

**STRATEGIC ALIGNMENT AND INFORMATION  
TECHNOLOGY ON THE PERFORMANCE OF EAST AFRICAN  
PORTLAND CEMENT COMPANY LTD IN KENYA**

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## **DECLARATION**

This research proposal is my original work and has not been submitted for a degree in this or any other University.

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This research proposal has been submitted for Examination with my approval as the University Lecturer.

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## **DEDICATION**

I would like to dedicate this project to my Parents Dr. & Mrs Kipkerich Koskei for the encouragement and support through my academic life.

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## **ABSTRACT**

Information technology has become an important tool for organizations to achieve competitive advantage in today's marketplace whose level of competition has become intense and severe. The present day business environment is characterized by greater uncertainty in international financial markets, rapid product obsolescence and volatile consumer demand and under such an environment, there is need for a business unit to respond quickly to the demands of the market. One of the tools that can be used by a firm is integration of information technology with internal firm's processes. The research objective sought to find out the role of strategic alignment and information technology on the performance of East African Portland Cement Company Ltd in Kenya. Towards the realization of the same objective, a case study research design was adopted whereby the researcher interviewed four managers. As a tool to collect data, an interview guide was prepared to guide the researcher to collect data and the data was analyzed using content analysis. From the study it is noted that competitive advantages through alignment of organizations IT with business processes and resources, there is need for an organization to come up with a top-down policy that will involve all cadres of employees in the implementation of the same strategy. Further, the effect of leadership on strategic alignment was found to require effective interaction between the business and IT management in the firm in order for business and IT plans to be coordinated and to share domain knowledge between business and IT managers. The study concluded that the alignment of organizations internal and external strategies with its IT platform is bound to give the organization a competitive advantage if only there is adequate scanning of the firms present day operating environment and identifying the threats and opportunities that exist in the market. This study was limited by the research methodology in that some interviewees were not honest with their answers as they were uncomfortable commenting on their employer. Given more interviewees however would have increased representation hence consistency.

## **ABBREVIATIONS AND ACRONYMS**

<b>EAPCC</b>	-	East African Portland Cement Company Limited
<b>EIS</b>	-	Enterprise Information System
<b>ERP</b>	-	Enterprise Resource Plan
<b>ICT</b>	-	Information Communication and Technology
<b>IT</b>	-	Information Technology
<b>IS</b>	-	Information Systems
<b>TQM</b>	-	Total Quality Management



# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

Growth of business has brought new challenges and heightened the competitiveness of companies globally. Companies have spent large amounts of resources to improve their competitiveness and sustainability through focusing on their internal processes (Day &Lichtenstein, 2006). Effective organizations need to adopt innovation to improve their processes, products, and services by responding to the market changes through innovation. However, the way of implementing such information systems enhances the organizations' performance is not entirely understood (Mabert, Soni &Venkataramanan, 2013).

Besides, strategic alignment is necessary to the organization because it provides strategy formulation stage as well as in implementation. Porter (1996), states that a company can seek and achieve higher performance as well as competitive advantage lies in the ability to acquire and deploy resources that are coherent with the organization's competitive needs. Therefore, alignment process requires manages to share the information of organizational goals and objectives to various levels and within different units of the organizational hierarchy. This study is guided by the Theory of Dynamic Capabilities and Resource-Based Theory. The theory indicates that the firm's ability to bring together, and reconfigure internal and external competences to address ever changing business environments (Leonard-Barton, 1992).

The dynamic capabilities reflect an organization's ability to achieve new and innovative forms of competitive advantage given path dependencies and market positions. Dynamic capabilities have lent value to the RBV arguments as they transform what is important for the static view into one that can encompass competitive advantage in a dynamic environment (Barney, 2001). Therefore, the resource-based theory argues that organizations have resources and capabilities that determine the strategy and performance. For instance, if all organizations have the same pool of resources and capabilities, then this will create the same value and thus no competitive advantage is available in the market. (Barney, 1991).

Also, resource-based view indicates that any successful firm will discover their future competitiveness on the development of distinctive and unique capabilities. Gandolfi (2007), argued that a firm should grow its resources, to sustain its position in the market over competitors in the environment. Furthermore, organizational success derived from unique resources will depend on the resources which assist the firm to cut the cost or contribute to producing innovative products.

The intense competition in the Kenyan market and an eye for regional expansion has meant players have had to hold their prices constant without factoring in escalating input costs like electricity. The motivation of the study is based on the need for the company to expand however it needs alignment between information technology and its business strategies so that it ensures that the company competes effectively in the market thus resulting in improved performance.

East African Portland Cement Company Limited, (EAPCC), has embraced Oracle JD-Edwards ERP that integrates Manufacturing, Supply Chain, and Sales among other systems in one platform. However, other than the high investment in Information Technology in the company, there is still need for strategic alignment of roles of information technology in performance. Information technology has become a strategic weapon in the fast changing environment of business like EAPCC. Information technology plays a role in the production, description, promotion, distribution, amalgamation, and delivery of products. The role of strategic alignment is considered necessary in EAPCC because it enables the company to achieve a competitive advantage through the use of information technology. Therefore, EAPCC needs to increase the use of information technology to develop innovative distribution channels and communicate effectively with its consumers and partners.

### **1.1.1 Concept of Strategic Alignment**

Strategic alignment in a firm is deemed to occur when its operations are harmonized with its informational technology (Wernerfelt, 2004). Organizations alignment occurs through integration, awareness, and alignment of a firms IT and strategies. Awareness occurs when the firm recognizes the need to invest in information technology connected with the business. Strategic alignment as science and art of integrating and implementing plans between the business operations and IT. (Mendelow, 2009).

