DECLARATION

I certify that this research project is my original work and that it has not been presented previously for a degree in University of Nairobi or any other University.

AUSTINE MAKUNGU NGAIRA

REG NO: D61/76690/2009

Signature ……………………… Date ………………………

DECLARATION BY THE SUPERVISOR

This research has been submitted for examination with our approval as University Supervisors

Supervisor:

Dr. Kate Litondo

Management Science

University of Nairobi

Signature ……………………… Date ………………………
DEDICATION

I dedicate this work to my family members: my mom and dad who have given me the heart to go on and my sons Ian and Chadwick’s moral support during this period of study and research. May God bless you all.
ACKNOWLEDGEMENT

I am grateful for the tireless efforts of my supervisor: Dr. Kate Litondo and moderator Mr. G. Ondiek for their technical input in the process of developing this project. I also appreciate the efforts of my colleagues at KCA University Western campus on data analysis presentation.
ABSTRACT

Information technology (IT) is very important for an institution’s daily operations and its strategic capabilities. IT has enhanced the way business is done, providing competitive advantage for those who adopt them. Numerous articles have been written about how IT affects organizational performance. Although IT has been used significantly in many educational institutions, there are few reported studies of IT alignment in these institutions. KCA University has invested in Technology however there is little empirical evidence in exploring the influence of business and Information Technology alignment on performance at the University. It is in this regard that this study was designed to explore the influence of IT alignment on performance at KCA University, Western Campus. The findings from this study will help institutions of higher learning to realize value from their investments in Information Technology after aligning IT hence improve on their performance. The study was conducted through a case study research design and targeted 75 workers. A sample size of 63 Workers was used for the study. The study used self-administered structured questionnaires to collect primary data. Descriptive statistical procedures were used in data analysis. Data was presented using tables. The study established that 88.9% of the respondents agree that IT is used in exams processing, 81.5% of the respondents agree to having good internet connectivity, and 76% of respondents agree that IT alignment has improved registration and data accuracy. The study recommends user trainings be conducted on a regular basis to encourage usage of IT in various departments and functional areas. Further research can be conducted on Influence of training on usage of IT.
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<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>DVD</td>
<td>Digital Video Disk</td>
</tr>
<tr>
<td>KCA</td>
<td>Kenya College of Accountancy</td>
</tr>
<tr>
<td>KCAU</td>
<td>KCA University</td>
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<tr>
<td>CBD</td>
<td>Central Business Division</td>
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OPERATIONAL DEFINITION OF TERMS

**Business** - is an organization involved in the trade of goods, services, or both to consumers.

**Information Technology (IT)** is the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data, often in the context of a business or other enterprise.

**Alignment** - a position of agreement or alliance.
CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Information technology (IT) is very important for an institution’s daily operations and its strategic capabilities. IT has changed the way organizations manage their business processes, produce their products, deliver their services and communicate with (potential) customers (Brynjolffson and Hitt, 2000). A key success factor in organizations is therefore an effective and efficient alignment of the way IT supports business strategies and processes.

IT has been long viewed as a technological resource that would help organizations to do better things (Hedman and Kalling, 2002). Benemati and Lederer, (2000) are of the view that IT has enhanced the way business is done, providing competitive advantage for those who adopt them. This has necessitated the need for businesses to adapt and change continuously to stay ahead of the competition (Jaska and Hogan, 2006). A key success factor in institutions is an effective and efficient alignment of the way IT supports business strategies and processes. Though Alignment is more problematic in the idiosyncratic context of higher education (Albrecht et al., 2004).

Numerous articles have been written about how IT affects organizational performance (Dedrick, 2003). There are two main approaches. The first approach examines the direct and multiple linkages between IT investment and organizational performance across economy, industry, and firm. The second approach examines the indirect linkages between IT investment and organizational performance through identifying important mediating factor. These two approaches often lead to contradicting results. Some research shows no significant correlation whereas others indicate a positive relationship between IT investment and business performance (Henderson and Venkatraman, 1993). Sabherwal and Chan (2001) found that alignment is significantly correlated with perceived business performance, although this link is complex and is dependent on the business strategy.

The theories anchoring this study are among others the unified Theory of Acceptance and Use of Technology (UTAUT) by Venkatesh et al., (2003) which aims to explain user intentions to use an information system and subsequent usage behavior. Strategic Alignment Model (SAM ) by Henderson and Venkatraman (1993)is a framework to aligning business and IT strategy arguing
that the difficulty to realize value from IT investments is firstly due to the lack of alignment between business and IT strategy of the organization that are making investments and due to the lack of a dynamic administrative process to ensure a continuous alignment between the business and IT domains.

Nowadays educational institutions are trying to restructure their educational curricula and classroom facilities, in order to bridge the existing technology gap in teaching and learning. This restructuring process requires effective adoption of technologies into existing environment in order to provide learners with knowledge of specific subject areas, to promote meaningful learning and to enhance professional productivity (Tomei, 2005).

KCA University has embraced an ERP system which is used in almost all business in the university. Despite the heavy investment in Information Technology in the University, there is little empirical evidence to illustrate influence of IT alignment on performance at KCA University Western Campus. Hence the study will attempt to investigate the influence of business and IT alignment on performance at KCA University Western Campus.

1.1.1 Information Technology Alignment

Alignment is defined as “the proper positioning or state of adjustment of parts, or an arrangement of groups or forces in relation to one another.” (Mirriam-Webster Dictionary, 2015). In an information technology (IT) organization, “proper positioning” within an institution becomes inherently more important as technology emerges as a common thread in collegial and institutional activities. In more circumstances, the actions of the institution and the IT organization affect the decisions of each other. Alignment means fitting the IT function with the business’ goals, needs, programs and operating style.

A majority of prior research have focused on organizational and managerial factors affecting IT-Business alignment such as lack of top management support, poor prioritization of IT, complexity of organizational structures, failure of IT staff to understand business concerns, relationship management issues, and lack of a supporting governance structure (Luftman, 2000, 1999; Bush et al., 2009; Evans, 2004; Hu and Huang, 2006; Smith et al., 2007; Mocnik, 2010).
1.1.2 KCA University

KCA is an institution of higher learning offering unique and exciting programs. It is a comprehensive business university that delivers innovation to aid and meet the needs of its customers. KCA University is Located in Ruaraka along the Nairobi Thika highway and just 15 minutes from the city center. The university has four campuses i.e. Ruaraka Campus, Nairobi CBD Campus, Kisumu Campus, and Kitengela Campus. KCA University is uniquely positioned to contribute to, and draw from, the strength and diversity of the vast Nairobi metropolis. The University has also been unrelenting in its deliberate push to establish a beacon of knowledge that will impact the East African region and beyond.

