

# Influence of Information Communication Technology on Monitoring of Strategic Plans in Top 100 Mid Size Companies in Kenya

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**Abstract:** *In our modern society, ICT plays a vital role in the daily management of organizations and we can comfortably say that an organization that is not embracing it will be just but finding their way out of business. Monitoring strategic plan implementation being one of the key roles played by the management, this study focused on identifying the exact role played by ICT in the process of monitoring strategic plan implementation in top 100 midsize companies in Kenya and the study was guided by Technology Acceptance Model (TAM) developed by (Davis, 1986). The model is an information systems theory that models how users come to accept and use a technology. The study used a population size of 100 mid size companies in Kenya as listed in the year 2015 - an initiative of KPMG and Nation Media Group. A sample size of 30 companies, which forms 30% of the population, was used in the study. The data was collected using questionnaires and analysed using SPSS and presented through percentage, mean and frequencies. The study used both primary and secondary data. The framework described the three major roles of ICT in monitoring strategic plans in top 100 mid size companies, that is, how it facilitates information sharing, status identification and how ICT can help in the development of human capital in monitoring strategic plans. Monitoring strategy implementation and relationship between variables was also captured in the questionnaire.*

**Keywords:** Influence of Information Communication Technology on Monitoring of Strategic Plans In Top 100 Mid Size Companies in Kenya

## 1. Introduction

### 1.1. Background of the Study

Information and Communication Technologies (ICTs) have become an integral part of today's economy. Small and Medium-sized Enterprises (SMEs) have been increasingly enjoying the benefits of ICT adoption. SMEs need information about sources of their commodities, better markets, effective means of reaching their customers and better management of their transactions. This can effectively be done using ICTs.

Ayyagari, and Demirci (2003) define Small and medium-sized enterprises (SMEs) as a very heterogeneous group. SMEs are found in a wide array of business activities, ranging from the single artisan producing agricultural implements for the village market, the coffee shop at the corner, the internet café in a small town to a small sophisticated engineering or software firm selling in overseas markets and a medium-sized automotive parts manufacturer selling to multinational automakers in the domestic and foreign markets. This study will focus only on the medium enterprises which are also based on the number of employees, and value of sales and/or value of assets. Due to its ease of collection, the most commonly used variable is the number of employees. The developing countries set the upper limit of number of employees in the SMEs between 200-250, with a few exceptions such as Japan 300 employees and the USA 500 employees.

ICT increases participation in organizational processes during strategy implementation and monitoring. Since communication and technology speeds the transfer of information, employees in an organization can easily consult

each other and analyze information in a shortest period and make a decision. ICT enables employees perform queries on a database to get data about a specific client or matter and make a quick decision basing on the data retrieved from the database about that specific client or matter (Ramey 2012). The success of any business depends on its ability to convert its plans into reality. This can be achieved by developing strong execution skills. Companies that adopt a disciplined and logical approach to get things done, use several techniques to transform their strategies into the outcomes that they want (Kapur, 2016).

This study sought to establish the influence played by ICT in monitoring strategic plans in top 100 mid size companies in Kenya. A strategy is a plan of action or policy designed to achieve a major or overall aim. A Business Plan model is a computer tool, generally a spreadsheet, where all input data, calculation and output data are stored. Nowadays Information Systems can be from data processing to Decision Support and Executive Information Systems. There are many computer packages: automated and manual for preparation, execution support, monitoring and evaluation of Strategic Business Plan. These packages are used across all industries at different levels and extents, including manufacturing, service, public sector and non-profit organizations.

### 1.2 Statement of the Problem

In today's global economy, successful SMEs need to take full advantage of technological advancements dealing with all aspects of their business models. SMEs must find some competitive advantage through the technological advancements that gives them an edge that their competitors cannot reproduce.

In their research on Schools and The Theoretical Development of Strategy Implementation from 1980 – 2013, Anderson and Svorton (2013), established that, 95 % of the time is spent on strategic theory in universities, while 5 % at best is spent on the execution and implementation of strategy therefore the need for constant reviews to closely monitor the efficiency of the newly implemented strategy and to confirm whether the strategy is leading to the achievement of the desired objectives. There is a huge gap in strategy implementation process because in most cases, there will always be a variance between the planned and the actual which will in most of the time send the strategic thinkers back to the drawing board. Without proper tools and standards of measuring the achieved versus the planned/desired, it is impossible to ascertain the effectiveness of a strategic plan.

The problem is that SMEs are mainly using traditional tools to stay competitive; they need to take advantage of the power of ICT in order to achieve sustainable competitive advantage.

The whole of ICT concept is very dynamic in nature, which further complicates its adoption. Effective ICT-utilization, appropriate applications and individually tailored solutions creates cross-sectorial opportunities and thus, ICT has played a substantial role to address a number of goals on the development agenda (Jensen, 2011). This remains a far-fetched myth to most organizations within developing countries and Kenya is not an exception. Therefore, this aimed at establishing the role of ICT in monitoring strategic plans in SMEs in Kenya by focusing on Top 100 Mid size companies.

### 1.3 General Objectives of the Study

The general objective of the study was to examine the influence of ICT on monitoring of strategic plans in top 100 mid size companies in Kenya

### 1.4 Specific Objectives of the Study

- 1) To establish the influence of ICT on information sharing in monitoring of strategic plans in Top 100 mid size companies in Kenya
- 2) To establish the influence of ICT on status identification in monitoring of strategic plans in Top 100 mid size companies in Kenya
- 3) To examine the influence of ICT on human capacity development in monitoring of strategic plans in Top 100 mid size companies in Kenya

### 1.5 Research Questions

The study sought to answer the following research questions:

- 1) What is the influence of ICT on information sharing during monitoring of strategic plans in Top 100 mid size companies in Kenya?
- 2) What is the influence of ICT on status identification in monitoring of strategic plans in Top 100 mid size companies in Kenya?

- 3) What is the role of ICT on human capacity development in monitoring of strategic plans in Top 100 mid size companies in Kenya?

### 1.6 Justification of the Study

Growth of Kenya's economy is directly influenced by SMEs, where the Top 100 mid size companies in Kenya are classified in. That is, SMEs play a major role in creation of employment and distribution of wealth which results in a multiplier effect on the socio-economic activities of the country. The findings of this study has aided the policy makers and other stakeholders in the government of Kenya to come up with appropriate programs and policies that are market driven to support SMEs in Kenya through the use of ICT.