In the current business environment, the interaction and linkages between a business operations and IT strategies is considered a top priority among the top management of a firm if they have to respond appropriately to the changes in the operating environment. Dutton and Ashford, (2003) notes that, when strategic alignment is carried out appropriately, it will lead to maximization of the firm return on assets and allow companies to manage their overall business needs better and provide balance in the organization. Barr (2008) on his part sees strategic alignment as being made up of functional integration and strategic fit.

The strategic fit is concerned with vertical integration between a firms' business strategy and infrastructure as well as between IT strategy and IT infrastructure. An organization needs to adapt its operations to the external business environment and for the internal operations to be readjusted in a way that support the market. In addition, a firm's functional integration should be extended to all functional departments since business strategies keep on changing continuously and this requires that IT policies and processes change in tandem.

Venkataramanan (2003) posits that firms can create competitive advantages through alignment with the business environment and internal alignment with both resources and infrastructure. Therefore, strategic alignment is critical for organizational effectiveness and efficient resource utilization. Alignment must be present before information systems can be chosen and integrated to achieve maximum IT efficiency. An organizational ability to maintain a competitive advantage is determined by the capacity to acquire and deploy resources which are coherent with the organization's competitive needs.

### **1.1.2 Organizational Performance**

Organizational performance is determined by different measures that help in establishing the goals of the organization, and moving towards a target (Cole, 2005). It is important for an organization to come up with appropriate strategies that will improve its performance because a firm's success is affected by factors such as lines of communication and responsibility connecting these individuals, the resources and information to which the individuals have access, and the nature of the activities that the individuals perform.

Dharanaj and Beamish (2003) opine that organizational performance is concerned with the ability of an enterprise to achieve objectives such as high profit, quality product, large market share, positive financial results, and ability to survive now and foreseeable future. To measure organizations performance, both financial and non-financial indicators are used. The financial indicators include such measures as sales growth and improved profit margin. Organizations use the public image and goodwill, quality of services and efficiency of operations as the non-financial indicator. An organization will subsequently look at its capabilities and finally assess its performance. To measure an organization performance, organizations need to be able to establish their core capabilities together with those of its competition. The primary goal of a business is to achieve financial or maximization of wealth for the shareholders. The performance of the firm is defined in financial and non-financial terms (Kaplan&Norton, 2002). These include measures that impact on effectiveness, efficiency, development of staff, satisfaction, innovation, product quality, profitability and sales growth.

This indicates that organizational performance can be established as the result of improved quality of products, sales growth, increase in profits, response to competition and success. One of the primary key determinants of a firm's efficiency, cost structure and profitability is the employee's productivity. The productive manufacturing employees lead to the reduction in the cost of production, increased sales revenue, increase return on investment, flexibility, innovation, enhanced quality, superior performance, high productivity, differentiated products and services and personal customer services (Schuler, 2007).

### **1.1.3 Strategic Alignment and Organizational Performance**

Strategic alignment combines IS with business operations. An appropriate plan for business activities and information systems should be combined through the direct mapping of information systems strategy to one or more business strategies (Lederer & Mendelow, 2009). In alignment of information technology plans and the business operations, business goals will be supported by information resources and through the process reap the advantage of information systems strategic utilization. Strategic alignment enables organizations to use their IT resources effectively to support their business strategies through integration of their IT investments, and business processes which when combined effectively will increase competitiveness, revenue growth, and profitability (Kearns & Lederer, 2010).

Day & Lichtenstein (2006) noted that effective organizational performance is obtained through the capacity of an organization to exploit information systems functionality on a continuous basis. To achieve the competitive advantage, the technology strategy must be aligned with organizational and operational strategies.

When there is consistency in strategic business goals, IT resources will be assigned to important areas for amplifying business value. In absence of IT strategic alignment, organizations' resources will be misplaced. An organizations' business strategy in most cases requires IT support when a business decision is made without considering IT. (Ash, & Burn, 2008).

#### **1.1.4 Cement Industry in Kenya**

The cement manufacturing field has grown tremendously over the years in Kenya and the wider Eastern Africa. The cement manufacturing industry is a critical player because of its role in development. It has strong linkage to other sectors like construction, transportation, coal, fuel and power. The industry is characterized by high levels of consumption of raw materials and energy with fuel accounting for 30-40% of the production costs (Kimanthi, 2009). It is therefore very important that cement companies embrace ideas that will guarantee their survival and profitability in the market since the cement industry plays a significant role in the economy.

The cement industry is concentrated and competitive which necessitates the application of economies of scale and use of substantial capital investment. Production of key ingredients such as clinker requires raw materials which most of the times are located in remote areas and this is affected by the availability of limestone deposits. In Kenya, demand for cement has risen steeply over the last ten years owing to the increased construction boom characterized by a host of several multi-billion shilling projects in both the public and private sectors.

The Sh174 billion Lamu coal power plants and the Sh300 billion standard gauge railway are among the projects that have pushed up demand for the key construction material. Owing to the rising competition in the sector, cement companies continue to focus on costs to protect and or improve margins. Key costs in the manufacture of cement include energy costs (for grinding clinker and cement), freight of raw materials and importation of clinker (for those that don't manufacture their own clinker) various administrative costs as well as distribution costs.

There are several factors affecting the cement industry in Kenya. Increased competition in the industry from new entrants has forced prices and margins to stay low as all cement producers compete on the basis of price. Njeru (2007) highlighted the challenges affecting the strategic actions in the cement industry in Kenya as political anxieties, threats posed by new entrants, technological advancement, legislative changes, government policy changes and economic changes.

