

**CHALLENGES FACING THE IMPLEMENTATION OF INTEGRATED
FINANCIAL MANAGEMENT INFORMATION SYSTEM IN TECHNICAL AND
VOCATIONAL EDUCATION AND TRAINING INSTITUTIONS IN NAIROBI
COUNTY, KENYA.**

BY

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DECLARATION

I declare that this project is my original work and has not been previously published or submitted elsewhere for the award of a degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

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DEDICATION

This work is dedicated to my late parents Mr. Benedicto Amukhuma and Mrs. Catherine Katibi for their unconditional loving care they gave me right from childhood, their emotional, physical and spiritual support I needed, to grow up to maturity by means of Education which they painfully financed.

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ABSTRACT

The reason why the Kenya Government adopted the use of IFMIS system was as a result of the numerous benefits envisaged from its effective use among them proper governance, improve fiscal transparency, a deterrent to corruption and fraud and accountability of public funds. However, even after implementation, this system has not been able to fully provide the expected benefits, especially in the government institutions. The main purpose of this study was to assess the challenges facing the effective implementation of the Integrated Financial Management Information System (IFMIS) in TVET institutions in Kenya. The study specifically focused in establishing the extent to which change management, technological infrastructure, human capital development, and top management commitment affects effective implementation of Integrated Financial Management Information System in the Technical and Vocational Education and Training Institutions in Kenya. This study used descriptive research design. The study was conducted in Technical and Vocational Education Institutions in Nairobi County where it targeted 72 employees who use IFMIS. The target respondents were from the administration, procurement, and finance department. The study used a complete enumeration approach due to the relatively small target population size. Primary data for this study was collected using questionnaires which were analyzed both qualitatively and quantitatively. The study established that the extent to which change management process had affected effective IFMIS implementation process was high. The findings further established that the general rating of the level of change management carried out was generally moderate. The study also established that the extent to which technological infrastructure had affected effective IFMIS implementation process was high. The findings further established that the general rating of the level of technological infrastructure capacity existing was generally moderate. The study established that the extent to which human capital development had affected the effective IFMIS implementation process was high. The findings further established that the general rating of the level of human capital development carried out in the institution was generally moderate. The study also established that the extent to which top management commitment had affected effective IFMIS implementation process was very high. The findings further established that the general rating of the level of top management commitment was generally moderate. The study, therefore, concluded that change management process, technological infrastructure, and human capital development affected the IFMIS implementation process highly while top management commitment affected the IFMIS implementation process very highly.

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ACRONYMS AND ABBREVIATIONS

| | |
|--------------|--|
| DOI | Diffusion of Innovation |
| FMIS | Financial Management Information System |
| GDP | Gross Domestic Product |
| GOK | Government of Kenya |
| ICT | Information Communication Technology |
| IFMIS | Integrated Financial Management Information System |
| IMF | International Monetary Fund |
| I.T | Information Technology |
| MDA | Ministry Departments and Agencies |
| MIS | Management Information System |
| MTEF | Medium Term Expenditure Framework |
| PFM | Public Financial Management |
| PFMR | Public Finance Reform Management |

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter presents the study background, the problem statement, the study objectives, the research questions, the study significance, and the study scope.

1.1 Background of the Study

According to Ramesh (2013), a Financial Management Information System (FMIS) can be broadly defined as a set of automation solutions that enable governments to plan, execute and monitor the budget. Whenever the same central database is shared by FMIS with other PMFs (Public Financial Management) information systems in recording and reporting daily financial operations, giving reliable consolidated outcomes for support in decision making, monitoring of performance and web publishing then they can collectively be referred to as an ‘integrated’ Financial Management Information System (FMIS or IFMIS). Governments get a lot of help from the modern FMIS platform in complying with domestic and international regulations on financial and reporting standards. It also assists the governments in decentralizing its operations via centralized web-based solutions which provide access to a large population of authorized budget users at all levels.