This study has helped Top 100 mid size companies in Kenya and other SME owners and managers to get the information that they need in order to compete locally and globally by embracing effective use of ICT in the development, implementation and monitoring their strategic plans. It will encourage the SMEs to re-evaluate the use of ICT to support the company's agility, competitiveness and growth, making the company to examine not only its present ICT capabilities, but also future forecasts to meet the dynamic and ever evolving business environment.

The findings of the study is of value to scholars who are keen on learning more on the role of ICT in monitoring strategy implementation both locally and globally. Researchers have benefited from the extensive and comprehensive literature review in this study, expand their knowledge on this topic from the data collected analysed and recommendations of the study.

### 1.7 Scope of the Study

The study focused on top 100 mid size companies in Kenya, which forms a population of 100. The study randomly picked a sample of 30 organizations drawn from the 6 categories.

The study sought to determine the role of ICT in monitoring strategic plans from the companies selected. The target group was the managers and head of departments in charge of developing and implementing and monitoring key strategies in their organizations.

The study was guided by Technology Acceptance Model an information systems theory by Fred Davis which gives a framework of how users come to accept and use new technology that is introduced.

The study focused on the objective of the study, which is to establish the role of ICT on information sharing in monitoring strategic plans in Top 100 mid size companies in Kenya, to determine the role of ICT status identification during monitoring of Strategy Implementation in Top 100 mid size companies in Kenya, to establish how ICT helps in human capacity development on in monitoring strategic plans in Top 100 mid size companies in Kenya.

## 2. Literature Review

### 2.1 Introduction

The chapter details out the existing studies regarding the study and supports new findings that have added to the existing pool of knowledge. The researcher reviewed existing literature on the role of ICT in monitoring strategic plans including its role in information sharing, status identification and human capacity development and there after putting these studies in consideration deduce conclusions.

### 2.2 Theoretical Review

#### 2.2.1 The Resource Based View (RBV)

The Resource Based (RBV) theory complements the industrial organization (IO) view by Bain (1968) and Porter (1979, 1980, and 1985). With its focus on the structure-conduct-performance paradigm, the IO view put the determinants of firm performance outside the firm, in its industry's structure. This model underlines the importance of a firm's internal resources in gaining competitive advantage. Different resources, such as, physical resources, human resources, organizational resources give various contributions to the achievement of sustained competitive advantage.

According to Barney (1991), the capabilities, resources, and skills of a firm are key in the Resource-Based View (RBV) of a firm. These resources are the source of competitive advantage. Following Rangone (1998), there are three basic capabilities for SMEs that are needed to gain (sustainable) competitive advantage: innovation capability: that is a company's ability to develop new products and processes, and achieve superior technological and/or management

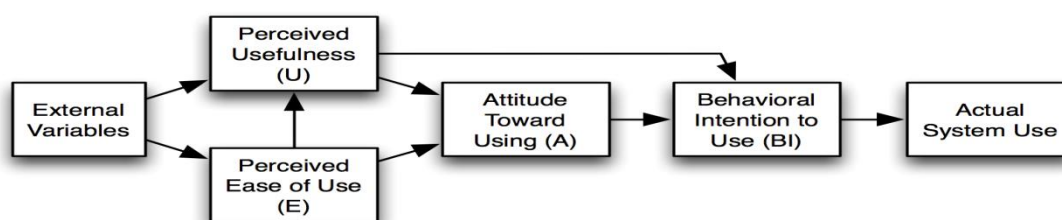
performance, production capability: that is the ability to produce and deliver products to customers, while ensuring competitive priorities, such as quality, flexibility, lead time, cost, and dependability; and market management capability: that is a company's ability to market and sell its products effectively and efficiently.

According to the RBV, the benefits of superior IT capability must be sustainable over time. Barney (1991) states that sustained competitive advantage do not imply that the benefits will last forever but indicate that it will not "be competed away by the duplication efforts of other firms." He states this as an important research issue. Grant (1991) emphasized that the primary task of the resource-based approach in strategy formulation is to provide a way to maximize returns over several periods. Specifically, the concept of IT capability was developed using the premise that while resources can be easily duplicated, a unique set of capabilities mobilized by a firm cannot be easily, duplicated and will result in sustained competitive advantages.

#### 2.2.2 Technology Acceptance Model (TAM)

The technology acceptance model (TAM) is an information systems theory that models how users come to accept and use a technology. The model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when they will use it, notably: Perceived usefulness (PU) – This was defined by Fred Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance".

Perceived ease-of-use (PEOU) – Davis defined this as "the degree to which a person believes that using a particular system would be free from effort" (Davis 1989).



**Figure 2.1:** Technology Acceptance Model – (source [https://en.wikipedia.org/wiki/Technology\\_acceptance\\_model](https://en.wikipedia.org/wiki/Technology_acceptance_model))

Theoretically, TAM is based on the Theory of Reasoned Action (TRA). TRA, is one of the three classic persuasion models of psychology, and is also used in communication discourse as a theory of understanding persuasive messages. The theory of reasoned action was developed by Martin Fishbein and Icek Ajzen in 1967 and was derived from previous research that began as the theory of attitude. The theory aims to explain the relationship between attitudes and behaviors within human action. TRA is used to predict how individuals will behave based on their pre-existing attitudes and behavioral intentions. An individual's decision to engage in a particular behavior is based on the outcomes the individual expects will come as a result of performing the behavior

Davis (1989) presented a theoretical model aiming to predict and explain ICT usage behavior, that is, what causes potential adopters to accept or reject the use of information technology. In TAM, two theoretical constructs, perceived usefulness and perceived ease of use, are the fundamental determinants of system use, and predict attitudes toward the use of the system, that is, the user's willingness to use the system. Perceived usefulness refers to "the degree to which a person believes that using a particular system would enhance his or her job performance", and perceived ease of use refers to "the degree to which a person believes that using a particular system would be free of effort" (Davis 1989).

### 2.2.3 Technologies in use in SMEs

Titman, (2012) says that The Internet is the most significant technological phenomenon today, as it provides competitive opportunities to firms. Getting online is much cheaper than most businesses think and it is opening a whole new world of opportunity for attracting customers. There is a general increase in access and use of the internet in general. Therefore, it is imperative to determine the competitive advantage of SMEs who are engaged in e-business in terms of their profitability, quality, and price of products offered. The firm's competitive advantage is not only affected by the environment, but also depends on competitive strategy developed.

