041/2011

The project has been submitted for examination with my approval as the university supervisor.

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DEDICATION

To my loving late mum and dad, my siblings John and Philip.

ACKNOWLEDGEMENTS

I would like to acknowledge my late parents for the good academic foundation they installed on me and my siblings through the years. To my fellow colleagues, thanks for making this journey a worthwhile and memorable. To my supervisor Dr. Awino, who reviewed and critically analyzed the report at every review session. Without your consideration, input, and encouragement, this study could not have been completed.

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ABSTRACT

This research paper discusses the challenges faced by companies listed in the Nairobi Securities Exchange while implementing e-business strategy. The research paper analyses these challenges and presents the results in these categories : Financial Capacity, Motivation and Ownership, Board Support, Organizational Structure, Open to Change and Human Resources capacity. E-Business technology provides organizations with a great opportunity to enhance relationships with external and internal parties across its value and supply chains. The research findings suggests that, e-business must be considered systematically in developing an organization's overall competitive strategy. The research provides several pointers that could pave the way for a smooth transition to e-business implementation and recommends a slow and methodically approach to e-business strategy implementation. The research paper provides significant contributions to the policy of strategy implementation, theory and practice of implementing e-business strategy. It show a framework for how, the e-business strategy that an organization adopts enables it to win in the long term and how the use of technology helps it gain competitive advantage. E-business systems are now gaining familiarity in Kenya, It is therefore important from a strategy formulation, design and implementation perspective that potential pitfalls are identified and conceptual solutions are made available for the adoption and implementation of e-business solutions. The study was done by interviewing senior managers from companies listed in the Nairobi Securities Exchange. Respondents interviewed were drawn from 36 companies. The paper concludes that, there exist various challenges to the implementation of e-business strategy and that e-business planning process is similar to any other business planning initiative. These challenges are more organizational in nature as opposed to being technology related. Organizations that integrate e-business models with their strategic orientation are more likely to have successful results. To implement e-business solutions, it is necessary to have supporting information, financial capacity and organizational infrastructure and systems.

CHAPER ONE

INTRODUCTION

1.1 Background of the study

E-Business strategy is part of an organization's corporate strategy and business plan, and also interconnects with other plans including marketing, organizational and IT strategic plans. E-Business is multi-disciplinary, and therefore involves collaboration among stakeholders and experts from all relevant departments in an organization. E-business strategy involves conducting business activities over the Internet and is seen as one of the most remarkable information technology (IT) innovations in the last decade.

As organizations craft and develop e-business strategy, a few critical concepts offer guidance towards the organization becoming an open system. Open systems allow interactions between an organization's internal elements and the environment. The Game theory concept mainly used in economics, political science, and psychology, as well as logic and biology addresses zero-sum games, such that one person's gains exactly equal net losses of the other participant(s). The e-business strategy that an organization adopts is all about wining in the long term and using technology to gain competitive advantage. The challenge posed by the environment, and trading market requires that, the organizations utilize all the resource they have in the right mix at the right time, every time. This concept is clearly demonstrated by the resource-based view as a basis for competitive advantage of a firm that lies primarily in the application of the bundle of valuable interchange between the intangible and tangible resources at the firm's disposal.

In a bid to study the challenges in implementing e-business strategy, the Nairobi Securities Exchange (herein after referred to as NSE) offered the best place for our study population because, these public listed organizations records are well documented and can be verified. The use and application of e-business in business practices is quite varied between different parts of the world. In Kenya, we are now witnessing an upsurge in e-business strategy initiatives within organizations, hence a study of the NSE companies provides an ideal context for analysis of the opportunities and challenges in e-business strategy development, adoption and implementation.

1.1.1 Concept of e-Business Strategy

Electronic business strategy is the application of information and communication technologies in support of all the activities of business. The term "e-business" was coined by IBM's marketing and Internet teams in 1996. Electronic business methods enable companies to link their internal and external data processing systems more efficiently and flexibly, to work more closely with suppliers and partners, and to better satisfy the needs and expectations of their customers. The strategic focus with e-business is on the functions that occur while using electronic capabilities. E-commerce, which is a sub set of e-business, seeks to add revenue streams using the World Wide Web or the Internet to build and enhance relationships with clients and partners and to improve efficiency.

E-business strategy involves the adoption of business processes spanning the entire value chain. E-Business allows companies to link their internal and external processes more efficiently and effectively, and work more closely with suppliers and partners to better satisfy the needs and expectations of their customers, leading to improvements in overall business performance. While a website is one of the most common implementations, e-Business is much more than just a web presence. There is a vast array of internet technologies all designed to help businesses work smarter not harder.

E-Business Strategy diagram



Figure 1: e-business strategy diagram

source: <http://www.nxtstp.com/DesktopDefault.aspx?tabid=175>

Figure 1.1: shows the e-business strategy interactions and dependencies.

The e-business landscape in the county has received tremendous boost with the landing of the fiber cables in Kenya, making Internet services more affordable. Cellular companies (Notably, Safaricom, Airtel, Orange and YU) have made significant contributions to the use of Internet services on their respective networks. Many people in the country learn how to use the Internet on their cell phone before they can learn how to use a PC (personal Computer). The government of Kenya has given incentives to the development of ICT and business innovation that have created an enabling environment for the e-business landscape to be an established medium of trade. A notable contribution to the facilitation of e-business has been the use of mobile money by cellular companies, like M-Pesa. Payment of services by Citizens to leading corporate organizations now has a mobile payment option included in the payment platform. The Key e-business process include e-procurement, e-transactions, e-logistics and e-collaboration.

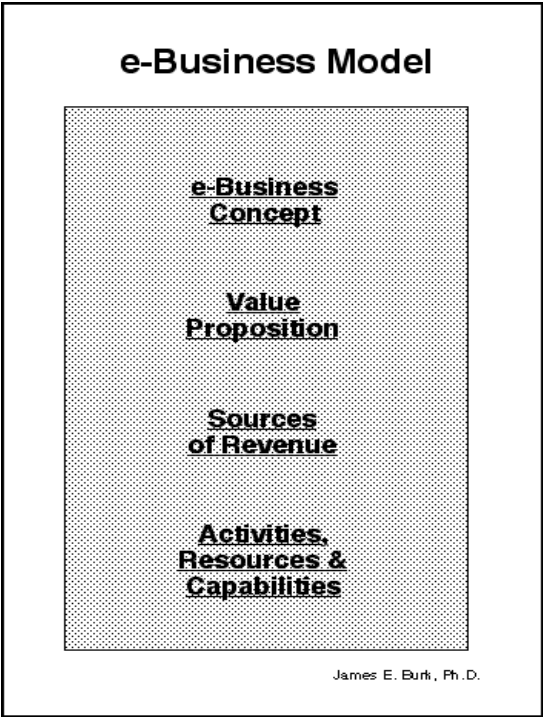


Figure 1.2 : E-business Model by James Burke (Source: James Durke , Harvard Business School)

Figure 1.2: Shows the e-business model and its core dependencies in strategy formulation.

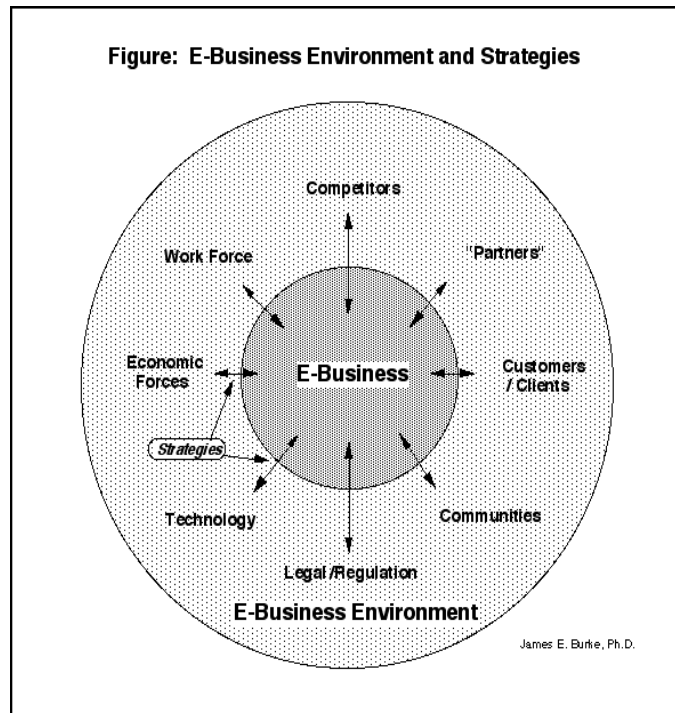


Figure 1.3: E-business Environment and Strategies Model by James Burke(Source: James Durke , Harvard Business School)

Figure 1.3: Shows e-business environment and strategies model. It gives a clear picture of how the interaction landscape operates.

1.1.2 Challenges of Implementation of Strategy

Strategy Implementation for all organizations is often a challenging task with a lot of hurdles and although formulating a consistent strategy is a difficult task for any management team, making that strategy work - implementing it throughout the organization - is even more difficult (Hrebiniak, 2006). A myriad of factors can potentially affect the process by which strategic plans are turned into organizational action. Unlike strategy formulation, strategy implementation is often seen as something of a craft, rather than a science, and its research has previously been described as fragmented and eclectic (Noble, 1999b). Considering that faulty implementation can make a sound strategic decision ineffective and skilled implementation can make a debatable choice successful, it is important to examine the process of implementation (Andrew, 1987).

Strategy implementation is critical to success. Implementation represents a disciplined process or a logical set of connected activities that enables an organization to take a strategy and make it work. A host of factors, including politics, inertia, resistance to change, routinely can get in the way of strategy implementation. It is apparent that making strategy work is more difficult than strategy formulation (Hrebiniak, 2005). There are many organizational characteristics that act as challenges to strategy implementation. Such are structure, culture, leadership, policies, reward, and ownership of the strategy (Burnes, 2000). These challenges are of both an institutional and operational nature.

1.1.3 The Nairobi Securities Exchange

The Nairobi Securities Exchange which comprises approximately 64 listed companies with a daily trading volume of over USD 5 million. It has a total market capitalization of approximately USD 15 billion and therefore offered the best population for our study, as the information on these companies are well documented and can be verified. Aside from equities, Government and corporate bonds are also traded on the Nairobi Securities Exchange. Automated bond trading started in November 2009 with the KES 25 billion KenGen bond. Average bond daily trading is USD 60m. Delivery and settlement is done via an electronic Central Depository System (CDS) which was installed in 2005. Settlement is done on a delivery-vs-payment basis.