According to Alshehri, *et al*, (2010) governments around the world have been engaged in the process of implementing a wide range of ICT applications. According to Heeks and Davies (2000), this reinvention has taken place, especially in the advanced countries. Western countries are convinced that the information society will result in economic and social benefits. This will enhance performance of MIS in

Technical Institutions (Audenhove, 2000). Integrated Financial Management Information Systems is a tool that provides governments with financial support control, planning and managing core financial data sets and interpreting the findings for management utilization are supported. Integrated Financial Management Information System can be defined further as a system in which key functions in finance such as budgeting and accounting are integrated. It is a system that focused on improving data management efficiency and security and assisting in giving comprehensive reports on financial information. Integrated Financial Management Information System is measured based on core and non-core financial functions while public financial management is characterized by a broad field with multiples of systems. A conventional specification of the Integrated Financial Management Information System core function is accounting and reporting functions, while non-core functions include assisting in budget activities, control of commitment level, management of cash and disbursement functions. The specifications of the core functions don't capture all the needed components for effective financial control leading to an escalated risk.

Most countries such as Australia and New Zealand have introduced significant changes in managing public sectors by breaking from the traditional bureaucratic model of public administration (Sigei, 2013) which entails breaking of larger units to relatively smaller ones which are easier to manage. Governments have begun constraining public spending, putting into sale public assets and outsourcing several services that were formerly provided fully by the public Technical colleges and private institutions. Governments have also begun developing public asset performance measurement, business-type accounting and output, and outcome-based

budgeting. In the recent past, most developing countries have embraced public technical colleges' reform practices. This has been motivated by the governments by embarking on new terrain which focused on learning from experiences from other governments.

The growth in global Integrated Financial Management Information System spending over the recent years has been significant. Global Integrated Financial Management Information System expenditure ascended at a faster rate than worldwide GDP. Gwillim, Dovey and Wieder (2005) suggested that global Integrated Financial Management Information System spending exceeds \$1 trillion per annum. According to Agarwal and Lucas (2005), ICT is one of the most important business driving forces of the 21st century. The cause for the significant growth can be attributed to the realization of Integrated Financial Management Information System through the ICT's value in attaining a competitive edge.

The significant increase in ICT's scale, complexity, strategic focus, connectivity, and processing power in recent years has further heightened awareness of ICT's potential to positively affect an organization's competitive performance (Vehovar&Lesjak, 2007). ICT offers a platform for potential significant organizational improvement and attainment of a competitive advantage. Conversely, Integrated Financial Management Information System investment doesn't necessarily result in monetary benefits. Integrated Financial Management Information System investment in organizations has grown substantially in the past three decades. By 1998, in the developed countries, Integrated Financial Management Information System accounted for at least 50% of organizations annual capital investments. The motivating factor behind this large-scale Integrated Financial Management Information System investment is the promise

of increased competitive advantage, as Integrated Financial Management Information System is considered as a strategic approach that can have a positive impact to the organization.

United Nations has classified countries as either advanced or less developed based on their Computer Industry Development Potential. Advanced include, for example, the United States, Canada, West European countries and Japan; According to the World Bank (2011) FMIS Database Latin America and Caribbean region of the World Bank stands out with the largest number of completed (25) and active (4) Integrated Financial Management Information System projects. The Africa region has 13 completed and 12 active Integrated Financial Management Information System projects. In most of the countries, the use of Information Communication Technology for reinvention of the government is on the increase not only in the investment sector but also in terms of visibility with high profile initiatives which were launched in the 1990s. According to Gichoya (2005), this reinvention has taken place, especially in the advanced countries. According to Kimwele (2011), western countries believe that the information society will bring in economic and social benefits.

Heeks and Stanforth (2007) observe that there is a big difference between Integrated Financial Management Information System implementation and use between developed and developing countries. However, similarities are expected, which may include insufficient funds, user needs, and bureaucracy. The difference comes in on how these problems addressed, different countries have different approaches on how to solve these problems. It can be argued that the Western countries have found it easier in implementing Integrated Financial Management Information System projects

than developing countries. This is because of their adequate resources and their advanced technology.

