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## **The Strategic Roles of Information Technology in XYZ Paper Industry Limited, Kenya**

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# The Strategic Roles of Information Technology in XYZ Paper Industry Limited, Kenya

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## Abstract

The digital revolution has given mankind the ability to treat information with mathematical precision, to transmit it at very high accuracy and to manipulate it at will. Information Technology innovations have the potential for changing the competitive game for any organization. This is because it helps to catalyze efficiency in the provision of better procedures resulting in better production and services. This study aimed at examining the strategic roles of Information Technology in XYZ Paper Industry Limited. The study used descriptive research design and used 51 who were drawn from various departments of XYZ Paper Industry Limited. The study made use of both secondary (literature review) and primary data. Primary data was collected by means of questionnaires and analysed using Statistical Package for the Social Sciences (SPSS). It was found that Information Technology plays a strategic role in the company, which results in improved financial performance of the company. This research concluded that Information Technology indeed has a strategic role in the improvement of financial performance.

**Keywords:** *Strategic Role of Information Technology, XYZ Paper Industry Limited, Kenya*

## 1.1 INTRODUCTION

Information Technology (IT) refers to the application of telecommunication equipment and computers to save, retrieve, transmit and manipulate data, often in the context of a business or other enterprise (Bowman, 2008). Information Technology has enabled organizations to strategies according to their business requirement. Other companies around the world have relied on IT to strategies on the dynamic business environment and competition. Information Technology plays a strategic role in ensuring that the goals of the organization are achieved within the stipulated time period. Information Technology has ensured that companies have competitive advantage regardless of the industry that they operate in (Patterson & Rollan, 2012).

Several organizations rely on strategies that enable them to achieve their objectives as well as increase their chances of success in terms of economic gains (Armstrong, 2006). For this to happen organizations need to involve the use of powerful facilities that would safeguard the continuity of the business operations. With the advancement of technology in the global arena, the use of Information Technology has been important to various businesses. This is because Information Technology plays a strategic role that enables the organizations to meet its objectives. Information Technology has enable organizations to improve on their productivity and efficiency in terms operations of the business. Various business such as banks, service companies among others, have been improved in the areas of planning, monitoring, control, innovation and management by the use of Information Technology that provides a better platform for the business (Ventresca, 2008). This shows that Information Technology plays a strategic role in terms of the planning, control, monitoring and innovation process of the business.

XYZ Paper Industry Limited was established in 1972 as a small stationery manufacturing unit making exercise books and produces products under the XYZ brand (Anor, 2011). XYZ Paper Industry Limited retains and functions from a multifaceted offices and godowns on Enterprise Road in Nairobi's Industrial Area with satisfactory room for expansion. The products that are manufactured by the company vary from different shapes and sizes depending on the needs of the consumers. The company boosts increased performance in the industry regardless of the changes in the business environment. In 1976 the company acquired Afri International Ltd, a company that convert self-adhesive tape, as a result of financial muscles and performance in the East africa region (Omwono, 2009).

The success of the company cannot be questioned in the East africa region particularly the Kenyan market. This is due to the involvement of information systems in the operations and manufacturing processes of the company. The, self-adhesive labels, self-adhesive tapes computer stationery and technological utilities are used by company to improve success in the market (Johnson, 2012). The use of IT has played a key role in the advancement of the company at large. This is because of the constantly changing business environment. Through technology, the organization has innovated its services and products through strategic planning and controls of the resources. This is possible by the use of sophisticated IT that ensure efficiency. The use of Information Technology in wide application of packaging, manufacturing and marketing has enable successful financial developments of the company. This is because the IT gives the

company an edge over competitors in the (Omwono, 2009). The financial developments in terms of returns and profitability has guaranteed the development of the company. This has made the company to be sustainable interms of monetary terms. The eadvanced manufacturing process and modernized tools have sustained all the areas of developments of the company (Anor, 2011).

## **1.2 Problem Statement**

Information Technology plays a strategic role in the developments of organizations across the globe based based on its benefits on the organizations (Johnson, 2012). Information Technology has been used in handling strategic issues of the organization. This is because of the dynamic business environment that embraces the use of technology. The planning and formulation of strategies for organization have been made easier by use of technology and other related support devices and systems (Johnson, 2012).

