THE ROLE OF INFORMATION TECHNOLOGY IN STRATEGIC MANAGEMENT AT POWER TECHNICS LIMITED

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A research project submitted in partial fulfillment of the requirements for the award of a degree in Master of Business Administration, School of Business, University of Nairobi.

AUGUST 2011

DECLARATION

This project is my original work and has not been presented to any other examination body.

Signature.....

Date.....

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D61/70304/2007

Declaration by supervisor:

This project has been submitted with my approval as the University of Nairobi supervisor

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DEDICATION

This project is dedicated to my parents and husband who supported me both financially and emotionally all through this time. Also to my brothers Robert, Wilson, David and James for their encouraging words, my friend Cecilia and daughter Bernadette for the inspiration and support extended in various ways.

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My gratitude goes to my supervisor Mr. Jeremiah Kagwe for his support, guidance and assistance in the preparation of this project. In addition, special thanks are due to Mr. Rajesh Mehta, the commercial Director of Power Technics Limited, who allowed me to use Power Technics Limited as my case study.

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ABSTRACT

The performance at Power Technics Limited as an organization as a whole has greatly improved in the following areas: the departments have met their targets in various areas most importantly in cutting operational costs. This fact drove the researcher to investigate how Power Technics Limited had succeeded in its operations. The researcher sought to investigate how Power Technics Limited adapted information technology in all its processes.

On analysis of data it was discovered that adoption of IT has enormous contribution and influence to the strategic management of the organization. It was also found out that an optimum business firm must aim at maintaining highest levels of efficiency to enable it cut cost to the day to day operations.

The study is a case study of Power Technics Limited. The company is situated along Mombasa road with two regional offices in Uganda and Tanzania. The research design used in this project is a case study. The senior managers in the various departments were the interviewees. The data collection instrument used is an interview guide.

The findings of the study were that information technology is used in the following ways at Power Technics Limited: gathering of information from various organizational stakeholders, sharing of information to various organizational stakeholders, Analysis of information, evaluating changing strategies, implementation of strategy and strategy control and evaluation. The findings of this study will immensely benefit not only those students interested in this field and other organizations but also Power Technics Limited in improving its strategic management process. This study will also help bring out the cause-effect relationship between Information Technology and Strategic Management activities. Through this study, there will be support for the use of and how it can be harnessed to achieve optimum results in businesses.

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CHAPTER ONE: INTRODUCTION

1.1 Background of the study

The emergence of new network technologies and expansion of the Internet can improve an organization's internal and external communication capabilities. Lower information processing costs make coordination and mutual adjustment processes more efficient and therefore improves organizational performance (Horvath&Fulk, 1994, DcSanctis& Jackson, 1994). The performance effects of computer networks should be particularly pronounced in organizations that adhere to decentralized strategic decision making, because information Technology (IT) increases the speed and quality of dispersed decisions (Huber, 1990).

Together, IT enhanced communication and management involvement through autonomy and participation should reduce inhibiting organizational barriers, facilitate creativity, and support opportunistic business development (Sproull&Kiesler, 1986) and (Zubon ,1988) ; (Gallupe, 1992). New network technologies and the Internet should also increase the organization's capacity to absorb external knowledge and support cross fertilization of ideas via electronic communication (Cohen&Lcvinlhal, 1990). Hence use of IT can enhance the organizations internal and external communication capabilities and stimulate innovation. The effect on innovation should be enforced in organizations that adhere to decentralized strategic decision making, because exchange of information and involvement stimulate creativity and learning.

1.1.1 Strategic Management and Information Technology

There has long been a belief in business that increasing investment in technology will automatically result in benefits for the enterprise. However, experience has shown that existing and new technology must be implemented wisely and efficiently if the enterprise is to see any benefit.

Information technology (IT) has been and continues to be applied in a wide range of economic activities. One of the latest and potentially most significant advances in IT in relation to organizational performance is the development of innovations in information technology that hold the potential to influence the structure of strategic management systems in organizations (Cohen, 1995).

Information is critical to organizational performance in the contemporary knowledgebased economy. As a consequence, information systems have become a primary organizational resource. The management of information systems in contemporary organizations is in a period of transformation (Balaban & Rothschild, 2002).