Majority of the undeveloped countries are characterized by insufficient computer applications in the public sector, lack of skilled manpower and limited infrastructure. The uncoordinated efforts at different levels of technology usage may lead to duplication if every department implements its own Integrated Financial Management Information System projects without due regard to compatibility within the government. Most governments in Africa are exploring ways of bringing improvement and modernization of the public financial management process. For example, over the years, there has been an introduction of the Integrated Financial Management Information System (Integrated Financial Management Information System) as one of the most common financial management reform practices, aimed at the promotion of efficiency, effectiveness, accountability, transparency, security of data management and comprehensive financial reporting (Chêne, 2009).

The Government of Kenya implemented the Integrated Financial Management Information System since 2005 as its sole accounting system. IFMIS was adopted due to its several benefits likely to be experienced from its effective use. The Public Financial Reform Management (PFMR) Strategy Paper 2001-2006 recommended automation as well as the integration of key government functions such as human resources payroll, accounting, procurement, and budgeting citing transparency, better financial management and reporting as some of the benefits (Government of Kenya, 2001). The Strategic Plan for Government of Kenya (2011- 2015) outlined the development of the IFMIS System. The IFMIS system has been undergoing re-engineering with the purpose of upgrading it for managing and reporting financial

information for the Kenyan Government. The Integrated Financial Management Information System implementation requirement in Kenya came from the Ministry of Finance and Economic Planning ICT Master Plan 2001- 2005. This plan indicated gaps and weaknesses within the SIBET system that was used by then. The master plan proposed development of different modules comprising of management of revenue, accounting, management of assets among others and interface establishments with the Kenya Revenue Authority, the National Bank Payment Information System and the Ministry of Labor for payroll and management of human resource modules. The IDRC team, in collaboration with the Kenyan Government and researchers and various organizations, focused towards identifying structures (social structures, technological structures and institutional structures) needed for successful Information Communication Technology policy implementation to assist in developing efficient implementation strategies and detailed plans raising Integrated Financial Management Information System awareness by organizing of trainings and workshops for senior officers in technical colleges in developing indicators for assessing the progress and aftermath of the policy implementation while at the same time documenting learnt lessons for future reference.

1.1.1 Technical and Vocational Education and Training (TVET) Institutions

According to UNESCO (2005), Technical and Vocational Education and Training (TVET) refers to the education and training process that involves the acquisition of practical skills using formal and informal approaches in various occupations sectors. This additional education from basic education exposes learners to technological and scientific related skills to uplift their socio-economic status. Globally the foregrounding of TVET by different national and regional governments have been

driven by the quest to stem youth employment, social exclusion, and poverty. In this regard, UNESCO has taken the role in leading international policy initiatives to popularize TVET programs particularly in developing countries where the interest in TVET has been wanting, (Peterson,2008). This new prominence given to TVET must be matched with the policies and resources to ensure that TVET is driven to the benefit of all (UNESCO, 2005).

The government of Kenya is a member of UNESCO took measures to expand and strengthen TVET so as to achieve vision 2030 whose pillars were socio-economic, social and political development (GOK, 2007). TVET in Kenya was emphasized by various educational commissions and reports such as; Ndegwa Commission (1970); the Gathathi Commission (1976); reports by Kamunge of 1988 and Koech of 1999, yet the problem of youth unemployment, social exclusion and poverty was not resolved. According to Harry (2014), the implication was that the youth had limited income to sustain their livelihood and participate in social development. Furthermore, the situation attributed to the scarcity of job availability, overpopulation, low literacy levels, lack of basic technical skills, low access of proper information, uncomplimentary distribution of geographically available chances and tribal considerations (Harry, 2014)

1.2 Statement of the Problem

It has been argued that developed countries have a higher probability of successfully implementing and adopting IFMIS systems than developing countries due to different factors such as the digital divide between the rich and poor countries (Walker & Harland, 2008).