Different researchers such as Chetty & Agndal (2007), Coviello & Munro (1997) have shown that SMEs rely extensively on networks in pursuing international opportunities. Network resources also help SMEs to overcome the risks and challenges associated with foreign market entry decisions. Social networking allows businesses to gain access to resources that might otherwise not be available to them. It can also aid the development of a firm's worthiness, increase the customer and supplier contacts, and bring to light where resources and funding are available, promote innovation and help in the cultivation of strategic partnerships. Facebook, Skype and discussion forums are examples of social media tools (Tapscott & Williams, 2008).

### 2.2.4 Strategy Implementation and monitoring

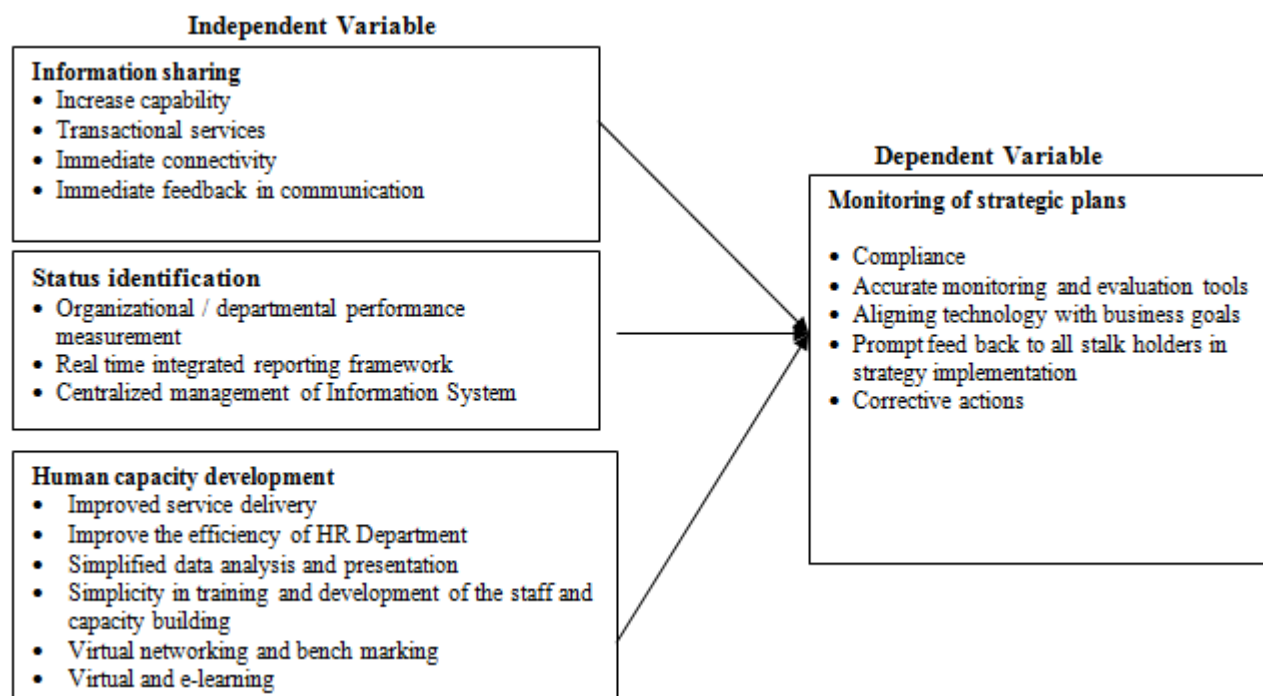
This remissness of the importance of strategy implementation was the reason that Bossidy and Charan (2009), two accomplished executives, wrote an entire book on strategy implementation titled "Execution". They wrote,

"Execution is the great unaddressed issue in the business world today" affirming that the absence of implementation practices and attention is "the single biggest obstacle to success". They added, the lack of monitoring will be mistakenly credited to other factors. According to a survey in 2014 conducted by the American Management Association, "60% of strategies are not successfully implemented".

In their study to investigate the corporate communication profession, Beurer-Zuellig, Fieseler, and Meckel (2009) advocate the view of multi-dimensional perspective of communications manager' roles by highlighting that the "organization's reputation and legitimacy depends to a large extent on the degree to which its stakeholders support its goals and policies". Consequently, it can be confidently inferred that effective clear communications with the organization's stakeholders would most likely lead to mutual satisfaction and productive relationship. Furthermore, Argenti (2005) observes that there are many employees, today, who are, at the same time, shareholders in their organizations. He provides many examples of such modern trends, one of them is JetBlue Corporation where 90% of its employees own stocks in the company.

### 2.3. Conceptual Framework

The conceptual framework below outlines the dependent and independent variables as deliberated in the literature review with the aim of painting a more concise picture and understanding of the relationships of the variables in the study.



**Figure 2.2:** Conceptual frame work

There is positive relationship between information sharing, human capacity development, status identification and monitoring of strategic plans in Top 100 mid size companies in Kenya.

#### 2.3.1 Information sharing

Invernizzi & Romenti, (2011) found Communication as an important strategic factor in all processes of management and in all levels of an organization. In their study entitled



Strategy Implementation: The Role of Communications Managers, they found that communication facilitates strategy implementation through producing clear achievable strategies and creating a healthy organizational culture.

Business communication researchers have become increasingly interested in the contribution of corporate communication to a company's ability to create and disseminate its strategy in the last decade. However, little attention has been given to the links between communication and strategy (Forman & Argenti, 2005). They also note that after the business strategy is implemented, executive leadership needs to set aside time to evaluate the company's efforts and communicate their findings and feedback to the rest of the organization. After consistently implementing effective practices, business leaders will begin to notice that the company's strategy and vision, as well as effective communication practices, become a natural and integral part of workplace culture and practices. Positive communication drives high results and employee loyalty, which strengthens organizations and will encourage the growth and progress of a company.

Chinese scholar Zengqingfeng (Zeng & Huang, 2003) defined IT capability as a competence that a company mobilizes its related IT resources to achieve operation goals. We can find that IT resources are important to a company and its IT capability. Augmenting the conceptual analysis of IT effects on firm performance is the resource-based view (RBV) of the firm which links the performance of organizations to resources and skills that are firm-specific, rare, and difficult to imitate or substitute. The resource-based view is presently the dominant theoretical perspective in strategic management literature, and focuses on costly-to-copy attributes of a firm which are seen as the fundamental drivers of performance.

According to Ramey, (2012) ICT facilitates speed in the sending of information: Communication technology tools like electronic mail and text messaging systems speed up the sending of information within and outside of the organization. The use of decentralized computing systems, sharing of information within an organization is very first because all data is accessed from one central unit "Database" and it is shared across different departments within the organization. Communication technology helps in the creation of a shared information environment in an organization. Organization information is organized in one central location, allowing any one to access that information as they need.