An effective strategy is not necessarily one that promises maximum efficiency or least total cost, but rather one that fits the needs of the organization and strives for consistency between the organization's capabilities and the competitive advantage being sought by the organization. The successful application of strategy in the contemporary global environment requires an organization to have an effective strategic management process. In turn, an effective strategic management process increasingly depends on the effective application of advances in information technology (Litman & Lohr, 2000)

IT tools solve the problem related to the efficient and effective analysis of the data (Wilken, 1998). An organization's internal databases provide the core of a data warehouse for the organization. When developing a data warehouse, however, an organization may find that it is necessary to obtain supplementary data, such as demographic or socioeconomic data, and apply it to in-house or primary data sources (Myburgh, 2002).

A data warehouse schema is an overall logical, or conceptual, view of the relationships among the data. It is necessary to design sub-schemas for each of the user application programs that will access the data warehouse. A sub-schema is a subset or transformation of the logical view of the data warehouse schema that is required by a specific application program (Wilken, 1998). Data mining, therefore, refers to the process of deriving knowledge from data stored in databases through the identification of patterns from past behaviors that exist within the data stored in the database. Among the more prevalent approaches to the discovery of such patterns are decision tree induction and association rule discovery (Wilken, 1998). An important issue in data mining is assuring that the expression of discovery task.

1.1.2 Power Technics Limited

Power Technics Limited was established in 1982 to integrate its core activities know-how and experience into superior quality products.

Power Technics Limited delivers a full project package, from design implementation to after sales service. With a dedicated staff of over 200 people, Power Technics Limited has enjoyed sustained growth and success. Whatever the projects - large office complexes, steel industries, cement industries, plastic industries, and national street lighting schemes - Power Technics provides an integrated solution with its core activity of electrical engineering technology, superior sheet metal engineering technology, automation and systems.

By manufacturing all its major integrated products in-house, they retain complete control of a project from initial design to final completion. This ensures that all their products meet international criteria and are manufactured to the highest quality standards, to reach the level of client satisfaction which is their vision. Each level of production uses computerized systems.

Power Technics Limited is involved in the manufacturing of cable management systems, earthing, lighting systems, low & high voltage panels and networking equipment.

It is the vision of Power Technics to be the market leader in the field of electrics with 'quality', without compromise. They can achieve this goal by innovation, manufacturing and delivering products and services that satisfy the needs of their customers,

accordingly, they commit themselves to provide the best service to their customers and accept only those things that are achieved with quality standards.

It is the values of Power Technics Limited, as a regional company and dedicated team of people, that makes a real difference to 'quality' and the relationship between them, their principles and clients which define their mission.

1.2 Statement of the problem

A number of researchers such as (Wilken, 1998) and (Myburgh, 2002) have expressed their belief in the idea that the use of information technology (IT) enhances strategic decisions and have proposed several explanations about the impact of IT on strategic decision making. In light of this, a study examining the impact of IT on the main stages of the process is performed by investigating the impact information technology has in each phase. Results lend support to the notion that IT boosts the efficiency and effectiveness of the decision-making process. Although many variables have positive impacts on the IT use and performance, time pressure and individual differences do have negative impacts on IT use and performance.

Several studies have been carried out on strategic management and information technology relationships in different companies. Mosoti (2009) carried out a survey of information systems challenges in Kenya parastatals. Gichuhi (2009) undertook a study on value of ICT in organizations. A knowledge gap therefore exists in the experience of whether an appropriate fit of information technology to strategic management contribute to improved performance. The study aims to answer what is the role of information technology in strategic management.

1.3 Research Objective

The objective of the study is to determine the role of information technology on the strategic management process at Power Technics Limited

1.4 Value of the study

This study provides evidence of the role information technology has on strategic management. Through this study, there would be support for the use of technology while doing strategic planning and offering recommendations on how this can be harnessed or improved to achieve optimum results. This study will provide a picture of the intensity and impact of information technology in organizations. The study will dissect, analyze and recommend why organizations should adopt information technology while managing their strategic goals.

This study immensely contributes to the realization of the suitability and efficacy of implementing technology systems in all organizational activities.

The findings of this study comprehensively examine the success of this principle at Power Technics Limited. This therefore provides an entry point for organization or businesses in the country on the need to adopt this strategy and the effects associated with them. It is understood that business strategies distinguish one organization from another.