There is broad conformity that a fully operational Integrated Financial Management Information System can upgrade governance by providing real-time financial information which financial managers and system users can use to administer programs effectively, manage available resources and budget formulation (Rodin, 2008). Despite the obligatory requirement for all the governmental institutions to fully adopt Integrated Financial Management Information System, there is still a failure of these institutions to fully implement Integrated Financial Management Information System in their operations (Kimwele, 2011). The failure to adopt an Integrated Financial Management Information System will prevent transparency in the management of finances and financial reporting as required by law. However, through the GoK, (Sessional Paper No. 14, 2012), it was suggested that the policies on governance and management of education and training adopt the process of institutionalization of the IFMIS in all the government TVET institutions.

In Kenya, the Public Management Act (2012) was enacted to enable all procurement of goods and services for every government entity to be carried out in accordance with Article 227 of the Constitution and the relevant legislation on procurement and disposal of assets. The electronic procurement and Supplier portal was launched by H.E. President Uhuru Kenyatta in August 2014. The IFMIS system has been implemented in the ministries, departments, agencies and 47 county governments. The IFMIS system has automated supplier Management, Requisition Management, Quotation & Tender Management, Contract Management, Order Management, Inventory Management, Receipting Management, Invoice and Payment Management; online approval hierarchy for Purchase Order and Accounts Payable and automation of procurement planning in line with the approved budget estimates.

Other automated processes include supplier engagement and training on how to submit bids online through the supplier portal as well as the adoption of item master in line with the International Standard Goods/Service Classification System (UNSPSC) (The National Treasury, 2015). Despite these efforts, other government entities still lag in the implementation of the IFMIS system which is clearly defined under the IFMIS project.

Kimwele (2011), in a study on Factors affecting effective implementation of Integrated Financial Management Information System in the Government ministries of Kenya, analyzed how staff resistance, top management commitment, system complexity, and staff capacity affected the implementation of IFMIS in Government ministries. However, in his study, he did not establish the extent to which change management and technological infrastructure affected the implementation process. Sigei (2013) in a study on the Critical Success Factors in the Implementation of the re-engineered Integrated Financial Management Information System in the Government Ministries focused on: User involvement in the implementation process, clear goal setting, top-level management support, appropriate infrastructure, and support.

While the reviewed researchers have studied factors affecting implementation of IFMIS in Kenyan context, this study seeks to examine the extent to which these challenges affect the implementation of IFMIS in the Technical and Vocational Education and Training Institutions in Kenya. It is against this background that this study seeks to assess the extent to which various challenges affect the implementation of Integrated Financial Information Management Systems in the Technical Institutions in Kenya.

1.3 Objective of the Study

1.3.1 General Objective

The main objective of this research was to determine the extent to which various challenges affect the implementation of the Integrated Financial Management Information System by the Technical and Vocational Education and Training Institutions in Kenya.

1.3.2 Specific Objectives

This study was guided by the following specific objectives

- i. To establish the extent to which change management process affects effective implementation of Integrated Financial Management Information System in the Technical and Vocational Education and Training Institutions in Kenya
- ii. To determine the extent to which technological infrastructure affects effective implementation of the Integrated Financial Management Information System in the Technical and Vocational Education and Training Institutions in Kenya
- iii. To evaluate the extent to which human capital development affects effective implementation of the Integrated Financial Management Information System in the Technical and Vocational Education and Training Institutions in Kenya
- iv. To determine the extent to which top management commitment affects effective implementation of the Integrated Financial Management Information System in the Technical and Vocational Education and Training Institutions in Kenya

1.4 Research questions

This study was guided by the following research questions

- i. To what extent does change management process affect effective implementation of the Integrated Financial Management Information System in the Technical and Vocational Education and Training Institutions in Kenya?
- ii. To what extent does technological infrastructure affect effective implementation of the Integrated Financial Management Information System in the Technical and Vocational Education and Training Institutions in Kenya?
- iii. To what extent does human capital development affect effective implementation of the Integrated Financial Management Information System in the Technical and Vocational Education and Training Institutions in Kenya?
- iv. To what extent does top management commitment affect effective implementation of the Integrated Financial Management Information System in the Technical and Vocational Education and Training Institutions in Kenya?

