THE INFLUENCE OF TECHNOLOGY ON STRATEGY AND ORGANISATIONAL SUCCESS: A CASE OF KENYA POWER AND LIGHTING COMPANY.

BY

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DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University in Nairobi for academic credit.

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This research report has been presented for examination with my approval as the appointed supervisor.

Signed: ____________________________ Date: ____________________________

Fred Newa

Signed: ____________________________ Date: ____________________________

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ABSTRACT

The purpose of the study was to explain the relationship between technology and strategy. The explanation of this served to educate and guide management on the effect of technology on strategy and strategic management. Through this knowledge, the management team tasked with formulation of strategy was keener to keep in mind the latest technology and how it affected the final strategic plan both at the departmental level and at the organisational level. Good strategic plans at the departmental and organisational level considered all factors during their formulation and translated to departmental and organisational success.

The research design for this study was a descriptive research design. Descriptive research describes the situations and seeks to establish whether a relationship exists between two variables, which in this case is technology vis-à-vis strategy. The target population of this study was the entire organisation of Kenya Power seeing that the strategy that was used in the research was that of a case study. The research used probability sampling and in particular complex random sampling technique. The data collection instrument that was used in the research was a structured questionnaire.

The results and findings of this research was that technology has little effect on strategy in organisations or departments where technology is at the heart of the operations. However it influences the management of technology which in turn has a significant influence on strategy. Technology significantly affects the strategy of organisations or departments where it performs a support role. It makes the business processes more efficient with greater output but that does not mean that without technology the organisation or department cannot operate. Management of technology is very crucial in selecting the technology to put in place and evaluating whether the technology has had an impact. It greatly influences the strategy of departments where technology is at the core of operations.

Therefore, technology can be seen to influence strategy both directly and indirectly through management of technology. It is therefore recommended that management pay close attention to technology and keep updated on the latest in order to harness the benefits of this tech for the success of the specific departments and organisation as a whole.
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Problem
Organisations have invested in technology to facilitate their operations. For some organisations, technology is at the core of their business and is constantly innovating to meet the needs of their customers. In other organisations, technology is simply an enabler or support function to assist in the achievement of the company’s goals and objectives. Whichever the case, it is important to understand the extent to which strategy and technology influence each other in order for the strategists to ensure the success of the organisation (Antoniou and Ansoff, 2007).

Organisational success is largely dependent on the direction given by the goals and objectives that are drawn from the overall strategic plan of the organisation. It is therefore critical to formulate strategy that ensured the success of the organisation (Korosec, 2006). With this in mind, it is important to always take into consideration the factors that influence strategy and its formulation. One of the major factors that influence strategy of an organisation is technology.

Technology can be defined as the application of knowledge to perform work (White and Bruton, 2011) or the theoretical and practical knowledge, skills, and artefacts that can be used to develop products as well as their production and delivery system. A more comprehensive definition of technology is the practical implementation of learning and knowledge by individuals and organisations to aid human endeavour (Thamhain, 2013). Technology is the knowledge, products, processes, tools, and systems used in the creation of goods or the provision of services (White and Bruton, 2011). It can also refer to the machinery and devices developed from scientific knowledge. Technology can influence an organisation and its processes in many different ways. The introduction of a new machine influenced how an organisation produces the products it sells, the introduction of new systems that process information and present it to managers to better direct the decisions they make influenced the decisions and eventual overall strategy of the organisation and also the introduction of a system that keeps tracks of customers and their needs influenced the marketing mix that an organisation puts together. These are just a
few instances of how technology can influence an organisation, its processes and the strategies put in place to ensure the success of the organisation (Tallon, 2007).

Strategy is a complex concept that involves many different processes and activities within an organisation. Professor Henry Mintzberg articulated the 5 P’s of Strategy in an attempt to explain what strategy is. According to Mintzberg, understanding how strategy can be viewed as a plan, as a ploy, as a position, as a pattern, and as a perspective is important. Each of these five ways of thinking about strategy is necessary for understanding what strategy is, but none of them alone is sufficient to master the concept (Mintzberg, 1987).

Strategy as a plan – A plan can be defined as a carefully crafted set of steps that a firm intends to follow in order to be successful. A large majority of firms create strategic plans to guide their future and growth (Bill, 2014).

Strategy as a ploy – A ploy can be defined as a specific move designed to outwit or trick competitors. Organisations within a particular industry are constantly in competition to attract and retain the available customers. And therefore they come up with ploys in order to beat the competition in the race for customers (White and Bruton, 2011).

Strategy as a pattern – This can be referred to as the degree of consistency in a firm’s strategic actions. A good example of this is Apple Company that responds to competition by innovating. Some of the innovations may not work but the majority of them do and hence has kept Apple competitive on the industry (Mintzberg, 1987).

Strategy as a position – Position refers to a firm’s place in the industry relative to its competitors. A good example is a holding company having subsidiary companies in the same industry. The different subsidiary companies manufacture products that they position for different segments of the market.

Strategy as a perspective – This refers to how executives interpret the competitive landscape around them. Depending on the interpretation they can formulate strategy to keep the organisation competitive (Mintzberg, 1987).

Based on this understanding of technology and strategy, there was need to determine the extent to which technology influences strategy and strategic management and the eventual success of the organisation (White and Bruton, 2011). With the knowledge of the structure of an organisation, an analysis was done of how technology is being applied
in each of the departments or divisions. It could be the use of information systems by the customer relations section to keep track of customers and their needs or the use to high capacity radio links by the telecommunications department to provide the connectivity needed by remote offices linking to the head office (Korosec, 2006).

From this knowledge, the problem was to determine how and to what extent technology influences strategy, strategic management and organisational success. Additionally, the study also sought to look at strategic technology management and how it influences the success of an organisation. The result of this study was very useful for the management team in terms of making them understand the importance of technology and the influence it has on strategy and organisational success. Therefore when they are coming up with strategy, technology was a critical element they considered (Dasgupta, Gupta and Sahay, 2011).

If management completely ignores technology when coming up strategy and strategic plans, this could lead to the eventual demise of an organisation be it in a low technology or high technology industry. Furthermore, the selection of the wrong technologies and products by the management of an organisation could lead to the decline of its profitability and overall success (Tassey, 2012).

An organisation’s strategic direction should be determined by anticipating the future needs of the environment. This approach ensured the success of the organisation. Technology can be a very useful tool in predicting the needs of the environment by assessing and analysing trends through the information systems that an organisation has in place to facilitate its procedures and processes (Dasgupta, Gupta and Sahay, 2011). A good example of this is the analysis of information about customers from a customer relations system that keeps track of customers. Based on this information, a prediction of the future needs of the customers can be made and this can form the basis of the strategic direction of the organisation (Phaal and Palmer, 2010).

1.2 Statement of the Problem
As has been mentioned earlier, the strategic direction of an organisation should be based on anticipating the future needs of the environment. A good strategy is borne from careful analysis of the prevailing business environment and based on this, what the environment will be like in the future can be predicted (Antoniou and Ansoff, 2007). Technology is a
very critical part of every organisation’s operations be it low or high technology. Management must be committed to understanding the prevailing technology in the industry and formulate strategy that incorporates this technology to ensure organisational success as a whole (Tassey, 2012).

Kenya Power is the sole electricity distribution company in Kenya. It also undertakes some transmission work. It provides power to numerous customers throughout the country be they ordinary households or large manufacturing companies. Kenya Power has put in place various technologies to facilitate its operations. These have contributed to providing good services to its customers and its continued profitability (Kenya Power and Lighting Company, 2014). Technology is therefore at the core of the operations of some of the departments in the organisations. However, it still has some challenges it needs to address in the running of its operations. At the departmental level, strategies should be put in place to address these challenges. Because of the importance of technology in these departments, strategic plans must incorporate these technologies and leverage their functionality in dealing with the challenges (Korosec, 2006). The first part of the problem is to address the gap of how technology influences strategy in departments where technology is at the core of operations.

In Kenya Power, there are departments that serve as support to the principal operations of the organisation which is transmission and distribution of electricity. These departments are also important in facilitating smooth business operations. They include: Human Resource Department, ICT Department, and Finance Department among others (Kenya Power and Lighting Company, 2014). These departments also utilise technology in the execution of various responsibilities. They also have challenges in execution of their mandate in order for them to achieve the goals and objectives they have set out to achieve. These challenges can be adequately addressed by leveraging available technologies. Therefore, the problem was to determine how technology influences strategy in these support departments (Kenya Power and Lighting Company, 2014).

The deployment of technology in every organisation must be organised and directed towards a certain purpose in order for it to be successful (Antoniou and Ansoff, 2007). Kenya Power is an organisation where technology is both part of the core business and also provides the support function for other departments. The final part of the problem was to determine the importance of management of technology in developing good
strategies for the overall success of the organisation. Therefore this study was very important in understanding the relation between strategy, technology and organisational success for the case of Kenya Power.

1.3 Purpose of the Study
The purpose of the study was to establish the relationship between technology and strategy and how technology influences strategy in departments where technology is at the core of its operations and in departments where technology serves a support function.

1.4 Research Questions
The research sought to answer the following questions:

1.4.1 What is the importance of management of technology in developing good strategies for the overall success of the organisation?
1.4.2 How does technology influence the strategy of departments where technology is at the core of its operations and its effect on organisational success?
1.4.3 How does technology influence the strategy of support departments where technology facilitates or supports operations and its effect on organisational success?

1.5 Importance of the Study

1.5.1 Importance to KPLC
The research was a case study of Kenya power and was very important in identifying the gaps in the organisation when it comes to technology and strategy. It did this at a departmental level and organisational level.

1.5.1.1 Importance to Departments
At the departmental level, the study looked to classify departments based on the criticality of technology to their operations. In this regards it had two major classifications of departments i.e. those where technology is at the core of their operations and those where technology performs a support function.
Based on this, strategy was looked at from these two levels and the influence of technology on the same. Therefore was important to departments in tailoring strategies that suit their business processes.

1.5.1.2 Importance to Management

Good strategy more often than not translates to departmental and organisational success (Korosec, 2006). It is therefore critical through strategy to leverage all the technological benefits available to ensure competitiveness, better customer service and higher productivity (White and Bruton, 2011). When studying the influence of technology on strategy the gaps were identified and how they can be addressed. This served not only as a guide to management but also brought to their attention the importance of technology to strategy and organisational success. Hence through this sensitization, they were keener about technological developments and how they can be leveraged through strategy for the success of the organisation.

1.5.1.3 Importance to Customers

With good knowledge on how technology influences strategy both at the departmental and organisational level, strategies can be put in place to improve customer service and this will be very important to customers.

1.5.2 Importance of the study to other companies

It is very critical for management to put together a good strategic plan for the organisations they run. A strategic plan based on anticipating the needs of the environment will more often than not lead to the success of the organisation (Thamhain, 2013). This is primarily because the needs of the target market will be the focus of the strategy and therefore with these needs adequately addressed the organisation’s profitability will be good.

Strategy formulation should not only focus on the needs of the environment, but should take into consideration other factors that influence this strategy. One primary factor that influences strategy is technology (Tassey, 2012). The study sought to determine how and to what extent technology influences strategy. It then came up with a framework on how technology can be incorporated in strategic plan formulation.

Therefore the study was important in highlighting the criticality of technology in strategy formulation to management. It also served to direct management on how technology can
be incorporated into the strategy formulation process in order to ensure the competitiveness of the organisation. Considering the case of Kenya Power where technology is core in some departments and support in others, formulation of strategy should keep this in mind to ensure the success of the every department which will lead to the overall success of the whole organisation.

The study was therefore important in ensuring that the management of Kenya Power pays close attention to technological developments in both the core and support areas. This meant that the organisation can give better services to its customers and keep it competitive.

1.5.3 Importance to Academicians and Researchers
When it comes to technology, innovation is very critical. The importance of this study to research was to highlight the importance of innovation as a means of technological development. Further research should look into this and how it ties in with strategy and organisational success. Through this current technologies can be incorporated in the organisation’s business processes and procedures and the strategy at the global level should have this captured. This will also keep the organisation at the top in terms of service delivery and competitiveness.