Technologies like electronic mail, will enable low level employees communicate with the manager without any need of having a dedicated time for meeting. This allows information to flow easily from the bottom to the top without any barriers. Since communication technology speeds the transfer of information, employees in an organization can easily consult each other and analyze information in a shortest period and make a decision. The use of Online analytical processing, ICT enables employees perform queries on a database to get data about a specific client or matter and make a quick decision basing on the

data retrieved from the database about that specific client or matter .

### **2.3.2 Status Identification**

There are a number of arguments concerning the role of information technology in the strategic management process for business organization. Nonetheless, this paper tries to examine the role of ICT in monitoring strategic management process with particular interest on how it can be used to track and identify current status of the progress of strategic plan.

There is more awareness where and when to implement it and use information technology in the process of crafting different strategies that lead them to the road of stakeholders satisfaction. UK, Essays (2013) Some of the application areas like transaction processing systems and decision support systems (DSS) have been used as the main information system so as to enhance monitoring of business performance.

### **2.3.3 Human Capacity Development**

Today with an increase in the number of organizations, Human Resource is now viewed as a source of competitive advantage and the most important resource an organization will ever have. It is necessary for firms to have highly skilled human capital to provide them with a competitive edge. Therefore, an effective management of Human Resource in a firm is to gain advantage in the marketplace, which requires timely and accurate information on current employees and potential employees in the labor market. With the changing world and evolution of new technology, meeting this information requirement becomes important (Michael et al., 2012).

To reduce the routine transaction and traditional Human Resource activities and to deal with the complex transformational ones, organizations began to electronically automate many of these processes by introducing specialized HRIS (human resource information system) or HRMS (human resource management system). Human Resource Information System refers to the systems and processes at the intersection between HRM (human resource management) and information technology. These are systems used to acquire, store, manipulate, analyze, retrieve, and distribute information regarding an organizations' human resource. An integrated Human Resource Information System is a database shared by all Human Resource functions that provide common language and integrates all Human Resource services. Data base nuclear containing information about the competency is required of jobs and competencies of people by all Human Resource functions.

According to Shammy Shiri (2012), ICT through E-HRM has the potential to support many strategies in the organization and improve on the end service delivery such as e-recruiting, e-selection, pension management, e-benefit, e-compensation, storage of employee data, among others. It has been scientology proven that one of the supporting pillars, which can contribute to the fulfillment of the personal policy, is the usage of IT technologies in Human Resource.

(SeyniMamoudou, et al., 2014) define ICT, as a catchall term for techniques associated with mobile communication, internet, new media and PCs – allow companies to improve their internal processes, core competencies, organizational structures as well as relevant markets on a global scale. Information Communication Technology is spreading throughout every sector of the economy and has implications for almost every enterprise. ICT will help the organization to improve on efficiency and cost effectiveness within the Human Resource Department, and allow Human Resource to become a strategic partner in achieving organizational goals and objectives.

The concept of Electronic Human Resource Management known as e-HRM meaning “the adoption of technology in delivering Human Resource practices due to the digital revolution in the world is such a tool that organizations can employ to manipulate the performance and behavior of the people on whom they rely on to achieve business Success”. Since the dawn of the information era, organizations are increasingly incorporating ICT in their work processes through different tools and techniques. With the evolution of Human Resource Management from largely a maintenance function to a source of sustainable competitive advantage, it has become a challenge for Human Resource to transform from Human Resource to electronic Human Resource. (Chamaru De Alwis, 2010).

#### **2.3.3.4 Monitoring of strategic plans**

Monitoring and evaluating the planning activities and status of implementation of the plan is -- for many organizations -- as important as identifying strategic issues and goals. One advantage of monitoring and evaluation is to ensure that the organization is following the direction established during strategic planning.

In carrying out its strategic plan, the organizations should utilize a results-based management approach, use of which constitutes a shift from focusing on activities to focusing on results. This results-based approach, also will form the foundation of IBP's M&E system. The IBP Initiative will finalize the M&E system, Kiveu & Ofafa (2013). As the recommended strategic plan is based upon the Results Framework, it will be critical to develop a monitoring and evaluation (M&E) system that provides timely and accurate data that enables the organization to "manage for results."

#### **2.4 Empirical Review**

Windrum and de Berranger (2002) view that contributing factors for ICT adoption can be categorized into five major clusters that include: the business characteristics; business action; system characteristic; internal expertise; and external expertise. Business characteristics such as size, determines the business structure that in turn strongly influence the business's ICT uptake. Small businesses have simple business structures when compared to larger businesses and have less internal requirements for extensive communication technologies. Small businesses communicate and store smaller volumes of information and as a result far lesser need to use ICT. Typically, business action is driven from the top management. In this case, if the business owner or top management establishes appropriate ICT goals,

identifies critical ICT business needs, and allocates financial resources then ICT adoption is possible. For small businesses, age and the experience of the owner strongly influences ICT adoption. System characteristics within a business assist in ICT adoption. For instance, small businesses with a large number of administrative applications readily support management control, operational control and administration. In addition, access to ICT expertise within a business and externally is another contributing factors to ICT adoption. If the business owner or employees are ICT literate, there is a strong tendency to adopt ICT for business processes. In the event that they face difficulties, the availability of external expert will provide support and motivation to succeed (Windrum and de Berranger, 2002).

Mutua and Wasike (2009) reviewed literature on ICT adoption and its impacts on firms in both developing and developed countries and analyses the determinants of ICT adoption and their impact on firm's performance. Findings show that the main determinants of adoption of ICT are the size of the firm as indicated by firm employment, formal registration, and if a manager has some internet training. The study finds that ICT tends to augment both capital and labour thus supporting strategy implementation and raising productivity of firms. The analysis shows that the ICT adoption as proxied by access to internet or a landline is significantly correlated with higher SMEs output. The study shows that adoption and use of ICT is a key factor to helping enterprises to raise their productivity and competitiveness.

#### **2.5 Critique of the Existing Literature**

Literature reviewed indicated that different firms in different industries employ ICT at different levels of strategy implementation and monitoring. Indian Annual report (2011), quoted SMEs being one of the most vibrant and sensitive sectors for the Indian economy. However, there is little to indicate the emphasis of ICT in the process of monitoring strategic plans. Mutongwa and Kefa (2013) in their article on ERP System Solutions for Small and Medium Enterprises in Trans Nzoia County – Kenya found that the development of Small Medium Enterprises (SMEs) is seen as a means of an end to unemployment with little emphasis on the system itself.