1.5 Significance of the study

Service Delivery

The research would provide a first-hand evaluation of the performance of the technical institutions in terms of its service delivery to the public. The findings of this study could also be used to identify service delivery gaps for future improvement.

Policy Making

The findings of the study could inform policy development in the future in terms of adoption of technology to improve service delivery. Through the implementation of recommendations that would follow from this study, beneficiaries would enjoy improved service delivery through better management of finance.

Body of Knowledge

This study would contribute to the body of knowledge on the relationship between electronic transaction processing and financial probity in the public sector. Therefore,

future researchers who wish to extend studies on the nexus between fiscal probity and Integrated Financial Management Information System may use this study as a reference point.

1.6 Scope of the study

This research proposal was focussed on assessing the challenges facing strategic implementation of Integrated Financial Management Information Systems in Technical and Vocational Education and Training Institutions in Kenya. Technical and Vocational Education and Training Institutions in Nairobi Institution were studied and the target population comprised of all the users of IFMIS in the county. The study was carried out from July 2018 to September 2018.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents related literature on the objectives of the study. The sub-themes that were reviewed here include: change management, technological infrastructure, human capital development and top management commitment in relation to the effective implementation of Integrated Financial Management Information System. Summary and research gaps and conceptual framework were also discussed in this chapter.

2.1 Theoretical Review of Literature

2.1.1 Technology Acceptance Model (TAM)

This study is guided by the Technology Acceptance Model (TAM). This model is an information systems theory that models how users come to accept and use a technology. According to TAM, one's actual use of a technology system is influenced directly or indirectly by the user's behavioral intentions, attitude, perceived usefulness of the system, and perceived ease of use of the system. Perceived usefulness and perceived ease of use have positive associations with technology acceptance (Bagozzi and Warshaw, 1989). They defined perceived usefulness as the degree to which a person believes that using the system will enhance his or her performance and ease of use as the degree to which a person believes that using the system will be free of mental effort. TAM has evolved overtime to TAM2 and extended the original model to explain perceived usefulness and usage intentions including social influence, cognitive instrumental processes, and experience (Venkates, 2000). It demonstrates how the information system is determined by the behavioral pattern intention and the behavioral pattern determined by the person's attitude towards using the system.

According to Bagozzi, the attitude of an individual is not only the factor that determines his use of a system but is also based on the impact on the performance. The study of this model will help us understand the factors that determine the acceptance and use of IFMIS by the employees in the Technical and Vocational Education and Training Institutions in Kenya.

2.1.2 Rodger's Theory of Diffusion of Innovation

Rodgers developed Diffusion of Innovation theory in 1962. This theory is arguably to be one of the oldest theories in social science. This theory strives to explain in communication how a product or an idea gains momentum over time and diffuses through a social system or a specific population. The final outcome of this diffusion is that a new idea, product or behavior is adopted by a specific population or social system. Adoption in this context means that an individual does things differently than the way she/he used to do previously (this may include acquiring a new behavior, purchasing or using of a new product and many more). The main point in adoption is that the idea, product or behavior must be perceived by an individual as the original. It is through this that diffusion is possible (Sahin, 2006).

Implementation of a new concept or product doesn't happen concurrently in a social system but rather through a process where some individuals adapt to the new system or innovation faster than the rest. When promoting an innovation to a target population, it is important to understand the characteristics of the target population that will help or hinder the adoption of the innovation (Rodgers, 2003). According to Medlin (2001), Rodger's theory of innovation's diffusion is the most appropriate for understanding the adoption of a given technology. In relation to the current study, Diffusion of Innovation theory enables the assessment of the process of implementation of Integrated Financial Management Information System in the Technical Institutions. As explained by

Rodgers, to adopt a system or a product entails the full use of it as the most appropriate option available while to reject an innovation is a decision not to embrace it.