1.6 Scope of the Study
The study took a case study approach with Kenya Power the organisation of choice in the research. Kenya Power has come up with both long term and short term strategic plans to ensure its success and competitiveness. The scope of the study involved an analysis of the influence of technology on strategy and strategic management with respect to Kenya Power. It was carried out among the members of staff in Kenya Power. Sampling was done to take into consideration those who formulate the strategy and those who implement the strategy on the ground. The location of carrying out the study was Kenya Power offices and more specifically Electricity House and Stima Plaza.

One major limitation that is anticipated is the availability of the middle to senior management staff when carrying out the study. Another limitation was access to important documentation on strategy of the company. To mitigate this, appointments were scheduled and personal visits made to gather the information required. For classified documentation the necessary approval was sought.
1.7 Definition of Terms

1.7.1 Strategy
Strategy as a plan can be defined as a carefully crafted set of steps that a firm intends to follow in order to be successful (White and Bruton, 2011).

1.7.2 Technology
Technology is the knowledge, products, processes, tools, and systems used in the creation of goods or the provision of services (Trott, 2012).

1.7.3 Innovation
This is the process whereby new and improved products, processes, materials, and services are developed and transferred to a plant and/or market where they are appropriate (Trott, 2012).

1.7.4 Strategic Management
This is an on-going process through which the organisation defines the nature of the business in which the firm will be active, the kind of economic and human organisation it intends to be, and the nature of the contribution it intends to make to its various constituents (Phaal and Palmer, 2010).

1.7.5 Strategic Planning
This is the process that lays the groundwork and direction of the firm over the next several years (Tassey, 2012).

1.7.6 Business Environment
This is the sum total of all external and internal factors that influence a business. The internal and external factors can influence each other and work together to affect a business (Thamhain, 2013).

1.7.7 Strategy Formulation
This is the process by which an organisation chooses the most appropriate course of action to achieve its defined goals (Korosec, 2006).
1.7.8 **Framework**

This is a basic structure of something; a set of ideas or facts that provide support for something (Cheng, Rhodes and Lok, 2010).

1.8 **Chapter Summary**

Technology is a driving force of modern business, be it part of the core business or as a support of the core business. A good understanding of technology and what it can achieve can propel a business to great heights in terms of organisational success. This understanding of technology and its influence on strategy is critical to developing strategy that is relevant, directed and ensures the success of the organisation. Management therefore need to be made to understand how and to what extent technology influences strategy and how a good understanding of this technology can facilitate the formulation of strategy that will lead to greater productivity and profitability (White and Bruton, 2011).

In Chapter two that follows, the study took an in depth look at the previous literature that had been done in relation to technology and its influence on strategy and organisational success. This served to guide the study in addressing the gaps that the literature had not covered. In Chapter three, the research took a look at the research methodology and came up with a research design on how the research was carried out. A good research design ensures the research adequately answers the research questions and its overall purpose. In chapter four, the data that was collected was processed and analysed to produce results and findings that sought to answer the research questions posed in chapter one. The analysis was done using different analysis tools that included SPSS (Statistical Package for Social Science) and Microsoft Excel. In chapter five, discussion was done and conclusions and recommendations made and presented to show the influence of technology on strategy and eventual organisational success.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction
The research was meant to look into the relationship between technology, strategy and organisational success in the Kenya Power, an electric power Transmission and Distribution Company based in Kenya. It did this by seeking to address the three main objectives of this study. In summary the research questions that were answered by the study were: What is the importance of management of technology in developing good strategies for the success of the organisation? How technology influences strategy in departments where technology is at the core of operations and its effect on organisational success? How technology influences strategy in departments where technology facilitates or supports operations and its effect on organisational success?

This served as a guide to organisations and ensured that they fully exploit the technologies available to them in order for them to remain competitive and successful in their various industries. Organisations that choose to ignore the factors that make them successful, technology being one of them, end up struggling and can eventually close shop (Korosec, 2006). It is therefore critical for organisations to pay close attention to the new technological developments in their respective industries and incorporate them as part of their strategic plans to ensure their success (White and Bruton, 2011).

Different organisations deploy technology to varying degrees. In some organisations, technology is at the core of the business while for others technology is an enabler and therefore serves a support function (Tassey, 2012). And for other organisations depending on the department in question, technology is either at the core of that department or serves as support for the business processes of that department. For the case of Kenya Power, technology is at the core of some departments operations while for others technology is an enabler. But looking at the organisation as a whole, the conclusion can be made that technology is at the core of the business as Kenya Power is an electric power Transmission and Distribution Company.
2.2 Importance of Management of Technology in Developing Good Strategies for Organisational Success.

Management of technology as the name suggests is not only limited to technology but touches on aspects of management and should therefore be systematic and strategic (Thamhain, 2013). Management of technology is defined as the linking of different disciplines to plan, develop, implement, monitor, and control technological capabilities to shape and accomplish the strategic objectives of an organisation (White and Bruton, 2011).

Management of technology is a process that can be broken down to several critical areas that come together to achieve a certain end. It involves aspects such as environmental analysis to determine both the latest technologies available in the market and characteristics of the environment and the fit of these technologies to those particular environments - assessment of technologies and their capabilities vis-à-vis the organisational needs (Thamhain, 2013). The question at this point is whether the technologies will be able to address the needs of the organisation. Another aspect that is also addressed is the selecting of suitable technologies against the backdrop of the cost of the technology. It also takes a look at the evaluation and control which involves monitoring of technology to ensure it meets desired outcomes in terms of the goals and objectives it was meant to address. In this section the study delved into some of these aspects in order to get a better understanding of the management of technology process and its importance (Antoniou and Ansoff, 2007).

2.2.1 Environmental Analysis

Every business operates within a certain environment that has several players in it. The players include manufacturers, suppliers, distributors, retailers and the customers who are the intended recipients of an organisations products and services. This environment is constantly changing with various factors influencing this dynamism (Korosec, 2006).

One major factor that influences the change of the business environment is technology. Technological changes or developments in a particular industry will affect the firms in that particular industry in different ways (Trott, 2012). For example the introduction of new technologies that make the manufacturing of a product much easier and faster will definitely change the landscape of that particular industry. Organisations that take advantage of this new technology early will be able to compete more favourably and will
achieve greater success as opposed to those that are not in a position to do so. Additionally technological developments from the angle of the other players in the market could affect the organisations in a particular industry and therefore they should be in a position to respond to these changes (White and Bruton, 2011).

Changes in the environment could also present an opportunity to the organisation in terms of developing technologies or adopting technologies that give them a competitive advantage in the industry (Trott, 2012). This dynamism of the environment is a challenge that organisations must address and keep track of as part of management of technology.

This serves to highlight how important keeping track of the environment is. Management must therefore put in place measures to constantly keep track of the environment and keep them informed about any changes in order to effect the management of technology better (Antoniou and Ansoff, 2007). This will also serve to inform them during the strategy formulation process that is linked to the success of the organisation.

2.2.2 Assessment of Technologies and their Capabilities

Assessment of technologies and their capabilities is also an important activity of the management of technology (Thamhain, 2013). Through this action, management will be well informed about various technologies in the industry and their capabilities. This assessment is compared to the needs of the organisation and the environment. A technology fit is then sought between the technology and its capabilities, the business needs and the environment it is supposed to operate in (Phaal and Palmer, 2010).

The result of this process is a short list of technologies that can be developed or adopted by an organisation from which a selection is made based on other factors with availability of funds being one of the most important (White and Bruton, 2011).

2.2.3 Selection and Implementation of Technology

With environmental analysis and assessment of technologies done, selection of the most suitable technology takes place. This is followed by its implementation soon after in order to realise the benefits of the selected technology. Implementation should be done systematically and completely in order to experience the benefits of the new technology (Tassey, 2012).
2.2.4 Evaluation and Control
This involves monitoring the technology to ensure it meets the desired outcomes. It is a very important activity when it comes to management of technology. The organisation must monitor the technology after implementation in order to keep track of whether the intended benefits are being derived from the technology. Additionally, monitoring must take place in order to keep track of any changes that may render the technology ineffective, obsolete or even competitively weak (Phaal and Palmer, 2010).

Evaluation and control is also very critical for feedback purposes. Through feedback a technology can be improved on depending on what is affecting the desired outcome of its implementation. It is important to note that evaluation and control is a continuous process to ensure the intended objectives and goals are met (Thamhain, 2013).

2.2.5 Reasons for Management of Technology
As has been discussed earlier, management of technology is a systematic process whose purpose is to ensure the organisation realises the intended benefits of the technology that it wants to put in place (White and Bruton, 2011). In addition to this there are other reasons as to why management of technology practised and they include: first, the high speed of technological change demands a multi-discipline approach if the benefits of the technology are to be realised in an effective and efficient manner in order to take advantage of technological opportunities (Thamhain, 2013). Second, product lifecycles have been shortened due to the rapid pace of technological development and increasing sophistication of customers. This means that organisations now have to be more proactive when it comes to the management of technology (Phaal and Palmer, 2010). Third, the need to cut product development times as well as have more flexibility in organisations has led to the need for management of technology. Fourth, an increased competitive environment is another reason for carrying out management of technology. This competitiveness has necessitated the use of new technologies and therefore the means of managing them is also critical (Antoniou and Ansoff, 2007). It is now clear why management of technology is carried out.

It is very critical to carry out management of technology as it ensures the correct technologies will be selected based on environmental analysis and assessment of technologies available. Management of technology being an on-going process serves both
the pre and post strategy formulation process and can influence strategy in both cases (Korosec, 2006).

Some of the activities of the management of technology such as environmental analysis and assessment of technology serve the pre strategy formulation process. Others such as implementation and evaluation and control serve the post strategy formulation. Through these last two activities strategy can be modified based on whether the intended goals and objectives have been achieved. If the choice of a certain technology will leave the organisation competitively weak then that necessitates a change in strategy in order to ensure organisational success (Antoniou and Ansoff, 2007).

2.2.6 Good Strategy

Strategy is defined as a coordinated set of actions that fulfil a firm’s objectives, purposes and goals. It is important for every firm to come up with good strategies for their long term success and sustainability. Technology is one of the most important factors for a firm to consider when it comes to the formulation, implementation and evaluation of strategy (Korosec, 2006). There are also other factors besides technology that must be considered and it is important for management to pay close attention to all the factors to ensure good strategies are formulated.

2.3 Technology, Strategy and Organisational Success in the Departments where Technology is at the Core of Operations

In different organisations, as has been mentioned, there are departments in which technology is at the core of operations and those in which technology performs a support function (Tassey, 2012). In this section, the study concentrated on the former and determined how technology influences the strategy in these departments and the effect on the overall organisational success.

In most electricity companies, there are several departments in which technology is at the core of the operations and they include: Operations and Maintenance Department, Transmission Department, Information Communication and Technology (ICT), Infrastructure Development and Design and Construction among others. In these departments technology is at the core of operations. Proper deployment of technology in
these departments will ensure efficiency of operations, greater productivity and increased customer satisfaction (Dasgupta, Gupta and Sahay, 2011).

The core business of Kenya Power is highly technical and requires the use of various technologies to execute the key functions of transmission and distribution of electricity to its customers. The deployment of poor and inappropriate technology can lead to disgruntled customers not to mention financial losses and even dangerous working conditions (Phaal and Palmer, 2010). It is therefore important for management to ensure strategy incorporates the use of relevant and safe technologies in the execution of critical responsibilities to facilitate the supply of power to customers (Bill, 2014).

As previously stated, technology is the knowledge, products, processes, tools, and systems used in the creation of goods or the provision of services (White and Bruton, 2011). Technology has been the driving force in the 20th century and it promises to hold the same if not greater importance during the 21st century. The creation, development and application of technology are major forces, which make organisations successful (Antoniou and Ansoff, 2007).

Technology also goes hand in hand with innovation. Innovation is the process by which technology is improved on. It is important therefore that organisations not only focus on technology but also look into innovation as a means of improving the technologies they deploy in making their products and processes better.