2.1 Introduction

This chapter analyzes literature related to the role of IT in strategic management. It attempts to bring out the benefits of incorporating technology when handling business issues. Secondary material such as books, journals, and articles which carry previous research work on the study topic are analyzed. These materials are of importance to this study as they form the basis for observations which will be made during the survey in line with the study aims and objectives.

2.2 Information Technology

We use the term information technology or IT to refer to an entire industry. In actuality, information technology is the use of computers and software to manage information. In some companies, this is referred to as Management Information Services or simply as Information Services. The information technology department of a large company would be responsible for storing information, protecting information, processing the information, transmitting the information as necessary, and later retrieving information as necessary.

Senior executives, strategic planners, and information systems managers are increasingly turning their attention to opportunities for achieving competitive advantage through information technology. There are several explanations for this recent trend, not the least of which is the publicity received by companies that have gained significant advantage through information technology (Fortune, 1982). The unstable economic conditions of the last few years have helped to create a challenging business environment and an "economic imperative" for information technology (Rockert, 1984). The technology is also offering a greater array of capabilities at lower costs than ever before. Finally, firms' abilities to utilize the technology are also improving. The transaction processing and decision support systems already in place in most firms provide a base on which systems for competitive advantage can be built. Without this base, many of these systems would not be possible.

Several authors have identified the underutilization of information technology as a serious problem facing both information systems and business managers (Gerstein & Reisman, 1984). Technology-based competitive opportunities are overlooked because of senior management's ignorance of information technology and its potential uses, poor communications between the information systems group and the rest of the business, resistance to change, among both information systems and business personnel, a lack of focus on opportunities for competitive advantage, and a lack of instruments to measure benefits.

Suggestions to draw attention to the capabilities of information technology range from the development of better measures of the efficiency and effectiveness of organizational functions, to major changes in the current structure of organizations. For example, (Gerstein and Reisman, 1984) identify a need for the development of measures of the impacts of information systems on specific functions. Keen, (1981) suggests that important changes in the fundamental nature of work and the structure of organizations are needed, so that better use of information technology can be made. He predicts that information technology will become the backbone of corporations, and that organizations will develop around their telecommunication systems. McFarlan and McKenney, (2003) point out the importance of proper management for the successful deployment of information technology. The mission and management of the information systems group should be consistent with the firm's dependency on technology and the opportunity for competitive advantage that the technology represents.

These recommendations for increasing the utilization of IT focus on correcting organizational deficiencies that have restrained its effective use. Other researchers have focused on the potential for information technology to improve strategic performance. They have worked to develop tools and methodologies to help the manager find valuable opportunities for IT within his or her organization.

Opportunities arising from information technology can be viewed from three perspectives: that of an organizational designer trying to improve the efficiency and effectiveness of the current organization, that of an industry insider trying to outmaneuver other participants in a competitive game, and that of an outsider investigating whether to enter an industry. These perspectives represent three major strategic views: internal, competitive, and business portfolio. Internal strategy is concerned with the development of efficient and effective organizational structures and processes for achieving goals and objectives. Competitive strategy focuses on competitive moves within the industries in which the organization does business. Business portfolio strategy

concerns the choice of which industries to compete in and how to position the organization in those industries.

2.3 Strategic Management

Strategic management is a field that deals with the major intended and emergent initiatives taken by general managers on behalf of owners, involving utilization of resources, to enhance the performance of firms in their external environments. Porter, (2007) it entails specifying the organization's mission, vision and objectives, developing policies and plans, often in terms of projects and programs, which are designed to achieve these objectives, and then allocating resources to implement the policies and plans, projects and programs. A balanced scorecard is often used to evaluate the overall performance of the business and its progress towards objectives. Recent studies and leading management theorists have advocated that strategy needs to start with stakeholders expectations and use a modified balanced scorecard which includes all stakeholders. (Wikipedia, 2011).

Strategic management is a level of managerial activity under setting goals and over Tactics. Strategic management provides overall direction to the enterprise and is closely related to the field of Organization Studies. In the field of business administration it is useful to talk about "strategic alignment" between the organization and its environment or "strategic consistency." According to Arieu (2007), "there is strategic consistency when the actions of an organization are consistent with the expectations of management, and these in turn are with the market and the context." Strategic management includes not only the management team but can also include the Board of Directors and other stakeholders of the organization. It depends on the organizational structure.