There are four major components in the diffusion of innovation which should be well comprehended, according to Rodgers theory. These are the innovation, communication channels, time and social system (Sahin, 2006). As Rodgers (2003) defined, an innovation is an idea, practice, or project that is perceived to be new by an individual or another unit of adoption.

Relating to the theory, IFMIS has been regarded as an invention or innovation reason being it is in line with the components of the theory. Communication is regarded or defined in this context as the act or process whereby the individuals involved come up with information and share it with their colleagues or counterparts with a view of attaining a common comprehension or understanding. For communication to be effective, it is mandatory for it to occur via well-structured and designed channels among the sources.

To facilitate the IFMIS diffusion into the Technical Institutions systems, it is imperative that the IFMIS system is subjected to very effective and efficient channels of communication. A time dimension should also be included when the diffusion process of an innovation is being undertaken. It has also been established that the social system has an influence on the innovativeness of an individual hence can be used in the categorization of implementers or adopters

Recommendations are therefore made that, to facilitate or speed up the diffusion of an innovation or new technology, it is very critical to deeply comprehend the process of innovation decision. The innovation-decision process is characterized by five phases namely; the first one being knowledge, followed by persuasion, then decision, followed by implementation and finally confirmation phase (Rodgers, 2003).

2.2 Empirical Review of Literature

Studies have various challenges-to-implementation factors in information system integration namely as lack of system integration and standardization issues; immaturity of an information system based market services and end-user resistance; and maverick buying and difficulty in integrating e-commerce with other systems, (Rebecca & Ravi,2007).

Critical success factors have been defined to effectively achieve organizational improvement through IT as Technology: Such as websites, ERP, system security and digital signature; Process: A thorough business process re-engineering is needed along with the; adoption of standards and coding acknowledged internationally; People: It is necessary to raise awareness and train the employees on themes such as sharing knowledge through IT, networking and change management (Nasi, 2005).

A survey at the Florida Atlantic University pointed to a common set of obstacles for information systems integration citing IFMIS initiatives as an example (Prier & McCue, 2007). The survey identified the following set of obstacles: Too expensive to implement; Lack of financial system interoperability; Limited resources; Technology barriers; Governing body resistance; Interoperability with other systems; Supplier resistance; Finance department resistance; Concern about local business competitiveness; Capacity or skills shortage across the entity(Prier & McCue, 2007).

The Malaysian Government conducted a study to understand the challenges of IFMIS implementation in the Government sector and the efforts taken to overcome the challenges (Aman&Kasimin, 2011). The study findings indicated that challenges of IFMIS implementation were not only related to software integration, data management,and roll-out strategy, but also to legal and administrative procedures,

information technology (IT) infrastructure, outsourcing contract and IT skills. The study also pointed out the significance of creating IT facilities center in rural areas and to work closely with a third-party vendor for users' training and skills development (Aman&Kasimin, 2011).

A study on e-management adoption by Government parastatals in Kenya from a suppliers' perspective (Kinoti, 2013), examined how the end users attitudes, capacity, transparency, and integrity affected their propensity to adopt it. The findings indicated that the model examined in the study was significant with an R2 of 95%. The study indicated the existence of a strong positive relationship between capacity and propensity to adopt. The conclusion by the study was that attitude and supplier capacity can lead to the adoption or non-adoption of IFMIS (Kinoti, 2013).

Another research on IFMIS readiness factors in Kenya's Public sector to determine the extent of IFMIS levels in public institutions in Kenya (Orina, 2013). From the findings, the study showed that resistance to change, lack of enthusiasm, staff skills, and to some extent procurement policies impacted the readiness of IFMIS in public institutions. Using factor analysis on the responses, the extracted factors from the rotated component factor matrix noted from the study included technology, organization's finance, leadership and integrity, legal framework and technical preparedness, international law and employee attitude, procurement policy and national procurement law, IFMIS adoption and staff information technology adequacy and online marketplace and Government support (Orina, 2013).