In order for strategies and strategic plans to be relevant, it is important for the management of organisations to keep a close eye on technology and various innovation initiatives (Phaal and Palmer, 2010). With knowledge of the various technological developments in a particular industry and the impact these technologies have on the business processes, products and services, management can ensure it factors this into the strategy formulation process to facilitate organisational success (Tassey, 2012).

2.3.1 Classification of Technology

Technology can be classified as high, appropriate or low technology according to the level of advancement.

High technology – This is sophisticated, cutting-edge or state of the art technology based on recent scientific advances. It is characterised by having a science and technology base,
highly mechanised, less human involvement and has a high initial cost but is cheaper in the long run (White and Bruton, 2011).

**Appropriate technology** – A medium technology intentionally designed to adapt to the existing environment. It is characterised by low complexity and use of renewable resources, utilization of local raw materials, tools and skills and compatibility with local culture and needs.

**Low technology** – This involves the use of rudimentary or manual techniques, tools/equipment or methods. It is characterised by lack of scientific or engineering base, use of established procedures, labour intensive and high human involvement and a lack of standardisation and inefficiency (White and Bruton, 2011).

In this case, the focus will be on high and appropriate technology and the impact it has on strategy and organisational success.

**2.3.2 Strategy**

Strategy is defined as a coordinated set of actions that fulfil a firm’s objectives, purposes and goals. It is not a single act that occurs in a firm. Frequently individuals confuse strategy with strategic planning. Strategic planning is the process that lays the groundwork and direction of the firm over the next several years (Korosec, 2006).

Strategic management is the on-going process through which the organisation defines the nature of the businesses in which the firm will be active, the kind of economic and human organization it intends to be, and the nature of the contribution it intends to make to its various constituents (White and Bruton, 2011).

**2.3.3 Technology and Strategy Formulation**

Organisations must come up with good and relevant strategies in order to remain successful. For the strategies to be relevant all the environmental factors must be considered while formulating the strategy (Dasgupta, Gupta and Sahay, 2011). A very critical factor to strategy is technology. The strategic exploitation of technology in its business processes and the products and services of an organisation will translate to greater productivity, profitability and organisational success. Technology can provide new forms of customer service, new distribution channels, new information based products or can even rearrange industry boundaries (Tassey, 2012). It is therefore
imperative that organisation’s keep a close eye on technology and the latest innovations that keep technology moving forward. This way, management can exploit the relevant technologies and incorporate them into the strategy of the organisation.

2.3.4 Technology and Strategy Implementation

Once strategy has been formulated, documented and finalised, the next step is to implement the strategy throughout the organisation. Successful strategy implementation is critical for any organisation’s survival (Phaal and Palmer, 2010). The strategy formulation could be successful but without proper implementation the good strategy will not benefit the organisation. Technology influences strategy formulation by providing the necessary technical tools for the successful implementation of the strategy. In the formulation process, certain technologies were identified to be implemented and these must be available for the implementation of the strategy. Additionally, there are support technologies that facilitate the implementation of the strategy. These must also be availed for the proper implementation of the formulated strategy (Rajasekar, 2014).

2.3.5 Technology and Strategy Evaluation

Once strategy has been formulated and implemented it is important to keep monitoring and evaluating the strategy to assess if the necessary benefits are being realised. Technology here can serve this purpose by acting a monitoring tool to keep track of the performance of the strategy (Muhammad, Jantan and Keong, 2008). Through this evaluation tools, information can be obtained that will be useful to managers in assessing how well the new strategy is performing. Technology can therefore facilitate and ease the evaluation process of the strategy that was implemented (Rajasekar, 2014).

2.3.6 Organisational Success

Organisational success is not strictly limited to profitability alone of the organisation in question but includes several other factors that include market share, efficiency of operations, customer satisfaction, and employee satisfaction among others (Tassey, 2012). Different technologies can be put in place to address these aspects of organisational success. For example, a customer relations system can be put in place to keep track of customer needs and wants and therefore the organisation can tailor its products and services to suit those needs and wants. An electric power company can put in place a distribution management system that helps reduce the amount of time it takes to
resolve blackouts in a particular city. Or even the deployment of an employee management system that keeps track of employees in their various stations and ensures they are adequately catered for as they execute their various roles and duties. This will translate to satisfied employees and hence greater output from them.

Good strategies employed by an organisational lead to organisational success (Phaal and Palmer, 2010). Good strategies must have considered the technologies available and how they can be used to achieve the intended goals and objectives that arise out of the strategies. Organisational success is therefore a product of several factors each of which can, in one way or another, be facilitated using technology (White and Bruton, 2011). It is therefore the responsibility of management to understand the capabilities of the various technologies available to them. Management must keep abreast with the latest innovations and technologies in order to come up with relevant strategies that will ensure the success of the organisation.

Technology also helps to keep the organisation competitive in its particular industry (Thamhain, 2013). In order to stay ahead in terms of productivity, efficiency and profitability, management must take advantage of the latest technologies and make a deliberate effort to include this in the strategic plans of the organisation (Dasgupta, Gupta and Sahay, 2011).

Empirical results based on 61 Malaysian industrial automation companies found that, technology selection has positive impact towards revenue growth (measuring firm’s performance). This ultimately leads to the success of the organisation. The study as seen was based on firms where technology is at the core of its operations (Muhammad, Jantan and Keong, 2008). Therefore it is critical for management to understand the influence of technology on strategy and the success of the organisation.

2.4 Technology, Strategy and Organisational Success in the Departments where Technology Supports the Operations

In many organisations, there are departments in which technology is at the core of operations and those in which technology performs a support function (Korosec, 2006). In this section the study concentrated on the latter and determined how technology influences the strategy in these departments and the effect on the overall organisational success.
Most organisations have several departments in which technology performs a support function and they include: Human Resource Department, Procurement Department, Supplies and Stores Department, Security Department, and Customer Service Department among others.

In these departments, operations can still go on even without the different technologies in place. Unfortunately there will be a lot of inefficiencies and reduced productivity in these departments (Tassey, 2012). Additionally, the departments dealing with customers will struggle to keep the customers happy.

Furthermore, some of these departments have internal customers instead of external customers. By internal customers, the meaning is other members of staff. A good example of this is the Human Resource Department. Other departments have both internal and external customers. A good example of this is the Finance Department which deals with employees in the case of processing salaries and also deals with external contractors when processing their payments for work done.

Through the interaction of these departments together with the departments where technology is at the core, the organisation is able to achieve its goals and objectives. Inefficiencies in any of the departments, even the ones whose main role is support, adversely affect the organisation as a whole (Bill, 2014). A good example of this is a case where there are inefficiencies in the Human Resource Department in catering to the internal customers who are the members of staff. This will translate to low staff morale and poor execution of their duties. In this case the staff members respond very slowly to their duties and responsibilities leading to poor customer satisfaction and loss of revenue by the company. It is therefore important for the Human Resource department to be efficient in carrying out its mandate. It should leverage the use of technology in the efficient execution of the various functions in order to satisfy the internal customers who then will be motivated to do a better job (Tassey, 2012).

Empirical evidence shows that, technology does affect strategy in departments where technology serves a support role but not as significantly as in those departments where technology is at the core of the operations. In a study of information technology and corporate strategy, with a view from the top, CEOs views on the influence of technology on corporate strategy were sought (Jarvenpaa and Ives, 2001).
Initially, the CEOs didn’t see the impact of technology on strategy and organisational success but as time progressed and various technologies could accomplish more and more the impact began to be felt in terms of improved and efficient execution of business processes and satisfaction of the customers (Jarvenpaa and Ives, 2001).

This change made CEOs acknowledge the importance of technology in their various industries. It was at this point that during strategy formulation, implementation and evaluation, technology was seriously considered and incorporated due to the influence it had. This in turn translated to the success of the organisation and its continued growth and sustainability (Muhammad, Jantan and Keong, 2008).

2.4.1 Technology and Strategy Formulation

Strategy formulation in departments where technology serves a support function is different from those departments where technology is core. In these departments the effect of new technology is significantly reduced as opposed to departments where technology is core. Therefore the technology incorporated in the strategy formulation will be primarily to support the operations to improve efficiency (Rajasekar, 2014).

Technology can also serve the purpose of information gathering and analysis. After this, it is presented to management for their decision making with regard to the formulation of the strategy (Bill, 2014).

2.4.2 Technology and Strategy Implementation

In order for the strategy to be successful, the necessary technology to support the processes and procedures must be made available. If these are not made available then the implementation process will be drastically affected and the benefits of the strategy will not be realised (Tassey, 2012).

Additionally the technology that makes the implementation proceed smoothly should also be availed. These are not the main technologies that will be implemented but support the implementation of the main technologies in these departments (Pelser, 2014).

2.4.3 Technology and Strategy Evaluation

The evaluation process is similar to those departments where technology is at the core of operations except for the fact that the level of technology deployment is far less.
However, technology will be very useful in evaluating the implemented strategy and ensuring the intended benefits are realised (Rajasekar, 2014).

2.4.4 Technology vs. Strategy and Organisational Success

The impact of technology on strategy and organisational success should be looked at from two dimensions. First, the direct influence of technology on strategy and organisational success (Thamhain, 2013). Second, the indirect influence of technology on strategy and organisational success (Thamhain, 2013).

2.4.4.1 The Direct Influence of Technology on Strategy and Organisational Success

In the former section and the current section, this has been the focus - the direct influence of technology on strategy and the eventual organisational success. Technology can have a direct impact on the two aspects of the business by dramatically changing the way business processes are executed (Tassey, 2012). It can also change the business environment in which the organisation operates. The capabilities of different technologies should therefore be understood well and a deliberate effort be made to match the capabilities and the needs of the organisation (White and Bruton, 2011).

For organisations where technology is at the core of the business or even serves a support function, any developments through innovation will have a direct impact on the business and its competitiveness (Trott, 2012). These developments will also influence the strategy of the organisation and can necessitate a complete change in strategy if need be. All this ties in with organisational success because good strategies that have taken into consideration prevailing conditions when it comes to technological development lead to greater productivity, profitability and the eventual success of the business (Dasgupta, Gupta and Sahay, 2011).

2.4.4.2 The Indirect Influence of Technology on Strategy and Organisational Success

The influence of technology on strategy and organisational success is not only from the point of view of the business but can also happen from the point of view of the customer. New technology has made information available to consumers. As more information becomes available, potential buyers become more aware of opportunities to obtain and use products (Tassey, 2012).
As a result of this, the strategy of an organisation is affected; more specifically the marketing strategy of an organisation. With more information, organisations must adapt their strategy to this new aspect of the environment. Failure to which their competitiveness will be compromised and this will have a negative impact on the success of the business in the particular industry it operates (Korosec, 2006).

2.5 Chapter Summary

In this chapter, literature from different authors was reviewed on how technology and strategy are related and how they contribute to the success of the organisation. However, there is still need to address a few gaps in the literature that was reviewed.

To this end, a research design was developed in chapter three in addition to the population and sampling design. The data collection method that was used was also determined and in addition to how the data was analysed to come up with the results and findings.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction
This chapter describes the methods and procedures used in the study so that another researcher can reach similar conclusions without difficulty as it has direct influence on the findings. The chapter focuses on methodology used in examining the influence of technology on strategy and organisational success and the importance of management of technology in developing good strategies. The research methodology included research design which provides a general overview of the research methods used, population size, sample frame, sampling method and actual sample size, data collection methods including the design process and research procedures and finally data analysis methods to ensure correct assumptions have been followed and describe any theoretical basis if any (Kothari, 2004). The research methodology was a general plan of how the study answered the research questions as given in chapter one. It contained clear objectives, derived from the research question, specified the sources from which the researcher intends to collect data, and considered the constraints that were inevitably encountered. Critically, it reflected the fact that the researcher has carefully thought about the strategy employed (Saunders, Lewis and Thornhill, 2003).