"Strategic management is an ongoing process that evaluates and controls the business and the industries in which the company is involved; assesses its competitors and sets goals and strategies to meet all existing and potential competitors; and then reassesses each strategy annually or quarterly to determine how it has been implemented and whether it has succeeded or needs replacement by a new strategy to meet changed circumstances, new technology, new competitors, a new economic environment., or a new social, financial, or political environment." (Lamb, 1984).

Brinkerhoff (1991 and 1994) characterizes strategic management as looking out, looking in, and looking ahead. "Looking out" means exploring beyond the boundaries of your organization to set feasible objectives, identify key stakeholders, and build constituencies for change. "Looking in" implies critically assessing and strengthening your systems and structures for managing personnel, finances, and other essential resources. Finally, "looking ahead" entails melding your strategy with structures and resources to reach your policy goals, while monitoring your progress and adjusting your approach as needed.

Balancing strategic management's outward-, inward-, and forward-looking functions helps you develop a vision and a strategy for where and how to move health sector reform forward. Balancing these different perspectives is the essence of managing strategically. (Brinkerhoff 1991). Strategic management comprises five key facets: goal-setting, analysis, strategy formation, strategy implementation, and strategy monitoring. These are the integral elements that, when applied together, distinguish strategic management from less comprehensive approaches, such as operational management or long-term planning. Strategic management is an iterative, continuous process that involves important interactions and feedback among the five key facets,

2.4 Role of Information Technology in Strategic Management

Improving the efficiency and effectiveness of organizations is the traditional domain of the information systems function. Rockart and Scott Morton, (2003) have suggested that traditional information systems also can have important implications for the competitive position of the firm. They employ a modification of Leavitt's organizational model to show that these systems can affect competitive performance through their impact on management processes, personnel, and organizational structure.

Traditional approaches to identify areas for the application of information technology have focused on its capability to improve specific functional areas of the firm. The first generation of methodologies utilized a strictly operational view of the firm, with an objective to improve the efficiency of requisite business processes. Representative of this approach are business systems planning (BSP), and office automation methodology (OAM). These techniques represent ways of formally modeling the operations of the enterprise so that potential improvements in efficiency and effectiveness can be analyzed. They are not easily applied to poorly structured functions, such as senior management roles, which are not amenable to formal modeling. The critical success factors (CSF) methodology has been used successfully in these unstructured environments to discover their latent structure. This structure, composed of business goals and related causal success factors, substitutes for a formal model of the functional area, and can be analyzed for opportunities to improve operating performance through the application of information technology.

All of these approaches fall short of treating strategic considerations as the driving force for the identification of IT opportunities. Furthermore, each is based on an implicit, idiosyncratic theory of organizations that is not grounded in the main body of organizational design literature. Although some of these theories are inventive, they neither contribute to, nor are leveraged by the accumulated knowledge of organizational theory. They are only private theories of organizational design, embedded within traditional MIS techniques.

A number of authors have identified opportunities for the application of information technology to create competitive advantage. Two general approaches can be distinguished: a value-added chain analysis of the firm's operations and Porter's framework for competitive analysis.

Rockart and Morton, (2000) have introduced the use of the value-added chain to describe the potential opportunities arising from information technology. They identify three types of opportunities that can create competitive advantage: improve each value adding function, link with customers and suppliers to increase their switching costs, and create new businesses through service or product. Ives and Learmonth, (1984) further this effort by using a generic, thirteen function resource lifecycle model to identify competitive opportunities. It should be noted that these value-added chain analyses, geared toward operational efficiency and functional effectiveness, are closely related to internal strategy.

Porter,(1980) advanced the idea that competition in any industry is rooted in its underlying economic structure, and thus it is more than a superficial game of moves and countermoves among participating firms. This approach is reflected in the framework he proposed to explain the dynamics of competition in an industry.