The Nairobi Securities Exchange in 2006 introduced an Automated Trading System (ATS) which ensures that orders are matched automatically and are executed on a first come/first serve basis. The ATS has now been linked to the Central Bank of Kenya and the CDS thereby allowing electronic trading of Government bonds.

1.2 Research Problem

E-business strategy is still in its early stages of adoption and implementation in Kenya. The difficulties faced by business sectors in implementation of e-business solutions are multi faceted. They are further compounded by cultural constraints, digital illiteracy, absence of enabling infrastructural environment, and the often limited awareness at decision-making levels of the importance of sound and forward-looking ICT policies and strategies as well as the potential for ICT applications. E-business solutions offer an organization a vast array of opportunities to integrate its supply chain with its partners, develop new markets and improve of operational efficiency. Given these opportunities that e-business has to offer, it is important to understand how challenges in adoption and implementation can be minimized or avoided. This is the primary focus of my research.

Begin and Boisvert (2002) analyzed strategic factors that influence e-business implementation in Canada. They did a micro level study to identify these factors. In their study focus was to identify the developments within the organization that were influencing ecommerce implementation. External environment was completely ignored. They identified these factors

similar to the strength and weakness elements (in SWOT analysis). It was described as internal factors or inhibitors. They have tried to classify the factors into groups which can serve as a good starting point to analyze these factors and identify their influence on e-business implementation results, however, the biggest limitation of this study was that it did not take into account any of the external factor and their study does include any statistical analysis of the difficulties that are affecting the implementation of e-commerce.

Teo, Chan, and Parker (2004) conducted a meta analysis of literature related to factors affecting adoption of e-business specifically in small and medium enterprises. Existing literature shows that it was among the first few meta analysis of the factors affecting the implementation of e-commerce. They did identify the factors as highly complex and various mix of factors. However,

their study concentrated on identifying specific factors and in the process ignored the holistic view of the problem. They have identified some meta factors from the available literatures, which are related to adoption of e-business. However, different literatures have conflicting viewpoints about these meta factors. In addition to this, none of these meta factors are related to measure the impact of e-business implementation results neither does it identify the major barriers in its implementation at business level.

Studies undertaken by Radovilsky and Hegde (2004) and Zhu (2004) were good efforts in this direction, however these studies were related to North America and it emphasized on the technological competence of the firm in the diffusion of e-business. It failed to identify the apparent and latent social, cultural other demographic obstacles in the implementation of e-business solution. Study undertaken by Oreku, Mtenzi and Ali (2011), helps in identifying the important factors in implementation of electronic commerce. Most of the research in this field suggests that factors such as culture, economic condition, consumer behavior, purchasing power parity have direct bearing on the implementation of ecommerce.

Studies conducted in Kenya relating to e-business and e-commerce conducted in the recent past include Muyoyo,(2004) who conducted a research on Factors Influencing the Adoption and Implementation of E-business Technologies in Companies quoted at the NSE. In his MBA research, he focused on the factors affecting the adoption of e-business technologies in the NSE. Ncube (2001), conducted a research on E-business practices by small and medium scale enterprise in the craft Industry in Kenya, the case of members of amega in Kenya. This study examined the e-business practice adopted by a particular industry. Another research conducted by Odiko (2004), E- business as a mode of International Business engagement, the case of Kenya National Handloom Weavers Organization, also focused on e-business practices as undertaken by a particular organization. A study by Waruingi (2003) has examined the important issue of information technology and business alignment. It has probed the major factors that influence alignment including organizational structure, technology, planning and communication.

This survey has been focused on companies quoted at the Nairobi Stock Exchange with the aim of finding out the extent of strategic alignment for such companies. Having noted the focus on challenges and factors affecting the adoption or implementation of e-business as a study area, this leads to the problem we seek to address in this study and the research question what are the challenges of the implementation of e-business strategy, by companies listed in the Nairobi Securities Exchange.

1.3 Research Objectives

The objectives of this study are:

- 1) To identify how the various challenges of e-business strategy implementation are handled among companies listed in the Nairobi Securities Exchange.
- 2) To offer conceptual solutions to the strategy implementation of e-business.

1.4 Value of the Study

The research has significant contributions to the policy of strategy implementation in e-business. E-business systems are now gaining familiarity in Kenya. It is therefore important from a strategy formulation, design and implementation perspective that potential pitfalls are identified and conceptual solutions are made available for the adoption and implementation of e-business solutions. Furthermore, this research is also expected to increase awareness of the challenges in e-business deployment and serve as a guide for future strategy implementation of such systems and therefore create a blue print for the policy in implementing e-business.

This study offers contribution to the way, the theory around e-business strategy is addressed in Kenya as guided by the Game theory, resource based view theory and open systems theory. The study is going to provide a strategy implementation baseline, which provides valuable information on the how to address and implement strategic decisions of e-business nature.

The findings of this study are of importance in the practice of strategy implementation especially to the management of NSE listed companies and corporate organization in Kenya on the direction to take with strategy Implementation in regard to e-business. In Kenya, there is has been little research done on the subject. Most researchers have conducted studies on the practices and level of e-business activity in general but not of the strategy implementation in particular. On the basis of overall evaluation of available literature sources, it is evident that there is clear need of undertaking research to identify and analyze the factors that influence implementation of e-business solutions in various organizations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents and discuss the literature relating to the implementation of strategy by various scholars, analytics and authors. It introduces e-business and examines the theoretical foundation of where e-business is placed in the organization strategy map and the three theories that are key to its existence namely: the game theory, the resource based view and the open systems theory.

2.2 Theoretical Foundation

Study of E-business system is essential in the complex world today, because traditional business processes have evolved and moved forward to the supply chain and doing electronic business. E-business is a key communication channel to access customers, but also a means to finding new customers and maintaining sustainable relationships with current customers. So we can consider e-business as a powerful tool for globalization process.

The strategic management theories that we can borrow concepts to address the study of strategy implementation are the Game theory which focuses on the art of wining against competitors on the one hand and the Resource Based View that offers a basis for competitive advantage of a firm that lies primarily in the application resource at the firm's disposal on the other hand. For all this to happen successfully the firm should have rooted in its operational practices the concept of open systems theory. Business strategy decisions involve interdependent outcomes and therefore seem to lend themselves to game theory. Game theory can be defined as part of a large body of theory providing a formal language to describe conscious, goal-oriented, decision making processes involving one or more players. Game theory may also be described as the analysis of rational behavior in situations involving interdependence of outcomes (Camerer 1991).

Game theory approaches and empirical studies in strategy research can yield complementarities between them from the guidance that they give each other. Empirical strategy studies, therefore, could provide a rich source of stylized facts on organization practice by firms, a starting point for game theory models. Similarly, well done game-theory-based models provide predictions that can be tested. Game-theory provides an exciting avenue for analyzing and developing decision making models applicable to strategic management. The models can be derived from a theoretical perspective, developed from empirical data, or a combination of both.

The Resource Based View (RBV) takes an ‘inside-out’ view or firm-specific perspective on why organizations succeed or fail in the market place (Mandhani P,2009) The resource-based view (RBV) argues that firms possess resources, a subset of which enables them to achieve competitive advantage, and a subset of those that lead to superior long-term performance. Resources that are valuable and rare can lead to the creation of competitive advantage. That advantage can be sustained over longer time periods to the extent that the firm is able to protect against resource imitation, transfer, or substitution. In general, empirical studies using the theory have strongly supported the resource-based view.

An illustration of how e-business opportunities can be viewed would be when a firm perceives new market opportunities and may try to conduct an innovation by means of organizing new resource combinations. In order to conducting the innovation, the firm may buy up some resources, including those of underestimated in the existing market, but perceived that they are valuable in the future market. Thus the entrepreneurial innovation is an innovation to perceive (for instance e-business activity or initiative) a future value system through the new combinations of resources in the present time and space.

The open systems approach recognizes that organizations are not self-contained. Open systems theory was developed after World War II in reaction to earlier theories of organizations, such as the human relations perspective of Elton Mayo and the administrative theories of Henri Fayol, (John D. Breeze, 2002) in the foundations of Henri Fayol's administrative theory which treated the organization largely as a self-contained entity. They rely on their environment (including the social, political, technological, and economic forces) for life sustaining inputs and as sources to absorb their outputs. No organization can survive for long if it ignores government regulations, the courts, outside interest groups, private service providers, or elected officials. An organization should be judged on its ability to acquire inputs, process these inputs, channel the outputs, and maintain stability and balance. Outputs are the ends, where acquisition of inputs and processing efficiencies are means.

If an organization is to survive over the long term, it must remain adaptive. The importance of leadership and adaptive behavior are stressed by many scholars. E-business activities can be viewed as a technological response to making organizations work, play and live in open systems architecture through the interconnection of the internet and electronic data interchange among corporations.

2.3 Generic Challenges in Implementing e-business systems

It's easy to describe e-business and the benefits resulting from their implementation. It's not so easy to develop and deploy e-business systems. Companies have faced significant hurdles with the following factors Cost, Value, Security, Existing systems and Interoperability. In identifying the challenges, there are a large number of issues that appear to be inherent to the Organizations and others to the people, these themes are seen to be consistent across most firms.(NSE) .

There are critical success factors that are based on the organization's internal factors and others are external factors. Internal factors include : IT readiness, Financial readiness, staff readiness, Management support, Firm strategy, Firm culture, Firm size and anticipated benefit. External factors include: Global Competition, Local competition, Customer pressure, Trust and Culture, Laws and regulations, IT infrastructure, Industry Nature and Government Nature. I have organized the challenges in terms of Related to e-business applications, Intra firm related and factors related to supply chain.

The factors related to the applications refer to the appropriateness of e-business in specific business fields. According to the literature, the following factors have been recognized: operational compatibility, relative advantage, the complexity and the cost of e-business applications, complexity and the cost of e-business applications. Operational compatibility deals with how compatible are the e-business applications with the existing activities of companies (Rogers, 1995).Relative advantage refers to the expected benefits and the usefulness arising from e-business applications in comparison to other applications (Rogers, 1995). Complexity refers to the difficulties that a company is expected to face in understanding and using the applications (Van der Veen, 2004). Cost is linked to the perceptions of the persons interviewed regarding the capital needed for investments. In many cases, e-business applications, particularly very complicated ones, are very expensive.