3.2 Research Design
The Research Design constitutes the blueprint for collection, measurement and analysis of data (Kothari, 2004). It aids the scientist in the allocation of his limited resources by posing crucial questions: Is the blueprint to include experiments, interviews, observation, and analysis of records, simulation or some combination of these? Are the methods of data collection and the research situation to be highly structured? Is an intensive study of a small sample more effective than a less intensive study of a large sample? Should the analysis be primarily quantitative or qualitative? (Cooper and Schindler, 2006)

Research design is the plan and structure of investigation so conceived as to obtain answers to research questions (Saunders, Lewis and Thornhill, 2003). The plan is the overall scheme or program of the research. It includes an outline of what the investigator did from writing the hypotheses and their operational implications to the final analysis of
data. A structure is the framework, organization, or configuration of the relations among variables of a study. A research design expresses both the structure of the research problem and the plan of investigation used to obtain empirical evidence on relations of the problem (Cooper and Schindler, 2006).

The research design for this study sought to describe what was done in technical terms. In light of the topic under study, the most suitable research design was a descriptive research. Descriptive research describes the situations and seeks to establish whether a relationship exists between two variables, which in this case is technology vis-à-vis strategy (Cooper and Schindler, 2006). The design is suitable for this study since the purpose of the study was to describe the situations in different departments with regards to strategy and the influence of technology on the various strategies.

The independent variable in this case was the various technologies put in place by the organisation and that which is available but has not been put to use by the organisation. This was manipulated to determine the connection to the different strategies put in place by the two major types of departments in the organisation i.e. those for which technology is at the core of its operations and those for which technology is a support function. The independent variable is the core of the study and is isolated and manipulated in the study. The dependent variable is the measurable outcome of this manipulation and is the result of the study (Kothari, 2004).

3.3 Population and Sampling Design

3.3.1 Population

A population element is the subject on which the measurement is being taken. It is the unit of study. The population is defined as the total collection of elements about which the researcher wishes to make some inference (Cooper and Schindler, 2006). The target population of this study was the staff members of Kenya Power working in Electricity House and Stima Plaza seeing that the strategy that was used in this research was that of a case study.

Kenya Power was chosen as the basis of this study because it presents a very interesting subject of the research. Kenya Power is a transmission and distribution company in Kenya. It is a monopoly in this industry. Kenya Power is primarily a technical company
and relies heavily on the latest technology in carrying out its core business which is the transmission and distribution of electricity to its customer. The customer base of Kenya Power is both the domestic users and the large industries and companies. The reason why Kenya Power is an interesting subject for this study is because it can be considered to have two major types of departments with regards to this study i.e. those for which technology is at the core of its operations and those for which technology performs a support function. The study therefore looked at these two departments individually and also ased the importance of management of technology in coming up with good strategies for both types of departments.

Kenya Power has employees in different management levels. The organisation has a total number of 8,240 employees based at different stations all over the country. The employees in Nairobi (based at Electricity House and Stima Plaza) are about 1,124 in number. Most of these employees have a part to play when it comes to strategy. The sampling design therefore ensured it took this into consideration and did not focus on a particular management level which would have led to critical information being left out. The ideal situation was to collect data from all the management levels that have a part to play in the strategy of the organisation.

3.3.2 Sampling Design
Whatever the research questions and objectives, it is necessary to collect data to answer them. For many research questions it is impossible to either collect or analyse all the data available owing to restrictions of time, money and access (Kothari, 2004). Sampling provide a range of methods that enable reduction of the amount of data needed to collect by considering only data from a subgroup rather than all the possible cases or elements (Saunders, Lewis and Thornhill, 2003).

The basic idea of sampling is that by selecting some of the elements in a population, the researcher drew conclusions about the entire population. The sampling design determines the number of people to be issued with questionnaires and those to be interviewed from the population as a representative of the population.

3.3.2.1 Sampling Frame
Sarndal, Swensson and Wretman (2003) define a sampling frame as the source material or device from which a sample is drawn. It is a list of all those within the population who can be sampled. The research being a case study of Kenya Power had the members of
staff located in Electricity House and Stima Plaza as part of the sampling frame. This sampling frame is suitable since members of staff at various capacities are involved in strategy be it at the formulation stage or even at the implementation stage. The sampling frame is closely related to the population. It is the list of elements from which the sample is actually drawn. Ideally it is a complete and correct list of population members working in Electricity House and Stima Plaza only (Cooper and Schindler, 2006).

A list of these members of staff in the organisation can be obtained from the Human Resource department. They can be contacted either via mail or visiting their various stations of work. Because of the large number of members of staff and their different management levels, stratified sampling was carried out in order to cater for all the management levels. In each management level, some of the members of staff were contacted to provide data by answering the questionnaire that was issued. The list of the members of staff of Kenya Power working in Electricity House and Stima Plaza therefore formed the sampling frame for this study. The sampling frame had a total of 1,124 members of staff who work in Nairobi’s Electricity House and Stima Plaza offices as a whole.

3.3.2.2 Sampling Technique

A number of sampling techniques are available and the one selected depends on the requirements of the project, its objectives and the funds available. The representation that is through probability sampling and non-probability sampling and the element selection techniques are considered (Cooper and Schindler, 2006). The research used probability sampling and in particular complex random sampling technique. Complex random sampling is a probability sampling technique that is restricted and ensured adequate representation (Kothari, 2004). It also ensured relevant information is collected from all the management levels. As a subset of complex random sampling, stratified sampling was used. Stratified sampling involves including elements from mutually exclusive subpopulations or strata. The strata in this case were: Top Management, Middle Management, Lower Management and Union. After the stratified sampling is done, simple random sampling was done within the strata. This method was selected due to the fact that Kenya Power is a large organisation with about 8,240 members of staff at different management levels or strata located all over the country. The study however only concentrated on the staff in Nairobi (based at Electricity House and Stima Plaza) as that is the area of focus in this study. Nairobi has about 1,124 members of staff total at
different management levels. However, the largest number of staff is in the lower tier and is not involved in strategy formulation and evaluation. Stratified sampling adequately catered for this.

3.3.3 Sample Size

Cooper and Schindler (2006) define a sample as a group of people that are representative of the population. How large a sample should be is a function of the variation in the population parameters under study and the estimating precision needed by the researcher (Saunders, Lewis and Thornhill, 2003). Since researchers can never be 100 per cent certain a sample reflects its population, they must decide how much precision is needed. Precision is measured by (1) the interval range in which they would expect to find the parameter estimate and (2) the degree of confidence they wish to have in that estimate (Cooper and Schindler, 2001). The number of elements must be accurate to ensure that the degree of bias is reduced and precise in estimate measured by the standard error of estimate. Thirty per cent is the minimum sample size required for a sample to be representatives of a heterogeneous population (Cooper and Schindler, 2006). Out of a total population of about 1,124 members of staff in Nairobi (Electricity House and Stima Plaza) at different management levels, a sample of 100 respondents was selected representing all the different strata – management levels. This sample size was deemed representative of the heterogeneous population. It is recommended that the sample size should be calculated by taking into account 95% confidence level and 5% confidence interval (Cooper and Schindler, 2006). In this case, stratified sampling was used with each of the four strata being represented by 25 individuals.

Table 3.1: Sample Size

<table>
<thead>
<tr>
<th>No.</th>
<th>Management level</th>
<th>Population</th>
<th>Size of sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Top Management</td>
<td>65</td>
<td>25</td>
</tr>
<tr>
<td>2.</td>
<td>Middle Management</td>
<td>175</td>
<td>25</td>
</tr>
<tr>
<td>3.</td>
<td>Lower Management</td>
<td>375</td>
<td>25</td>
</tr>
<tr>
<td>4.</td>
<td>Union</td>
<td>509</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1124</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
3.4 Data Collection Methods
The study used primary data obtained using the case study method of data collection. The data collection instrument used in the research was a structured questionnaire. A questionnaire is an instrument used in research and consists of a series of questions and other prompts for the purpose of gathering information regarding a particular topic at hand. The questionnaires had both closed and open ended questions and were sent to the respondent both physically and on email. The questionnaire was divided into several sections organized in line with the specific objectives. The questionnaires were based on the three research questions of the study. It was administered to the selected members of staff at the different management levels. The questionnaire was chosen because it would comprehensively cover the three research questions in terms of gathering information.

The first part of the questionnaire was about general information regarding the member of staff taking part in the data collection exercise. The second part of the questionnaire sought to get information about management of technology in the organisation and how it affects strategy and the eventual organisation success. The third part of the questionnaire sought to find out how technology influences strategy and eventual organisation success in departments where technology is at the core of the operations. The fourth and final part of the questionnaire sought to find out how technology influences strategy and eventual organisation success in departments where technology serves a support function. A Likert scale of 5 was used throughout the questionnaire to assess the gravity of the responses. A Likert scale is a psychometric scale commonly involved in research that uses questionnaires as a data collection instrument (Saunders, Lewis and Thornhill, 2003). The method of issuing the questionnaire was drop and pick where the members of staff were issued with the questionnaire and given time to fill it and then it was picked later.

3.5 Research Procedure
The questionnaire was pilot tested to ensure clarity, reliability and validity. The sample of the members of staff tested was a healthy representation of the sample population. The pilot test subjects gave constructive comments on the wordings, structure and flow of the questions. The appropriate adjustments were made once the comments were received to ensure the study objectives were met.

Prior to sending out the questionnaires, personal visits or calls may be made to request for permission to carry out the research in the organisation and for the expected respondents
to participate in filling out the questionnaire. For questionnaires given on the spot, a brief explanation of the study was given to the respondents so as to demonstrate the purpose of the study and how the data was used. This alleviated suspicion. Each of the respondents was required to fill in the questionnaires to the best of their ability and accuracy. It was made clear to the respondents that the questionnaire was kept confidential and since the research was centred on the organisation it may be necessary to sign non-disclosure agreements or confidentiality agreement if management sees it necessary. Some of the questionnaires were delivered to the respondents over a period of ten working days. This was for the members of staff working in Electricity House who were reached physically. While for the others who are located in Stima Plaza, the questionnaire was sent to the emails of the respective member of staff and this was followed up by a phone call explaining what is required.

3.6 Data Analysis Methods
After the collection of all the questionnaires, the data was edited and corrections made. The data was validated by communicating with some of the respondents where necessary and possible. Coding of the responses was then done so as to limit the number of categories and facilitate data analysis. The responses to every question were tabulated. The data collected was analysed using the computer subprograms in the Statistical Package for Social Sciences (SPSS). From SPSS and Microsoft Excel, spread sheet summary statistics was obtained. A quantitative approach of data analysis was used where descriptive statistics were used and data presented in frequency distribution tables and figures. Descriptive statistics are used to describe the basic features of the data in a study. They provided simple summaries about the sample and the measures. Together with simple graphic analysis, they form the basis of virtually every quantitative analysis of data (Trochim and Donelly, 2008). Inferential statistics was also used in the data analysis to provide further insight on the relation between technology, strategy and organisational success. Under inferential statistic, techniques such as chi square and regression analysis were used to elaborate on the findings.

3.7 Chapter Summary
This chapter has detailed the specifics going into data collection and analysis in order to achieve suitable findings and conclusions. It has examined the research design which has provided the general overview of the research methods used, population size, sample frame, sampling method and actual sample size, data collection methods including the
design process and research procedures and finally data analysis methods to ensure correct assumptions have been followed and describe any theoretical basis if any. The fourth chapter documented the findings of the research undertaken using the stated data analysis tools and software whereas the fifth chapter of this study gave recommendations based on the findings and the problem statement given.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter presents the results and findings of the study based on the research questions with regards to the data collected from the respondents. The first section covers the general information with respect to the respondents. The second section deals with information regarding management of technology within the organisation. The third section looks at the influence of technology on strategy in departments where technology is at the core of the operations. The final section looks at the influence of technology on strategy in departments where technology just supports the operations and is not core. The target respondents were one hundred (100) from a population of one thousand one hundred and twenty four (1,124) members of staff working for Kenya Power within Nairobi based at Electricity House and Stima Plaza. The response was good as 76 responded giving a response rate of 76%. This was a good response because it was representative of the entire population.