An important implication of this framework is the idea of extended *rivalry*. To understand competition in an industry, one must look beyond current competitors to include customers, suppliers, firms producing substitute products, and potential entrants. Firms generally try to manipulate the competitive forces in their industry in order to achieve comparative advantage over competitors. There are certain generic strategies that can be employed to that end. Porter has identified cost leadership and product differentiation as two such strategies. He identifies a third strategy, the pursuit of niche markets, which is similar to product differentiation strategies. Other such strategies may include the exploitation of potential synergies with a firm's customers or suppliers, or the notion of gaining bargaining advantage over one's customers and suppliers. Parsons, (1983) uses Porter's competitive forces framework to identify six generic categories of opportunities for competitive advantage: increase customer's switching costs _ through value-adding IT-based information or service, decrease one's own switching costs against suppliers, use IT to support product innovation for purposes of maintaining one's position or deterring potential substitutes, cooperate with selected rivals through shared IT resources, substitute information technology for labor, and use information to better segment and satisfy one's customer base.

Systems to improve operations are the traditional focus of information technology applications and central to the support of the internal strategy of the firm. These systems can also support the competitive position of the firm to the extent that they may become industry innovations which can be turned into competitive advantage. Usually this requires that the system be applied to critical functional areas of the firm and that it be a new type of application in its industry. Simply following the industry leaders leads to competitive parity at best.

As discussed in the previous section, opportunities for operational efficiency are found in supporting organizational structure and management processes. Techniques for identifying them is well established, but unrelated to the body of organizational theory. Although opportunities to improve operational efficiency and effectiveness are the best understood, they are also, in many firms, the least important for competitive strategy.

3.1 Introduction

Research is a structured enquiry that utilizes acceptable scientific methodology to solve problems and create new knowledge that is generally applicable. Scientific methods consist of systematic observation, classification and interpretation of data. Although we engage in such process in our daily life, the difference between our casual day- to-day generalization and the conclusions usually recognized as scientific method lies in the degree of formality, rigorousness, verifiability and general validity of latter. The path to finding answers to your research questions constitutes research methodology. At each operational step in the research process you are required to choose from a multiplicity of methods, procedures and models of research methodology which will help you to best achieve your objectives.

3.2 Research Design

The study was done through the use of a case study. A case study approach is often associated with descriptive or exploration research, without being restricted to these areas (Ghain, 1983; Bonama, 1985; Yin, 1994). In business studies, case study research is particularly useful when the phenomenon under investigation is difficult to study outside its natural setting and also when the concepts and variables under study are difficult to quantity. Often this is because there are too many variables to be considered, which makes experiment or surveys methods inappropriate (Bonoma, 1985; Yin, 1994).

Research in business studies emphasizes the role of deduction where the validity of all findings depends solely on the quality of logic employed in the study and precise measurement. However, the trade-off between precise and reduced generalizability is not a useful one in many situations many phenomena cannot be understood if removed from their social context. In these cases inductive, qualitative approaches are alternative methods to scientific investigation.

A case study often involves data collection through multiple sources such as verbal reports, personal interviews and observation as primary data sources. In addition, case methods involve data collection through sources as financial reports, archives, project reports and budget and operating statements, including market and competition reports. According to Eisenhardt (1989), case studies are particularly well suited to new research areas or research areas for which existing theory seems inadequate. This type of work is highly complementary to incremental theory building form normal science research. The former useful in early stages or research on a topic or when a fresh perspective is needed, while the latter is useful in later stages of knowledge.

In a case study, one single unit is extensively studied. This case can be a person, organization, group or situation. Famous case studies are for example the descriptions about the patients of Freud, who were thoroughly analyzed and described. Bell (1999) states "a case study approach is particularly appropriate for individual researchers because it gives an opportunity for one aspect of a problem to be studied in some depth within a limited time scale".

Research designs are concerned with turning the research question into a testing project. The best design depends on your research questions. Every design has its positive and negative sides. The research design has been considered as a "blueprint" for research, dealing with at least four problems: what questions to study, what data are relevant, what data to collect, and how to analyze the results.

Research design can be divided into fixed and flexible research designs (Robson, 1993). Others have referred to this distinction with 'quantitative research designs' and 'qualitative research designs'. However, fixed designs need not be quantitative, and flexible design need not be qualitative. In fixed designs the design of the study is fixed before the main stage of data collection takes place. Fixed designs are normally theory-driven; otherwise it's impossible to know in advance which variables need to be controlled and measured. Often these variables are quantitative. Flexible designs allow for more freedom during the data collection. One reason for using a flexible research design can be that the variable of interest is not quantitatively measurable, such as culture. In other cases, theory might not be available before one starts the research.