### **1.1.5 East African Portland Cement Company Limited**

EAPCC is the oldest cement manufacturer in Kenya having been incorporated in 1933. EAPCC started as a trading company, importing cement for early construction work in East Africa and in 1956 constructed its first factory in Athi River. Blue Circle Industries of United Kingdom formed the company. EAPCC's shareholding structure is largely institutionalized, with the company's top ten shareholders owning a combined 96.1% stake in the company. NSSF and the Treasury are the company's top shareholders holding 27.0% and 25.3% respectively. EAPCC produces two types of cement namely Portland Pozzolan Cement and Ordinary Pozzolan Cement ([www.eastafricanportland.com](http://www.eastafricanportland.com), n.d.).



The company has fully automated business processes which mean complex paperwork has been omitted throughout the organization. Blue Triangle Cement, is EAPCC's flagship brand.

## **1.2 Research Problem**

Strategic alignment is important to organization in overcoming competition (Avison 2014), however, strategic alignment has an effect on organization performance and information technology effectiveness. In the competitive environment, organization must engage in different positioning strategies to overcome competitors' barriers (Miller, & Friesen, 2013). Organizations today formulate their strategic moves by identifying the best defensive strategy against existing competitive forces, swaying the balance of the forces to enhance the company's position and choosing a strategy for competitive balance. Information technology has been used significantly in many organizations in changing the organization performance to meet the changing business environment needs. It is equally important for information technology to be aligned with organization performance in order to reap its benefits (Modzelewski, 2009).

The current business environment in which EAPCC operates is a dynamic, fast-changing and highly competitive one. As a result, adoption of IT is an important factor in the today business organizations a strategy and enabler to an organizational change or a driver for transformation. EAPCC has faced increased competition through other new players in the Kenyan market. Growth in EAPCC can be attributed to embracing information technology and its ability to aid in achieving a competitive advantage.

The rapid changes in the field of information technology have contributed to the strategic role in alignment and performance of the organization. Some of the internal resources that have been able to foster growth in the organization include; human resources, information technology platforms and branch network. EAPCC's management needs effective alignment of these internal as well as external resources in order to gain competitive advantage. A number of studies covering strategic alignment have been done. Globally Kearns and Lederer, (2010) researched on the impact of strategic alignment of information technology-based resources for competitive advantage and found out that application of a single IT application cannot deliver competitive advantage to a firm but instead what affects the firms performance is the capacity of the organization to exploit IT functionality on a continuous basis.

Agarwal & Mahoney (2010) study found that a firm's CEO needs to focus more on IT and to align IT strategy with business strategy. Arino (2003) researched on strategic alignment as a source of competitive advantage in Indonesian banking industry and found out that bank will attain a competitive advantage if top management is committed to the adoption of appropriate strategies and recognizes it as a lever for building distinctive advantage. From these studies, it is evident that the top management of the organization has an important role to play in aligning organizations resources to the attainment of the goals.

Alegre & Chiva, (2010) study on the impact of IT-Business Strategic alignment on firm performance found out that strategic alignment maximization of a firms value and supports their business strategy, and when there is environmental unpredictability, there will be need of the streamlining of IT functions with the firms operations to achieve performance.

Manyasi, (2012) researched on the strategic alignment and organizational performance and established that KRA had developed strategies that are designed to enhance performance through the four perspectives of the balanced score card (BSC). Alignment of both organizational and informational strategies resulted in achievement of organizational objectives as through transparency, efficiency and effectiveness in revenue collection.

Kasina, (2012) research on the role of strategic alignment as a source of competitive advantage at Equity Bank (K) Ltd established that Equity bank had three key pillars that need alignment namely; products, process and human resource base. By alignment of these three core pillars, the bank has been able to gain a competitive advantage. This advantage has come in the form of increased profitability, customer numbers, customer deposit, product range, a flexible IT system and a management team that can identify and capture opportunities. Also, Nyandoro, (2013) undertook research on the effect of strategic alignment on the beverage firms in Kenya competitive advantage. The study findings were that there exist a relationship between IT-business strategic alignment, and leadership, structure and process, service quality, values and beliefs, and sustainable competitive advantage.

Many organizations are investing substantial resources in information technology, but the implementation of such complex IT functions in enhancing the organizations' performance is not yet well understood. It is expected that strategically aligned information technology will enhance performance and therefore bringing competitive advantage. There is evidence, however, that many of these technologies fail to deliver the expected outcomes, and often fail. Therefore, organizations need to understand better how to strategically align information technology in achieving the expected organizational goals and benefits. To do so, organizations need to quickly adapt it to the changes in business performance due to dynamic nature of the market. As a result of this research gap, the study will seek to answer the following research question: how does the strategic alignment of information technology affect organizational performance at East African Portland Cement Company Ltd?

### **1.3 Research Objective**

The objective of the study was to establish how strategic alignment of information technology influence corporate performance at East African Portland Cement Company Limited.

### **1.4 Value of the Study**

The study adds value and contributes to the theoretical field by means of exploring the effect of strategic alignment of information technology influence organizational performance since inconsistencies exist in terms of whether strategic alignment lead to improved organizational performance.

The study aids various stakeholders including the cement industry in the country in obtaining details on how they can be able to effectively implement their strategies in the face of numerous challenges facing the industry both from within and outside the country. The management of the EAPCC will be able to assess how effective they can optimize the role of strategic alignment of information technology in the organization's performance in the dynamic business environment.