4.2 General Information of the Respondents

This section offers the background information with regards to the respondents’ gender, position or level in the organization, number of years in employment, as well as the level of education among other things. This was put into consideration because of the meaningful contribution it offers to the study as the variables help to provide the logic behind the responses given by the respective respondents.

4.2.1 Distribution of the Respondents by Gender

The respondents were first asked to indicate their gender on the questionnaire. The study found that 72% of the respondents were male while 28% of the respondents were female. The findings are presented in figure 4.1.
4.2.2 Distribution of Respondents by Age Group
The respondents were then asked to answer which age group they belonged to. The results are represented in figure 4.2 below.

4.2.3 Distribution of Respondents by Position in the Organisation
The respondents were then asked to indicate their positions in the organization. The findings revealed that 24% of the respondents were in Top management positions, 26% were in Middle management positions, 24% were in Lower management position and 26% were in the Union positions. The distribution of the respondents in terms of their
Position in the organization was to show the inclusive nature of the study in that employees at the different level of management in the organization formed part of the study. The findings are presented in figure 4.3.

![Distribution of Respondents by Management Levels](image)

**Figure 4.3: Distribution of Respondents by Management Level**

4.2.4 **Distribution of Respondents by Duration of Time in the Current Position**

The respondents were then asked how long they had been in their current position. Through this question, it can to some extent be ascertained the competence of the respondents since promotions are merit based and the longer an employee is in a certain position means they have not performed well enough to deserve to be promoted. This determination of competence indicates to the researcher how discerning the respondents are when it comes to matters technology in the organisation. The results are presented in the figure 4.4.

![Distribution of Respondents by Duration in Current Position](image)
4.2.5 Distribution of Respondents by Number of Years Worked in the Organisation
The respondents were then asked about the duration of time they had worked for the organisation. This question served to inform the researcher about the familiarity of the respondents regarding company working procedures and hence whether they would be in a good position to comment on technology within the organisation. The results indicated that only 5% had been in the organisation for between 1 – 5 years. 95% had been in the organisation for more than 5 years. The distribution is shown in the figure 4.5.

Figure 4.5: Distribution of Respondents by Duration Worked in the Organisation

4.2.6 Distribution of Respondents by Academic Qualification
Respondents were then asked to indicate the highest level of academic qualification that they have achieved. This question informed the researcher about the level of competence of the respondents which in turn indicated their level of perception when interpreting and answering the questionnaire. Figure 4.6 showed this distribution.
4.2.7 Distribution of Respondents by Department in which they Work

The respondents were then asked to answer which department they currently worked for in the organisation. This question served to indicate that the research was carried out across the board and did not only focus on certain departments. The results are shown in Table 4.1.

Table 4.1: Distribution of Respondents by Department Worked in.

<table>
<thead>
<tr>
<th>No.</th>
<th>Department</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Operation and Maintenance</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Design and Construction</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>Information and Communication Technology</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>Transmission</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>Supply Chain</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Human Resource and Administration</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Internal Audit</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Finance</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>Customer Service</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>Legal and Corporate</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>Regional Coordination</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>Business Strategy</td>
<td>3</td>
</tr>
</tbody>
</table>

4.2.8 Distribution of Respondents by Whether they are Technical or Not Technical

The respondents were asked to answer whether they were technical or not in relation to the work they do. This question served to show that not only technical employees were targeted in this research but also the non-technical ones as both types of employees
interact with each other in accomplishing the overall goal and would therefore have an idea about the different natures of the work. Figure 4.7 shows this distribution.

![Distribution of Employees by Whether they are Technical or Non-Technical](image)

**Figure 4.7:** Distribution of Respondents by Whether they are Technical or Non-Technical

### 4.3 The Importance of Management of Technology in Developing Good Strategies for the Overall Success of the Organisation

The first objective of the research was to determine the importance of management of technology to the development of good strategies that contribute to the success of the organisation. In this section, an attempt was made to achieve this objective through descriptive statistics based on the responses received.

To determine the importance of management of technology in developing good strategies for organisational success, the respondents were asked to indicate the level of agreement with different statements with regard to their organisation. This was tested on a five point Likert scale where 1 represented “Strongly Disagree”, 2 represented “Disagree”, 3 represented “Neutral”, 4 represented “Agree” and 5 represented “Strongly Agree”.

Using SPSS to carry out the analysis, the different levels of agreement were coded based on the five point Likert scale. Since Likert scale data is ordinal data, the mean, mode, median and range for the responses obtained from the respondents was calculated for the different questions. The table 4.2 summarises the results for the different questions in this section.
Table 4.2: Importance of Management of Technology to Good Strategies and Organisational Success

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management of technology takes place in the organisation.</td>
<td>76</td>
<td>4.38</td>
<td>4.00</td>
<td>4.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Management of technology forms a part of Strategy formulation.</td>
<td>76</td>
<td>3.70</td>
<td>4.00</td>
<td>4.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Management of technology has been effective in implementing the technology part of strategy.</td>
<td>76</td>
<td>4.21</td>
<td>4.00</td>
<td>4.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Management of technology has contributed to the proper evaluation of technology once they are implemented.</td>
<td>76</td>
<td>3.93</td>
<td>4.00</td>
<td>4.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Management of technology has contributed to the success of the organisation.</td>
<td>76</td>
<td>3.96</td>
<td>4.00</td>
<td>4.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Environmental analysis is carried out to ensure that technologies fit in environments they are to be deployed.</td>
<td>76</td>
<td>3.47</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Proper evaluation and assessment of technology takes place before purchase.</td>
<td>76</td>
<td>4.51</td>
<td>5.00</td>
<td>5.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Technology implementation is systematic, controlled and has a direct connection to strategic objectives.</td>
<td>76</td>
<td>4.08</td>
<td>4.00</td>
<td>4.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Evaluation takes place to ensure the desired benefits of the technology are being realised.</td>
<td>76</td>
<td>3.41</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Managers are well aware of the need to manage technology and its implementation.</td>
<td>76</td>
<td>4.17</td>
<td>4.00</td>
<td>4.00</td>
<td>3.00</td>
</tr>
</tbody>
</table>

Table 4.2 illustrates the effect of management of technology on good strategies and overall organisational success. From the findings, management of technology takes place in the organisation and forms a part of strategy formulation. Additionally, the majority of the respondents agreed that management of technology has been effective in implementing technology in the organisation and the evaluation of that technology once it has been implemented to ensure that the intended benefits of the said technology are being realised. This is very important as it ensures technology is not deployed for its own sake but has to be seen to fulfil objectives that tie in with the strategy of the organisation as a whole. This leads to the success of different departments and consequently the success of the whole organisation. Consequently, most of the respondents agreed that management of technology contributed to the success of the organisation.
One of the drawbacks that were identified from the findings was the fact that environmental analysis did not strongly feature under management of technology. Most of the respondents could neither agree nor disagree with the fact that environmental analysis took place to determine the fit of technologies in the environments they were to be deployed. This is not tenable especially in an organisation where technology is the main business. Without a proper environmental analysis, technology could be deployed and end up not benefitting the organisation as it does not fit in the environment it was deployed.

This drawback closely ties in with the fact that respondents were not sure whether evaluation of deployed technologies took place to determine whether the intended benefits were being realised. This is another drawback identified by statement number nine in this section. Evaluation is a very important step in the deployment of technology as it ensures that the intended objectives that necessitated the obtainment of that technology are realised. It is important to carry out the evaluation exercise to determine what more can be done to facilitate the full realisation of the objectives.

It is worth noting that the respondents identified the fact that proper evaluation and assessment of technologies takes place before they are purchased. This is due to the rigorous purchase process that takes place within the organisation with committees set up to ensure the organisation purchases high quality products.

Also worth noting is that the respondents were also in agreement technology implementation is systematic, controlled and has a direct connection to strategic objectives. This is very important because the technology will be implemented as intended and will go towards achieving the strategic objectives it was set up to achieve.

Another important finding is the fact that the respondents agreed managers were well aware of the need to manage technology and its implementation. With this knowledge, the implementation process can be well guided which translates to the realisation of the benefits of that technology and overall success of the organisation.

Using the findings, a correlation analysis was done to determine if there is a relationship between management of technology, strategy and organisation success. Two variables were computed from the findings of this section to represent the two main variables
which are management of technology vis-à-vis good strategies. Based on this, a correlation of the two variables was done. Table 4.3 shows the results.

**Table 4.3: Correlation of Management of Technology vis-à-vis Good Strategies**

<table>
<thead>
<tr>
<th></th>
<th>Management of Tech</th>
<th>Good Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman's rho</td>
<td>Management of Tech</td>
<td>Correlation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Good Strategies Correlation</td>
<td></td>
<td>.478**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

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

From the Table 4.3, Management of technology and good strategies have a fairly strong positive correlation (r = 0.478, p < 0.01). This means that the better the department/organisation manages technology the better the strategies that will be developed as a result of this. Good management of technology translates to identification of both good and bad practices that will be captured to inform the strategy formulation process for the department/organisation. This will result in good strategies that will propel the success of the department or organisation.

Using SPSS, a regression with the two variables computed was done. Table 4.4 shows the R-squared value.

**Table 4.4: R-Squared Value for Management of Tech vs. Good Strategies**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.495a</td>
<td>.245</td>
<td>.235</td>
<td>.26750</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Management of Tech
The R-squared value indicates the percentage of the response variable variation that is explained by a linear model. In this case the R-squared value is 24.5%. This means that 24.5% of the variability of the variable response can be explained by the linear regression model that was developed.

From the regression calculation, an equation was developed from the two variables, management of tech and good strategies. Table 4.5 shows the coefficients of this equation.

Table 4.5: Coefficients of Regression of Management of Tech vs. Good Strategies

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.318</td>
<td>7.483</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Management of Tech</td>
<td>.078</td>
<td>.495</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Good Strategies

From the table 4.5, the equation below was derived,

**Good Strategies = 2.378 + 0.384 Management of Technology**

This goes to show that management of technology influences good strategies by a factor of 0.384. This is significant and therefore the more the management of technology is improved, the more improved/better formulation of good strategies is realised.

4.4 The Effect of Technology on the Strategy of Departments where Technology is at the Core of Operations

The second objective of the research was to determine the effect of technology on the strategy in departments where technology is at the core of its operations and how this influences departmental and organisational success. In this section, the study attempted to achieve this objective through descriptive statistics based on the responses received.

To determine the importance of management of technology in developing good strategies for organisational success, the respondents were asked to indicate the level of agreement with different statements with regard to their organisation. This was tested on a five point
Likert scale where 1 represented “Strongly Disagree”, 2 represented “Disagree”, 3 represented “Neutral”, 4 represented “Agree” and 5 represented “Strongly Agree”.

Using SPSS to carry out the analysis, the different levels of agreement were coded based on the five point Likert scale. Since Likert scale data is ordinal data, the mean, mode, median and range for the responses obtained from the respondents was calculated for the different questions. The table 4.6 summarises the results for the different questions in this section.