The Intra-firm related factors are related to companies' characteristics, such as the availability of financial resources, the management emphasis put on adoption, the availability of human resources, and the competitive attitude of the company. The availability of financial resources, although linked to the cost of applications, is related with company's financial health. According to many authors this factor is critical (Fillies, 2002; Van Beverley and Thomson, 2002). Another important factor is management emphasis in the adoption process, which is actually related to top managers' commitment. In many cases, particularly in SME's, these intra-firm factors become at least as important as every other factor (Fillies et al., 2003).

Finally, competitive attitude is allied to company's perception regarding the way in which improvements in the competitive position of the company are to be achieved as a result of the adoption of e-business applications (Waarts et al., 2002). The factors related to the supply chains take into consideration companies' external environment. Supply chain complexity refers to the number of entities interacting with a particular company. In addition, it takes into account the number of suppliers, their proximity, as well as the complexity of transactions. Critical mass of users reflects the number and importance of supply chain partners that are using e-business applications (Markus, 1990).

The level of collaboration is another important factor. Long-term relationships among organizations which are characterized by trust have proved that facilitate electronic integration (Konsynski and McFarlan, 1990). Trust is a crucial barrier towards the uptake of e-business applications that needs further attention specifically in the case of the food sector which is characterized by cross-country transactions and exchanges. The nature of relationships includes characteristics such as power and dependence. Many researchers have shown that pressure from a company's environment (e.g. suppliers-customers) affects e-business adoption (Premkumar and Roberts, 1999; Mehrtens et al., 2001).

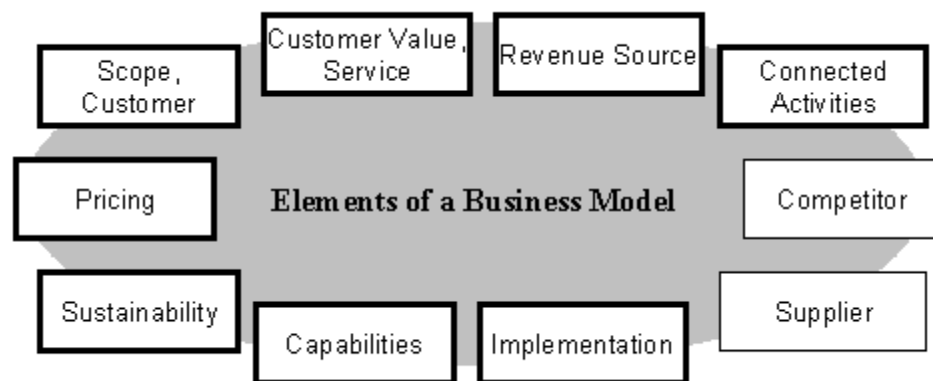


Figure 2.1: Adapted business model approach by Afuah/Tucci .

(source: http://www.eurol.org/materials/contrib/2002/14ICL_2002_Breuer_Hekman/ICL_2002_fullpaper.htm)

This focused approach comes from Afuah and Tucci. They identified eight key themes to make a business model. A good starting point in the development of an e-business initiative.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology used to find answers to the research question what are the challenges of Implementation of e-business strategy, by companies listed in the Nairobi Securities Exchange. The chapter is organized in the following order research design, population of the study, data collection and data analysis.

3.2 Research Design

This study uses a cross sectional survey research design. The study examines the responses to the questionnaire centered on finding out the challenges of Implementing e-business strategy, by companies listed in the Nairobi Securities Exchange.

The study is centered on examining different aspects of e-business adoption and implementation results. The objectives are to identify what are the major barriers and impediments in use and implementation of e-business solutions and secondly to offer conceptual solutions to the identified challenges. Hence in the light the objectives, the methodology used is Cross Sectional Descriptive Research Design.

3.3 Population of the Study

The study population comprises of companies listed in the Nairobi securities Exchange, a total number of 64 organizations. The Nairobi Securities Exchange (NSE) was constituted as Nairobi Stock Exchange in 1954 as a voluntary organization of stockbrokers in the European community registered under the Societies Act.

The Exchange is sub-Saharan Africa's fourth-largest bourse. A number of brokers are licensed to operate. Foreign investment on the Nairobi Securities Exchange and foreign ownership of companies is by application. Foreign investment in the local subsidiaries of foreign-controlled companies is banned so as to encourage input into Kenyan companies. Since 1995 the Kenyan government has opened trade in the NSE and gilts to foreign portfolio investors; removed exchange controls; and introduced a favorable tax regime and the introduction of a central depository system is expected to speed up clearing and settlement

The choice of the census survey as a design provides a platform for identifying challenges as related to e-business applications, challenges as related to Intra firm challenges and challenges as related to supply chain. These are analyzed in the context of e-business application complexity and e-business intensity of use factors. This design is also the best design that defines the domain of generalization(Frankfort and Nachmias, 1996).

Cross-sectional surveys are studies aimed at determining the frequency (or level) of a particular attribute. They are carried out at one time point or over a short period .They are usually conducted to estimate the prevalence of the outcome of interest for a given population, in our case the Companies listed in the Nairobi Securities Exchange . In this way cross-sectional studies provide a 'snapshot' of the outcome and the characteristics associated with the challenges affecting the adoption of e-business at this specific point in time.

3.3 Data Collection

The survey instrument was a questionnaire used for data collection. Questionnaire is a research tool that gathers data over a large sample (kombo et al. 2006). It contains two sections with close ended questions with multiple choices. The first section looks at the bio data of the respondent. The next section explores the challenges with a view to determine the severity to the organization and industry. This section addresses the response strategies adopted by the organization in tackling the challenges.

The targeted respondents are chief managers in either operations, strategy or information systems management. I have taken this group, because of the vast experience and responsibilities they hold in the organization. The questionnaire asks questions that lead to the deduction on the challenges in implementing e-business strategy in their respective organizations, while shedding light on the organization performance and strategy implementation. The researcher also sought their individual views on how e-business strategy should be handled in their organization and industry.

3.4 Data Analysis

The researcher uses descriptive statistics , content and factor analysis. Data quality checks were done at the data collection level and secondary checks at data entry level. The Researcher analyzed the frequencies, percentages of the various responses and interprets the various patterns emerging with the challenges.

The data analysis is presented in frequency tables and charts. In this research, each of the items in the question are considered as pointing negatively in affecting e-business adoption and implementation.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The study sought to establish the challenges faced by companies Listed in the Nairobi Securities Exchange in implementing e-business strategy. The method of data collection was personal and telephonic interviews by the way of an interview questionnaire sent to the respondents by e-mail. The researcher interviewed senior managers of companies listed in the NSE, this chapter presents the analyses and findings of the study.

4.2 Presentation of research findings

The research findings were analyzed and grouped into seven Categories as follows: Policy, Financial Capacity, Motivation and Ownership, Board Support, Organizational Structure, Open to Change and Human Resources.

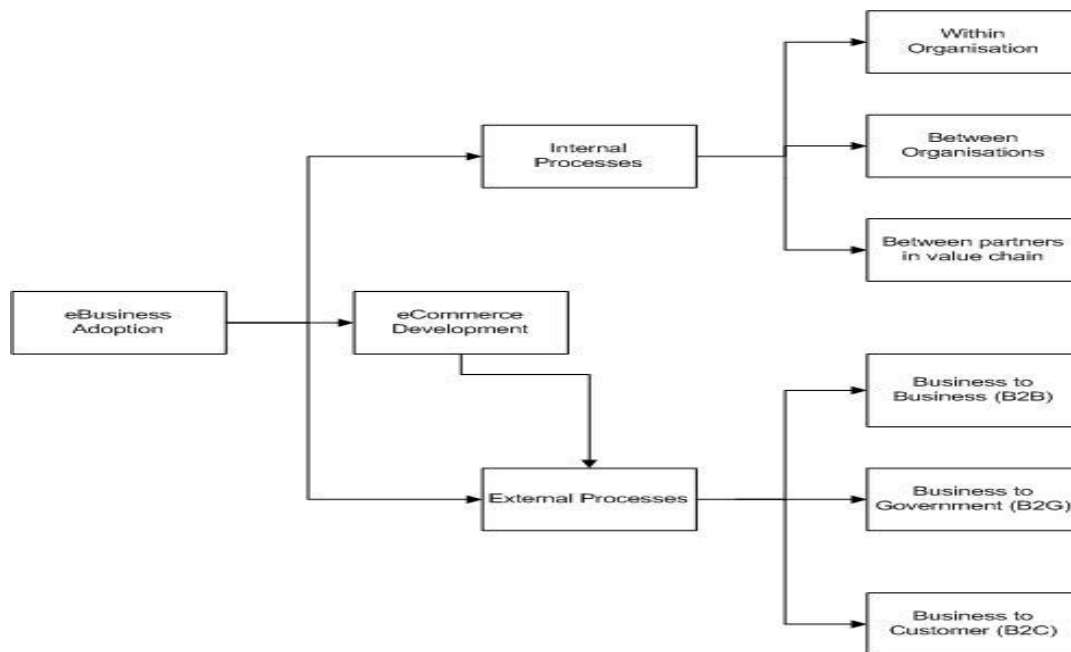


Figure 4.1: Simplified e-business Adoption Diagram (source: e-business Adoption Models/FactorsStrategy and Business Systems Department Portsmouth Business School University of Portsmouth)

The diagram above depicts the e-business adoption process, it examines the interaction of internal process and external process of the adoption process. Similarly, we note that in the strategy formulation of e-business, these seven categories of key events must work seamlessly, these are Policy, Financial Capacity, Motivation and Ownership, Board Support, Organizational Structure, Open to Change and Human Resources. Our presentation of findings therefore, looks at each category in depth as outlined herein.