The government and regulators of the manufacturing industry will also find invaluable information on the role of strategic alignment of information technology on performance can be adopted and as a result put in place policies that will guide and encourage other organizations within and out of the government sector in implementing their strategies. The study will also help learners to realize value from their investments in Information Technology and improve their performance within the business environment. This research stresses the fact that IT functions should have their defined strategic goals and objectives specifically aligned to the business's goals and objectives. Likewise, business functions should ensure that their strategies are aligned to the capabilities that their IT counterparts offer.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter presents the literature review, specifically the literature review focuses on the variables of the study, and the discussion includes, theoretical foundation of the study. The review of literature focuses on the role of strategic alignment of information technology on organizational performance.

### **2.2 Theoretical Foundation**

Strategic alignment of organizations business activities forms a critical discussion by academicians. The concept of strategic alignment can be looked at from two theories, namely; Resource- Based View Theory and resource Dependence Theory

#### **2.2.1 Resource-Based View**

The resource-based has become a popular postulate in strategic management literature (Priem& Butler, 2001). A firm's aim must be to achieve competitive advantage over its competitors, which it ideally derives from valuable resources that are superior in use, hard to imitate and difficult to substitute. Barney(1991) posits that resources can be classified into three categories: physical capital resources such as plant and equipment, human capital resources such as training relationships and experience, and organizational capital resources, for example, reporting structure, formal/informal planning and controlling.

For firm's resources to be the source of a sustained competitive advantage, they must pass the valuable, rare, imperfectly inimitable test (Barney, 1991). The resource-based view proponents point that organization resources should be considered as the foundation of the strategic alignment in improving the organization performance (Barney, 1991). This is because successful firms will find their future competitiveness on establishment of distinctive and unique capabilities, which may often be implicit or intangible in nature. Thus, the essence of strategy is or should be defined by the firm's unique resources and capabilities.

Furthermore, the value-creating capacity of a firm's strategy, depends on the rent-generating ability of the organizations and this is attributed to effective strategic alignment management which focuses on strategic planning capabilities and company planning practices. This therefore means that strategic alignment is the duty of the top management and more importantly it is a rational exercise that involves objective analysis of company resources and the challenges present in the firm's operations. Planning is often seen as the key to a company's success since it reduces uncertainty, it ensures that alternatives are considered and assists managers in dealing with investors.

### **2.2.2 Resource Dependency Theory**

The proponents of this theory argue that it's important to a link between operations and the external environment. (Wan & Idris, 2012). These environmental linkages can help the firm reduce the levels of transaction costs associated with environmental interdependency. Several factors have been known to intensify the character of these dependencies.

Resource dependency theory strongly emphasizes the role of the board of directors in providing the much needed resources to move the firm to the next level. The theory further recognizes the role of the administrative arm as a link between the firm and the resources required to accomplish its goals (Tricker,2012). Resource dependency theory further points to the fact that organizations tend to reduce the risks of external influences by ensuring that resources are available for their survival and growth. Therefore, the issue of effectiveness of the executive and non-executive directors on firm performance is irrelevant.

In view of the fact that much of these resources are scarce and unevenly distributed, it is only through interdependent organizational relationships that organizations can share these benefits (Hitt et al., 2012).This implies that, boards of directors in a company are an important mechanism that absorbs critical elements of environmental uncertainty that can help reduce transaction costs associated with environmental interdependency.

### **2.3 Application of Information Technology in Public Entities**

The combination of IT and public organization elements influences an organization's capacity to develop and deploy more innovative techniques to enhance performance. Similarly, Tippins and Sohi (2003) defines IT capability to be influenced by: IT knowledge, IT operations and IT infrastructure. These aspects indicate that the capacity of the development team influences outcomes of the organization. The IT in public organizations concerns with the extent to which they have a body of knowledge in information systems and technology.



Yongmei (2008) also notes that IT capability is an important moderating variable that links IT investments to public as well as organization performance. Said et al, (2009) found that IT capability affects the relationship between customer strategies and firm performance by providing a justification for LGA's to invest in term of resources and commitment, in adopting CF-strategies and IT. Huang et al., (2009) point that the development of capabilities in IT serve as a source of communication tool, that support the redefinition of the overall strategic alignment. The effect of IT capability on public organization performance is not definite in the service sector in general, which is contrary to its manufacturing counterpart. The role of IT capabilities in enhancing public organizational performance is well established in the literature.

The information Technology effectiveness contributes to achieving organizational goals and benefits (DeLone& McLean, 2003). This shows that organization benefits from their technology are primarily in strategic and regulatory terms. Besides Baroudi (2006) argued information technology development is considered an essential tool for enhancing system quality. Therefore, user involvement is a dimension to measure system effectiveness. Individual impact affect the behavior of the user, including personal or departmental performance, relating to what influences the information product has on management decisions.

Information technology is central to a Nation's security, economy, public health and safety. This is because businesses, governments, academia, and private citizens are increasingly dependent on IT functions and services for effective products and services delivery. IT in public entities facilitate management of risk to their own operations and those of their customers, through constant monitoring and mitigation activities designed to prevent daily incidents from becoming significant disruptions to national security and public health and safety (Tippins, 2005).

## **2.4 Strategic Alignment of Information Technology & Performance**

Through the strategic alignment of information technology and business, information technology resources will support organizational goals, and reap the advantage of information technology strategic utilization. Therefore, an increase in performance can be achieved and goals will be attained, leading to organizations' thriving despite many challenges. Chanet, (2007) states that organizations that appear to perform best are firms in which there is alignment between realized business strategy and recognized information systems strategy. Luftman and Brier (2009) noted that companies that have achieved alignment can build organization performance in providing them with increased visibility, efficiency, and profitability to compete in today's changing markets.