In addition the university has embraced technology in areas such as in distance learning module where it presents a unique blend of digital material accessible to the learner in both online and offline mode. This blended mode is one of the latest innovations by KCA University created to facilitate the delivery of high quality degree programmes in East Africa and the region. It has pioneered ICT and business education using modern technology and pedagogical approaches. This has put KCA U on the path to provide flexibility and equitable access to education, as well as improving educational experiences for both on and off-campus students.

All the campuses are linked via internet in that access to these resources is possible from any computer with an internet connection. Electronic Databases and Journals provide access to unique groups of high quality peer-reviewed journals in specific disciplines, ensuring the information is directly relevant to your interest area. With these a customer has access to over a million full text peer reviewed articles that are current and well researched. Therefore this study will seek the empirical evidence by investigating on the influence of Information Technology alignment on performance at KCA University, Western Campus

1.2 Statement of the problem

Firms need to achieve strategic alignment to be competitive (Avison et al; 2004), since strategic alignment impacts business performance and IT effectiveness (Chan et al; 1993). Information technology is important to institutions of higher learning since it has rapidly changed the way institutions of higher learning are doing business.
Although IT has been used significantly in many educational institutions, there are few reported studies of IT alignment in these institutions. In changing the organizations strategy in order to meet the changing business environment needs, research suggests that it is equally important for the IT function to be aligned with business operations so as to reap its full benefits (Kordel 2004). The rapid changes in IT have propelled it into an increasing strategic role in organizations and also affected the way functions are organized.

Most of the studies of strategic alignment identified in the literature were developed in the context of private institutions (Vargas et al, 2007), although alignment is a concern not only for private institutions but also for public institutions. In spite of being a well-recognized area of research in information system much of the research is focused on organizational and managerial factors affecting IT-Business alignment. However, not much has been written on the challenges of IT-Business alignment from the perspective of IT managers lately.

KCA University has invested in Technology however there is little empirical evidence in exploring the influence of business and Information Technology alignment on performance at the University. Hence the research will seek to answer the following questions; a) what is the extent of IT alignment at KCAU?: b) which factors influence this alignment?; and c) how does alignment influence performance of the institution?

1.3 Research Objectives

The main objective of this study was to investigate influence of business and information technology alignment on performance at KCA University Western campus. The study was guided by the following specific objectives:

i. To establish extent of IT alignment at KCAU.

ii. To determine factors influencing IT alignment at KCAU and

iii. To determine the relationship between IT alignment and performance at the institution.
1.4 Value of the study

The results can be used to communicate to the rest of the organization on the factors that are important in aligning the organization with its business strategy. The result can also be used by the policy makers in establishing a better business strategy, IT strategy organizational infrastructure and IT infrastructure. Several authors confirm that organizations that successfully align their business and IT strategies outperform their non-aligned peers. Firms need to achieve strategic alignment to be competitive. Strategic alignment impacts business performance and IT effectiveness. This study will also help institutions of higher learning to realize value from their investments in Information Technology after aligning IT hence improve on their performance.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section talks about alignment of the IT function with business strategy, and how IT can be positioned to support organizational goals and business objectives. This section covers: The concept of IT/Business Alignment; IT/Business Alignment; Determinants of IT Business Alignment, Empirical review on IT Business Alignment and Performance; theoretical foundation of the study; summary of literature; and Conceptual framework

2.2 Theoretical Foundation of the study

Venkatesh et al. (2003) proposed and tested a unified information technology acceptance and research model, called the Unified Theory of Acceptance and Use of Technology (UTAUT). The model integrates significant elements across eight prominent user acceptance models and formulates a unique measure with core determinants of user behavioral intention and usage. The results of the study provide an exploratory factor analysis of the model, demonstrate satisfactory reliable and valid scales of the model constructs, and suggest further analysis to confirm the model as a valuable tool to evaluate the user acceptance of an information technology.

Many user acceptance models with different determinants are created to measure the user agreement of information systems which is an important factor to indicate a system success or failure (Melone, 1990). Each theory or model has been widely tested to predict user acceptance (Venkatesh and Davis, 2000; Thompson et al., 1991). However, no comprehensive instrument to measure the variety of perceptions of information technology innovations had existed until Venkatesh et al. (2003) attempted to review and compare the existing user acceptance models with an ultimate goal to develop a unified theory of technology acceptance by integrating every major parallel aspect of user acceptance determinants from those models.

The strategic alignment model (SAM) proposed by Henderson and Venkatraman is one of the most cited strategic alignment models (Chan and Reich, 2007a). SAM is composed of two main dimensions: strategic fit and functional integration. Strategic fit refers to the concordance between internal and external domains. Functional integration refers to two type of integration
between business and IT domains. The first type is termed strategic integration and reflects the link between business strategy and IT strategy. The second type is termed operational integration and deals with the link between organizational infrastructure and process, and IT infrastructure and process (Henderson and Venkatraman 1993). SAM is a conceptual model has been used to understand strategic alignment from the perspective of four components, i.e. Business Strategy, IT Strategy, Organizational Infrastructure and IT Infrastructure, and their interdependencies.

Yolande Chan empirically investigated strategic alignment and its effect on other components in the organization (Hale and Cragg, 1996). Chan examined the relationships among Information System (IS) strategic alignment, IS effectiveness and business performance (Chan and Huff, 1993). It depicts the proposition that the relationship between the business strategy and information system strategy is directly related to IS strategic alignment.

2.3 The Concept of Information Technology Alignment

IT-Business alignment has grown significantly over the years because of changing business environment requiring organizations to constantly reflect on the appropriate way to link their IT and business strategies (Luftman, 2000; 1996). Alignment of business and IT strategies has been viewed as key to obtaining value from IT investments, and is therefore an important area of research, given the multi-faceted role for ICT in the education environment.