4.2.1 Policy Support Challenges

The researcher found out that all the organizations interviewed confirmed that they had a Policy Manual in place, this was evident with the results from the 36 respondents interviewed. They had a mean ranking of 9.25 out of a possible score of 10. Most of the respondents indicated a strong certainty that their policy manuals were regularly updated, this they had a mean ranking of score of 8.5 out of a possible score of 10. In regard to the understanding and support to formal policy development and implementation by the employees, we note a high score of 8.22 out of a possible score of 10. Understanding and support by Directors and Executive Director had a mean ranking of 8.19 and 9.20 out of a possible score of 10 respectively. This clearly indicates that Executive management has a strong grasp on designing and implementing organizational policies and strategies, 86% of the respondents indicated their organizations have a score between 9-10 with the existence of documented policy manual, while 88.89% scored their organizations with score range of 8-9 in terms of regularly updated manual.

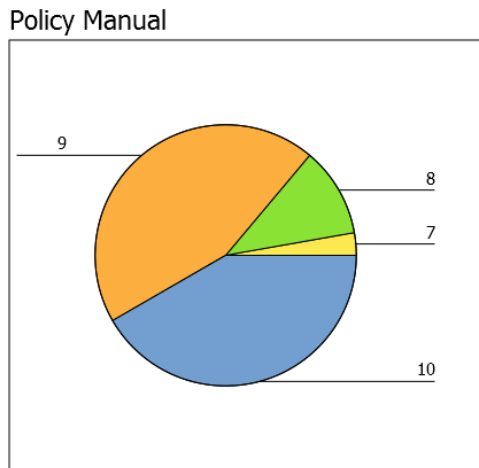
Table 4.1: Policy Manual descriptive statistics data analysis

N	Valid	36
	Missing	0
Mean		9.25
Std Dev		0.77
Minimum		7
Maximum		10

(source : Primary data)

The table above shows the descriptive statistics relating to the existence of documented policy manuals in the respective organizations.

Table 4.2: Policy Manual pie chart (source: primary data)



(source : Primary data)

The table above shows a pie chart representation of the relative scores for existence of policy manual.

Table 4.3: Policy Manual Frequencies analysis

<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
	7	1	2.78	2.78	2.78
	8	4	11.11	11.11	13.89
	9	16	44.44	44.44	58.33
	10	15	41.67	41.67	100.00
	<i>Total</i>	36	100.0	100.0	

(source : Primary data)

The table above shows the analysis of the frequencies relating to the existence of policy documented policy manuals in the respective organizations.

4.2.2 Financial Capacity challenges

The organizations interviewed confirmed that they had the financial capacity to implement e-business strategic initiatives. Out of the 36 respondents interviewed they had a mean ranking of 8.33 out of a possible score of 10. The range between the scores was 7-10, with 91.68% scoring between 8-10. This indicates that most of the companies listed in the NSE have the financial capacity to implement strategic initiatives. The results for the management indicated a mean ranking of 8.53 out of a possible score of 10, with 88.89% scoring between 8-9. The results for the board of directors indicated a mean ranking of 9.0 out of a possible score of 10 out of this 50% scored 9 and 25% scored 8 and 10 respectively.

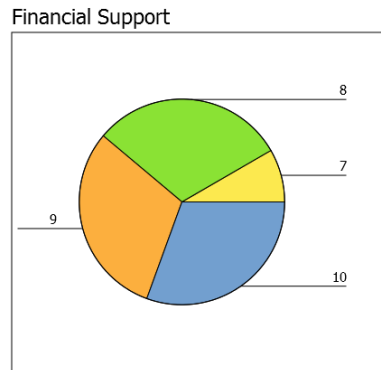
Table 4.4: Financial Support descriptive statistics data analysis

<i>N</i>	<i>Valid</i>	36
	Missing	0
Mean		8.83
Std Dev		0.97
Minimum		7
Maximum		10

(source : Primary data)

The table above shows the descriptive statistics relating to the Financial Capacity level in implementing strategic initiatives live e-business in the respective organizations.

Table 4.5: Financial capacity pie chart



(source : Primary data)

The table above shows a pie chart representation of the relative scores for financial capacity.

Table 4.6 : Financial capacity Frequencies analysis

<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
	7	3	8.33	8.33	8.33
	8	11	30.56	30.56	38.89
	9	11	30.56	30.56	69.44
	10	11	30.56	30.56	100.00
	<i>Total</i>	36	100.0	100.0	

(source : Primary data)

The table above shows the frequency analysis relating to the Financial Capacity level in implementing strategic initiatives live e-business in the respective organizations.

4.2.3 Motivation and Ownership Challenges

The organizations interview looked at the motivational and ownership challenges as follows. Out of the 36 respondents, the results indicated a mean ranking of 9.03 out of a possible score of 10, with a minimum score of 7. Out of these 58.33% scored 9, while 19.44% scored 8 and 22.22% scored 10. An in-depth analysis of the motivational and ownership support levels for management was a mean ranking of 8.58 out of a possible score of 10, with 94.45% scoring between 8-9. The results for the employees indicated a mean ranking of 8.06 out of a possible score of 10, with 55.56% scoring 8. The results for the board of directors indicated a mean ranking of 8.86 out of a possible score of 10, with 50.00% scoring 9. The motivational and ownership level for the Executive Director indicated a mean ranking of 9.22 out of a possible score of 10, with 61.11% scoring 9.

Table 4.7: Motivation and Ownership descriptive statistics data analysis

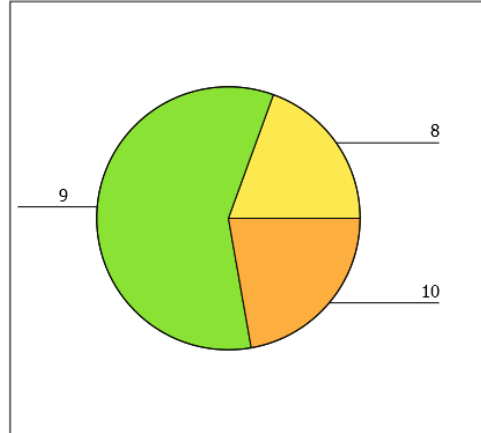
<i>N</i>	<i>Valid</i>	36
	Missing	0
Mean		9.03
Std Dev		0.65
Minimum		8

(source : Primary data)

The table above shows the descriptive statistics relating to Motivation and Ownership in the respective organizations.

Table 8: Motivation and Ownership pie chart capacity pie chart

Motivation to support SI by Board of Directors



(source : Primary data)

The table above shows a pie chart representation of the relative scores for motivation and ownership.

Table 4.9: Motivation and Ownership frequency analysis

<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
	8	7	19.44	19.44	19.44
	9	21	58.33	58.33	77.78
	10	8	22.22	22.22	100.00
<i>Total</i>		36	100.0	100.0	

The table above shows the frequency analysis relating to Motivation and Ownership in the respective organizations.

4.2.4 Board Support challenges

The respondents indicated the following results toward Board Support. In general, out of the 36 respondents the organizations rated the Board support with a mean ranking of 8.89 out of a possible score of 10, with 10% scoring 10 and 72.22% scoring between 7-9. The respondents however rated the performance of the board in supporting strategy implementations with a mean ranking of 8.44 out of a possible score of 10, with 75% scoring between 8-9.

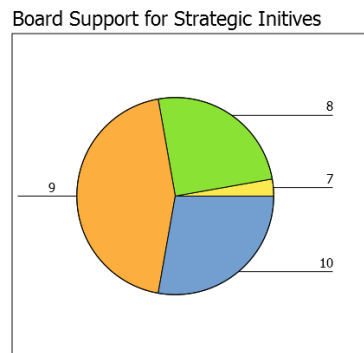
Table 10: Board Support for Strategic Initiatives descriptive statistics

<i>N</i>	<i>Valid</i>	36
	Missing	0
Mean		8.97
Std Dev		0.81
Minimum		7
Maximum		10

(source : Primary data)

The table above shows the descriptive statistics relating to strategic Initiatives in the respective organizations.

Table 4.11: Motivation and Ownership pie chart capacity pie chart



(source : Primary data)

The table above shows a pie chart representation of the relative scores for the Board Support.

Table 4.12: Board Support for Strategic Initiatives frequency analysis.

<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
	7	1	2.78	2.78	2.78
	8	9	25.00	25.00	27.78
	9	16	44.44	44.44	72.22
	10	10	27.78	27.78	100.00
	<i>Total</i>	36	100.0	100.0	

(source : Primary data)

The table above shows the frequency analysis relating to support for strategic Initiatives in the respective organizations.

4.2.5 Organizational Structure Challenges

Organizational structure challenges are key in the implementation of strategic initiatives like e-business activities. The general response indicated a mean ranking of 7.94 out of a possible score of 10, with 30.56% scoring 7 and 50% scoring 8. The general results for the current governance level indicated a mean ranking of 8.00 out of a possible score of 10, with 58.33% scoring 8 , 22.22% scoring 7 and 2.78% scoring 10

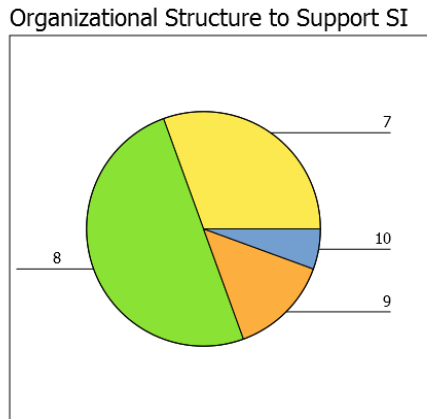
Table 4.13: Organizational Structure descriptive statistics

<i>N</i>	<i>Valid</i>	36
	Missing	0
Mean		7.94
Std Dev		0.83
Minimum		7
Maximum		10

(source : Primary data)

The above table shows the descriptive statistics relating to organizational Structure in the respective organizations.

Table 4.14: Organizational Structure pie chart



(source : Primary data)

The table above shows a pie chart representation for the relative scores for organizational structure.

Table 4.15: Shows the frequency analysis relating to Organizational Structure

<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
	7	11	30.56	30.56	30.56
	8	18	50.00	50.00	80.56
	9	5	13.89	13.89	94.44
	10	2	5.56	5.56	100.00
<i>Total</i>		36	100.0	100.0	

(source : Primary data)

4.2.6 Open to change Challenges

The attitude exhibited in the organization can contribute positively or negatively towards the implementation of strategic initiatives like e-business. This is particularly true, because if e-business is viewed as a technical inclusion in the business process, then its implementation is proved to be difficult or having a slow adoption rate. This results indicated a mean ranking of 8.06 out of a possible score of 10 with a range of 3 and a minimum score of 7 out of a possible score of 10, with 61.11% scoring 8, 19.44% scoring 7, 13.89% scoring 9 and 5.56% scoring 10.