The business-IT alignment provides direction and organizational flexibility to business to respond to environmental threats and opportunities (Avisonet, 2004). A firm's strategic direction results from the business line that the business-IT alignment policy takes and the flexibility inherent in the social and technical dimension of a business-IT alignment.

The social aspect of business and IT alignment requires the development of IT process to produce the social and business values by aligning business and IT infrastructure. Business-IT alignment allows organizations today to utilize knowledge and expertise in the organization to generate competitiveness that will positively affect business performance (Gandolfi, 2007). Chan et al. (2009) examined the effect of strategic business orientation, IS strategic orientation on IS alignment and their individual and collective effects on the perceived IS effectiveness and organizational performance. Authors tested their hypothesis on 157 North American companies from industries of manufacturing and finance. They found out that while all three have positive effects on the business performance, IS alignment is a better predictor of organizational performance than business and IS strategic orientation.

Palmer & Markus (2010) investigated the impact of integrating business planning with IT planning on the IT-Business alignment maturity and their effects on IS effectiveness and financial performance of the firm. They tested their model with 157 managers from middle to large sized corporations in the US and empirically concluded that as the extent of integration between business plans and IS programs increases both information systems' effectiveness and IS's contribution to organizational performance would be enhanced. Sabherwal and Chan (2011) while researching on effect of strategic alignment on corporate performance found that organizations would have high levels of alignment when the existing organizational strategy is close to the defined IS strategy in a firm.

The findings of their study provided further support for the beneficial effects of strategic alignment on performance. While researching on the relationship between strategic alignment business performance, Cragg, King and Hussin (2012) noted that business units with high levels of alignment performed better than firms with low levels of adjustment.

In a more recent study, Miller & Friesen (2012) showed that positive association exists between alignment and firm success, which might be due to several performance measures including reputation, prestige, new product frequency, and product quality. Sabherwal and Kirs (2008) researched on the alignment between a business unit success factors and their IT capabilities and reported a positive effect of alignment on performance.

Motivated by the complexity of understanding and measuring strategic alignment, Chan et al., (2009) came up with strategic orientation of the existing portfolio of information systems application (STROEPIS). This model is similar to Venkatraman's (2009) strategic direction of business enterprise (STROBE) system and found that strategic alignment has beneficial effects on innovation and market growth but at the same time negative consequences on reputation and financial performance (net profit relative to the competition). There are also few studies that did not empirically support the relationship between alignment and firm performance. As Chan and Reich (2007) cited it, Tallon (2003) reported that seventy percent of the sample firms increased their organizational performance with IT alignment, while thirty percent did not.

Another example was the Palmer and Markus's (2000) study that they could not confirm the relationship between alignment and organizational success while

examining the implementation of quick response technology in the retailing sector. Kekwaletswe and Mathebula (2014) study on Aligning information Systems strategy with the business strategy in a South African banking environment established that business and IS strategies are influenced by events that happen outside the organization such as government regulations and market competition also customer needs and technology trends. It indicates that the organization (internal environment) has to create business and IS strategies that align to enable the team to meet the demands and make use of the opportunities presented by the external environment.

Naidoo and Chebrolu (2011) undertook research on strategic alignment maturity of business and information technology at Volkswagen South Africa. The findings were that alignment of Business-IT strategy has been utilized by organizations to create and improve, improve efficiency, reduce costs, create barriers to entry, improve customer, buyer and supplier relationships, and to create new products and business solutions

Waruingi (2013) research on the extent of alignment of Information and Communication Technology (ICT) strategy on business strategy for companies quoted at the Nairobi Stock Exchange (NSE) established that companies that are service oriented have made major IT investments. They also have higher scores on the strategic alignment scale. This is explained by the fact that investment in IT for them is a leveraging activity geared towards improving customer service.

Therefore they would like to see a strong positive correlation between the high level of customer service and IT investment. This then leads them to establish alignment between the IT function and the business strategy. This, in turn, has made them frontrunners in working towards strategic alignment. Agriculture and industry based

companies have not made as much investment in IT as they have invested heavily in plant and machinery, which drives their core business. For these companies, therefore, focus on strategic alignment has as a result not received adequate attention.

## **2.5 Summary and Research Gaps**

Strategic alignment is deemed crucial in understanding how organizational performance improve through supporting business strategy with other corporate policies. Strategic alignment assists organizations to increase the market position by improving the value and effectiveness of new market research to achieve strategic positioning and operational effectiveness. Moreover, strategic alignment also allows the company to recognize several organizational elements through the automation of tasks which lead to a greater centralization of information. Strategic alignment of IT enables managers to embrace new models for an organizational design that better fit requirements of an unstable environment. The strategic alignment contributes immensely to ensuring that IT investments result in improved IT assets effectively to assist business management and practices and to functionally integrate with internal and external variables.

The strategic alignment on IT enables in the smooth implementation of the strategy, develops reliable and cost effective systems and anticipates customer needs. IT combines with other elements directly to determine the ability to establish and deploy more innovative techniques to enhance performance rapidly. The vast majority of the studies investigated strategic alignment influence on organizational performance. These studies examined the necessity and benefits of aligning IT with the rest of the business. Thus, this research intends to fill the above research gaps on strategic alignment and information technology on the performance of East African Portland Cement Company Ltd in Kenya.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter outlines the research methodology that was used to carry out the survey, what informed the selection of the design, the target population, sampling method used, data collection instrument and how data was analyzed, interpreted and presented.

### **3.2 Research Design**

The researcher adopted case study design since one organization was the unit of research namely, East African Portland Cement Company. Yin, (2003) refers to a study as a case study if its method is qualitative, small number and that the research is clinical, participant-observation and ethnographic.