Business-IT alignment has been identified to permit IT investment to enhance organizational performance. However, there is fear that the return on investment in IT will not be achieved. Among the reasons of failure to generate return from IT investment is the absence of business-IT alignment in organisations. The main reason for the absence of business-IT alignment is the lack of understanding on alignment concept. The absence of alignment causes the loss of opportunity and competitive advantage, and cost increment, hence creating an environment that is negative to IT investment.

Even though business-IT alignment is able to increase the return in IT investment, very few researchers studied the importance of factors that influenced the business-IT alignment. Despite large investment in IT for the purpose of teaching and learning, as well as for improving the efficiency and effectiveness of administrative processes, only a small number of researchers
studied the business-IT alignment in institutions of higher learning. IT-business alignment can help organizations improve the positive impact of IT on their performance (Croteau et al., 2001; Henderson and Venkatraman, 1993) Alignment has been defined by many authors in different ways. Craig et al. (2002) viewed IT alignment as a fit between business strategy and IT strategy. They went on to propose two definitions of fit; Matching fit was defined using the differences between the business and IT strategies and moderate fit was defined using the interaction between the two strategies. Luftman (2003) proposes that the way to improve alignment is to build the right relationships between business and IT and ensure each area has a good understanding of the others area through appropriate training.

Tallon and Kraemer, (1998); view alignment as the extent to which the IS strategy supports and is supported by the business strategy. Silvius (2007) defines alignment as the degree to which the IT applications, infrastructure and organization, the business strategy and processes enable and shape, as well as the process to realize this. Reich and Benbazat (1996) viewed alignment as the degree to which the IT mission, objective and plans support and are supported by the business mission, objectives and plans.

Alignment means fitting the IT function with the business' goals, needs, programs and operating style. It means that the activities of both the IT and business operations are united in one common business purpose (Sid, 1994). According to Silvius, (2000), business and IT alignment is the degree to which IT applications, infrastructure and organization enable and shape the business strategy and processes, as well as the process to realize this .

There is a consensus today among researchers, business and IT managers that IT should align with the company’s overall strategy (Namchul shin, 2003; Karake, 1994, Gartner, 2006) and this involves the IT department ensuring its resources (hardware, software, networks and human resources) are organized in a way it meets not only IT objectives but also the overall objectives of the organisation. According to a survey by Computer Science Corp (CSC), the top concern for senior IT executives is the alignment of the IT function with their business operations (Sid, 1994).Alignment means that the activities of both the IT and business operations are united in one common business purpose (Sid, 1994). Weiser (2000) defined alignment as an organizational process of adjusting different sections of a corporation in order that these sections can work
consistent with each other and in the same direction in order to achieve shared organizational goals by improving the performance and maintaining the competitive advantage (Yang and Hsu, 2010).

2.4 Information Technology/ Business Alignment

Business IT alignment is viewed as a bridge that links IT to different viewpoints on other domains of an organization and its environment (Avila, Goepp, and Kiefer, 2009). Alignment of IT exists when a business organization’s goals and activities are in harmony with the information systems that support them. Chief information officers (CIOs) have consistently considered IT alignment with business strategy a top priority.

Any requirements for an organization’s IT should be in alignment with its business strategy. It is important that the requirements analysis capture both an organization’s strategic business objectives and the activities and processes by which those objectives are to be achieved (Bleistein et al., 2005, 2007) argued that organizations need to understand that by getting requirements right, they can get alignment right; but, the issues of business strategy and strategic alignment are ignored in requirements engineering research literature. Bleistein et al. (2005) proposed an approach that incorporates an explicit understanding of business strategy within requirements engineering activity as a means of ensuring alignment between system requirements and the business strategy that it is intended to support.

Majority of prior research have focused on organizational and managerial factors affecting IT-Business alignment. These include lack of top management support (Luftman, 2000, 1999), poor prioritization of IT, complexity of organizational structures (Bush et al., 2009), failure of IT staff to understand business concerns, relationship management issues (Evans, 2004; Hu and Huang, 2006), and lack of a supporting governance structure (Smith et al., 2007; Mocnik, 2010).

Several studies have indicated that organizations cannot achieve a competitive edge and long-term survival if they fail to align their IT and business strategies. Failure to align business and IT strategies could result to a wide range of implications most especially pursuing a business strategy, goals and objectives that are not compatible with and supported by the IT strategy, and conflicting goals from IT and business professionals (Benko and McFarlan, 2003; Bush et al;
2009). IT and business alignment remains ever more challenging given that business and IT strategies evolve to meet with the dynamic threats and opportunities pose by the business environment (Luftman, 2003).

### 2.5 Determinants of Information Technology/ Business Alignment

Alignment requires processes, structures, capabilities, relationships (Keen, 1991) and strategies. Based on the components of the strategic alignment model and his research in enablers and inhibitors of business IT alignment, Luftman recognizes six criteria for, or building blocks of, the maturity of alignment of IT and business (Luftman, 2000). This include:

#### 2.5.1 Communication

Effective communication is a key element of alignment. Kaplan and Norton (2004) observe that an organization can be considered as “aligned when all employees have commonality of purpose, a shared vision, and an understanding of how their personal roles support the overall strategy.”. Sharing and commonality of views between business and IT management and employees can only be established by active communication of each other's needs, vision, values, goals and methods (Segars and Grover, 1998).

#### 2.5.2 Value measurement

Alignment should pay-off and does pay-off. Several authors confirm that organizations that successfully align business and IT, outperform their non-aligned. Several surveys indicate that the issue of measuring benefits of IT investments is a concern in many organizations (Whitling et al, 1996). Based on this notion, researchers and practitioners have created numerous models and valuation methods to capture this value (Frisk, 2007). IT can be a driver of value, but organizational change is required if any benefits are to be realized (Stefanoue, 2001).

#### 2.5.3 Governance

IT Governance is aimed at ensuring that IT investments and use are aligned with business strategy and in compliance with rules and regulations. Van Grembergen and De Haes (2008) define IT Governance as “the organizational capacity exercised by the board, executive
management and IT management to control the formulation and implementation of IT strategy and in this way ensuring the fusion of business and IT”.

2.5.4 Partnership

Partnership covers the shared visions, perceptions and goals of business and IT executives. A traditional discussion in alignment research is whether alignment is one-way, IT to business, or two-way, with IT and business mutually influencing each other. A more holistic view on alignment can be found with Henderson and Venkatraman (1993) and Poels (2006). This view of a mutual influence between business and IT prevails in today’s thinking about Business IT alignment. Chan and Huff (1993) state that it is necessary for IT to challenge the business, not simply implement its vision.