Kiveu and Ofafa (2013) in their study of market access and ICTs in Kenya concluded that to improve market access by SMEs there is need to improve ICT use by SMEs for marketing and recommend that increased awareness creation by the government and other stakeholders to promote the use of various available ICT applications already in use to improve market access.

In his study, ‘ Leveraging ICT organizational capability for SMEs competitiveness in the agricultural sector in Kenya’ Lagat (2014), focused on the leveraging ICT organizational capability for SMEs competitiveness in the agricultural sector in Kenya. Future studies should seek to establish whether or not the same is applicable to other sectors of the economy. Further studies should focus on giving more on the exact role played by ICT in monitoring implementation process of strategic plans

## 2.6 Research Gaps

The empirical literature has provided insights and has also identified various roles played by ICT in strategy implementation from divergent stand points and with varying perspectives and insightful empirical findings. The literature review also shows that different researches have been done on the use of ICT in different sectors. However, little has been done on the use of ICT on Strategy Implementation in top 100 SMEs in Kenya. Therefore, this study fills a gap by appraising the influence of ICT adoption as a key tool for monitoring strategy implementation which is an important element in the whole process.

## 2.7 Summary of the study

Previous research has mainly focused on the implementation of ICT across the sphere ranging from governmental, nongovernmental, churches, for profit and not for profit organization in the overall management and day to day running of these institutions without pin pointing the exact role played by ICT in strategy implementation. This study highlights the theoretical framework of literatures guided by the Technology acceptance model (TAM) and Kurt Lewin change theory also the conceptual framework which is guided by the objectives and are under different sub-topics which are; ICT in Communication of strategy implementation, ICT in human resource development in strategy development and ICT management of information systems in strategy implementation

## 3. Research Methodology

### 3.1 Introduction

This chapter discusses the ways through which this research was carried out. It explains the study design used, target population, the sample size, the instrument employed to facilitate the collection of data and the methods of data analysis used to analyze the data and draw recommendations.

### 3.2 Research Design

To develop an understanding of the role of ICT in monitoring strategic plans in in Top 100 mid size companies in Kenya, this study adopted both a descriptive and correlational research design. Correlational design entails reporting on condition of relationship as they exist. The approach explains the uniqueness of a particular individual or group. In this type of research design, the researcher has no control over the variables; they can only report on the occurrence (Kothari, 2004). This research also consists of both qualitative and quantitative approaches. While the qualitative approach involves subjective assessment of attitudes, opinions and behavior, the quantitative technique is used in presenting numerical information.

#### 3.3 Target Population and Sample size

Population is a whole group of persons or individuals, events or objects with common observable characteristics (Mugenda & Mugenda 2003). On the other hand, target

population implies to the population which a researcher intends to generalize the study findings (Kombo & Tromp, 2006). This study looked at a total population of in Top 100 mid size companies in Kenya for the year 2015. 30 companies were selected as representatives of the study, which is 30% of the entire population. The sampling frame involved the managers and or head of departments involved in the formulation and implementation of various strategies at their levels like human resource managers, head of operations/operations managers, business development managers and finance managers which makes a total of 120 respondents.

**Table 3.1: Sample size**

Level	Number	Frequency
Financial Managers	1	30
Human Resource Managers	1	30
Head of operations Managers	1	30
Business development Managers	1	30
IT Manager	1	30
<b>TOTAL</b>	<b>5</b>	<b>150</b>

Source; www.icpak.com

### 3.4 Sampling frame

A sampling frame is a comprehensive list of all sampling units, which a sample can be selected, (Kombo & Tromp 2006). Sampling frame for this study is the list of the five managers from each of the 30 companies interviewed. The sampling frame comprised of the financial managers, human resource managers, Head of operation managers and business development Managers from different SMEs in Kenya.

### 3.5 Sampling Design

This section examined the sampling technique and sample size. The study utilized a sample size of 150 respondents, which involved Human Resource managers, Finance Manager, Business development managers, IT Managers and head of operations from the selected 30 companies. For precision, the study adopted the stratified sampling method. The stratified sampling also reduces the standard errors through having a greater control over the variance. On the other hand, the proportionate stratification ensures that the sample size of each stratum is proportionate to the population size of the stratum (Mugenda&Mugenda, 1999).

### 3.6 Validity

According to Mugenda and Mugenda (1999), validity refers to the degree to which results obtained from the analysis of the data actually represent the phenomenon under study. Borg & Gall (1996), explain that validity is the degree to which a test or instrument measures what it purports to measure. Borg and Gall (1996) continue to argue that content validity of an instrument is improved and approved through an expert judgment. Therefore, the study variables and instruments for data collection were scrutinized and approved by an expert, in this case, the study supervisor, to ascertain their validity.



### 3.7 Pilot Test

Reliability is a measure of the degree to which a research instrument yields consistent results. Pilot test is necessary to test validity of any study (Mugenda, & Mugenda, 2003). The questionnaires were pilot tested on 15 respondents, which is 10 % of the sample size (150). According to Mugenda and Mugenda (2003), 10% is recommended as being adequate by social researchers. Random sampling was used in choosing the 15 respondents for pilot testing. According to Orodho (2005), random sampling is the most representative of the entire population and least likely to result in bias. The respondents were then asked for suggestions or corrections of the questionnaire and irrelevant questions and words will be then excluded for clarity and better understanding.

### 3.8 Data Collection Instrument

The study collected primary data by structured questionnaires. A questionnaire is a set of questions designed to generate data necessary to accomplish the objectives of the study. Questionnaires were preferred in this study because respondents of the study were literate and able to answer questions asked adequately and given that they were also busy, they would answer the questions at their convenience. Secondly, according to Mugenda & Mugenda (2003) questionnaires give relatively objective data and therefore, are most effective and allow data to be collected in a quick and efficient manner.

### 3.9 Data Collection Procedure

Primary data was collected from the managers of 30 of the Top 100 mid size companies in Kenya using semi-structured questionnaires. The questionnaires were researcher administered because of limited time and resources. The questionnaires were administered in an informal manner such that all respondents felt free to express both positive and negative views. The respondents were also assured of confidentiality of the information they provided in the questionnaire.