Further, Yin (2003) opines that a case study is appropriate when the focus of the survey is to answer “how” and “why” questions since the researcher cannot manipulate the behavior of those involved in the study or contextual conditions since they are relevant to the phenomenon under study; or the boundaries between the event and context. The study looked at building a profile on strategic alignment and performance of the firm and hence a case study was deemed appropriate.



### **3.3 Data Collection**

This study used secondary and primary data that was collected using an interview guide. The guide had open-ended questions that were used to obtain in-depth information from the senior managers in the organization. Oral administration of questions was done through a face-to-face encounter, therefore allowing collection of in-depth data.

Using unstructured questions, an interviewees answers may give an insight to his background, motivation, feelings, and decisions to give as much information without holding back much. Specifically, the researcher interviews 4 senior managers at the EAPCC. These were: Head of ICT, Head of Sales and Marketing, Head of Supply Chain, and The Business Controller. These respondents were selected because of the key role they play in strategic alignment of IT and its effect on organizational performance.

### **3.4 Data Analysis**

The qualitative data was analyzed using conceptual content analysis. This is the best-suited method of analysis since it is a case study. Content Analysis is an approach for inferencing by systematically identifying the unique characteristic of messages and using the same approach to relating trends by (Creswell, 2003). According to Mugenda and Mugenda (2003), content analysis is used to study existing information to determine factors that explain a specific phenomenon. The researcher used content analysis to categorize and make valid and replicable inferences from data, summarize the quantitative analysis of messages that relies on the scientific method.

## **CHAPTER FOUR**

### **DATA ANALYSIS, RESULTS AND DISCUSSION**

#### **4.1: Introduction**

The research objective was to establish the role of strategic alignment and information technology on the performance of East African Portland Cement Company Ltd in Kenya. This chapter presents the analysis and findings with regard to the objective and discussion of the same.

#### **4.2 Response Rate**

The researcher sought to interview five staff members that head various departments that were deemed resourceful for the research but of the five targeted, four participated in the research and therefore interviewed. These were: Head of ICT, Head of Sales and Marketing, Head of Supply Chain, and The Business Controller. This represented 80% response and this rate was considered adequate for data analysis.

#### **4.3 Strategic Alignment of Information Technology**

Strategic alignment links information systems planning with business planning. Through the alignment of information systems plan and business plan, information resources will support the business goals, and reap the advantage of information systems strategic utilization.

An effective information Technology contributes to achievement of organizational goals and benefits. The researcher sought to find out how the East African Portland Cement Company information technology is being aligned with the organizations business processes. The three pillars identified that required alignment for optimal results were the company's process, products and human resource capabilities. The interviewees noted that when a firm develops products and services that are required by the customers and these products are supported by proper systems and human resource assets, then the firm will be able to achieve desired level of competitiveness.

The researcher started by establishing from the interviewees the importance of strategic alignment of Information Technology at EAPCC .The researcher established that strategic alignment of IT had facilitated a better synergy in the firms operations in the sense that IT had provided a platform for Integration of core areas of business such as procurement, production and marketing to the extent that the departments activities are now synchronized to serve the customer better. One of the interviewees noted ...

Strategic Alignment of Information Technology has provided Support for EAPCC business to enhance productivity (**Interviewee 2**).

The findings were also that the strategic alignment of the information technology had improved efficiency, and reduced turnaround time of in production through integration of raw materials to the delivery of the firms customers spread over the East Africa Community. The interviewees also noted that through effective coordination of operations in the firms' subsidiary in Uganda.

For effective implementation of an organizations information technology different players need to come together and support the process. The researcher sought to find out the persons involved at EAPCC. The interviewees were unanimous that the persons involved in alignment of the organizations information technology were the Executive committee board, ICT staff and sectional heads. The implementation of the process takes a top-down approach since the board develops the policy to guide the alignment process and the implementation part is done by all members of staff. Further, the interviewees pointed out that for purposes of aligning the organizations IT resources, the organizations adopts communication through ICT service desk, meetings and trainings to create awareness on the need to align organization ICT platforms to its business strategies.

The top management of the organization play facilitate the linking the business and IT strategies. The researcher wanted to establish the role of the EAPCC management in linking the firm businesses and the IT platforms. The interviewees pointed out that the top leadership act as sponsors to the strategic move by allocating an adequate budget to the process and since the same requires changing the organization culture, they noted that the top management provide leadership in change management during the implementation of the process of aligning the IT strategy and the corporate one.

Changes in the organizations strategic decision affecting internal operations also affect the working relationship between the organization and external stakeholders to the organization. Hence the researcher sought to find out how the EAPCC has been aligning its IT capability with its external business environment. The interviewees appreciated that the organization had been adjusting continuously its internal resource

platforms and be aligned with external stakeholders' requirement through organization of trainings and development as well as benchmarking programs. The use of Total Quality Management (TQM) practices that are aimed continuously improving the firm's products and services to meet customer satisfaction was pointed out as a common tool employed by EAPCC.

#### **4.4 Role of Strategic Alignment of Information Technology on Organizational Performance**

The business environment changes depending on the customers' needs, government regulations, competitor pressures and general industry dynamics and if an organization does not adapt to the changes, then its visibility and level of efficiency will be curtailed. In such a circumstance, what is required is for a firm to have the capacity to respond more quickly to changes in the external environment. Towards the realization of this need, the researcher found that EAPCC had adopted a flexible IT system that can be configured to meet the needs of customers as they arise and also be rolled over to a new one with ease.

The interviewees were asked to expound on how the IT systems that have been developed and operationalized by EAPCC have enabled efficient implementation of the organization's strategy, development of a cost effective systems and be able to anticipate customer needs. It was found that the present IT system being used by the company has capacity to accommodate up to 100,000 customer accounts including internal users such as employees and departmental functions.