2.5.5 Scope and Architecture

Galliers et al. (1994), Maeset al. (2000) and Goedvolk et al. (1997) discuss the role of architectures in alignment. The overall conclusion of these works is that an architectural approach towards the design of business processes, information systems and IT structures is instrumental in the realization of alignment of business and IT. Luftman (2007) acknowledges this vision, but also notes that architecture alone is not enough. Another aspect of this building block of Business IT alignment is the scope of these architectures. This entails the boundaries that are taken into account when aligning business and IT.

2.5.6 Skills

The ability to execute includes the skills and competences of both the organisation as a whole and the individual professionals, to perform and deliver. The importance of knowledge in the alignment of business and IT is confirmed by Basselier and Benbasat (2007). A modern IT professional also needs social skills and business knowledge, in order to be able to continue to add value to the business of his or her organization. Morneau (2006) stated that the changing landscape of information technology and security is calling for IT professionals with a strong mix of business and technological acumen.” A similar development is identified by Silvius and Batenburg (2009), for a specific group of professionals, project managers. Duedahl et al. (2005)
elaborated on this study and constructed a model of the competences a business manager needs to have for a better understanding of IT.

2.6 Empirical Review on IT Alignment and Performance

Information technology (IT) is changing the way businesses operate, the process of creating products and services for their customers, and the way in which they compete (Armbrust et al., 2009). Several studies (Chan et al., 1997; Irani, 2002; Kearns and Lederer, 2003; Alter, 2005; Byrd et al., 2006; Luftman et al., 2008), provide support for the hypothesis that “organizations that successfully align their business strategy with their IT strategy will outperform those that do not” (Chan and Reich, 2007a).

Pierce (2002) examined the relationships between business strategy, IT strategy, strategic alignment, return on IT investment, and corporate performance and provided empirical evidence for the effect of alignment between business and IT strategies by measuring return on IT investment and corporate performance. Tallon and Kraemer (2003), using the theory of dynamic capabilities, examined the relationships between IT flexibility, strategic alignment, and IT business value to assess whether capabilities around flexibility can enable corporations to realize greater payoffs from IT investment. Ness (2005) examined the relationships between IT flexibility, strategic alignment, and IT effectiveness to provide empirical evidence on the strength of these relationships and asserted with evidence that IT flexibility has greater influence on IT effectiveness than does strategic alignment on larger IT organizations.

Chebrolu (2010) examined the relationships between cloud adoption, strategic alignment, and IT effectiveness to determine the dominance and priority of these two constructs on IT effectiveness on all IT organizations regardless of their size and type. This study is an extension of Chebrolu’s (2010) research, drilling down to study the impact of individual strategic alignment and its construct elements on IT effectiveness as a whole and on the individual aspects of IT effectiveness. Prior research was used as the basis for certain construct elements, measures, and instrumentation as a means for measuring and determining construct’s reliability, validity, and correlation. Studies from Ness (2005), Tallon and Kraemer (2003), and Pierce (2002), along with their survey formats, were used as a means to achieve construct measurement and instrumentation. Luftman and Kempiahs study of 197 organizations ranks education as the
lowest scoring industry sector on alignment maturity. This position is worrying because of the opportunity IT offers in teaching and learning (Luftman, 2000).

2.7 Summary of Literature
Technology is presenting higher education with opportunities for rapid and radical change, since the success of any learning environment is determined by the degree to which there is adequate alignment among the eight critical factors. Though most companies face different challenges on how to achieve a high degree of IT alignment, researchers have indicated that aligning IT with the organization’s corporate objectives is important to the organization. Many organizations have become almost entirely dependent on IT for their business hence organizations must use IT to achieve their corporate objectives and particularly to “build, sustain and extend competitive advantage” (Boar, 1994).

2.8 Conceptual framework
This is interplay between dependent and the independent variables. The research examines influence of IT alignment on performance at KCA University, Kisumu Campus.

Figure 2.1 Conceptual Framework

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Business IT Alignment</th>
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<tr>
<td>Extent of alignment</td>
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<tr>
<td>Factors influencing alignment</td>
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<tr>
<td>• Communication</td>
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<td>• Value measurement</td>
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<td>• Governance</td>
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<td>• Partnership</td>
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<td>• Scope and Architecture</td>
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<td>• Skills</td>
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<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Performance</th>
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<tr>
<td></td>
<td>Quality of service</td>
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<tr>
<td></td>
<td>User satisfaction</td>
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<td></td>
<td>Helpfulness to users</td>
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Source: Author, 2015
The framework is based on two main elements of IT alignment which include: extent of alignment and factors influencing alignment. Business IT alignment is independent variable while performance is dependent variable. Factors influencing alignment includes communication, value measurement, governance, partnership, scope and architecture and skills. Performance is determined by quality of service, user satisfaction and helpfulness to users. Figure 2.1 above show the conceptual framework of this study
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research method, target population, and sampling procedures. It also explains the design which was used in data collection, instruments of data collection, the type of data and how it was analyzed. The data was obtained from both primary and secondary sources which included library research, interview, and soliciting responses from the respondents by use of questionnaires.

3.2 Research Design

The study was conducted through a case study research design. Case study is research design where the research is involved in an intensified, descriptive and holistic analysis of a single entity (Oso and Onen, 2009). Case studies are suitable for studies that have smaller samples for in depth analysis in order to gain insight in large cases to describe and explain rather than product phenomenon for justification of case study.

3.3 Population

The study targeted 75 workers of KCA University Kisumu Campus. Mugenda and Mugenda (2008) define study population as all members of a real or hypothetical set of people, events or objects to which an investigator wishes to generalize the results of a research study.

3.4 Sample size and sampling technique

A sample size of 63 workers of KCA University Kisumu Campus was studied since the entire population of interest cannot be studied. A sample is the number of items selected to represent the whole population (Kothari, 2011). Also Oso and Onen (2009) defines sample size as the subject on which the measurement is taken as the unit of study. A sampling design is the method of selecting items to be observed for a given study (Kothari, 2011). The desired sample was derived from Fisher’s model as cited in (Mugenda and Mugenda, 2008) takes \( p = 0.5 \) as
appropriate. At 95% confidence interval, the sample size was used. In this case, when the target population is more than 10,000, the formulae is given as

\[ n = \frac{z^2 pq}{d^2} \]

Where;

\( p \) is the proportion of target population with traits being investigated;

\( q \) is the proportion of target population without traits being investigated i.e. (q=1-p);

\( d \) is the tolerance error; and

\( z \) is normal statistical deviation.