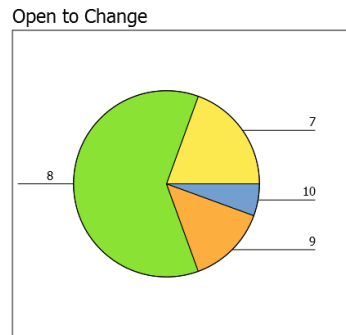
Table 4.16: Open to Change descriptive statistics

<i>N</i>	<i>Valid</i>	36
	Missing	0
Mean		8.06
Std Dev		0.75
Minimum		7

(source: primary data)

The table above shows the descriptive statistics relating to open to change in respective organizations.

Table 4.17: Open to Change pie chart



(source: primary data)

The table above shows a pie chart representation for the relative scores for open to change.

Table 4.18: Open to Change frequency analysis

<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
	7	7	19.44	19.44	19.44
	8	22	61.11	61.11	80.56
	9	5	13.89	13.89	94.44
	10	2	5.56	5.56	100.00
	<i>Total</i>	36	100.0	100.0	

(source: primary data)

The table above shows the frequency analysis relating to open to change in the respective organizations.

4.2.7 Human resources Challenges

Human resource is a key pillar for any organization and how it plays in the implementation of strategic initiatives like e-business is critical. The general results indicated a mean ranking of 8.06 out of a possible score of 10, with 55.56% scoring 8, 33.33% scoring 9, 8.33% scoring 7 and 2.78% scoring 10 . The general results for the Board of Directors support for human resources in implementing strategic initiatives indicated a mean ranking of 8.64 out of a possible score of 10, with 52.78% scoring 9, 41.67% scoring 8, and 5.56% scoring 10 . while the results for the organizations staff capacity to support strategic initiatives had a mean ranking of 7.94 out of a possible score of 10 with a minimum score of 7, with 63.89% scoring 8,19.44% scoring 7,13.89% scoring 9 and none scoring 10.

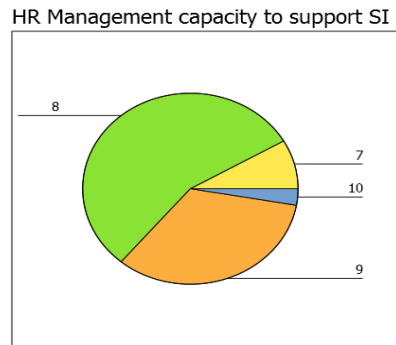
Table 4.19: HR Management capacity descriptive statistics data analysis

<i>N</i>	<i>Valid</i>	36
	Missing	0
Mean		8.31
Std Dev		0.67
Minimum		7
Maximum		10

(source: primary data)

The table above shows the descriptive statistics relating to human resource capacity to support strategic initiatives in respective organizations.

Table 4.20: Human Resource pie chart



(Source: primary data)

The table above shows a pie chart representation for the relative scores for organizational structure.

Table 4.21: HR Management capacity frequencies data analysis

<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
	7	3	8.33	8.33	8.33
	8	20	55.56	55.56	63.89
	9	12	33.33	33.33	97.22
	10	1	2.78	2.78	100.00
	<i>Total</i>	36	100.0	100.0	

(source: primary data)

The table above shows the frequency analysis relating to Human resource capacity.

4.3 Discussion

Implementation of an e-business system is never an easy process. It is widely acknowledged that companies are increasingly facing different challenges of electronic business (Cagliano, Caniato & Spina 2003). A company has to be aware of the challenges that implementation may include. According to Davila, Gupta and Palmer (2003) implementation of e-business solutions include risks which can be divided in to four categories. They are internal business risks, external business risks, technology risks and electronic procurement process risks.

Internal business risks mean that companies are uncertain about having right and adequate resources to successfully adopt an e-business system. It is extremely important that an e-business system fully works with the purchasing process and the system is completely integrated with the existing information infrastructure. If integration between new e-business system and existing infrastructure fails, it creates more workload and harms the reliability of the organization processes. (Davila et al. 2003). External business risks pose a challenge in that, it is not enough that e-business software only works with the company's internal systems. It also has to be integrated with customers and suppliers solutions. Information exchange between suppliers and enterprise must be real time-based and visible. Electronic collaboration is not possible without the external integration. Many suppliers do not do anything unless they get guarantees of future profits. (Davila et al. 2003).

Technology risks consists of uncertainty of the widely accepted standards and uncertainty of the comprehensive understanding which system solution is best for the company. If the solution is not widely accepted, the integration of e-business solution fails in every stage of the supply-chain. If standards are not widely accepted, many of the benefits are not reached. (Davila et al. 2003) . Implementation of e-business software has to be a secure and systematic process. Business activities and production cannot be interrupted when integration is in action. If the integration process fails, it can cause serious damages to the company's business and its functions. (Davila et al. 2003).

The challenges to effective implementation of e-business strategy are multiple and complex. These challenges are more organizational in nature as opposed to being technology related. The researcher sought to establish the challenges of implementing e-business strategy, among companies listed in the Nairobi Securities and categorized the challenges as Policy, Financial Capacity, Motivation and Ownership, Board Support, Organizational Structure, Open to Change and Human Resources.

The environment of any organization consists of all of the factors that are beyond its control, but influence it in one way or another. Examples of these factors are shown in the figure, E-Business Environment and Strategies. Policy and in particular, a well documented and regularly updated policy document in this research is observed as a critical component to formal strategy development and implementation based on the organizational requirements at any given time. It is therefore, worth noting that these companies listed in the Nairobi Securities Exchange, have a legal requirement to document all key information relevant to the performance of the stock. It is therefore, not surprising that almost 90% indicated a very strong response to the existence of a well documented and regularly updated policy manual.

There are many environmental elements, ranging from policy frameworks, supporting public administrations, competitiveness/collaboration frameworks, levels and quality of education, entrepreneurial culture and ICT infrastructure, among others), that condition the evolution of e-business (Vitkauskaite, 2009). While policy initiatives cannot always have a direct influence on these factors, it is important to anticipate them and make use of them as good as possible (Damaskopoulos, Gatautis, Vitkauskaite, 2008). Financial capacity as a challenge in the implementation of e-business strategy, is observed in this research as not being an impediment for organizations in the NSE with 91.68% scoring between 8-10. The researchers deductions with these results are that e-business is a strategic initiative taken by organizations to enhance business activities between the organization, its customers and suppliers. It is therefore worth noting that companies listed in the NSE, have a strong focus on the performance of the

organization and would therefore avail funds for such initiatives. What is not clear, is the extent of funding requirement per project verse the expected value. The capabilities and opportunities afforded by an e-business marketplace significantly improves the productivity and competitiveness of participating organizations (Gunasekaran *et al.*, 2002; Wilson and Abel, 2002; DeCovny, 1998). Organizations engaging in e-business tend to have higher annual revenues in comparison to other organizations (Neese, 1999; Lancioni *et al.*, 2003; Gunasekaran *et al.*, 2002).

Motivational and Ownership challenges can often make or break the implementation of a sound strategy. Whereas the crafting of a winning strategy is often a key challenge for many organizations, the sound implementation of a poor strategy can lead to success in a particular area. In this research, it is observed that motivation and ownership of a strategy by the Executive Director is rated highest, followed by the Board of Directors and Management. This suggests that the top leadership of the NSE listed companies are the key strategy drivers and as such the successful implementation of e-business strategy has a correlation with the motivational and strategy ownership exhibited by its chief executive.

The level of support given to the NSE listed companies by their Boards in strategy implementation cannot be understated, as observed with my research findings. The research indicates that the Board support is critical in supporting strategy implementation despite their observed level of performance. It is observed that organizational structure challenges are an important consideration to e-business strategy implementation despite the performance of the organization as exhibited by the current governance level.

How open to change and organization is, can be a major determinant of the successful implementation of its strategies and in this case e-business strategy. The results in this research, indicate that the more open to change an organization is, there is a high likelihood for a better implementation of its strategic initiatives like e-business.

Human resource capacity cannot be understated in the development and implementation of strategic initiatives like e-business. In this research, it is observed that organizational staff level in implementing strategic initiatives like e-business strategy needs to high and given the right support level by the Organization Board, Management and Executive Director.

The research findings suggests that ,e-business must be considered systematically in developing an organization's overall competitive strategy. The research provides several pointers that could pave the way for a smooth transition to e-business implementation. It is recommended to start slowly and methodically with caution. One needs to adequately protect one’s information assets to secure customers’ data as well as organizational data from intruders and other potential hazards. Lastly, it is important to allocate sufficient resources in the following areas to facilitate e-business: Policy creation, Financial Capacity, Motivation and Ownership capacity, Board Support, Organizational Structure, Open to Change attitude and Human Resources capacity.

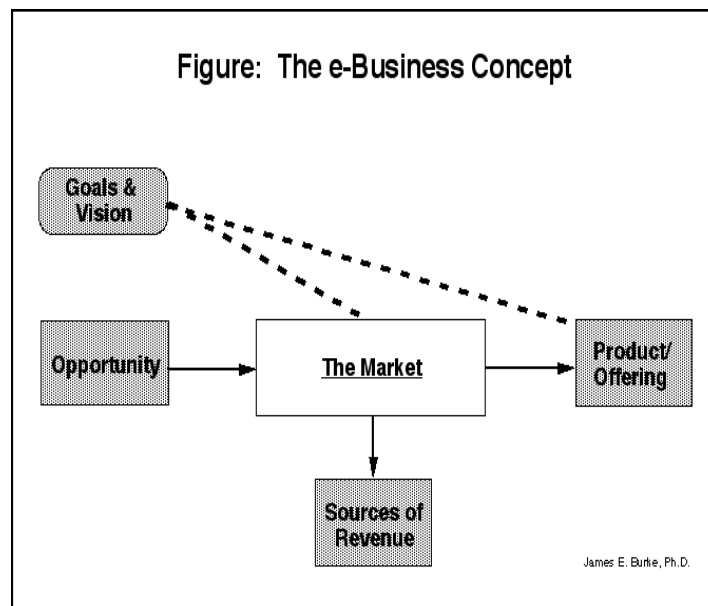


Figure 4.6: E-business Concept Model by James Burke (Source: James Durke , Harvard Business School)

Strategy formulation refers to the process of choosing the most appropriate course of action for the realization of organizational goals and objectives and thereby achieving the organizational vision. The process of strategy formulation basically involves six main steps. Though these steps do not follow a rigid chronological order, however they are very rational and can be easily followed in this order: Setting Organizations' objectives, Evaluating the Organizational Environment, Setting Quantitative Targets, Aiming in context with the divisional plans, Performance Analysis , Choice of Strategy.