The study focused on the role of information technology in strategic management.

3.3 Data Collection

The data used was both primary and secondary. Primary data is the main source of data complemented by interviews. Data is collected by use of questionnaires that are designed having both open and closed ended questions. The questionnaires will be administered to Power Technics Limited staff in the management team.

3.4 Data Analysis

Data Analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data. According to

Shamoo and Resnik (2003) various analytic procedures "provide a way of drawing inductive inferences from data and distinguishing the signal (the phenomenon of interest) from the noise (statistical fluctuations) present in the data"...

While data analysis in qualitative research can include statistical procedures, many times analysis becomes an ongoing iterative process where data is continuously collected and analyzed almost simultaneously. Indeed, researchers generally analyze for patterns in observations through the entire data collection phase (Savenye, Robinson, 2004). The form of the analysis is determined by the specific qualitative approach taken (field study, ethnography content analysis, oral history, biography, unobtrusive research) and the form of the data (field notes, documents, audiotape, videotape).

An essential component of ensuring data integrity is the accurate and appropriate analysis of research findings. Improper statistical analyses distort scientific findings, mislead casual readers (Shepard, 2002), and may negatively influence the public perception of research. Integrity issues are just as relevant to analysis of non-statistical data as well.

The data collected was both qualitative and quantitative. The data collected through questionnaires will be scrutinized for completeness, consistency, accuracy and uniformity. Qualitative data is in terms of staff and supplier satisfaction. The questionnaire correctly filled as above will be coded and all data entered into statistical package for social sciences and analyzed based on descriptive statistics. The descriptive statistics that were used include percentages and ratios. Percentages were used to

determine the role of information technology in strategic management. Ratios will be used to determine the support of information technology in strategic management by the staff concerned.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND

DISCUSSIONS

4.1 Introduction

This chapter discusses the data analysis, interpretation, findings, and presentation. The main objective of the survey was to examine the role of information technology in strategic management. Data was analyzed using an analytical tool, presented by tables, pie charts and bar graphs and interpreted with frequencies and percentages. The researcher targeted the management team of Power Technics Limited. The study realized a response rate of 83%.

The chapter is organized into three sections where the first section is presentation of the demographic outlook of the respondents while the second one discusses the main objectives. The last section gives the conclusion of the objective findings in brevity.

4.2 Response Rate

Information on the respondent was based on the department they work in and their IT skills.

Table 4.2: Respondents Department

Respondents Department				
	Frequency	Percentage		
Finance	9	22.5		
Supply Chain Management	8	20.0		
ICT	6	15.0		
Operations	13	32.5		
Strategic Management	4	10.0		
Totals	40	100.0		

Table 4.1 Regarding respondents department, majority 32.5 percent of the respondents belonged from Operations department followed by 22.5 percent those from finance and 20.0 percent those from supply chain management department while 15.0 percent were from ICT department 10 percent were from strategic management. This indicated that most respondents were drawn from operations, finance and supply chain management department as these were the major department in the organization.

Figure 4.2: Level of Education

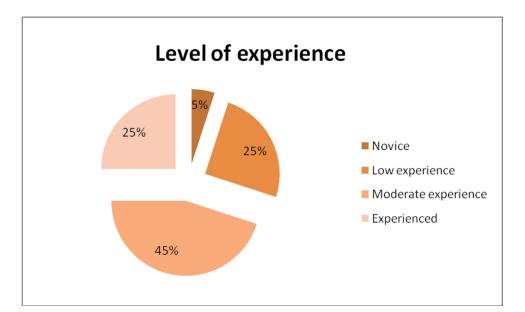


Figure 4.2: The researcher also wanted to know the level of experience where majority were moderate experience 45 percent followed by experience and low experience tying at 25 percent then novice with 5percent. This indicated that majority of those interviewed were highly educated and have commendable IT experience and that the industry recruited well trained personnel.

4.3 **Research Findings**

4.3.1 Areas in strategic management in which IT is used.

The objective of this study was to investigate what role information technology has in strategic management at Power Technics Limited. The study identified the following as the areas in strategic management which use IT: Gathering of information from various organizational stakeholders, sharing of information to various organizational stakeholders, analysis of information, evaluating changing strategies, implementation of strategy and strategy control and evaluation.