At 95% confidence level, and taking \( p=0.5 \),

\[ n = \left(\frac{1.96}{0.05}\right)^2 \frac{(0.5)(0.5)}{(0.05)^2} = 384. \]

Since target population is less than 10,000, the modified Fisher’s formula to be used for the appropriate sample is:

\[ n_f = \frac{n}{1 + \frac{n}{N}} \]

Where: \( n_f \) is the required sample size;

\( n \) is the sample size when population is more than 10,000; and

\( N \) is the observed target population

\[ n_f = \frac{384}{1 + \frac{384}{75}} = 63 \text{ workers} \]

The sample size is shown in Table 3.4
Table 3.1: Sample population

<table>
<thead>
<tr>
<th>Category</th>
<th>Target population</th>
<th>Sample population</th>
<th>Percentage of sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty staff</td>
<td>60</td>
<td>50</td>
<td>80%</td>
</tr>
<tr>
<td>Non faculty staff</td>
<td>15</td>
<td>13</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>63</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Author (2015)

3.5 Data Collection

3.5.1 Type of data

The researcher used both primary and secondary data. According to Saunders, Lewis and Thornhill (2009) primary data are those which are collected afresh and for the first time, and thus happen to be original in character hence relevant for co-relation research design. Primary data was obtained through questionnaires and interview guides. These instruments enhance the collection of primary data with high level of originality. Secondary data was obtained from research bodies and document analysis related to the respondents. In addition, internet, journals and other project reports that have information on the factors influencing business and information technology alignment in the education sector: A case of KCA University Kisumu Campus was examined.

3.5.2 Instruments

The study used self-administered structured questionnaires for the employees in KCA University, Western Campus. The questionnaire was prepared and given to the employees of KCA University Western Campus by the researcher.

3.5.3 Respondents

Questionnaires were administered to 63 respondents of KCA University, Western Campus by the researcher.
3.6 Data Analysis and Presentation

Descriptive statistical procedures were used in data analysis. Upon collection, the data was cleaned, and coded by creating categories using numeric values. It was then entered into spreadsheets and analysed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics such as frequency counts and percentages was used to analyse the quantitative data. Data was presented using tables and percentages. According to Kothari (2011), descriptive analysis involves a process of transforming a mass of data into tables, charts, with frequency distribution and percentages.

Qualitative data from open ended items of the questionnaires and interviews guides was analyzed using thematic analysis as per the objectives of the study. According to Braun and Clarke (2006), thematic analysis is a method for identifying, analyzing patterns (themes) within data. It minimally organizes and describes data set in details. Moreover, thematic analysis interprets various aspects of research. Thematic analysis suits this study because it is not grounded in any particular theoretical and conceptual framework and can therefore be applied across a wide range of qualitative research approaches, making it flexible.
CHAPTER FOUR: FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents analysis and findings of the study as set out in the research methodology. Data was gathered from questionnaires as the research instrument. The data has been presented in form of quantitative, qualitative followed by discussions of the data results. The chapter concludes with critical analysis of the findings.

4.2 Demographic Characteristics of Respondents

This section presents findings on the social demographic characteristics of respondents.

4.2.1 Gender of Respondents

This section presents findings on gender of the respondents, table 4.1 represents the findings. Results in Table 4.1 above show that 42 out of 54 respondents are male whereas, 12 out of 54 are female. This represents 77.8% and 22.2% respectively. From the findings it is evident that majority (77.8%) of employees at KCAU are male.

Table 4.1: Gender of Respondents

<table>
<thead>
<tr>
<th>Gender of Respondents</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>42</td>
<td>77.8</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>22.2</td>
</tr>
<tr>
<td>Total</td>
<td>54</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Research Data

4.2.2 Age of Respondents

Results in Table 4.2 above show that majority of respondents are between 26 to 30 years old at 55.6% followed by 36 to 45 years old comprising of 25.9%.
Table 4.2 Age of Respondents

<table>
<thead>
<tr>
<th>Age bracket</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 - 25 years</td>
<td>5</td>
<td>9.2</td>
</tr>
<tr>
<td>26 - 35 years</td>
<td>30</td>
<td>55.6</td>
</tr>
<tr>
<td>36 - 45 years</td>
<td>14</td>
<td>25.9</td>
</tr>
<tr>
<td>46 - 55 years</td>
<td>5</td>
<td>9.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>54</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Research Data

4.2.3 Level of Education

Results in Table 4.3 above show that majority of respondents have a degree qualification comprising of 51.9% followed by Masters with 25.9%.

Table 4.3 Level of Education

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>O – level</td>
<td>4</td>
<td>7.4</td>
</tr>
<tr>
<td>Diploma</td>
<td>6</td>
<td>11.1</td>
</tr>
<tr>
<td>Degree</td>
<td>28</td>
<td>51.9</td>
</tr>
<tr>
<td>Masters</td>
<td>14</td>
<td>25.9</td>
</tr>
<tr>
<td>Doctoral</td>
<td>2</td>
<td>3.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>54</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Research data

4.2.4 Duration of Employment

Findings from the study as shown in Table 4.4 reveal that majority of respondents had worked for a period of between 2 – 5 years comprising of 50% followed by 31.5% who had worked for 6 – 10 years. Only 16.7% of respondents had worked for a period of 11- 15 years.
Table 4.4 Duration of Employment

<table>
<thead>
<tr>
<th>Duration of Employment</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 1 year</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>2 - 5 years</td>
<td>27</td>
<td>50</td>
</tr>
<tr>
<td>6 - 10 years</td>
<td>17</td>
<td>31.5</td>
</tr>
<tr>
<td>11 - 15 years</td>
<td>9</td>
<td>16.7</td>
</tr>
<tr>
<td>Total</td>
<td>54</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Research Data

4.3 Extent of IT Alignment at KCAU

The research was concerned with establishing extent of IT is used in the indicated areas in KCAU. Figure 4.1 below shows this.