The research findings indicate that, the development of an e-business strategy in an organization is consistent with the existing body of knowledge. e-Business is about new business models, strategies, and tactics that are made possible with the capabilities brought by the Internet and related technologies. On the same token, e-Business opportunities should support the business strategy aligned with business drivers.

In the research, we examined the areas where e-business strategy formulation can have bottlenecks. These are Policy creation, Financial Capacity, Motivation and Ownership capacity, Board Support, Organizational Structure, Open to Change attitude and Human Resources capacity. This means that decisions to deploy e-Business initiatives should be made with a clear understanding of the impact they have on all aspects of the business, its existing strategy, business partner relationships, business processes, branding, and so on. The availability of human resources is associated with the existence of employees which have the knowledge and experience to use e-business applications (Mehrtens et al., 2001). This also means that the business must own the strategy, the information technologist may be a catalyst for e-Business, but the business areas should be the owners.

In the development of e-business strategy, the following theoretical concepts offer guidance namely, Open systems, Game theory and Resource based view theory. Game-theory provides an exciting avenue for analyzing and developing decision making models applicable to strategic

management. The models can be derived from a theoretical perspective, developed from empirical data, or a combination of both. Game-theoretic analyses, however, can provide useful and possibly counter-intuitive insights on competitors interactions. Game theory provides substantial benefits in situations where concentrated competition, mutual familiarity, and repeated interaction are present, as is the situation in strategic management and the competitive nature of companies listed in the Nairobi Securities Exchange.

The Organizations in the NSE, have clearly documented business process and their performance depends on the process clarity and the feedback mechanism set in the organization. This implies that the e-business process interacts with the organization customers, suppliers, business partners and its back office such that with every feedback of the process output is fed back into the system with value addition and the analysis conducted thereafter to the intended output is Open Systems Theory in strategic management, hence the consistency with current theories.

The Resource Based View tends to be the prevailing paradigm that explains or helps to understand how and why organizations develop the capability to gain and sustain competitive advantage. Sanders (2007) claimed that supplier companies gain when using various e-business technologies. According to Porter (1980, 1985) and Porter and Millar (1985), a firm develops its business strategies in order to obtain competitive advantage (i.e., increase profits) over its competitors. It does this by responding to five primary forces: (1) the threat of new entrants, (2) rivalry among existing firms within an industry, (3) the threat of substitute products/services, (4) the bargaining power of suppliers, and (5) the bargaining power of buyers. In regard to Porter's five forces model, the impact of the Internet on the marketing mix and competitive forces means that an organization in implementing an e-business strategy should look into its Product Strategy, Price Strategy, Promotion strategy and Place Strategy.

Michael Porter, Five Forces Model

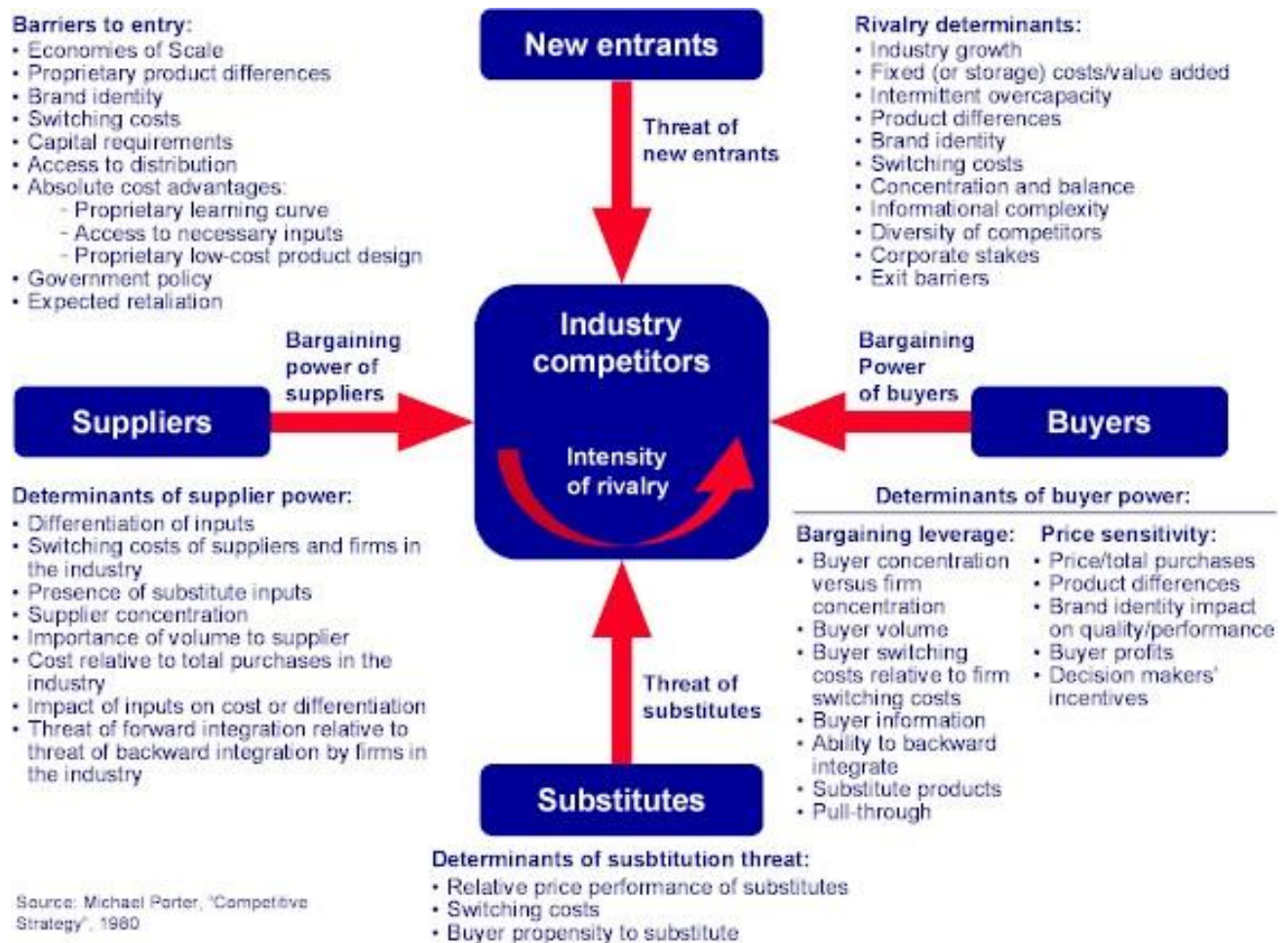


Figure 4.7: Michael Porter Competitive Strategy 1980

A look at the NSE listed Companies and the choice of e-business strategies to be adopted in view of the competitive forces, shows that there is no single optimal business strategy for e-business because the sources of competitive advantage differ across different industries. By the same token, in industries where different levels of competitive forces are present, certain combinations of product, price, promotion, and place strategies may not work for gaining competitive advantage. The companies should analyze their niche opportunity in the respective industry sectors and then implement a gradual e-business strategy to achieve the niche opportunity. Some authors view e-Business as the evolution of e-commerce from the buying and selling over the Internet, and argue that the former is a subset of the latter.(Turban et al., 2006).

E-Business with its dynamic, rapidly growing and highly competitive characteristics provides new avenues for the creation of wealth. Established Companies are creating new online businesses, while new ventures are exploiting the opportunities the Internet provides. The NSE listed companies continue to find new products and markets through the implementation of e-business strategies. In the article published by Windrum, and De Berranger in 2002 focused on the integration of the internet and related ICTs into the business organization forming e-business. It has two facets. One is the integration of the supply chain so that production and delivery become a seamless process. The other is the creation of new business models based on open systems of communication between customers, suppliers and partners. E-business strategy development is all about creating and sustaining competitive advantage using Internet technologies and therefore consistent with the current theories.

To counter the potential adverse affects of these factors, the e-business can respond with strategies. An external strategy is an approach to deal with factors in the external business environment such as competitors, markets, and technological developments, that are beyond the company's direct control. This is different from a corporate strategy, which addresses factors under the company's control such as the approach to marketing, sales, and pricing. Other components of the business model such as the value proposition and sources of revenue may also include strategies.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The objective of the study was to determine the challenges the Nairobi Stock Exchange was facing in the implementation of a e-business strategy. The findings of the study indicate the NSE's motive to strategically align itself to global trends and competition. One of the strategies that has been adapted is the e-business strategy. Through the findings of the study it is apparent that the NSE hired experts to advice on the strategy formulation and implementation. Although the implementation is not complete yet, the NSE hopes to accrue immense benefits from the strategy. In the process of implementing the strategy, the exchange has faced several challenges as expounded in chapter four of this research. The challenges include structural and operational challenges.

5.2 Conclusion

E-Business technology provides organizations with a great opportunity to enhance relationships with external and internal parties across its value and supply chains, to realize its competitive advantages. In doing so, however, the solution is not in the application of technology alone, to develop an effective e-Business strategy and realize a successful implementation, existing business interactions must be modeled and analyzed to identify the interactions that benefit from this paradigm.

The e-business planning process is similar to any other business planning initiative. The process involves a careful review of the business concept and a detailed plan to turn that concept into reality through an analysis of issues such as financial statements, market opportunities, product mix, pricing strategy, and other key variables. The only substantive difference is that an e-

business business plan places a greater emphasis on the Internet and the World Wide Web as a marketplace, communications medium, and business channel than a traditional business plan. The business processes supporting these interactions must be redesigned to effectively perform the procedures behind the interactions. These changes to the business, drive changes to the supporting technology and to the stakeholders that perform the business processes using the technology. It is also important to have the existence of employees which have the knowledge and experience to use e-business applications (Mehrtens et al., 2001).