### 3.10 Data Analysis and Presentation

Data analysis is an examination of what has been collected and making deductions and inferences (Kothari, 2004). Data was analyzed using quantitative approach. The data obtained from the questionnaires were analysed using SPSS (Statistical Package Social Science). The data was then be summarized and presented using tables, bars, charts, graphs and percentage with the aid of regression model as illustrated below:

## 4. Results and Discussion

### 4.0 Introduction

This chapter provides statistical presentation and analysis of the data collected. The data has been presented in tables, figures and percentages with summaries given for each table and figure. The objective of this chapter is to explain the data rather than draw conclusion and interpretations. The

data analyzed and interpreted, is based on the response to the item in the questionnaire. The respondents comprised the Human Resource Managers, Financial Managers, IT Managers, Head of Operations /Managers and Business development Managers of the selected sample from the in Top 100 mid size companies in Kenya. The researcher distributed 150 questionnaires, which were responded and returned to the researcher.

### 4.1 Response Rate

**Table 4.1: Questionnaire Return Rate**

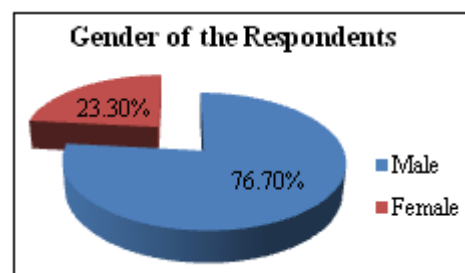
Employees Titles	Questionnaire Administered	Questionnaire Returned	%
IT Managers	30	24	80
HR Manager	30	19	63.3
Business Development Managers	30	25	83.3
Finance managers	30	20	66.7
Operations Manager	30	27	90
Total	150	115	76.7

The researcher distributed 150 questionnaires to the respondents and 115 questionnaires were returned which gave a response rate of 76.7%. This response rate was considered high to represent the population targeted by the researcher. This conforms to Mugenda and Mugenda (1999) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and above is excellent.

### 4.2 Demographic information

The demographic information comprised of gender, age bracket, educational level, job designation and professional experience of the respondents.

#### 4.2.1 Gender of the respondents



**Figure 4.1: Gender of the respondents**

In this study 76.7% of the respondents were male, while 23.3% were female as presented on Figure 4.1. It is evident from the research findings that this study had more male respondents than the female respondents.

#### 4.2.2 Age of the Respondents



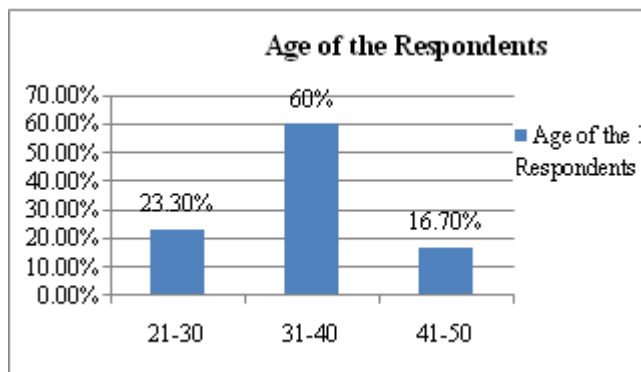
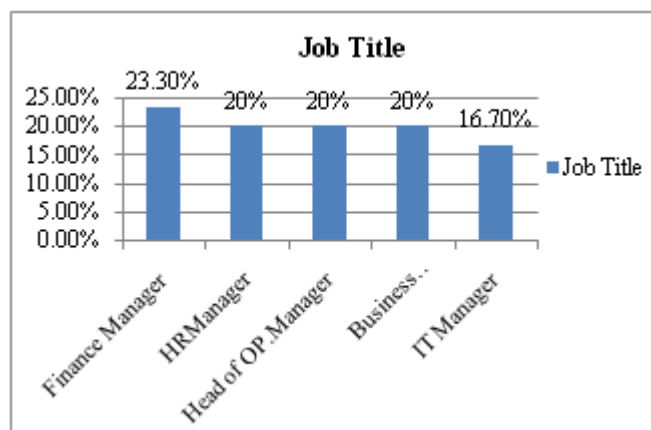


Figure 4.2: Age of the Respondents

From the results of Figure 4.2 above, there is a clear indication that most of the respondents (60%) were aged between 31-40 years, while 23.3% were aged between 21-30 years and 16.7% were aged between 41 -50 years old. This shows that the sampled Top 100 mid size companies in Kenya employed more young people than the older ones.

#### 4.2.3 Job Title



#### 4.2.4 Academic Qualification

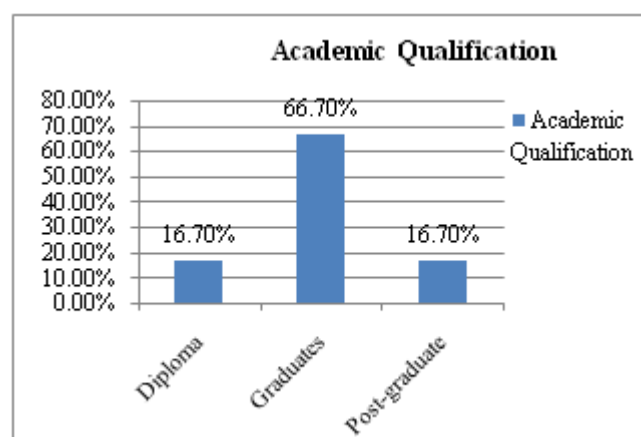


Figure 4.3: Academic Qualification

The study further sought to establish the education level and qualification of the section heads and Managers to ascertain if they were knowledgeable and skilled enough to understand the role of ICT in monitoring strategic plans in in Top 100 mid size companies in Kenya. The researcher found that 66.7% held a Bachelor's Degree in the related field,

16.7% had either completed or pursuing a master's degree and a similar percentage held a diploma or an equivalent. This indicated that the respondents were qualified to understand the questions and both their roles and the role of ICT in monitoring of strategic plans.

#### 4.2.5 Professional experience

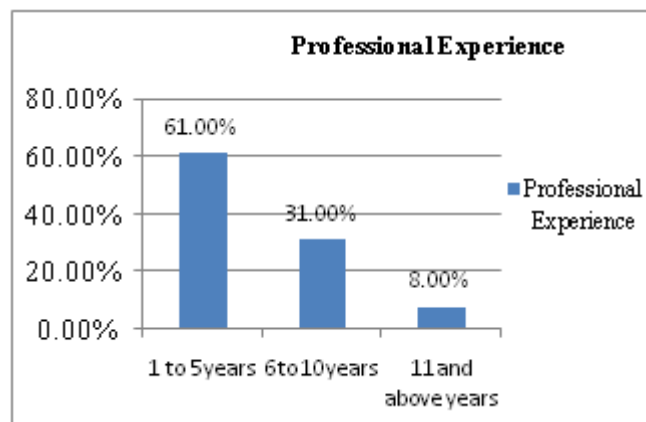


Figure 4. 4: Professional experience

#### 4.3 ICT on Information Sharing of Strategy Implementation

The findings of this study indicated that ICT takes a major role in monitoring of strategic plans because 86.2% of the respondents answered this question to the affirmative and 6.9% were not sure same as 6.9% who disagreed with the statement. From the study, we can safely conclude that the goals, objectives, vision and mission of the company are communicated digitally to all employees. This is confirmed by 97.2% of the respondents who agreed with the statement while 2.8% were not sure whether the statement was true. The findings of the study concurred with Invernizzi & Romenti, (2011) who states that communication plays a very important role in the process of strategy implementation and monitoring and evaluation is one of the processes of the same.