2.2.1 Change Management Process

Integrated Financial Management Information System is still regarded as a new concept or system among the staffs or employees within Technical Institutions of Kenya. It is in human nature to resist change because of a new system, to overcome the

resistance, it is important that a comprehensive change management exercise or training be carried out. Muriuki (2009) describes changemanagement as the creation, maintaining and systematic evaluation of changes in an organization. Other than reducing the adverse impact of resistance by employees or staffs on the adoption or implementation of new innovations change management can also be used to maximize on the benefits to be expected upon full adoption of the new system by involving an educated and committed personnel. The process of change management entails development of stakeholders, management model, development of an effective strategy for communication and developing a framework for assessing change readiness.

Indeje and Zheng (2010) noted that with the adoption of new information system like the IFMIS primarily changes the way operations will be carried out hence requires a careful process of management to avert possible staff resistance. The new system results in changing the way things were done before resulting in changes in the organizational culture. An IFMIS generally implies fundamental changes in operating procedures and should be preceded by a detailed functional analysis of processes, procedures, user profiles and requirements that the system will support (Chêne 2009). The changes associated with the introduction of IFMIS should be communicated to the staff in order for the same to embrace it.

Peterson (1998) observes that the management of the changes that accompany an IFMIS implementation is viewed as one of the most crucial, yet, one of the most neglected aspects of IFMIS reforms. Successful implementation of reforms of any nature in an organization solemnly depends on its capacity to change, the process within which it manages the changes and how it adjusts itself while undergoing the process of change. Peterson further states that in many cases, resistance to change

normally originates from various high ranked stakeholders within the organization. This may be major, because of the benefits they may have been receiving from the previous methods and their belief that the new method or system will not allow them to continue enjoying the benefits they have been enjoying. This resistance may also be attributed to the fact that some of these stakeholders may think that the new system may render them jobless since most of the work they used to do will be done by the system. It is in this reason that the project directors tasked with overseeing the entire implementation process must conduct detailed change management process in order to avert such fears hence less resistance.

Strategies to offer guidance on the change management process should be structured immediately a project on implementation of IFMIS is conceived. Consideration for change implications for different stakeholders; be they politicians, senior officials, heads of departments, IT personnel, civil servants, amongst others who are expected to support the new system ought to be taken (Rozner, 2008). There is a high likelihood of the IFMIS implementation process failing if there is a failure in addressing pertinent issues during the early stages before the actual implementation process begins. This is because lack of it will lead to resistance especially from various key stakeholders such as elected political leaders and executive officials.

Rozner (2008) and Rodin-Brown (2008), assert that the most convenient method of overcoming change resistance is by ensuring that there is clear communication, education and training and also via 'quick wins' that demonstrate the benefits of the change. The Government of Kenya laid down strategies to address the change management process through Re-engineering of the entire implementation of the IFMIS. It focused on addressing challenges faced in communication previously realized during the pilot stage of implementation of IFMIS which significantly

contributed to poor performance of the IFMIS system. The strategic plan identifies the political, administrative and capacity constraints that require rigorous interventions with the object of securing the buy-in and ownership attributes necessary within Government Ministries, Departments, and Agencies (MDAs) to facilitate effective IFMIS implementation and improve the confidence of all relevant stakeholders (GOK, 2010).

2.2.2 Technological Infrastructure

Technological infrastructures are defined as the basic system functionality that includes both the software and the hardware of the IFMIS. Several researchers have indicated that technology impacts on the successful implementation and adoption of management information system (Omwoha and Getuno, 2015). Though Proeller (2013) points out that complexity of a system makes it more likely to be positively appreciated as compared to very simple systems, Chêne (2010) also argues that making the right and simple technical choice for automation is so critical to the successful adoption and implementation of MIS. The platform on which the interconnectivity of the MIS operates also impacts on the successful implementation of the system and this involves the internet and the intranet facilities, as stated by Odunga (2015).