Our findings indicated that the organizations were facing not any single, dominant obstacle but rather a mixture of closely-intertwined, accumulative challenges. Lack of IT resources and expertise had resulted in the organizations' relying increasingly on outsourcing. But this seemed to rather limit than support their ability to take proactive, long-term IT development initiatives such as would be required for implementing e-Business. Some organizations were also lacking e-Business knowledge of how to implement it in their respective Industries and thus had no conscious, organizationally agreed e-Business strategies.

In summary, e-business must be considered systematically in developing an organization's overall competitive strategy. Lastly, it is important to allocate sufficient resources both financial and human resources, as the key pillars of e-business implementation to avert a number of challenges, and ensure the smooth operations of e-business in companies listed in the NSE.

5.3 Limitations of the Study

Study was limited by scarcity of resources like time especially on the part of the respondents. The researcher had some constraints in making appointments to see the interviewees, most of them preferred the online response and telephonic Interviews . Some respondents were not willing to take part in the study. Predetermined questions were sent to the participants before the interview and during the interview the participants wanted to limit the discussions strictly to the interview guide and this may have prevented the respondents from providing specific information, in particular one that suggest divergent Views with their top management and Directors.

5.4 Suggestions for Further Research

The study was conducted to identify how the various challenges of e-business strategy implementation are handled among companies listed in the Nairobi Securities Exchange. This study was done among 36 of the 62 listed companies. This was 50% of the population and therefore further research should include a larger number. E-business is a relatively new field and therefore the structure of the questions, should never be technical in nature but be presented with options of business strategic management practices.

The interviewees should be more from the business related activities of the organization and less from the Information Technology departments. The researcher therefore recommends that further study be conducted on specific issues like the benefits of the e-business strategy and the progress of e-business in the emerging markets as depicted in the Resource Based View (RBV) theory that takes an ‘inside-out’ view or firm-specific perspective on why organizations succeed or fail in the market place (Mandhani P,2009) . Further research should also be conducted on the viability of the analyzing some key challenges in isolation, for instance what is the impact on financial capability and e-business implementation in the Banking sector by companies listed in the NSE.

E-business activities, have been also adopted successfully in the Small and Medium size Enterprises, a comparative study can be conducted on the challenges that the institutions have been facing, the responses they are employing and the impact organizational e-business activities are creating in the economy, particularly because we now have well mature e-payment platforms like M-pesa. This is a broader look at the wider impact of e-business in the Kenyan economy

5.5 Implications for Policy, Theory and Practice

This study has shown that there exist different Organizational challenges in implementing e-business. All stakeholders should be involved in the strategy formulation and implementation. Both the internal and the external environment should also be considered during the implementation as implied by the Resource Based View (RBV) takes an 'inside-out' view or firm-specific perspective on why organizations succeed or fail in the market place (Mandhani P,2009).

From the findings of the study, it is clear that the implementation of the e-business strategy at the NSE is policy led as opposed to developed markets where the implementation has largely been industry led based on market considerations. The challenge on the existing capital market legislation posing a challenge as to who regulates a demutualized exchange should be considered and a favorable decision made. The e-business process should be used as an opportunity to collaborating with strategic shareholders with specialized know-how with the object of importing knowledge and technical efficiencies into the stock exchange. E-business should also be used as a means of accelerating the development of technology-related infrastructure and capabilities.

A key observation, based on our studies therefore points to four key issues that apply to most organizations. These issues can be viewed as a prerequisite to building an effective e-business strategy as follows Identify measurable business objectives, Define costs and impact, Align IT architecture and Identify the value propositions. Implementing an e-business strategy is a major

undertaking. To ensure it is successful, objectives need to be identified in the beginning and measurable goals set. These may include eliminating steps in a business process, reducing errors through paper-based transactions, introducing new market opportunities, or improving information access among managers or departments.

The costs of implementing an e-business strategy are measurable in both time and money. Some providers may have lower front-end costs, but the time-to-implement may be so lengthy and complicated that the actual costs are much higher. The impact on business units must also be anticipated. Introducing an e-business strategy in one department may result in crossover benefits to other operating functions of the organization. For instance, using e-business technologies to reduce routine HR functions frees HR professionals to take a more active role in strategic planning for the organization. Introducing e-business technology across multiple business entities can require a major commitment of IT support. Using an open architecture configuration eliminates this concern because e-business applications are transparent to all major hardware platforms, operating systems, and databases.

Finally, implementing an e-business strategy is a lot smoother if its value is made clear to all potential users. E-business applications, for instance, add value at the Purchasing Department level by reducing errors and streamlining processes. At the organizational level, value is added by facilitated group purchasing, which cuts costs. In addition, vendors receive added value because they have faster access to information so they can track invoices and payment. Done right, an e-business strategy is a win-win proposition for all involved.

5.6 Recommendations

The economic issue is difficult to overcome since the cost of implementing this new technology is always high. Executive Directors, the Organization's Board and management need to be aware of the necessity of implementing e-business in their organizations. They need to recognize that their competitors are doing e-business and, if the firm does not respond, it would result in a competitive disadvantage. This situation would cause long-term impacts to the firm. Executive Directors and managers, on the other hand, should recognize the potential benefits of achieving e-business applications. The Resource Based View (RBV) takes an 'inside-out' view or firm-specific perspective on why organizations succeed or fail in the market place (Mandhani P,2009) therefore an organization should analyze its business process and determine which sectors would benefit most from e-business. This would allow the company to invest in the most beneficial e-business application.

The security problem needs to be solved. To help minimize this risk, there are numerous steps that a firm can undertake. First, they should consider security in all stages of development. Technology that can improve security should be implemented in every aspect of e-business, including applications, system software, and networks.

From the findings of the study, it is clear that an e-business development initiative requires two forms of control and measurement: one for the project itself, and one for the results of the project. Therefore right from the conceptualization and planning stage for e-business adoption, the requirements to be met in these areas cannot be under stated , i.e. : Policy creation and management, Financial Capacity, Motivation and Ownership, Board Support, Organizational Structure, Open to Change Attitude and Human Resources Capacity.

The challenges to effective implementation of e-business strategy are multiple and complex. These challenges are more organizational in nature as opposed to being technology related. In this context, a well-structured business strategy is the backbone of organizational effectiveness regardless of the strategy or business model (Wilson and Abel, 2002; DeCovny, 1998). Therefore, organizations that integrate e-business models with their strategic orientation are more likely to have successful results. To implement e-business solutions, it is necessary to have supporting information, and organizational infrastructure and systems.

The general principal task of strategy implementation which is also the case in e-business strategy involves building a capable organization, allocating ample resources to strategy-critical activities , establishing strategy supportive policies and procedures and Instituting best practices and mechanisms for continuous improvement. It is noted that these activities must rely on middle and lower-level managers to get things done

E-business models

	Agora	Aggregation	Value Chain Integrator	Alliance	Distributive Network
Main theme	Dynamic pricing	Selection and convenience	Process integration	Creativity	Allocation / distribution
Value proposition	Liquidity – converting goods into a desirable price	Optimization of selection, organization, price, convenience, matching and fulfillment	Design and delivery of an integrated product or service that meets a specific set of customer needs	Creative collaboration in aid of a goal shared across a community of contributors	Facilitate the exchange and delivery of information, goods and services
Customer role	Market player	Buyer	Value driver	Contributor	Sender/Recipient
Knowledge focus	Timing Market intelligence	Market segmentation Supplier offering fulfillment	Innovation Supply chain management	Community Creativity Standards and roles	Network optimization Visibility and transparency
Key process	Price discovery	Needs matching	Product design Supply chain management	Innovation	Distribution
Examples	Yahoo EBay Priceline AdAuction MetalSite FreeMarkets	Amazon.com Chemdex HomeAdvisor Webvan ETrade	Cisco System Dell Comp. General Motors	America Online Linux MP3	Enron UPS AT&T Wells Fargo

Figure 5.1: e-business models / Tapscott

source: http://www.eurol.org/materials/contrib/2002/14ICL_2002_Breuer_Hekman/ICL_2002_fullpaper.htm

Tapscott et al. identify the following five business models. [4] The ‘Aggregation’ and ‘Value Chain Integrator’ (see grey boxes), give input for the business scenarios of MetaCampus

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List of Companies listed in the NSE <https://www.nse.co.ke/listed-companies/list.html>

APPENDICES

APPENDIX: 1 INTRODUCTION LETTER

September 2014

Peter Owenje,

Department of Business Administration

University of Nairobi

P.O Box 30197,

Nairobi.

Dear Sir/Madam,

RE: Collection of Survey Data

I am a postgraduate student at the University of Nairobi, at the faculty of Commerce. As part of my course work assessment, I am required to submit a management research project.

In this regard, I am undertaking a research on The challenges of the Implementation of e-business strategy by companies listed in the Nairobi Securities Exchange. I would highly appreciate your participation by responding to the attached questionnaire. The information you provide will be used exclusively for academic purposes and will be treated with strict confidence.

Your co-operation will be highly appreciated.

Thank you in advance.

Yours faithfully,

Peter Owenje

MBA Student

Dr. Z B Awnio, Phd

Supervisor

APPENDIX II: RESEARCH QUESTIONNAIRE

Section A

Company Details

Senior Manager Details

Senior Manager Designation

General questions.

1. Your company operates in what industry :

2. Your Company size is about...employee's

- a. 100 or Less b. 100 to 500 c. 500 to 1000. d.1000 to 5000 e. 5000 or more

3. Your major customers are (may tick 1 or more)

- a. Trade or corporate customers. b. Consumers. c. Government or public service providers. d. Manufacturers. e. Others:

4. If your company has a website, for how long?

- a. Less than 1 year b. 1 to 2 years c. 3 to 4 years 3 d. 5 or more years

5. In your daily business, do you use Email to communicate with external parties, e.g. customers, suppliers, ?

- a. Yes. Please indicate % of communication using emails.

i. Less than 20%.

ii. 20% to 49%.

iii. 50% to 79%.

iv. 80% or more.

b. No. Please indicate your reasons. _____

6. Do you purchase supplies, materials or services using the Internet?

a. Yes. Please indicate % of purchases using Internet.

i. Less than 20%.

ii. 20% to 49%.

iii. 50% to 79%.

iv. 80% or more.