4.3.2 Whether the technological perspective on implementation and use

of IT is seen.

Evidence of use of IT in strategic management at Power Technics is clearly seen in the following areas:

1) The financial results:

The company saved in operation costs because of use of IT.

2) Better Strategies:

Using IT has enabled the organization to come up with better strategies. (E.g. strategic procurement)

3) Information sharing:

Using IT facilitates the information sharing among various existing information systems (e.g. Finance, Accounting, Senior Management, and Supply Chain Management).

Using IT is easy to transmit, integrate and process data from various departments within the organization (e.g. Finance, Accounting, Senior Management, and Supply Chain Management)

4) The senior management in our organization actively participates in establishing the business case, formulating IT implementation strategy and documenting formal action/communication plan for the organizational use of IT.

4.4 Discussion

The study found out that it's important for organizations to adopt IT when handling their day to day strategic roles and activities.

It's been established that the organizations resources are managed more efficiently when dealing with electronic systems. Creation of better strategies, efficiency and effectiveness is facilitated by the use of information technology. At the same time customer satisfaction is improved and in most instances met. The study found out that Power Technics Limited employees had deep understanding of how to use IT activities and how to use the system in handling their tasks.

The study also revealed that management involvement in implementing the systems influenced the employee's attitude towards the whole new thought. It was concluded that a committed management will make users appreciate and become more willing to use the system.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The target population for this study consisted of the management team of Power Technics Limited. From the study it was observed that Majority 32.5 percent of the respondents belonged to operations department followed by finance 22.5 percent and supply chain management department with 20 percent. Majority 45 percent of the respondents had moderate experience followed by those with low experience with 25 percent. Majority 62.5 percent of the current organizations strategy is assisted by IT followed by 32.5 percent in large extent.

5.2 Conclusions

The research was aimed at identifying the role IT has in strategic management in organizations. It was established that large enterprises have strategic practices that need to be followed for their success. By deploying an IT system, corporations can better manage this strategies by creating significant process savings and lowering the absolute cost of the implementing the outlined strategies.

In order to implement and firmly establish such a solution successfully in the organisations, it is essential that the IT system offers an easy interface, allowing all participants in the organizations including suppliers, manufacturers and buyers to participate in the system. This is because it was established that for an organization to be more effective, efficient, and at the same time reduce its operating cost; technology is one of the factors that they should consider adopting.

Several benefits arise from adopting IT systems in strategic management: increased compliance with strategic procurement contracts ,reduced maverick spend ,efficient search of products and alternative choices ,control over requisition approval ,shorter order and delivery time, monitoring of the suppliers and their product portfolio ,electronic purchase order completion in back-end system ,improved procurement process automation and control ,lowered cost of supplier participation ,rapid return on investment ,efficiency is improved, operating costs is reduced in the long run, customers feel better served as the speed of operating improves, and information is easily shared among users among others.

5.3 Recommendations to Power Technics Limited management

The following is recommended to organizations to enable them improve their strategic activities:

The study recommends that there is need for training and follow-up of training on staff. This should be done regularly preferably annually to equip staff on the changing technology.

It is further recommended that an organization should involve its clients in the whole system creation process. This will enable both companies handle tasks diligently while saving operating costs and other resources.

The study also recommends that an organization must review its action plan, taking into account the suggestions made in the recommendations.

The study recommends that an organization should build on the collaborative agenda with other organizations and communicate the success achieved in management across the organization.

Another recommendation is that an organization should review and change management techniques used alongside IT improvements.

5.4 Limitations of the study

The ideal standards on the results of this study in relation to reliability and efficacy may be compromised due to the reason that the researcher studied only one organization. There is need to study more organizations for generalized conclusions.

5.5 Suggestions for further research

Based on the limitations observed, there is need to study more organizations for a generalized conclusion. This will help in giving concrete results on whether IT plays any role in strategic management.

5.6 **Recommendation for policy and practice**

It can be recommended to the Kenyan government to incorporate IT in their strategic management processes. Policies need to be aligned in favour of IT for growth and development to take place.