There is a paradigm shift from manual operations to automated services in the commercial environment. There have been problem with IT at the XYZ Paper Industry Limited which affected the monetrary and non-monetry growth of the company (Omwono, 2009). This was because of constant changing technological world which render some of the staff and facilities of the company obsolete. This affected the market performance of the company in the region in terms of productions and sales.

Other emperical evidence related to the study Smith and Mckeen (2007) and Morikawa (2004) did research that is consistent with the variable of research. Smith and Mckeen (2007) also studied the effects of IT strategy on business valuation in Australia. The aim of the research was to find out the strategic value of IT and its inflences on the business valuation. From the findings of this research, it was concluded that IT strategy improves the valuation of the business due to use of advanced facilities (Smith & Mckeen, 2007).

Morikawa (2004) studied the effect of IT on performance of SMEs in Japan. The aim of the research was to find out the investment of technology and its effects of performance of japanese firms. It was concluded that IT affect the performance of the SME's in Japan (Morikawa, 2004). However, there is no knowledge that a similar research has not been conducted in Kenya and this therefore leaves a research gap for this study to be conducted in Nairobi, Kenya to examine the strategic roles of IT at the XYZ Paper Industry Limited, Kenya.

## **1.3 Objective of the Study**

To examine the strategic roles of IT at the XYZ Paper Industry Limited.

## **2.1 THEORETICAL FRAMEWORK**

### **2.1.1 Strategic Choice Theory**

This theory was developed by Dunlop in 1960s when industrial relations in the United States were changing rapidly. The theory encourages the consideration of relevant forces in the exterior environment that affects the occupation of the company hence inducing managers to make modification in their competitive business strategies (Child, 2009). When making these adjustments several options as well as constrained are considered by key decision-makers. The theory advocates for technological reforms and embracement which build up on the strengths of the business activities, operations and strategy. According to Corbijn (2007), adopting I.T plays a major strategic role in business advancements as it helps in assessing changes in the company's business environment.

The IT improves the processes and outcomes of business by continuously evolving the company in relation to environmental pressures (Ventresca, 2008). Information Technology assists in the industrial developments through improving the environmental conditions that would guarantee development. This is because technology helps the organization in strategic planning, controlling and implementation process. According to this theory, technology can enable the achievements of both the long-term and short-term goals of the organization through improvised ways and techniques which increases its viability (Bowman, 2008). The profitability and financial performance of the company can be easily improved through effective utilization of IT in the organizational activities.

This theory relate to the topic of study because IT can strategically be used to improve systems, policies, structures of the organization and make it more efficient in its operations. As a result, the organization will be able to improve its financial performance in terms of profitability and efficiency. A good example is a strategic information systems. Developed between 1980s to 1990s, their role is to make IT an integral component of business processes, product and services that help a company gain a competitive advantage in the global market place (Brien, 2005). However this theory also has a limitation. This theory concentrates so much on technology yet there other business environments that affect the organizational success (Anor, 2011).

### **2.1.2 Structuration Theory**

This is a social theory that involves formation of social systems that are based on the analysis of both structure and agents that affects them (Kort & Gharbi, 2013). The theory was developed by Antony Giddens in 1980s. It is mostly used in the management information systems as it offers the possibility to conceptualize the IT artifact in dynamic ways that improves the success of the organization. The theory advocates for the possibility of the IT being able to improve group interactions as well as the productivity of the organization. The Structuration theory provides both business and relational perspectives that can facilitate business activities (Ventresca, 2008).

The Structuration theory involves the usage of technological systems and information to come up with better structures that would give the organization a competitive advantage (Lamsal, 2012).

According to the theory, an organization can implement the technological dynamisms so as to come up with better platforms and structures that would improve the performance of the organization. This is because IT can be used to re-organize, stream line and inter-connect processes as well as structures resulting in an organization that is synchronized and performs operations in unison. The theory advocates for speed and efficiency of IT in structural developments of the organization. Technology improves the objectivity of a business by structural efficiency and developments. Systems and information from technological world focuses the business towards its goals through developed structures (Rose, 2010).