7. what online services does your company use via the Internet? (Please tick one or more)

a. Online searching.

b. Online banking.

c. Online government services.

d. Online trade services.

e. Online recruitment services.

f. Online advertisement.

g. Others: _____

8. what are your consideration factor(s) in choosing a service provider? (Can tick one or more answers)

a. Service Provider brand name

b. Service Provider expertise

c. Customer Servicing Quality

- d. Easy to use and User-Friendly Application Interface
- e. High level of Data Security
- f. Promotional offer or lower price
- g. Availability of bonus point scheme for gift redemption
- h. Availability of other value-added services

9. What are the benefits you expect from using e-business? (Can select one or more answers):

- a. Improve data accuracy
- b. Improve data security
- c. Simplify existing operation and business process
- d. Reduce manpower resources
- e. Reduce human or typing errors
- f. Improve transmission guarantee to the Government
- g. Provide updated trade news
- h. Improve competitive advantage
- i. Enhance company image
- j. Improve relationship with partners, customers and suppliers

10. What other reasons prevent you from using Internet as a trading or service tool?

Section B: Strategy Implementation

1.0 Policy Support

1.1 Does your organization maintain a policy manual?

(10 -if YES 1 -if NO)

1 2 3 4 5 6 7 8 9 10

1.2 Are organization policies updated on a regular basis?

(10 -if in the last year, 9 -if in the last 2 years, etc.)

1 2 3 4 5 6 7 8 9 10

1.3 Rate the understanding and support to formal policy

development and implementation by the:

1.3.1 Employees

1 2 3 4 5 6 7 8 9 10

1.3.2 Board of Directors

1 2 3 4 5 6 7 8 9 10

1.3.3 Executive Director

1 2 3 4 5 6 7 8 9 10

2.0 Financial Capacity

2.1 Rate your organization's financial capacity to implement

strategies.

1 2 3 4 5 6 7 8 9 10

2.2 Rate the commitment to providing financial resources to

support the implementation of strategic initiatives. (10 -

very committed 1 -not committed at all) by the:

2.3 Membership

1 2 3 4 5 6 7 8 9 10

2.4 Board of Directors

1 2 3 4 5 6 7 8 9 10

3.0 Motivation and Ownership:

3.1 Rate the motivation to maintain and support the implementation of strategic initiatives by the:

3.1.2 Board of Directors 1 2 3 4 5 6 7 8 9 10

3.1.3 Staff 1 2 3 4 5 6 7 8 9 10

3.2 Rate the “ownership” taken to the implement strategic initiatives by the:

3.2.1 Employees 1 2 3 4 5 6 7 8 9 10

3.2.2 Board of Directors 1 2 3 4 5 6 7 8 9 10

3.2.3 Executive Director 1 2 3 4 5 6 7 8 9 10

4.0 Board Support

4.1 Rate your board’s commitment and support to the implementation of strategic initiatives. 1 2 3 4 5 6 7 8 9 10

4.2 Rate the performance of your Board as it relates to the delivery of support to strategic initiatives. (as opposed to “talking the talk”) 1 2 3 4 5 6 7 8 9 10

5.0 Organizational Structure

5.1 Rate how appropriate the current structure of your organization is to support the implementation of strategic initiatives. (10 -very appropriate 1 -not appropriate at all) 1 2 3 4 5 6 7 8 9 10

5.2 Rate the effectiveness of your current governance model as it relates to the implementation of strategic initiatives. (10 -very effective model 1 -not effective at all) 1 2 3 4 5 6 7 8 9 10

6.0 Open to Change

6.1 Rate your organization’s readiness for organizational change. (10 -very prepared 1 -not prepared at all) 1 2 3 4 5 6 7 8 9 10

6.2 Rate the willingness to accept and implement change (10 -very open 1 -not open at all) by the:

6.2.1 Employees 1 2 3 4 5 6 7 8 9 10

6.2.2 Board of Directors 1 2 3 4 5 6 7 8 9 10

6.2.3 Executive Director 1 2 3 4 5 6 7 8 9 10

7.0 Human Resources

7.1 Rate the human resource capability to manage and implement a change process or new strategic direction by the:

7.1.1 Management 1 2 3 4 5 6 7 8 9 10

7.1.2 Board of Directors 1 2 3 4 5 6 7 8 9 10

7.2 Rate the competencies of your organization staff to plan, manage and implement strategic initiatives. 1 2 3 4 5 6 7 8 9 10

APPENDIX III: COMPANIES LISTED IN THE NSE

The following table shows the companies listed in the NSE as outlined from their website as the source of the data on Thursday 21st Aug 2014: <https://www.nse.co.ke/listed-companies/list.html>

Table 1 : Companies Listed in the NSE

AGRICULTURAL	
1	Eaagads Ltd Ord 1.25
2	Kapchorua Tea Co. Ltd Ord Ord 5.00
3	Kakuzi Ord.5.00
4	Limuru Tea Co. Ltd Ord 20.00
5	Rea Vipingo Plantations Ltd Ord 5.00
6	Sasini Ltd Ord 1.00
7	Williamson Tea Kenya Ltd Ord 5.00
COMMERCIAL AND SERVICES	
9	Express Ltd Ord 5.00
11	Kenya Airways Ltd Ord 5.00
12	Nation Media Group Ord. 2.50
13	Standard Group Ltd Ord 5.00
14	TPS Eastern Africa (Serena) Ltd Ord 1.00
15	Scangroup Ltd Ord 1.00

16	Uchumi Supermarket Ltd Ord 5.00
17	Hutchings Biemer Ltd Ord 5.00
18	Longhorn Kenya Ltd
	TELECOMMUNICATION AND TECHNOLOGY
19	Safaricom Ltd Ord 0.05
	AUTOMOBILES AND ACCESSORIES
20	Car and General (K) Ltd Ord 5.00
21	CMC Holdings Ltd Ord 0.50
22	Sameer Africa Ltd Ord 5.00
23	Marshalls (E.A.) Ltd Ord 5.00
	BANKING
24	Barclays Bank Ltd Ord 0.50
25	CFC Stanbic Holdings Ltd ord.5.00
26	I&M Holdings Ltd Ord 1.00
27	Diamond Trust Bank Kenya Ltd Ord 4.00
28	Housing Finance Co Ltd Ord 5.00
29	Kenya Commercial Bank Ltd Ord 1.00
30	National Bank of Kenya Ltd Ord 5.00
31	NIC Bank Ltd Ord 5.00
32	Standard Chartered Bank Ltd Ord 5.00
33	Equity Bank Ltd Ord 0.50

34	The Co-operative Bank of Kenya Ltd Ord 1.00
	INSURANCE
35	Jubilee Holdings Ltd Ord 5.00
36	Pan Africa Insurance Holdings Ltd Ord 5.00
37	Kenya Re-Insurance Corporation Ltd Ord 2.50
38	Liberty Kenya Holdings Ltd
39	British-American Investments Company (Kenya) Ltd Ord 0.10
40	CIC Insurance Group Ltd Ord 1.00
	INVESTMENT
41	Olympia Capital Holdings Ltd Ord 5.00
42	Centum Investment Co Ltd Ord 0.50
44	Trans-Century Ltd
	MANUFACTURING AND ALLIED
45	B.O.C Kenya Ltd Ord 5.00
46	British American Tobacco Kenya Ltd Ord 10.00
47	Carbacid Investments Ltd Ord 5.00
48	East African Breweries Ltd Ord 2.00
49	Mumias Sugar Co. Ltd Ord 2.00
50	Unga Group Ltd Ord 5.00
51	Eveready East Africa Ltd Ord.1.00
52	Kenya Orchards Ltd Ord 5.00

53	A.Baumann CO Ltd Ord 5.00
	CONSTRUCTION AND ALLIED
54	Athi River Mining Ord 5.00
55	Bamburi Cement Ltd Ord 5.00
56	Crown Berger Ltd Ord 5.00
57	E.A.Cables Ltd Ord 0.50
58	E.A.Portland Cement Ltd Ord 5.00
	ENERGY AND PETROLEUM
59	KenolKobil Ltd Ord 0.05
60	Total Kenya Ltd Ord 5.00
61	KenGen Ltd Ord. 2.50
62	Kenya Power & Lighting Co Ltd
63	Umeme Ltd Ord 0.50
	GROWTH ENTERPRISE MARKET SEGMENT
64	Home Afrika Ltd Ord 1.00

Source: <https://www.nse.co.ke/listed-companies/list.html>

APPENDIX III: RESEARCH DATA ANALYSIS

CASE Number	Policy Support	Financial Capacity	Motivation and Ownership		Organizational Structure	Open to Change	Human Resources
AGRICULTURAL							
1	8	8	9	9	7	8	7
2	9	7	8	8	8	8	8
3	7	9	8	8	7	7	8
COMMERCIAL AND SERVICES							
4	10	8	9	9	8	8	9
5	10	9	9	8	8	9	8
6	9	9	10	9	9	8	9
7	9	10	9	8	7	8	9
8	9	8	10	9	7	9	9
TELECOMMUNICATION AND TECHNOLOGY							
9	10	10	10	10	10	8	8
AUTOMOBILES AND ACCESSORIES							
10	9	9	9	9	7	8	9
BANKING							
11	10	10	9	8	8	8	9
12	9	9	9	9	8	9	8
13	10	10	10	10	8	9	9
14	8	9	9	8	7	9	8
15	10	10	8	9	7	8	8
16	9	10	9	9	8	8	9
17	10	9	9	10	8	8	8
18	10	10	10	10	9	8	9
19	10	10	10	10	9	10	9
20	9	9	9	9	7	8	8
INSURANCE							
21	10	8	9	9	7	8	8
22	10	8	8	9	8	7	8

APPENDIX III: RESEARCH DATA ANALYSIS CONTINUATION

CASE Number	Policy Support	Financial Capacity	Motivation and Ownership	Board Support	Organizational Structure	Open to Change	Human Resources
INVESTMENT							
23	9	10	9	10	9	8	8
24	9	9	9	9	8	8	8
MANUFACTURING AND ALLIED							
25	9	9	9	9	7	8	8
26	8	8	9	9	8	8	8
27	10	10	10	10	8	9	9
28	9	7	9	7	7	7	8
CONSTRUCTION AND ALLIED							
29	9	8	9	9	8	7	8
30	10	9	9	10	8	8	9
31	8	7	8	9	7	7	7
32	9	8	9	8	8	8	7
ENERGY AND PETROLEUM							
33	9	8	9	9	7	8	7
34	9	8	8	9	8	7	8
35	10	8	9	9	8	8	8
36	10	10	10	10	10	10	10