The interviewees pointed out that the firm had put in place adequate training programs for both its staff and customers on how to use the system since the new system that had been introduced was one-stop-shop for the organization and its customers. The interviewees further noted that it was due to the fact that all the systems and procedures cannot operate on their own since a human input is required to align them. Towards this end, the study found out that EAPCC had initiated a well-developed and enabled work force that has been able to meet the expectation of the market and also align the resources available.

On the question of how the firms IT had enabled implementation of the organization's strategy, development of a reliable and cost effective systems as well as anticipate customer needs, the interviewees pointed out that the utilization of IT system in the firm had facilitated ease of data manipulation and therefore resulting to quick decision making and level of efficiency. In addition, the firm has been able to use leverage its systems to link with to improve its service delivery through alternative payment systems such as M-Pesa. Consequently, one interviewee noted that;

Utilization of IT has reduced turnaround time of customer service and reduced cost through implementation of Electronic Document Management and payment System.

**(Interviewee 1)**

In addition, adoption of the efficient IT system has led to efficient organizational reporting since most of the organizations processes are captured and processed with the system and therefore data mining process is made easier which has enabled faster generation of reports and decision making. The introduction of IT system at EAPCC is also expected to influence the firm's innovation process. On the question of how the combination of IT and other organizations resources had influenced its innovation process, the interviewees were able to enumerate several points to this regard.

It was noted that the combination of IT with financial systems had enhanced payment system through Mobile and Internet Banking and also availed an interactive communication platform. Further the combination of IT and supply chain process has enhanced service delivery through the e-procurement and automation of fleet management process which has led to improved customer experience and efficient feedback mechanisms on the performance of the organizations processes and products.

Alignment of the organization's resources with its objectives was found to have resulted in increased opportunities which were possible to be captured and implemented easily faster. A case in point was that EAPCC had been able to increase its market share in Northern Uganda because customers could contact there warehouses in the Central Uganda and make their orders without necessarily travelling to the actual warehouse and in case of any complain, the same can be accessed in the head office directly. This capability was attributed to the improved communication network, courtesy of the IT integration of the organizations supply chain.

The other benefits that arose from the IT integration was that the organization able to attract highly qualified staff with improved terms of service and capacity to embrace

modern technology and research. The firm's alignment capacity however faces a number of challenges. The respondents pointed out that this threat can be in form of individuals, group, or organization outside EAPCC who target the firms performing staff by offering better terms of remuneration in line with the market. The other challenge is the vulnerability of the firm to socio-political changes and political patronage

On the question of IT capabilities had enhanced service reliability, reduced transaction errors and increase consistency at the EAPCC, the interviewees pointed out that alignment of the IT system with the organization process had improved system uptime and automation of business processes through optimization of business systems and ensuring maximum availability of EAPCC network and infrastructure. Further, integration of business systems had increased the ease of transaction as well as increased efficiency, end to end.

#### **4.5 Discussions**

The research findings have established how IT alignment of organizational processes and values to achieve competitiveness. The organization's leadership, beliefs and values as well as structure were found to require proper alignment with the IT in order for the firms processes work towards the achievement of a common goal in the organization. This finding reinforces the strategic alignment theory as well as the findings of Crotts et al., (2001) which points out the importance of alignment of the organizations processes including IT, as a source of a firm's competitiveness.

Yongmei (2008) points that IT capability is a critical variable linking IT investments to public organization performance. He notes that IT capability moderates the nexus



between customer-focused strategies and firm performance by providing a justification for a firm to invest in resources and commitment. However, Huang et al., (2009) argued that the development of IT capability, such as creating an Intranet to serve as a repository and communication tool, varies from one firm to another depending on the level of adoption of the alignment. Though, the research was done on a single industry, Chan et al. (2006) in an empirical study concluded that the effect of alignment on performance varies across different industries and for different business strategies. Thus it means that alignment on some competitive priorities is influenced by industry membership and no one successful strategy in a firm can be replicated in another firm.

The research findings also support a holistic fit in the organizations operations whereby the strategy, culture and structure of an organization work in tandem in order to realize the necessary competitive advantage. Optimal level of alignment cannot therefore be achieved if one of the variables is not matched with the other and this will result in a sub-optimal efficiency. It is only when the three concepts are in alignment that the organization manages to be effective.

The study also shows that misalignment of organizational resources leads to missing competitive advantages and opportunities, increasing costs, increasing wasted time and creating negative environment for IT investments. In consideration of the position that the sustainability of the competitive advantage is conditional on the current efficiency, cost, and the organizational environment, it becomes imperative that for effective utilization of one's resources, the organization should strive to continually adapt its operations and resources to the changing business environment. Just as Benbya and McKelvey (2006) pointed out, achieving alignment should be a continuous process in a firm and organization should therefore change the three domains (structure/culture/strategy) concurrently, because a change in any one domain will need adjustments other domains for effective alignment to be maintained

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter represents the summary of the findings, conclusion, limitations and recommendations of the study.

#### **5.2 Summary of Findings**

The study established that to create sustainable competitive advantages through alignment of organizations IT with business processes and resources there is need for an organization to come up with a top-down policy that will involve all cadres of employees. This is because the support of all members of staff in the organization was found to be necessary in the process of aligning the organizations IT to the internal process in a firm. With the support of the management and staff, the study found out that the benefits that had resulted from the alignment include the provision of customized products and services, product innovation, shorter turnaround period of products and better customer service.