**Table 4.6: The Effect of Technology on the Strategy of Departments where Technology is Core**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>The department makes strategic plans every financial year.</td>
<td>76</td>
<td>4.80</td>
<td>5.00</td>
<td>5.00</td>
<td>1.00</td>
</tr>
<tr>
<td>The strategic plans have contributed to the success of the department.</td>
<td>76</td>
<td>4.47</td>
<td>4.00</td>
<td>4.00</td>
<td>1.00</td>
</tr>
<tr>
<td>The strategy implementation process is systematic and effective.</td>
<td>76</td>
<td>3.51</td>
<td>3.00</td>
<td>3.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Strategy evaluation takes place to ensure the intended benefits have been attained.</td>
<td>76</td>
<td>3.80</td>
<td>4.00</td>
<td>4.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Technology is a major part of the departmental operations.</td>
<td>76</td>
<td>4.84</td>
<td>5.00</td>
<td>5.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Managers and supervisors are well aware of the importance of technology in departmental operations.</td>
<td>76</td>
<td>4.18</td>
<td>4.00</td>
<td>4.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Technology has had an impact on the strategy of the department.</td>
<td>76</td>
<td>4.38</td>
<td>4.00</td>
<td>4.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Technology has been deployed successfully in major operations.</td>
<td>76</td>
<td>4.24</td>
<td>4.00</td>
<td>4.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Strategic application of technology has led to organisational success.</td>
<td>76</td>
<td>3.33</td>
<td>3.00</td>
<td>3.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Every financial year technology is a factor in the strategic planning process.</td>
<td>76</td>
<td>3.91</td>
<td>4.00</td>
<td>4.00</td>
<td>2.00</td>
</tr>
</tbody>
</table>

The first statement the respondents were asked to rate based on the Likert scale was whether the department made strategic plans every year. A large majority of the respondents strongly agreed to the statement showing that matters strategy were seriously considered in the technical departments. Strategies were formulated for every financial year and these formed the short term strategies that would be designed to eventual accomplish the long term strategies.
The statement that most of the respondents also agreed to was whether the strategic plans had contributed to the success of the department. Strategic plans of the department were geared towards meeting objectives that translated to the realisation of the overall strategic plans of the organisation. Therefore this resulted in the success of the department as it contributed to the success of the organisation through the realisation of these strategic plans.

Respondents were also asked to rate the statement regarding how strategy was implemented and whether it was systematic and effective. Strategy is usually broken down to objectives and work plans which when executed lead to the structured and effective implementation of these strategic plans. Unfortunately, from the response of the respondents, the findings indicated that a large majority of the respondents neither agreed nor disagreed with the statement indicating that there was a feeling of uncertainty when it came to this implementation process. This is a serious drawback because in order for the organisation to realise the full benefits of the strategies that are formulated, the plans must be implemented systematically and effectively.

The respondents were asked to rate the statement strategy evaluation takes place to ensure the intended benefits have been attained. When formulating strategy, it is not certain that the intended benefits that are envisioned will be attained once all the action plans have been put in place. It is therefore important for an evaluation exercise to be conducted after in order to determine whether indeed these benefits have been realised. This serves as a sort of check to ensure that strategy is not being formulated for its own sake but it actually translates to real benefits for the department and the organisation as a whole.

In this section, there was also the statement regarding technology being a major part of the departmental operations. In response to this statement, most of the respondents strongly agreed to this considering this section was looking at departments in which technology was at the core of the operations.

The respondents were then asked to what level they agreed with the statement that managers and supervisors were well aware of the importance of technology in departmental operations. Most of the respondents agreed to the statement which was a good indication that the management in these departments where technology is core had the requisite knowledge to ensure that they took technology matters seriously and were well equipped to handle them. This is very critical for the success of the implementation
of technology as support from management is one of the important factors that can only come from a realisation of the importance of technology by the management team.

The respondents were then asked about the level to which they agreed with the statement that technology had had an impact on the strategy of the department. Most of the respondents agreed to this statement due to the fact that the departments of concern were technical departments and therefore any developments in technology would affect any future strategic plans that they would make. This is another critical aspect to strategy in technical departments as it determines whether the strategy will be successful or not based on the current technologies available in that field.

The respondents were then asked to determine the level to which they agreed with the statement that technology had been deployed successfully in major operations. A large majority of the respondents agreed to the statement indicating that the respondents from the different management levels perceived the deployment of technology within the organisation as a success. This is very critical especially in the attainment of strategies that were pegged on the successful deployment of technology.

Still in the section, respondents were asked to rate in terms of their level of agreement whether strategic application of technology had led to organisational success. Technology should not be implemented for its own sake. It is because of certain goals and objectives that technology is deployed. These goals and objectives tie in with the strategic plans of the organisation as a whole. It is however unfortunate that from the findings, most of the respondents gave in a neutral response when it came to this statement. This meant that the respondents from the different management levels were unsure of whether the strategic application of technology had actually led to organisation success. This is not a positive situation as it is imperative that management sees the connection between strategic deployment of technology and organisational success. If it is not clear how technology has contributed to organisation success then this can be taken to mean that money has been lost in this regard as the technology was being deployed.

The respondents were then asked to address the level to which they agreed with the statement that every financial year technology is a part of the strategic planning process. In departments where technology is at the core of operations, it is important for management to take it seriously during the strategic planning process. Identification of the right technology when formulating strategy can propel the organisation to great
heights. From the findings, it is positive to note that most of the respondents agreed to the fact that technology was a part of the strategic planning process in the department. This is very important as it shows that management recognise the fact that technology plays a critical role in strategy planning and formulation.

The study sought to find out if there is a correlation between technology in departments where tech is core and strategy in departments where tech is core. Using SPSS, two variables were computed from the findings of this section to represent the two main variables which are technology in departments where tech is core vis-à-vis Strategy in departments where technology is core. Based on this a correlation of the two variables was done. Table 4.4.2 shows the results.

**Table 4.7: Correlation of Technology in Departments where it is Core vis-à-vis Strategy where Technology is Core**

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Strategy Core</th>
<th>Tech Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman's rho</td>
<td>Correlation Coefficient</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>76</td>
</tr>
<tr>
<td>Tech Core</td>
<td>Correlation Coefficient</td>
<td>.140</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.228</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>76</td>
</tr>
</tbody>
</table>

From the Table 4.7, there is no correlation between technology in departments where tech is core and strategy in departments where tech is core \((r = 0.14)\). This lack of correlation could be interpreted to mean that the strategy of departments where tech is core is more management oriented and not really focused on the technology part. This could supported by the fact that there is a correlation between the management of technology as a variable and strategy in departments where tech is core as another variable \((r = 0.230, p < 0.05)\). Furthermore there is also a correlation between management of technology and technology in departments where tech is core \((r = 0.577, p < 0.01)\). This can be explained by saying that technology in the departments where tech is core influences management of technology which in turn influences the strategy in departments where tech is core. Hence the strategy in these departments is more management oriented as opposed to
being tech oriented. These correlations are indicated in Table 4.12 in the section 4.6 Correlation Matrix.

4.5 The Effect of Technology on the Strategy of Departments where Technology Performs a Support Role

The third objective of the research was to determine the effect of technology on the strategy in departments where technology simply supports its operations and how this influences departmental and organisational success. In this section, the study attempted to achieve this objective through descriptive statistics based on the responses received.

To determine the importance of management of technology in developing good strategies for organisational success, the respondents were asked to indicate the level of agreement with different statements with regard to their organisation. This was tested on a five point Likert scale where 1 represented “Strongly Disagree”, 2 represented “Disagree”, 3 represented “Neutral”, 4 represented “Agree” and 5 represented “Strongly Agree”.

Using SPSS to carry out the analysis, the different levels of agreement were coded based on the five point Likert scale. Since Likert scale data is ordinal data, the mean, mode, median and range for the responses obtained from the respondents was calculated for the different questions. The table 4.8 summarises the results for the different questions in this section.

Table 4.8: The Effect of Technology on the Strategy of Departments where Technology Performs a Support Role
The department makes strategic plans every financial year.  

- **N**: 76  
- **Mean**: 4.54  
- **Median**: 5.00  
- **Mode**: 5.00  
- **Range**: 1.00

The department has been successful and contributed to the overall success of the organisation.  

- **N**: 76  
- **Mean**: 4.38  
- **Median**: 4.00  
- **Mode**: 5.00  
- **Range**: 2.00

Strategic plans have contributed to the success of the department.  

- **N**: 76  
- **Mean**: 4.43  
- **Median**: 4.00  
- **Mode**: 4.00  
- **Range**: 2.00

Strategic plans take into consideration the influence of technology.  

- **N**: 76  
- **Mean**: 3.09  
- **Median**: 3.00  
- **Mode**: 3.00  
- **Range**: 3.00

Technology simply facilitates but is not a core part of the operations.  

- **N**: 76  
- **Mean**: 4.82  
- **Median**: 5.00  
- **Mode**: 5.00  
- **Range**: 1.00

Technology has had an impact on the strategy and performance of the department.  

- **N**: 76  
- **Mean**: 4.03  
- **Median**: 4.00  
- **Mode**: 4.00  
- **Range**: 2.00

Managers are well aware of the role technology plays in their departments and plan accordingly.  

- **N**: 76  
- **Mean**: 3.91  
- **Median**: 4.00  
- **Mode**: 4.00  
- **Range**: 3.00

Technology has been deployed successfully in the department.  

- **N**: 76  
- **Mean**: 4.17  
- **Median**: 4.00  
- **Mode**: 4.00  
- **Range**: 2.00

Throughput of the department has increased with the deployment of technology.  

- **N**: 76  
- **Mean**: 3.95  
- **Median**: 4.00  
- **Mode**: 4.00  
- **Range**: 3.00

With the department not being technical, there has been good acceptance of technology by the members of staff.  

- **N**: 76  
- **Mean**: 3.26  
- **Median**: 3.00  
- **Mode**: 3.00  
- **Range**: 2.00

When it comes to departments where technology performs a support role, the respondents were presented with a number of statements from which they were asked to indicate their level of agreement based on the Likert scale.

The first statement the respondents were asked to indicate their level of agreement was whether the department makes strategic plans every year. Most of the respondents strongly agreed to this statement with little variation as indicated by the range which is one. This is very positive as strategic plans are a road map that the department wants to follow for that year in order to achieve success. The strategic plans are also tied to the strategic plans of the organisation as a whole in order to translate to organisation success.

The respondents were then asked to indicate their level of agreement with the statement about whether the department had been successful and contributed to the success of the organisation. Most of the respondents indicated that the department had been successful and contributed to the success of the organisation as indicated by the mode of 5 and the median of 4. The range in this case was 2 meaning that there were some respondents that were not sure whether the department had been a success. For most of the respondents to
indicate that the department had been a success is very positive as it goes to show that the strategies put in place have been sound and ensured the success of the department.

The respondents were asked to rate in terms of level of agreement with the statement about whether the strategies had contributed to the success of the department. This statement ties in with the previous one about departmental success and eventual organisation success. Good strategies contribute to the success of departments and organisations as a whole. From the findings, most of the respondents agreed that the strategies had contributed to the success of the department. This is shown by a median and mode of 4. This statement serves to show that the success of a department is not accidental but is as a result of well thought out plans that are in form of strategies for the department. Good strategies are therefore very important.

Respondents were then asked to indicate their level of agreement with the statement that strategic plans take into consideration the influence of technology. Most of the respondents indicated that they neither agreed nor disagreed with this statement. The fact that the departments in consideration here are not technical departments where any technology deployed is simply for support purposes is thought to have influenced this response from the respondents. The median and mode of the responses was 3 in each case which was the neutral response. Technology has some influence in these departments but not as much as departments in which technology is at the core of its operations.

The respondents were then asked to determine their level of agreement with the statement that technology in these departments is not a core part of the operations. Most of the respondents agreed strongly with these statement because being non-technical departments, technology would simply makes the operations smoother. The department would still be able to perform albeit less efficiently if this technology was unavailable. Hence the response from the participants in the study with median and mode both being 5 and a range of 1 meaning the responses to this statement did not vary significantly.

The respondents were then asked to rate in terms of level of agreement with the statement about whether technology had had an impact on strategy and performance of the department. The findings were median and mode of 4. This means that most of the respondents just agreed that technology did have an impact on strategy and performance. Technology deployed in these non-technical departments simply facilitated the efficient running of operations but was not at the core of the operations. This efficiency translated
to better performance from the department when compared to the situation where the technology was not available. Additionally when coming up with strategy for the department it is important for management to consider technology that will make the operations more effective and efficient. This is the influence that was noted by the respondents.

The respondents were then asked to rate the level of agreement with the statement that managers were well aware of the role technology played in their departments and planned accordingly. Most of the respondents agreed with this statement with the median and mode in both cases being 4. This was a positive outcome as it indicated that managers were aware of matters technology despite the fact that the departments in which they were in charge were non-technical departments. Notwithstanding the non-technicality of the departments, it is important to note that technology makes the operations more efficient hence the department performs better.