Figure 4.1 Extent of IT Alignment

Source: Research Data
A multiple response of the study was developed and given the name IT Business Alignment which was eventually used to ascertain the strength of each of the twenty sub-variables under this category. The figure above shows that the four main contributors to IT Business Alignment at KCAU are rewarding staff at 10.3%, followed by partnered with other institution of higher learning at 9.3%, then interact with community in solving problems and student selection both at 8.2%. The least three contributors were: link teaching to industry at 1.5%, marketing students at 2.1, innovation for improvement of teaching and program development and review both at 3.1%.

The respondents were asked to rate the extent of IT/ Business Alignment and the results are shown in Table 4.5 below. The likert scale rating of 1 – 5 was used where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree.

Table 4.5 above shows that 50% of the respondents disagree that IT is not used in student selection and another 50% are of the similar view with regard to academic staff selection. However, 35.2% of the respondents neither agree nor disagree on usage of IT in academic staff selection.40.7% of the respondents agree that IT is used in connect to alumni while 35.2% disagree. Similarly 40.7% agree to usage of IT in linking teaching to industry though 38.9 neither agree nor disagree.

Table 4.5 also illustrates that 51.9% of the respondents agree that IT is used in marketing to students and 37% neither agree nor disagree on usage of IT in marketing to students. 59.3 % of the workers agree to the usage of IT in Research though 20.4% of the respondents neither agreed nor disagreed on whether IT is used in research, similar to 20.4% of the respondents who strongly disagreed.51.9% of the respondents agreed on using IT in curriculum preparation however 29.7% disagreed. 40.7% of the respondents agreed to usage of IT in partnering with other institutions of higher learning while 37% disagreed.

Table 4.5 above shows that 48.1% of the respondents agree to usage of IT in collaboration with other institutions of higher learning while 29.7% disagreed on the same. 46.3% of respondents neither agree nor disagree on usage of IT in participation platform with students however, 33.4% agreed. 42.6% of respondents neither agree nor disagree to usage of IT in link to extra-
curriculum activities of students, while 33.4% agreed. 48.2% of respondents monitor performance of staff, 27.8% of the respondents disagree.

Table 4.5: Extent of IT Alignment

<table>
<thead>
<tr>
<th>Extent of IT Alignment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td>Student selection</td>
<td>27.8</td>
</tr>
<tr>
<td>Academic staff selection</td>
<td>27.8</td>
</tr>
<tr>
<td>Connect to alumni</td>
<td>13</td>
</tr>
<tr>
<td>Link teaching to industry</td>
<td>14.8</td>
</tr>
<tr>
<td>Marketing students</td>
<td>3.7</td>
</tr>
<tr>
<td>In research</td>
<td>3.7</td>
</tr>
<tr>
<td>Curriculum preparation</td>
<td>13</td>
</tr>
<tr>
<td>Partnered with other institutions of higher learning</td>
<td>3.7</td>
</tr>
<tr>
<td>Collaboration with other institution of higher learning</td>
<td>5.6</td>
</tr>
<tr>
<td>Participation platform with students</td>
<td>7.4</td>
</tr>
<tr>
<td>Link to extra-curriculum activities of students</td>
<td>7.4</td>
</tr>
<tr>
<td>Monitor performance of staff</td>
<td>7.4</td>
</tr>
<tr>
<td>Innovation for improvement in teaching</td>
<td>3.7</td>
</tr>
<tr>
<td>Interact with community in solving problems</td>
<td>18.5</td>
</tr>
<tr>
<td>Recognize and support individual talents</td>
<td>24.1</td>
</tr>
<tr>
<td>Rewarding staff</td>
<td>25.9</td>
</tr>
<tr>
<td>Quality assurance of teaching</td>
<td>7.4</td>
</tr>
<tr>
<td>Service delivery (e.g. Use of LCDs, PowerPoint)</td>
<td>7.4</td>
</tr>
<tr>
<td>Program development and review</td>
<td>3.7</td>
</tr>
<tr>
<td>Exam processing</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Source: Research Data

Table 4.5 above show that 51.8% of respondents disagree to the use of IT in innovation for improvement in teaching; however 33.3% neither agree nor disagree. 48.1% of respondents disagree to usage of IT in interacting with community in solving problems while 35.2% neither
agree nor disagree. The study also established that 50% of the employees disagreed to the usage of IT in recognizing and supporting individual talent. The results above show that 62.9% of the workers disagree to usage of IT in rewarding staff while 25.9% neither agree nor disagree.

40.7% of respondents neither agree nor disagree to use of IT in quality assurance of teaching however 35.2% agree. 51.8% of respondents agree to usage of IT in service delivery while 40.7% neither agree nor disagree. 48.1% of respondents agree to the usage of IT in program development and review however 37% neither agree nor disagree. 88.9% of the workers agree that IT is used in exams processing at the University.

4.4 Factors Influencing IT Alignment at KCA U

The research sought to establish Factors influencing IT alignment at KCAU, figure 4.2 below represents this.

Figure 4.2 Factors Affecting IT/ Business Alignment

Source: Research Data
A multiple response of the study was developed and given the name factors affecting IT/ Business Alignment which was used to ascertain the strength of each of the nine sub-variables under this category. The figure above shows that the four main contributory factors affecting IT Business Alignment at KCAU are: Is there business/IT partnerships at 15.5%, followed by are there initiatives for IT training for staffs at 13.4%, and does top management support all IT investments at 13.4%. The least contributors were is there good internet connectivity at 4.3%, and do IT specialists and managers of core departments discuss IT usage at 7.3%.

The respondents were asked to rate the factors influencing IT Alignment and the results are as shown in Table 4.6 below.