In realizing better performance from the alignment of IT with the firm's internal processes, EAPCC identified three important pillars that it considered to be important in influencing its competitiveness. These pillars were the firms the process, products and human resource capabilities. It is through the integration of the three pillars using the IT that its competitiveness was affected positively. Consequently, it was pointed out that in achieving effective integration, the firm had been able to develop innovative products and service to suit the customers' needs.

The study also highlighted the point that business environment changes every other day due to government regulations, competitor pressures and business dynamics and in order for the firm to adjust accordingly and at the same time capture the available opportunities that come about from the changes necessary to develop an organizational structure that easily identifies the threats and opportunities that arise from the situation in the market and be able to use the available IT system to limit the threats to its operations.

Organizations strategic alignment allows a company to leverage organizational knowledge and expertise that it currently has in the existing management infrastructure in order to create a form of competitiveness that will positively affect business performance. The effect of leadership on strategic alignment was found to require a feedback communication mechanism between business and IT executives in the firm in order for business and IT plans to be coordinated and to share domain knowledge between business and IT managers. The other benefits to the bank that have resulted from strategic alignment include an increased potential of the firm to attract qualified staff, ability to incorporate modern technology in the firms processes and research create ways of enhancing revenue generation, attracting more clients from the easy to use system and generally greater opportunity for profitable businesses that has increased business opportunity for the firm.

### **5.3 Conclusions**

An organizations competitive advantage does not come out of utilization of its internal resources alone but rather on how effectively it managers to align its internal resources in a manner that it brings about synergy in operations. The alignment of organizations internal and external strategies with its IT platform is bound to give the organization a competitive advantage if only there is adequate scanning of the firms present day operating environment and identifying the threats and opportunities that exist in the market.

From the study, it can be concluded that for effective results on strategic alignment of organizations IT system, there is need for a firm to identify the major areas which it feels will influence its level of competitiveness. It is from interlinking this pillars, through IT integration, that an organization will be able to realise the desired results in terms of changing its operations and differentiating its products from the competitors. Therefore, it is not enough for a firm to align its business operations with IT system without appropriately identifying the key pillars that will generate greatest benefit to the firm.

For effective realisation of benefits of strategic alignment, there is need for a top-down approach to be adopted in an organization whereby the top management comes up with the appropriate integration policies but the same must be cascaded down to all staff cadres. This is to avoid resistance from the lower cadre employees who might be tempted to curtail the implementation of the system.

In most cases, introduction of IT infrastructure affects the working condition, including layoffs and this therefore calls for appropriate top management leadership to provide guidance to the affected staff and external partners.

#### **5.4 Recommendation for Policy and Practice**

The study has highlighted the important role of a firm identifying its important processes that needs to be integrated for optimal benefits. It is therefore recommended that a business unit, before undertaking a process integration evaluates all its operational activities and identifies the areas that will result in more benefit to the business unit through IT integration.

The role of top management in the integration process was reinforced by the study. It is therefore imperative that the top management support is present in a firm's strategic alignment process since, though the management are the initiators of such IT strategy, a loss of such a support will impact on the strategy outcome.

Thirdly, the study found out that the strategic alignment process in a firm is time and resource consuming exercise. There is need therefore for the exercise to be done when the organization is completely convinced of the benefits that will arise from the strategy and also enough resources be allocated to see the process through. A cost benefit analysis is also recommended to be undertaken to establish the viability of the process before undertaking large-scale investments in a firm it is advised that relevant customer segments be identified and their needs spelt out in advance.

## **5.5 Limitations of the Study**

This study is limited since it was a case study and therefore the findings of the study cannot be generalized to other firms, even in the same industry as EAPCC. The scope of further research may be extended to local firms as well as incorporation of more control variables. Further, it is possible that some interviewees might have been biased in their answers since they were commenting on their employer. Hence more interviewees would be required in future to increase their representation and allow better check of information consistency. However, irrespective of the above limitations, the findings have important policy implications.

## **5.6 Recommendation for Further Studies**

The study confined itself to East Africa Portland Cement Company and the findings may not be applicable in other sectors or even other firms operating in the industry. It is therefore recommended that the study is replicated in other local manufacturing firms and industries to facilitate comparison between the two different firms. A study is also recommended to be undertaken on the effect of an organizations strategic alignment on the financial performance before and after the adoption of the alignment.

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## **APPENDIX: INTERVIEW GUIDE**

Please, give your comment on strategic alignment and information technology on the performance of East African Portland Cement Company Ltd in Kenya

## **SECTION A: Strategic Alignment of Information Technology**

1. In your opinion what is the importance of Strategic Alignment of Information Technology at EAPCC?
2. Who are involved in the implementation of alignment of the IT with the business processes at EAPCC?
3. In the process of the organization aligning its IT resources with the business process, how is the IT resource awareness, integration and alignment process undertaken in the form.
4. What role does the top leadership play in the interaction and linkages between business and IT strategies?
5. How has the organization been integrating its functions across its business strategies, IT strategies and other?
6. How has the organization been aligning its IT capability with its external business environment and internal resources and infrastructure?

## **SECTION B: Role of Strategic Alignment of Information Technology on Organizational Performance**

1. How has the utilization of IT enabled the smooth implementation of the organization's strategy, development of a reliable and cost effective systems and be able to anticipate customer needs
2. How has the combination of IT and other organization elements influenced EAPCC ability to develop and deploy more innovative techniques and consequently enhance its performance
3. How has the company's IT capability been able to act as a moderating variable that links investments to firm performance
4. How as IT capabilities enhanced service reliability, reduced transaction errors and increase consistency at the EAPCC?
5. The business-IT alignment provides direction and organizational flexibility to allow business to respond to environmental threats and opportunities