This theory relates to the topic of this research study. This is because I.T plays a strategic role in the achievement of business objectives through development of systems and structures of the organization. When the structures of an organization are well developed through the use of I.T, the operations of business will be well managed by its workforce. This would eventually improve the financial performance of the organization. Information Technology systems such as the operational systems, that include; Transaction processing systems, Process control systems and Enterprise collaboration systems. These are computerized systems that perform and record daily routine transactions necessary to conduct business. They serve at operational level tasks, resources and goals are fully predetermined and highly structured therefore it's easy to computerize any business activity at this level. This can apply to the XYZ Paper Industry Limited in Kenya. However this theory has a limitation in that it insists of the working class as the universal class in the society which is not the case (Kort & Gharbi, 2013).

### **2.1.3 Strategic Roles of Information Technology**

Information Technology has for a long time played an important strategic role in the development and maturity of business entity (Corbijn, 2007). Many businesses around the world, Africa included have been utilizing I.T due to its benefit to the society as well as economy. Information Technology can has enabled organizations to solve various issues that concern their developments. Darling-Hammond and Adamson (2010) held that IT plays important strategic role in planning, control of resources, management, innovation and monitoring aspect of the organization. Efendioglu (2010) also stated that IT improves the planning, management, innovation and evaluation functions of the organization. the strategic role of IT has been a concern to various organizations around the world. The strategic role that I.T plays in planning, monitoring, control and innovation have resulted in improved organization performance (Ventresca, 2008).

Planning is very significant to a company since outlines and regulates the path that lead to achievement of the organizational goals (Seeley, 2007). Information Technology for a long time has been used in the control measures that concern the organizations in terms of operations and usage of resources. Efficient planning has been a concern of the many organizations across the world as it portrays the intentions and methods of the organization. In Africa, planning has been highly been involved due to its importance and the constant demands of the stakeholders (Seeley, 2007). I.T creates an environment that facilitates planning activities in the organization around the continents of the world. The stationary manufacturing industry in Kenya have relied on well-

developed technology safeguard their interests. Advanced technology provides the company with information that is relevant to planning and management of activities at XYZ Paper Industry Limited (Ridgewell, 2015). Adequate planning helps such companies to improve on their performance in various functions of the company.

Monitoring is one key stage that improves the organizational monitoring as well as staff responsibility in their duties (Child, 2009). I.T involves the utilization of sophisticated tools that ensure that the organization's operations are well monitored. I.T has for a long time been used to ensure that monitoring process and stages of organizations have been enhanced for the benefit of the organization. I.T creates a conducive environment that ensures that monitoring process of the business is well enhanced. I.T has developed the monitoring systems and structures of Japanese firms as well as the level of employee productivity (Grossman, 2008). This is due to the tools used that are facilitated by the I.T in industry around the world.

Control as a process helps an organization to the use of its resources and eliminate or prevent in effective usage or of its resources (Corbijn, 2007). Businesses across the world have relied on the I.T to be able to regulate its activities and resources. The world has used controls systems that are well influenced by to regulate their activities. I.T are specific activities performed by persons or systems around the world and are designed to ensure that business objectives are met within the required time. The XYZ Paper Industry Limited has relied on modern facilities that control its operation in the industry. The success of the XYZ Paper Industry Limited is as a result of the I.T that has strategically given the company an edge in the market (Ventresca, 2008).

Innovation encourages more innovation to an enterprise by making it more appealing and lucrative in terms of service and operations (Borjas, 2013). The business world has relied on innovation in order to increase the sales of its products and gain the necessary profits from the competitive business world. I.T has been relied on by business people in order to provide the necessary innovation that is needed in various industry. I.T has advances the transformative business by use of devices that uphold its competitive advantage in the marketplace (Sanberg & Federoff, 2015). This has enabled processing and manufacturing companies to improve on their performance in both monetary and non-monetary terms.

### **3.0 RESEARCH METHODOLOGY**

This study adopted a descriptive design. The population of this study was all 460 employees of XYZ Paper Industry Limited. The researcher used 30% of the target population so as to total to 62 employees of the XYZ Paper Industry Limited. Stratified random sampling was used to select the sample. The study used both primary and secondary data. Structured questionnaire was used to collect the data. Data analysis for this research study was descriptive statistics.