The respondents were then asked to rate whether technology had been deployed successfully in the department. The findings were that the respondents agreed to this statement with the median and the mode for both of them being 4. Successful deployment of technology meant that the operations of the department were made more efficient and the performance of the department was good. This statement ties in with the earlier statement that said the department was successful and contributed to the success of the organisation. Most of the respondents also agreed with this statement showing how the two are tied together.

Respondents were then asked to what extent they agreed with the statement that the throughput of the department had increased with the deployment of technology. Most of the respondents agreed to this statement with the median and mode being 4. Technology increased the efficiency of operations in these non-technical departments which translated to an increase in the throughput. Therefore, despite not being core to their operations, technology made these departments perform better.

Still in this section, respondents were asked to rate the statement whether there had been good acceptance of technology by the members of staff despite the department not being technical. The findings indicated that most of the respondents neither agreed nor disagreed with this statement. They were neutral about it with the median and mode in both cases being 3. This meant that the respondents considering non-technical
departments could not conclusively decide if the staff accepted the technology or not. This is probably because they must have encountered mixed cases of acceptance where there was good acceptance and poor acceptance of the technology.

Further to this, the correlation between technology, strategy and departmental performance in departments where tech is support can be obtained. Using SPSS, two variables were computed from the findings of this section to represent the two main variables which are technology in departments where tech is support vis-à-vis Strategy in departments where tech is support. Based on this a correlation of the two variables was done. Table 4.9 shows the results.

**Table 4.9: Correlation of Technology in Departments where Tech is Support vis-à-vis Strategy where Technology is Support**

<table>
<thead>
<tr>
<th></th>
<th>Strategy Support</th>
<th>Tech Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman's rho</td>
<td>1.000</td>
<td>.374**</td>
</tr>
<tr>
<td></td>
<td>(.001)</td>
<td>(.001)</td>
</tr>
<tr>
<td>N</td>
<td>76</td>
<td>76</td>
</tr>
</tbody>
</table>

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

From Table 4.9, there is a positive correlation between technology in departments where tech is support and strategy in departments where tech is support (r = 0.374, p < 0.01). This could be interpreted to mean that since technology is not a mainstay feature of the strategy in departments where tech is support, it has a strong influence on the strategies of these departments. Therefore it is important to pay close attention to technology when developing strategy in these departments.

Using SPSS, a regression was done with the two variables computed. Table 4.10 shows the R-squared value.
Table 4.10: R-Squared value for Strategy Support vs. Technology Support

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.437^a</td>
<td>.191</td>
<td>.180</td>
<td>.30551</td>
</tr>
</tbody>
</table>

The R-squared value indicates the percentage of the response variable variation that is explained by a linear model. In this case the R-squared value is 19.1%. This means that 19.1% of the variability of the variable response can be explained by the linear regression model that was developed.

From the regression calculation, an equation was developed from the two variables, Tech Support and Strategy Support. Table 4.11 shows the coefficients of this equation.

Table 4.11: Coefficients of Regression of Tech Support vs. Strategy Support

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>1.958</td>
<td>.507</td>
<td>3.861</td>
<td>.000</td>
</tr>
<tr>
<td>Tech Support</td>
<td>.523</td>
<td>.125</td>
<td>.437</td>
<td>4.178</td>
</tr>
</tbody>
</table>

From the table 4.11, the equation below is derived,

**Strategy Support = 1.958 + 0.523 Tech Support**

This goes to show that technology in departments where tech is support influences Strategy in departments where tech is support by a factor of 0.523. This is very significant in that technology in departments where tech is support has big influence on the strategy of those departments. It is therefore imperative that those involved in strategy formulation pay close attention to technology in order for the department to be competitive and successful.
4.6 Summary of Correlations

The table 4.12 below shows the correlations between the variables computed using Spearman’s Rho coefficient in SPSS based on the questionnaire.

**Table 4.12: Correlation Matrix Showing Possible Correlations between the Six Variables Computed using SPSS**

<table>
<thead>
<tr>
<th>Spearman’s rho</th>
<th>Management of Tech</th>
<th>Good Strategies</th>
<th>Strategy Core</th>
<th>Tech Core</th>
<th>Strategy Support</th>
<th>Tech Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management of Tech Correlation Coefficient</td>
<td>1.000</td>
<td>.478**</td>
<td>.230</td>
<td>.577**</td>
<td>.710**</td>
<td>.293</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>.000</td>
<td>.046</td>
<td>.000</td>
<td>.000</td>
<td>.100</td>
</tr>
<tr>
<td>N</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
</tr>
<tr>
<td>Good Strategies Correlation Coefficient</td>
<td>.478**</td>
<td>1.000</td>
<td>.050</td>
<td>.505**</td>
<td>.405**</td>
<td>.415**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.</td>
<td>.669</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
</tr>
<tr>
<td>Strategy Core Correlation Coefficient</td>
<td>.230*</td>
<td>.050</td>
<td>1.000</td>
<td>.140</td>
<td>.278*</td>
<td>-.092</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.046</td>
<td>.669</td>
<td>.</td>
<td>.228</td>
<td>.015</td>
<td>.430</td>
</tr>
<tr>
<td>N</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
</tr>
<tr>
<td>Tech Core Correlation Coefficient</td>
<td>.577**</td>
<td>.505**</td>
<td>.140</td>
<td>1.000</td>
<td>.511**</td>
<td>.277</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.228</td>
<td>.</td>
<td>.000</td>
<td>.015</td>
</tr>
<tr>
<td>N</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
</tr>
<tr>
<td>Strategy Support Correlation Coefficient</td>
<td>.710**</td>
<td>.405**</td>
<td>.278*</td>
<td>.511**</td>
<td>1.000</td>
<td>.374**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.015</td>
<td>.000</td>
<td>.</td>
<td>.001</td>
</tr>
<tr>
<td>N</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
</tr>
<tr>
<td>Tech Support Correlation Coefficient</td>
<td>.293*</td>
<td>.415**</td>
<td>-.092</td>
<td>.277</td>
<td>.374**</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.010</td>
<td>.000</td>
<td>.430</td>
<td>.015</td>
<td>.001</td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>76</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.05 level (2-tailed).**  
**. Correlation is significant at the 0.01 level (2-tailed).**

From Table 4.12 above, several correlations can be identified. Looking at the variable management of technology, there is a positive correlation to the strategy in departments where tech is core ($r = 0.230$, $p <0.05$). This shows that management of technology which took place in the organisation influenced the strategy of departments where tech is core. It is also seen to influence the strategy of departments where tech is support as seen by their correlation ($r = 0.710$, $p < 0.01$). Therefore, with better or improved management of technology, better strategies were developed in both types of departments.
Additionally, it is also important to note that there is a correlation between management of technology and the technology in departments where tech is core (r = 0.577, p < 0.01) and also where tech is support (r = 0.293, p < 0.05). The correlation is positive in both cases. This means that the better the management of technology practise, the better the technology aspects in both these departments.

With the variable good strategies in mind, it correlates to several other variables. Good strategies have a positive correlation to technology in departments where tech is core (r = 0.505, p < 0.01). There is also a positive correlation between good strategies and technology where tech is support (r = 0.415, p < 0.01). This positive correlation in both cases can be interpreted to mean that good strategies are a result of careful attention to technology both in departments where technology is core and also in departments where it is support.

4.7 Chapter Summary

In this chapter the focus was on the analysis and presentation of findings from the data collected using the questionnaire that was prepared as the method of data collection. From the findings a connection between technology, strategy and departmental/organisation success was established. This was further elaborated on in chapter five that followed as a discussion of the findings was done and conclusions drawn from this. Recommendations were also made as part of this chapter.
CHAPTER FIVE

5.0 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
In this chapter, there are four sections: summary, discussions, conclusions and recommendations in that order. The first section as indicated is a presentation of the salient elements of the study which included the study objectives, methodology of carrying out the study as well as the findings obtained from the study. The second section discusses the major findings of the study against the backdrop of the specific objectives of the study. The section that follows will present the conclusions based on the specific objectives using the findings and results to back up these conclusions. The final section provides the recommendations with reference to the specific objectives of the study. It will additionally touch on recommendations for further studies that can be taken up as a result of this research.

5.2 Summary
The main purpose of the study was to examine the influence of technology on strategy and eventual departmental/organisation success. The study was guided by the following research questions: What is the importance of management of technology in developing good strategies for the overall success of the organisation? How does technology influence the strategy of departments where technology is at the core of its operations and its effect on organisational success? How does technology influence the strategy of support departments where technology facilitates or supports operations and its effect on organisational success?

The research design that was used to carry out the study was descriptive in nature and focussed on the Kenya Power Nairobi office in its data collection. Stratified sampling was used to determine the sample size. One hundred respondents from the different management levels of top, middle, lower and union were chosen as the sample size. Out of the one hundred questionnaires issued out seventy-six questionnaires were returned giving a response rate of 76%. The information was collected using a questionnaire developed by the researcher to cover all the salient areas of this study. The data collected
was analysed using both statistical package for social sciences (SPSS) and Excel. The results were presented using tables and figures for ease of interpretation by the researcher.

On the importance of management of technology in developing good strategies for the success of the organisation, the study determined that the respondents agreed that management of technology had a significant influence on strategy. This was more pronounced for the strategy of technical departments but also influenced that of non-technical departments.

Additionally, there is a fairly strong correlation between management of technology and good strategies ($r = 0.478$, $p < 0.01$). This indicated to the researcher that good management of technology practices resulted in good strategies that propelled the success of the organisation.

Regarding the influence of technology on strategy in departments where technology is at the core of the operations, the research found that technology had a minimal impact on the strategy of these departments. However, technology had a significant influence on the management of technology which in turn influenced the strategy of the departments where technology is core. This goes to show that the strategy of these departments is more management oriented and focused on managing this technology. Furthermore, being technology driven, any negligence or incompetence on the part of management in coming up with strategy that takes this into consideration will have adverse effects on the eventual performance of the department (Antoniou and Ansoff, 2007). Fortunately however, most of the respondents agreed that management was well aware of the influence of good management of technology practices on strategy and took this into consideration.

On the influence of technology on strategy in departments where technology simply supports the operations, most of the respondents agreed that these departments were not totally immune to technology but were not wholly dependent on it. Respondents agreed to the statement “Technology has had an impact on the strategy and performance of the department” indicates that technology did indeed have an impact. The majority of the respondents also agreed that the throughput of the department had increased with the deployment of technology. Furthermore, there is as strong correlation between technology in departments where tech is support and the strategy of those departments. This shows
that the impact of technology had been felt through increased efficiency of the department hence better throughput and organisational success.

5.3 Discussions
In this section, a presentation of the discussion with the research objectives in mind is done. The research findings are tied in with the literature review that was initially presented.

5.3.1 The Importance of Management of Technology in Developing Good Strategies for the Overall Success of the Organisation.
The study findings on the importance of management of technology in developing good strategies for the success of the organisation revealed that it is imperative that management of technology takes place to realise the full benefits of the said technology. Management of technology takes place in the organisation as indicated by the results of the study. It is also said to form a part of strategy formulation showing the effect it has on strategic plans as changes in technology and how it is managed will have an influence on strategy formulation. Furthermore, the strong correlation between management of technology and good strategies \((r = 0.478, p < 0.01)\) further adds to the fact that management of technology is very critical to the development of good strategies.

From the findings, several aspects come to the fore when it comes to management of technology. A good environmental analysis must take place in order to ensure that the technology to be adopted fits into that environment (Dasgupta, Gupta and Sahay, 2011). Additionally the technology must be able to withstand the dynamism of that environment and still be relevant. The environment is constantly changing with various factors influencing the dynamism (Korosec, 2006). With this knowledge in mind, technology that would fit in this environment is then sought after. This fit between the environment and technology is very critical in order to realise the benefits of the said technology for both the department and the organisation as a whole (Thamhain, 2013).