**Table 4.6: Factors Influencing IT Alignment**

<table>
<thead>
<tr>
<th>Factors influencing IT alignment</th>
<th>Yes %</th>
<th>No %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does top management support all IT investments?</td>
<td>42.6</td>
<td>57.4</td>
</tr>
<tr>
<td>Are users involved in the implementation of IT applications?</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Do you have an IT policy?</td>
<td>53.7</td>
<td>46.3</td>
</tr>
<tr>
<td>Do IT specialists and managers of core departments discuss IT usage?</td>
<td>68.5</td>
<td>31.5</td>
</tr>
<tr>
<td>Is there resistance by staff members to the usage of IT?</td>
<td>44.4</td>
<td>55.6</td>
</tr>
<tr>
<td>Is there good internet connectivity?</td>
<td>81.5</td>
<td>18.5</td>
</tr>
<tr>
<td>Do you encounter power failures?</td>
<td>53.7</td>
<td>46.3</td>
</tr>
<tr>
<td>Are there initiatives for IT training for staffs?</td>
<td>42.6</td>
<td>57.4</td>
</tr>
<tr>
<td>Is there business/IT partnerships</td>
<td>33.3</td>
<td>66.7</td>
</tr>
</tbody>
</table>

Source: Research Data

The findings in the table above show that 57.4% of top management does not support all IT investments while 42.6% support all IT investments. 50% of the respondents agreed to users being involved in the implementation of IT applications, similarly 50% disagreed. 53.7% of the workers agreed to have an IT policy in KCAU to 46.3% who disagreed. 68.5% of the workers agreed to managers of core departments discussing IT usage while 31.5% of the respondents disagreed. 81.5% of the workers agreed to have good internet connectivity while 18.5% disagreed. The study also established that 53.7% of the respondents agree to encounter power
failures while 46.3% of the respondents disagreed to having power failures. The findings above also show that 57.4% of the respondents disagreed to having initiatives for IT training for staffs, 42.6% of the respondents agreed to having initiatives for IT training for staffs. 66.7% denied having business/IT partnerships in KCAU except 33.3% who agreed to have business/IT partnerships.

4.5 Relationship between IT Alignment and Performance at KCAU

The research sought to establish relationship between IT alignment and performance at KCAU.

Figure 4.3 Institution Performance Measures

![Institution Performance measures](source)

Source: Research Data

A multiple response of the study was developed and given the name institution performance measures which were used to ascertain the strength of each of the six sub-variables under this category. The figure above shows that the two main contributory institution performance
measures at KCAU are: lecturers have published at least an article in reference journals at 36.5%, followed by all lecturers are involved in curriculum development at 32.7%. The least two contributor institution performance measures were lecturers evaluation conducted twice per semester at 1.9%, and improved registration and data accuracy at 3.8%.

The respondents were asked to rate the relationship between IT Alignment and performance in KCAU and the results are shown in Table 4.7 below, where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

Table 4.7: Relationship between IT Alignment and Performance at KCAU

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td>Lecturers have published at least an article in</td>
<td></td>
</tr>
<tr>
<td>reference journals</td>
<td>11.1</td>
</tr>
<tr>
<td>All lecturers are involved in curriculum</td>
<td></td>
</tr>
<tr>
<td>development</td>
<td>16.7</td>
</tr>
<tr>
<td>Use of E-learning and projectors in lectures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.7</td>
</tr>
<tr>
<td>Improved registration and data accuracy</td>
<td>3.7</td>
</tr>
<tr>
<td>Lecturers evaluation conducted twice per semester</td>
<td>9.3</td>
</tr>
<tr>
<td>Staff review performance biannually according</td>
<td>13</td>
</tr>
<tr>
<td>to Balanced Score Card</td>
<td></td>
</tr>
</tbody>
</table>

Source: Research Data

The results above show that 46.3% of the respondents disagree to lecturers having published an article in the reference journals compared to 33.3% who agree while 20.4% neither agreed nor disagreed 48.2% of the respondents were of the view that not all lecturers are involved in curriculum development, 33.3% of the respondents agree that all lecturers are involved in curriculum development, and 20.4% neither agree nor disagree. The table above show that 57.4% of the respondents agree to the use of e-learning and projectors in lectures, 13% of the respondents disagree to use of e-learning and projectors in lectures while 29.6% of the respondents neither agree nor disagree. 76% of the workers agreed to improved registration and
data accuracy, 7.4% of the respondents disagree to improved registration and data accuracy while 16.7% neither agree nor disagree. 64.8% of the employees agree to lecturers evaluation conducted twice per semester, 11.2% of the respondents disagree to lecturers evaluation conducted twice per semester, while 24.1% of the respondents neither agree nor disagree. Most of the staffs (38.9%) were not sure as to whether staff review performance biannually according to balanced score card compared to 33.4% who agreed to staff reviewing performance biannually according to balanced score card while 27.8% disagree to staff reviewing performance biannually according to balanced score card.

4.6 Regression Analysis Findings

The researcher further conducted regression analysis to establish the relationship between the independent variables and the dependent variable of the study. The section below represents the findings.

Table 4.8: Rewarding Staff and Top Management Support All IT Investments

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.092a</td>
<td>.009</td>
<td>-.011</td>
<td>1.01348</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), does top management support all IT investments

Dependent variable rewarding staff and Predictor variable does top management support all IT investments. Correlation coefficient R = 0.009 indicating weak relationship between the rewarding staff and top management support all IT investments.

Using the formula \( Y = \alpha + X_1\beta_1 \)

Where:

\( \beta \) is the constant at 2.534 and
\[ \alpha -.187 \text{ i.e. the intercept of } X \]

Table 4.9: Recognize/support individual talents and initiatives for IT training for staffs

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.375a</td>
<td>.141</td>
<td>.124</td>
<td>1.07118</td>
</tr>
</tbody>
</table>

a. **Predictors**: (Constant), are there initiatives for IT training for staffs

The table above illustrates dependent Variable: recognize and support individual talents and Predictor variable: are there initiatives for IT training for staffs. Regression coefficient \( R = 0.141 \) indicating weak relationship between recognize and support individual talents and initiatives for IT training for staffs.

Using the formula \( Y = \alpha + X_1\beta_1 \)

Where:

\( \beta \) is the constant at 3.816 and

\( \alpha -.860 \text{ i.e. the intercept of } X \)

Table 4.10: Partnered with other institutions of higher learning and business/ IT partnerships

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.485a</td>
<td>.235</td>
<td>.220</td>
<td>.89066</td>
</tr>
</tbody>
</table>

a. **Predictors**: (Constant), is there business/ IT partnerships
The table above illustrates dependent variable: partnered with other institutions of higher learning and Predictor Variable: is there business/ IT partnerships. Correlation coefficient R = 0.235 indicating weak relationship between the 2 listed variable of interest

Using the formula \( Y = \alpha + X_1\beta_1 \)

Where:

\( \beta \) is the constant at 4.750 and

\( \alpha \) = 1.028 i.e. the intercept of \( X \)

The third regression equation gives a sound relationship between Partnered with other institutions of higher learning and business/ IT partnerships. Hence the equation can be adopted as a tool for management in that investment in IT is directly correlated to rewarding of staff and by extension excellent performance.
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section presents a summary of the findings of the study, conclusions and recommendations in line with specific objectives of the study. This include: to establish extent of IT alignment at KCAU; to determine factors influencing IT alignment at KCAU and to determine the relationship between IT alignment and performance at the institution. It finally gives suggestions on the areas for further research.