## 4.0 Data Presentation, Analysis and Interpretation

### 4.1 Response Rate

The sample size of the study was 62 respondents from the XYZ Paper Industry Limited. Table 1 gives detailed information relating to the response rate of the study.

**Table1: Response Rate**

Response	Frequency	Percentage
Responded	51	82.3
Not responded	11	17.7
Total	62	100.0

From the findings, 62 questionnaires were issued to the respondents from XYZ Paper Industry Limited and only 51 were dully filled. This translated to 82.3% response rate which was greater than Mugenda and Mugenda’s (2003) prescribed 50%. Mugenda and Mugenda (2003) considered a response rate of 60% as good while a response rate of 70% and over as excellent (Wambua & Gichuho, 2013). The response from this study can therefore be termed as excellent.

### 4.2 The strategic Role of I.T

The current study also examined the strategic role of I.T. As per the study the strategic role of I.T included planning, control, monitoring and innovation. The specific strategic roles are discussed in the Table 2.

**Table 2: The Strategic Role of I.T**

	Strongly Disagree		Disagree		Neural		Agree		Strongly Agree	
	F	%	F	%	F	%	F	%	F	%
I.T improves the company’s process planning process in the organization	0	0	0	0	0	0	15	29.4	36	70.6
I.T enables better control of organization resources and process	0	0	0	0	0	0	10	19.6	41	80.4
I.T improves organization monitoring and staff respondents’ responsibility.	0	0	0	0	0	0	10	19.6	41	80.4
I.T encourages more innovation in the company	0	0	0	0	0	0	11	21.6	40	78.4

In relation to IT improving the planning process of the company 15 (29.4) agreed with this while 36 (70.6%) of the respondents strongly agreed with this statement. Therefore, from the finding all the 51 (100%) respondents agreed that I.T improved the company’s planning processes. The



difference was to what extent of agreement. This indicated that I.T helped the company in its planning operations. Ridgewell (2015), also agreed that advanced technology provided the company with information that is relevant to planning and management of activities

In regard to an organization having better control of its resources and processes because of IT, 10 (19.6%) of the 51 respondents agreed while the majority 41 (80.4%) strongly agreed. From this findings it was concluded that control of resources and process in an organization is attributed to the strategic role of IT.

According to the respondents 10 (19.6) of the 51 agreed that IT aided in the monitoring and responsibility of the company and 41 (80.4%) respondents, strongly agreed. With all 51 of the respondents agreeing, this proved that implementation I.T in a company played a positive role in monitoring and responsibility.

In relation to I.T improving creativity and innovation, 11 (21.6%) of the respondents agreed while a majority of 40 (78.4%) strongly agreed. This indicated that I.T played a key role in the innovation of products and services of the company. This was in line with Sanberg and Federoff's (2015) finding that I.T has been relied on by business people in order to provide the necessary innovation that is needed in various industries.

I.T was therefore found to give the company a strategic advantage as it improves organization performance. This finding is consistent with Ventresca (2008) which stated that, the strategic role that I.T played in planning, monitoring, control and innovation resulted in improved organization performance.

## **5.0 CONCLUSION**

From the findings, it was concluded that I.T played a strategic role in the growth and development of XYZ Paper Industry Limited. It was concluded that I.T helps the company in planning process, controlling of the resources, improves monitoring and responsibility in the company and also enhanced innovation. This is backed by over 100% (51) of the respondents who agreed to the stated strategic roles of IT in the organization. As a result of this the company obtained competitive edge over other rival companies in the industry. This conclusion matches Seeley's (2007) which holds that in the context of business, I.T is the key agent of innovation and performance enhancement for involved companies.

## **6.0 RECOMMENDATIONS**

The company should use the right systems and structures that enhance the effective performance of I.T. This will help different organizations around the globe to work effectively as a result of proper working of I.T via the use of right systems and structures in the organization.

The company should institutionalize a strong culture that embraces the use of I.T in various operations. This will improve the overall performance of the company despite the competition in the industry. This will help organizations to improve their financial performance and simplify the operations within such organizations.

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