Management of technology makes certain that proper evaluation of technology takes place before the technology is purchased. This is done against the backdrop of the conditions in the environment that were identified during the environmental analysis stage (White and Bruton, 2011). Different technologies are compared against each other and to the need of the organisation in a bid to determine which one of them is the best
technology. The individuals who carry out this exercise must be skilled and highly knowledgeable in order for the foreseen benefits to be realised.

Management of technology through the strategies adopted by the organisation has facilitated the systematic and controlled implementation of technology. The process of technology implementation must be orderly and controlled. Haphazard implementation will lead to poor gains from the technology which will fall short of the perceived benefits that were initially intended (White and Bruton, 2011).

Technology should not just be installed and used without a future review of whether the benefits of that technology are being realised (Thamhain, 2013). Upon conceptualisation of the idea that a certain technology can be deployed to solve a problem or even improve efficiency, this should be done knowing that some of the intended benefits to be accrued from this technology may not be realised due to several factors. The environment as has been mentioned earlier is one of the determining factors when it comes to realising the benefits of technology. There has to be a good fit between the technology and the environment it has been deployed (Rajasekar, 2014). Acceptance of the technology by those it is meant to benefit is another factor among several others factors. It is therefore very important that after a defined period, once an initial study of the technology has been done and it has been deployed, a review should be done of whether the benefits initially thought of have been realised. This will then inform what actions need to be taken to ensure the benefits are realised.

It is also worth noting that management of technology also has a correlation with strategy in departments where tech is core (r = 0.230, p < 0.05). This means that management of technology influences the strategy of these departments. Furthermore, the same applies to strategy in departments where tech is support (r = 0.710, p < 0.01). Management of technology also influences the technology in departments where tech is core (r = 0.577, p < 0.01). Therefore, technology in these departments must conform to the objectives and principles set out by management of technology. The same applies to technology in departments where tech is support. This is shown by the correlation between the two (r = 0.293, p < 0.05).

From the discussion, management of technology is very critical for the organisation. It has a significant influence on strategy which determines the eventual success of the departments and the organisation as a whole.
5.3.2 The Influence of Technology on the Strategy of Departments where Technology is at the Core of Operations

From the findings, all the respondents indicated that the department makes strategic plans every financial year. Strategic plans are very critical as they give a roadmap of what is to be achieved and how it will be achieved (White and Bruton, 2011). Advances in technology can have a positive or negative effect on technical departments and the organisation in general. This depends on several factors which include how disruptive the technology is to the industry, ease with which the technology can be adopted and also the benefits of the technology in terms of either solving a particular problem or even just increasing the efficiency of the operations of the department or the organisation (Trott, 2012).

It is therefore imperative that the strategic plans of these departments take serious consideration of technology and ensure they keep track of the developments and advances in the said technology (Pelser, 2014). This is primarily because technology is at the core of operations in these departments and therefore any change or advancement in technology will have a great impact on the strategy and success of the department.

It is also important to note that managers and supervisors must keep abreast when it comes to the latest technology in order for them to come up with good strategies that will positively influence the success of the department (Rajasekar, 2014). With this in mind, through the managers that develop the strategies, technology influences the strategy of these departments. Any changes or advancements in technology will be noted by managers and supervisors alike and will be incorporated in the strategic plans of the department. These changes or advancements in technology could render the existing technology the department uses obsolete meaning that they will be at a competitive disadvantage if they do not move swiftly to adopt the new technology (Trott, 2012).

The findings also show that most of the respondents indicated that technology had had an impact on strategy. As was discussed in Chapter 2 of this study, technology can have influence on technology from two angles: directly or indirectly. From the direct point of view, the technology a department or organisation deploys will greatly influence its operations which will determine the overall success of the said department or the organisation (Tassey, 2012). Therefore when strategizing, it is important to keep this in mind and ensure that proper strategies are put in place to take advantage of the best
technologies in the market. This is how technology directly influences strategy and the operations of the organisation.

Technology can also have an indirect influence on strategy and how a department or organisation operates. A good example of this is say for example a change in the customer end technology. This is external to the organisation but may have an impact on it. It is therefore imperative that the organisation closely monitor this situation and adapt to it where need be (Tassey, 2012). This should be properly captured in the strategy of the organisation as it can influence its performance and success. Through this, technology has had an indirect influence on the strategy of the organisation.

Further to this, technology in departments where tech is core has no correlation with the strategy of these departments. However, there is a strong correlation between management of technology and technology in departments where tech is core ($r = 0.577, p < 0.01$). There is additionally a correlation between management of technology and strategy in departments where tech is core ($r = 0.230, p < 0.05$). This can be interpreted to mean that technology in departments where tech is core influences the management of technology practises that in turn influence the strategy in these departments. Hence, the strategies of these departments can be said to be mainly management oriented which explains why they are not influenced by technology.

5.3.2 The Influence of Technology on the Strategy of Departments where Technology Supports the Operations

In some departments within the organisation, technology is not a core part of their operations but rather supports the different functions and processes. This means that those departments are not entirely dependent on technology and can be able to operate albeit less efficiently (White and Bruton, 2011).

From the findings, these departments also make strategic plans every year and these have contributed to the success of the department. Strategic plans are very important as they determine how the organisation will operate (processes and procedures) in order to achieve its objectives.

In as much as the technology simply facilitates and is not a core part of the operations, technology has had an impact on the strategy and performance of the department. This impact can be felt in terms of the effectiveness and efficiency of the operations
(Muhammad, Jantan and Keong, 2008). It is therefore important not to ignore the effect of technology on the strategy of these departments. It is however noted that most of the respondents are not sure if the strategic plans take into consideration technology. This situation is not ideal because it means that there is no certainty of the benefits of technology in those departments are being realised.

Technology can be said to influence strategy from several angles. When it comes to formulating strategy, it is important to have information on all the latest and available technologies that can influence and make the processes and workflows more efficient. Lack of this knowledge will lead to strategies that put the organisation at a competitive disadvantage (Antoniou and Ansoff, 2007).

Additionally with technology being support in these departments, it can be used as an information gathering tool whose findings will influence the strategy formulation process (Bill, 2014). The right information made available to managers responsible for strategy formulation is a great advantage. However, this advantage will only be realised if the management is aware of the importance of technology and takes advantage of it. The findings of the research indicate that management is indeed aware of the importance of technology. Having this in mind, winning strategies for the department will be developed by management that will lead to the success of the department and the organisation as a whole.

From the findings, technology has been deployed successfully in the department and this has led to increased throughput from the departments by making the processes more efficient. However, for the gains of technology to be realised, there has to be good acceptance of technology by the members of staff in those departments. This is very critical as it will affect both the implementation and the use thereafter of the installed technology (Jarvenpaa and Ives, 2001). If there is poor acceptance the intended benefits will not be realised and the investment will go to waste.

Management must therefore ensure they involve all the stakeholders when it comes to deployment of technology (Dasgupta, Gupta and Sahay, 2011). This will create a feeling of ownership that will lead to the staff embracing the technology and using it in their day to day operations. The success of the strategy can be evaluated using the same technology as a measurement of the throughput of the department can be obtained which will be an indicator of how well the department is performing (Muhammad, Jantan and Keong,
2008). This measurement can then be communicated back to management and after thorough analysis additional measures can be taken to gain further benefits from the said technology. This will again be through the strategies put in place by the management team.

In summary, there is a strong correlation between technology in departments where tech is support and strategy in these departments \((r = 0.374, \ p < 0.01)\). This further supports the argument that despite the fact that technology performs a support role, it still influences the strategy of these departments.

5.4 Conclusions

The general objective of the research was to analyse the influence of technology on strategy in both departments where technology is core and in departments where technology performs a support function. It however initially analysed the effect of management of technology on good strategies that lead to organisation success. The following are the major conclusions.

5.4.1 The Importance of Management of Technology in Developing Good Strategies for the Overall Success of the Organisation.

The study findings on the importance of Management of Technology in developing good strategies for organisation success leads to the conclusion that the following management of technology aspects are important in informing the development of good strategies. They include: environmental analysis, assessment of technologies, their capabilities and suitability to the environment, appropriate selection and implementation of the technology and finally evaluation to determine if indeed the desired benefits of the technology are being realised. It is also evident that good management of technology leads to the systematic and proper implementation of the said technology based on the laid out procedures translated from the strategies.

5.4.2 The Influence of Technology on the Strategy of Departments where Technology is at the Core of Operations

From the findings, in the departments where technology is at the core of the operations, the influence of technology is very significant. This is through the management of technology practises as there is no direct influence of technology on strategy. It was noted that any changes or advancements in technology trends must be noted through constant
monitoring of the technology environment. Also noteworthy is the aspect of strategy being technology aware. This means that when management is coming up with strategy it must take into consideration technology and the impact it will have. Therefore ensuring the department is always current when it comes to technology leading to its success. In order for this to happen, management must be well informed on matters technology through constant training. This way they will be able to come up with good strategies.

5.4.3 The Influence of Technology on the Strategy of Departments where Technology Supports the Operations

Based on the findings of the research, in some departments, technology is not core and simply supports the operations of the department in terms of increasing efficiency. The influence is therefore not as significant but if ignored can leave those departments at a competitive disadvantage. Therefore for these departments, it also important for management to be aware of technology and impact it will have on their departments. They can then incorporate these in their strategic plans. External technological environment changes can also influence the strategy of the department. In summary technology influences strategy of these departments both internally in order to make the processes more efficient and externally to respond to technological changes in the environment that will affect their competitive advantage.

5.5 Recommendations

5.5.1 Recommendations for Improvement
The following are the recommendations for the study:

5.5.1.1 Importance of Management of Technology to Good Strategies and Organisation Success

Good management of technology practices serve to ensure the necessary technologies are put in place for the success of the department and the organisation. They inform the strategy development process and in this regard influence the said strategy. It is therefore recommended that particular attention is paid to aspects of management of technology such as: environmental analysis, assessment of available technologies, selection and implementation and finally evaluation and control. This will facilitate development of good and effective strategies for the success of the organisation.
5.5.1.2 Influence of Technology on Strategy of Departments where Technology is Core
In these departments, technology is at the heart of their operations. Therefore, it is imperative when coming up with strategy to keep in mind all the important aspects of technology and incorporate these in the strategy. This will ensure the department and in turn the organisation remains competitive. It is therefore recommended that management pay close attention to technology and its management to ensure that relevant strategies in relation to departments where tech is core are realised.

5.5.1.3 Influence of Technology on Strategy of Departments where Technology Performs a Support Role
In departments where technology simply performs a support role, the influence of technology is not as much as in departments where it is core. However, technology does affect the strategy of these departments when looked at from the efficiency point of view and also technological changes that influence how external customers interact with the department. It is therefore recommended that management take into consideration technology and its changes to ensure they identify the ones that will benefit them in terms of increased efficiency. Additionally, changes in user end technology and how it affects the business operations should be noted and the necessary action taken.

5.5.2 Recommendations for Further Research
It is recommended that due to limitations such as the time available to carry out the research and the questionnaire as a data collection tool among others that had an implication on the study, further research should be conducted using other data collections tools. Additionally, the exploration of the influence of customer end technology on strategy was not fully explored. This is another area of further research.
REFERENCES:


APPENDICES

APPENDIX I: COVER LETTER
CHEGE MARTIN PIUS NJOROGE

UNITED STATES INTERNATIONAL UNIVERSITY,
P.O BOX 14634-00800,
NAIROBI.

December 8th, 2015.

Dear Sir/Madam

RE: REQUEST FOR YOUR PARTICIPATION IN MY RESEARCH PROJECT.

I wish to request you to kindly participate in a management research project that I am currently undertaking on the influence of technology on strategy and organisational success: A case of Kenya Power.

The objective of this study is to determine how technology influences the strategy of an organisation and its eventual success. The sample population for the study has been narrowed to your organization as a case study. I would appreciate if you spare some of your time to kindly complete the attached questionnaire. I will collect the questionnaire from your office as soon as it is ready.

The information you will provide is strictly for academic purposes. The identity and information of your organization will be treated as confidential.

Yours Sincerely,

CHEGE MARTIN PIUS NJOROGE.