REFERENECES

Allison, G. (1971). *Essence of decision*. Boston; Little Brown and Co.

- Anderson, T.J. (2000). Strategic Planning, Autonomous Actions and Corporate performance. *Long Range Planning*, 33(4), 184- 2000.
- Andrews, K.R. (1971). *The Concept of corporate strategy*. Homewood, IL: Dow Jones Irwin.
- Ansoff, I.H. (1965). corporate strategy. New York: McGraw Hill.
- Boeker, W. and Goodstein, J. (1991). Organizational performance and adaptation, effects of environment and performance on changes in board composition. *Academy of Management Journal*, 34(4), 489-515.
- Bower, J. (1970). *Managing the resource allocation process*. Cambridge, Mass. Harvard University Press.
- Britain, J.W. and Freeman, J. (1980). Organizational proliferation and density dependent selection. San Francisco, CA: Jossey Bass.
- Burgelman, R.A. (1983). A model of the interaction of strategic behaviour, corporate context, and the concept of strategy. *The Academy of Management Review*, 8(1), 61-70.
- Camerer, C. (1985). Redirecting research in business policy and strategy. *Strategy Management Journal*, 6(1), 1-15.
- Chakravarthy, B.S. (1982). Adaptation: a promising metaphor for strategic management. Academy of Management Review. 7 (2), 35-44.

Champion D.J. (1975). The Sociology of Organisation, New York: McGraw Hill.

Chandler, A.D. Jr. (1962). Strategy and structure. Cambridge, MA: MIT Press.

- Channon, D. (1977). Strategy, structure and Performance in the British service *industries*. unpublished manuscript.
- Davidson, W.H. (1983). Structure and Performance in International Technology transfer. Journal of Management Studies. 20(4), 453-465.
- Fredrickson J. W. (1986). The Strategic Decision Process and Organisation Structure. Academy of Management Review, 11(4), 280-299.
- Galbraith, J.R. and Nathanson, D.A. (1978). *Strategy implementation; the role of structure and process*. St Paul, MN: West publishing company.
- Grant, R.M., Jammine, A.P. and Thomas, H. (1988). Diversity, diversification, and profitability among British Manufacturing companies. *Academy of Management Journal*. 23(2), 193-220.
- Hannan, M. and Freeman, J. (1977). Structural inertia and organizational change. *American Sociological Review*, 29(3), 149-164.
- Jennings, D.F. and Seaman, S.L. (1994). High and Low levels of organizational adaptation: an empirical analysis of strategy, structure, and performance. *Strategic Management Journal*, 15(4), 459-475.
- Miller, D. (1988). Relating Porters business strategies to environment and structure: analysis and performance implications. Academy of Management Journal. 31(3)280-308.
- Mintzberg, H. (1994). The fall and rise of strategic planning. *Harvard Business Review*, 16(3), 107-114.

- Porter, M. E. (1987). From competitive advantage to corporate strategy, *Harvard Business Review*, May- June, 43-59.
- Porter, M.E. (1980). Competitive strategy: Techniques for Analyzing Industries and Competitors. Free Press. New York: Macmillan.
- Porter, M.E. (1985). Competitive Advantage: Creating and Sustaining Superior Performance, New York Free Press.
- Quinn, J.B. (1980). Strategies for change: logical incrementalism. Homewood, IL; Irwin.
- Saunders, M., Lewis, P. and Thornhill, A. (2009). *Research methods for business students*. 4th ed. Harlow, UK: prentice- Hall.
- Chaffey, (2005). Wood Business information management: *improving performance using information systems*.
- John Benamati , Albert L. Lederer , Meenu Singh, (1997). *Changing information* technology and information technology management, Information and Management.
- Irani, Z. and Love, P., Evaluating the impact of IT on the organisation: *the propagation of technology management taxonomies for evaluating investments in information systems*.
- P. Bocij, D. Chaffey, A. Greasley, S. Hickie, (1999). Business Technology, Information Development, Systems and Management. Pearson Education, London,

Stephen Haag, Maeve Cummings, James Dawkins, (1997). Management Information Systems for the Information Age, McGraw-Hill, Inc., New York, NY.

Barry Fisher, Richard Kenny, (2000). Introducing a Business Information System into an

Engineering Company, Information-Knowledge-Systems Management.