The study also established that to some fair levels, the organization has trained staff and equipped ICT policy this is because 62.1% of the respondents strongly agreed that the organization has and a fully staffed and equipped ICT department with ICT policy whereas, 3.4% were not sure and 34.5% disagreed with the statement. This showed that there was a need to improve on the ICT policy in the organization.

Through internet connection and phone connections, the respondents felt well informed/communicated about their job, duties and responsibilities in the company. Also, the managers used emails or Whatsapp to communicate to the juniors, colleagues and superiors about my duties and get immediate feedback on the same breath.

The findings showed that ICT accelerated the information sharing in the organization. This is confirmed by above 80% respondents who agreed that the use of internet, phone calls and Instagram speeds up information sharing and transfer in the company, while, 13.8% disagreed with the statement.

This study concurred with Ramey, (2012) who said that Communication technology tools like electronic mail and text messaging systems speed up the sending of information within and outside of the organization. The findings showed that 69% agreed that all employees were facilitated with smart phones for ease of communication in their daily duties; whereas, 6.9% were not sure with the statement and 20% disagreed with the statement. This showed that some employees were not facilitated with the above digital gadgets.

The findings showed that 93.1% of the respondents questioned strongly agreed that there was a reliable and unlimited internet connection to facilitate communication in the company. This had allowed the company to use E-mails, Skype, whatsapp and Facebook in communication for duty allocation and progress reporting in the company (DPRs). However, 89.1% of the questioned respondents strongly disagreed that Hard copy letters and Memos were frequently used for internal communication in the company. This showed that the company had fully embraced ICT.

#### 4.4 Status Identification Of Strategy Implementation

The findings of this study showed that 100% strongly agreed that The Company used software and computer application packages for periodical reports in strategy monitoring. Table 4.2, indicated that 96% agreed that MIS facilitated fast and informed decision making process in the organization. This concurred with Al-Zhrani, (2010) that all managerial functions are performed through informed decision-making; for taking rational decision, timely and reliable information is essential and should be procured through a logical and well structured method of information collecting, processing and disseminating to decision makers. The findings presented that 96% agreed that the company used bar charts, graphs and line graphs to report on periodical performance in comparison with the targets and strategic goals and objectives.

From the findings, the research also drew to the conclusion that the company had fully embraced ICT in status identification in monitoring of strategic plans.

#### 4.5. ICT and Human Capital Development

The study established that all the companies under study had all adopted HRMIS. The findings further showed that 90% of the respondents agreed that Employees in the company use e-learning to improve on their skills while 10% were not sure if the statement reflected the actual situation on the ground. However, 100% of the respondents indicated and the employees were fully trained on the different softwares, platforms and CRM used in the company and any other emerging technologies in their lines of duty. Tablets and smart phones contributed in training employees in the company; 76% agreed that Tablets and smart phones greatly contributed to employee's acquisition of skills and knowledge, while, 24% disagreed with the statement. The study concurred with Shammy Shiri (2012), ICT through E-HRM has the potential to support many strategies in the organization and improve on the end service delivery.

Table 4.3 presented that 80% of the respondents agreed that the employees were fully trained on the different softwares, platforms and CRM used in the company and any other emerging technologies in their lines of duty, whereas, 20% disagreed with the statement. The findings showed that 100% agreed that periodical training and refresher courses sponsored by the company for the ICT department were done. It is confirmed by 100% of the respondents agree that the company prefers soft copies of training materials to books and hard copies.

The findings presented that 72% of the respondents strongly agreed that the company used computers in performance management and appraisals and training needs analysis while 28% disagreed with the statement.

#### 4.6 Monitoring

The findings of the study, showed that 84% of the respondents were strongly in agreement that computer aided programs and software were used to generate periodical strategic progress reports and 100% agree that ICT facilitated prompt feed back to all stalk holders in strategy implementation. Therefore, 100% of the respondents strongly agreed that ICT facilitated more accurate inventory and resource allocation and management in monitoring the implementation of strategies. It provided also accurate monitoring of strategy at 100% of the respondents agree that ICT provides more accurate monitoring and evaluation tools in strategy implementation.

From Table 4.3 it can be observed that 76% of the respondents agreed that Staff and all employees were satisfied and generally embraced the use of ICT for strategy implementation while 24% disagreed with the statement. However, some employees had technological challenges because 100% of the respondents agreed to this assertion.

In general 100% of the respondents agreed that The CRM facilitates periodical performance management and evaluation.

#### 4.7 Regression Analysis

A regression analysis was done to establish the effect of independent variables (Information sharing, status identification and human capacity development) on the dependent variable (Monitoring). According to the regression analysis results, the independent variables (Information sharing, status identification and human capacity development) explain 53.5% of change in the dependent variable (Monitoring). These results are shown in the model summary below.

**Table 4.2: Model Summary**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.732 <sup>a</sup>	.535	.505	.818
a. Predictors: (Constant), Information sharing, status identification and human capacity development				

The F-ratio found in the ANOVA table measures the probability of chance departure from a straight line. On review of the output found in the ANOVA table, it was found that the overall equation was statistically significant ( $F=7.373$ ,  $p<.000$ ).

**Table 4.3: ANOVA**

ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	19.755	20	4.939	7.373	.000 <sup>b</sup>
Residual	63.635	105	.670		
Total	83.390	125			
a. Dependent Variable: Monitoring					
b. Predictors: (Constant), Information sharing, status identification and human capacity development					

Coefficients table shown below sought to identify which predictors are significant contributors to the 53.5% of explained variance in Y ( $R^2=.535$ ) and which ones were not. It also showed in what way the significant ones helped to explain Y. Information sharing, status identification and human capacity development

**Table 4.4: Coefficients**

Table 4.11: Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.359	.463		7.249	.000
	Information sharing	.381	.171	.298	2.223	.032
	Status Identification	.040	.128	.042	.312	.757
	Human Capacity Development	.546	.191	.383	2.854	.007
a. Dependent Variable: Monitoring						

The regression equation was;

$$Y = 3.359 + 0.298 X_1 + 0.042 X_2 + 0.383 X_3 + .818$$

From the regression equation above it was established that taking all factors into account (Information sharing, status identification and human capacity development) constant at zero Monitoring in top 100 SMEs in Kenya will be 3.359. The findings showed that each predictor variable in the equation was only concerned with its associated standardized beta and t-test statistic's level of significance (Sig.). Whenever  $p < .05$ , we find the results statistically significant. This means that when a p-value (SIG.) is less than or equal to 0.05, the corresponding beta is significant in the equation.