5.2 Summary

The research was concerned with establishing extent of IT alignment at KCAU. It was established 88.9% of the respondents agree that IT is used in exams processing. The study also found out that 62.9% of respondents disagree that IT is used in rewarding staff and 51.8% of respondents agree that IT is used in service delivery. It is also worth to mention that half of respondents (50%) disagree that IT is used in student selection and another 50% are of the same view with regards to academic staff selection.

The study was also concerned with establishing factors affecting IT/Business Alignment at KCAU. It was established that 57.4% of the respondents disagree that top management support all IT investments. The study established that 68.5% of respondents agree that managers of core departments discuss IT usage. The research established that 66.7% of the respondents denied having business/ IT partnerships. The study also established that 81.5% of the respondents agree to having good internet connectivity.

The study was concerned with determining the relationship between IT alignment and performance at KCAU. It was established that 76% of respondents agree to improved registration and data accuracy. The study established that 64.8% of respondents agree to lecturers evaluation conducted twice per semester. The research also established that 57.4% agree to use of e-learning and projectors in lectures.
5.3 Conclusion

The study sought to establish extent of IT usage at KCAU, it was established that IT is used in examination processing and service delivery. The study also shows that IT is not used in rewarding staff; however, it important to highlight that usage of IT in student selection is at the same level as usage of IT in staff selection. The study sought to determine factors affecting IT/Business Alignment at KCAU. It was established there is good internet connectivity and managers of core departments discuss IT usage. The study also shows that there is inadequate top management support on IT investments. The research was to determine the relationship between IT alignment and performance at KCAU. The study shows that there is improved registration at the university. The study also shows that lecturers’ evaluation is done twice in a semester and e-learning and projectors are used in lectures.

5.4 Recommendations

The aim of this study was to establish influence of Information Technology alignment on performance at KCAU. From the findings it recommended that;

User trainings are conducted on a regular basis to encourage usage of IT in various departments and functional areas.

KCAU invest more in electronic student selection and staff recruitment.

Encourage top management support in IT investments.

5.5 Suggestion for Further Study

Further studies can be conducted on Influence of training on usage of IT Business alignment.

5.6 Limitations of the Study

Some of the respondents did not return there questionnaires on time others did not return them due to being busy with their official functions.
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Gordon S. and Gordon J., (2002). Organizational Options for resolving the tensions between IT departments and business units in the delivery of IT services, Information Technology and People, Vol. 15, No. 4, pg 286-305.


Wall Patrick, Centralized versus Decentralized Information Systems in Organizations, Department of PandQ, Waterford Institute of Technology Ireland. Retrieved on April 29, 2008

APPENDIX

APPENDIX I: QUESTIONNAIRE

Section A: General Information about the respondent

1. Name of department ………………………………………………………………………

2. What is your position ………………………………………………………………………

3. How long have you worked in this institution?

   Less than 1 year [ ]  2 – 5 years [ ]  6 – 10 years [ ]
   11 – 15 years [ ]  Above 15 years [ ]

4. Gender

   Male [ ]  Female [ ]

5. Age

   18 – 25 years [ ]  26 - 35 years [ ]  36 - 45 years [ ]
   46 - 55 years [ ]  Above 55 years [ ]

6. What is your level of education?

   O Level [ ]  Diploma [ ]  Degree [ ]  Masters [ ]  Doctoral [ ]
Section B: IT/Business Alignment

Below are a number of statements regarding the usage of IT in your institution. Please indicate to what extent you agree or disagree with each. 1 = strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = strongly agree

<table>
<thead>
<tr>
<th>IT/Business Alignment</th>
<th>1</th>
<th>2</th>
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<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>1. Student selection</td>
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<td>2. Academic staff selection</td>
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<td>3. Connect to alumni</td>
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<td>4. Link teaching to industry</td>
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<td>5. Marketing students</td>
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<td>6. In research</td>
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<td>7. Curriculum preparation</td>
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<td>8. Partnered with other institutions of higher learning</td>
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<td>9. Collaboration with other institution of higher learning</td>
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<td>10. Participation platform with students</td>
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<td>11. Link to extra-curriculum activities of students</td>
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<td>12. Monitor performance of staff</td>
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<td>13. Innovation for improvement in teaching</td>
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<td>14. Interact with community in solving problems</td>
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<td>15. Recognize and support individual talents</td>
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<td>16. Rewarding staff</td>
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<td>17. Quality assurance of teaching</td>
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<td>18. Service delivery (e.g. Use of LCDs, PowerPoint)</td>
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<td>19. Program development and review</td>
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<td>20. Exam processing</td>
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</table>
Section C: Factors Affecting IT/Business Alignment

Please answer the following questions in relation to IT/Business alignment in your organization

<table>
<thead>
<tr>
<th>Factors</th>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>1. Does top management support all IT investments?</td>
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<td>2. Are users involved in the implementation of IT applications?</td>
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<td>3. Do you have an IT policy?</td>
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<td>4. Do IT specialists and managers of core departments discuss IT usage?</td>
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<td>5. Is there resistance by staff members to the usage of IT?</td>
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<td>6. Is there good internet connectivity?</td>
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<td>7. Do you encounter power failures?</td>
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<td>8. Are there initiatives for IT training for staffs?</td>
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<td>9. Is there business/IT partnerships</td>
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</table>

Section D: Institution Performance Measures

On a scale of 1 to 5, where 1 is strongly disagree and 5 is strongly agree. Rate the following statements in relation to IT alignment and performance in your organization?

<table>
<thead>
<tr>
<th>Institution Performance Measures</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lecturers have published at least an article in reference journals</td>
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<td>2. All lecturers are involved in curriculum development</td>
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<td>3. Use of E-learning and projectors in lectures</td>
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<td>4. Improved registration and data accuracy</td>
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<td>5. Lecturers evaluation conducted twice per semester</td>
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<td>6. Staff review performance biannually according to Balanced Score Card</td>
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