From this equation, Information sharing ( $\beta=.298$ ,  $p=.032 < .05$ ) was found to be statistically significant. This means that information sharing influence monitoring of strategic plans in 100 top SMEs in Kenya. The top 100 SMEs in Kenya need to create a competitive advantage in monitoring their strategic plans through information sharing (communication) by investing more in ICT.

The table 4.10 further shows that use of ICT in Status identification on monitoring of strategic plans ( $\beta=.383$ ,  $p=.757 \geq .05$ ) was found to be statistically insignificant.

The study shows that use of ICT in human capacity development ( $\beta=.296$ ,  $p=.005 < .05$ ) was statistically significant predictors. This infers that use of ICT human in capacity development influences the monitoring of strategic plans in in Top 100 mid size companies in Kenya. Human capacity development is about effective building the capabilities of Human Resource in a firm to be able to handle new challenges in a dynamic and evolving work place. Today with an increase in the number of organizations, Human Resource is now viewed as a source of competitive advantage. Therefore, the in Top 100 mid

size companies in Kenya need to gain advantage in the marketplace, which requires timely and accurate information on current employees and skill potentials of all employees within the firm. (Michael et al., 2012). This study confirmed that ICT is the driving tool in Human capacity development of SMEs. This concurred with Seyni Mamoudou, et al., (2014) that ICT will help the organization to improve on efficiency and cost effectiveness within the Human Resource Department, and allow Human Resource to become a strategic partner in achieving organizational goals and objectives.

## 5. Summary of Findings, Conclusions and Recommendations

### 5.0 Introduction

This chapter provides the summary of the findings from chapter four, and also gives the conclusions and recommendations of the study based on the objectives of the study. The study was carried out to establish the role of ICT in monitoring strategic plans in Top 100 mid size companies in Kenya.

### 5.1 Summary of the major findings

#### 5.1.1 Information sharing

The study sought to establish the influence of ICT on information sharing in monitoring strategic plans in in Top 100 mid size companies in Kenya. The findings of this study indicated that Communication is very important in all processes of strategy implementation in in Top 100 mid size companies in Kenya. ICT takes a major role in strategy formulation and implementation process. The goals, objectives, vision and mission of the company are communicated digitally to all employees. This is because the company has moved away from using Hard copy letters and

Memos for internal communication in the company. This showed that the company had fully embraced ICT.

There is a reliable internet connection in the company which allows the fast sharing of information within all departments of the company. ICT facilitated the communication between top management and all employees about job, duties and responsibilities.

The findings of the study show that some employees were not facilitated with smart phones.

### 5.1.2 Status Identification

The study sought to establish the role of ICT in status identification in monitoring strategic plans in top 100 midsize companies in Kenya. The findings of this study showed that the industry used software and computer application packages for periodical analysis and reports in strategy monitoring. This enabled the companies to monitor and track their strategies in real time and point out areas where corrective action or change of strategy was very necessary. ICT provided the means of remote and multiple user monitoring and stakeholder input.

### 5.1.3 Human Capital development

The study sought to establish the influence of ICT on human capital development in monitoring strategic plans in top 100 mid size companies in Kenya. The findings of the study revealed that employees in the companies use e-learning to improve on their skills and they were fully trained on the different softwares, platforms and CRM used in the company and any other emerging technologies in their lines of duty. The respondents preferred soft copies of training materials to books and hard copies and computers are used in performance management and appraisals.

## 5.2. Conclusions

The study concludes that there is significant positive relationship between information sharing and monitoring of strategic plans in top in Top 100 mid size companies in Kenya. Job, duties and responsibilities are communicated through ICT to all employees in the company. The top management uses ICT to communicate to all employees through the use of computers and Internet connectivity. WhatsApp is widely used in organizations and is no longer a social media platform as far as most of the organizations are concerned; e-mail is replacing physical letters and memos which is gradually rendering the sending of post mail obsolete.

The study concludes that there is noteworthy significance of ICT in status identification and monitoring of strategic plans in top in Top 100 mid size companies in Kenya. The level of decision making in the company depends on status identification in the company. ICT is so much used in decision making and communication of the decisions to all employees. The findings of this study show that the company used bar charts, graphs and line graphs to report on periodical performance in comparison with the targets and strategic goals and objectives.

The company has embraced fully ICT in status identification whereby smart phones, emails and internet connectivity are used to report on periodically and give status updates. This enabled the responsible parties to monitor progress of Strategy Implementation in the company.

Finally, the study concludes that ICT plays a major role in Human capacity development during monitoring of strategic plans in top in Top 100 mid size companies in Kenya. Tablets and smart phones facilitated in training employees in the company. The employees were fully trained on the different softwares, platforms and CRM used in the company and any other emerging technologies in their lines of duty. ICT is used in performance management and appraisals of employees in the company and based on this, employees can be trained in the areas where they have shown some weaknesses based on PA results.

## 5.3 Recommendations

The study recommends that the top in Top 100 mid size companies in Kenya should facilitate all employees with the smart phones and other gadgets in order to have a direct communication to all employees of the company. This will allow the employees in a remote place to have the same understanding on the mission, vision, objectives of the company and implement them timely. The top SMEs will be able to gain their competitive advantage once they implement ICT policy in their companies.

The study established that the in Top 100 mid size companies in Kenya no longer use hard copy letters and memos in their internal communication which has a significantly reduced on the cost of communication and also improved on the time it takes to pass on information from one point to another end. Finally, the study recommends trainings and retraining to ensure that the employees are up to speed with new technologies and methods of work

## 5.4 Suggestions for Further Study

This study focused on influence of ICT on monitoring of Strategy Implementation in top 100 mid size companies in Kenya. To allow for generalization, this study recommends that another study be carried out to establish influence of ICT on monitoring of Strategy Implementation in other cooperates and multinational enterprises operating in Kenya. This is because the dynamics around SMEs vary from MNE's and other corporate bodies.

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