The technical challenges that impede the accomplishment of IFMIS key objectives are numerous. Some of the challenges include lack of IT capacity that works with the system, resistance due to complexity and technical challenges of the software (Hendriks, 2012). Hendricks points out that lack of capacity with IT knowledge as one of the leading impediments to successful adoption of the IFMIS system. This can be due to the disparity in salary rewards of the private and public sectors with the private sector rewarding better salaries (Chêne, 2009). Additionally, low budget on personnel

emolument leads to inadequate capacity. Studies in other countries indicate lack of IT staff as a major contributor to the slow implementation of IFMIS (Diamond and Khemani, 2005).

According to Dener et al. (2011), IFMIS is a complex and risky system that requires motivation to change so as to be implemented effectively. This requires the willingness and commitment from both the staff users and top management in the use of technology. Considering its complexity, the commitment will greatly influence how the IFMIS will be implemented or adopted. The lack of commitment to change may be attributed to factors such as a need for *status quo* on the use of old manual systems, fear of risks that may occur in implementing the IFMIS and also fear of not knowing how to operate the new systems or a perception of ease of the system usage (Hendriks, 2012).

In Tanzania Chêne (2009) observes that there was noted a failure until the IT solution selected was a medium software package, which was significantly less complex comparatively to what is used, for example, in Ghana. It should be noted that such a system was backed by top management support.

Similarly, in Ethiopia, the IFMIS project has faced numerous complications. The project implementation was not well resourced due to dependence on foreign aid policies, infrastructure issues and top management support due to changes in leadership (Chêne, 2009). In addition, however good they may look, not all strategies for implementation are acknowledged by the employees as may be anticipated by the management hence perceived as a form of resistance. This may be attributed to the fact that they fear to adapt to new system because of the fear of the unknown which may come with it or reluctance of leaving the system they are used to due to the personal benefits they used to enjoy. There are two main categories of resistance

which are; the passive and active resistance. Passive resistance is characterized by the staff verbally accepting the implementation strategy but end up not following what is proposed in the plan maybe because of ignorance or just opt to do what they think is right. Active resistance, on the other hand, refers to where the employees reject the intended strategy verbally through critic, for example, by ridiculing or expressing the shortcomings of the intended plan (Chene, 2009).

Numerous IFMIS projects did not succeed majorly because the basic system functionality had not been specified in a clear manner from the beginning of the intervention. In some circumstances, interfaces with existing IT systems have to be developed to fit into specific settings of the country. IFMIS, which involves major hardware requirements, is also meant to be subjected to the local context and environment with a consideration to use Off-The-Shelf (OTS) or locally developed software (Dener et al., 2011). Power shortage and interruptions meant that in certain countries, generators and power supply units are needed as well (Chêne, 2010).

Studies with Kenya Government IFMIS shows, that the system has not fully provided the expected benefits of integrated financial planning, effective budgeting, and control of public expenditure. Further, Mwaura (2016) notes that the use of obsolete infrastructure inherited from municipal governments cannot be able to handle the IFMIS software that requires advanced and improved software and hardware.

2.2.3 Human Capital Development

In their study of developing countries specifically Ghana, Malawi, Tanzania, Uganda and Kenya, Diamond and Khemani (2006) argue that necessary measures should be taken to reinforce the capacity in the IFMIS project team as well as the Attorney General's (AG's) office and the budget office through all the project phases. Equally, it's noted that it is also of the essence to come up with appropriate skills and capacity

on the Department of Information Technology to render aid to the IFMIS. As far as the success of the IFMIS project is concerned, it is vital to ensure the continuous involvement of key stakeholders in the development and implementation of the IFMIS system. Lack of capacity has been pointed out by Hendrick (2012) in his study as one of the most poignant derailments to the effectiveness of an IFMIS.

It is noteworthy that according to Brar (2010), low capacity for system implementation at the sub-national level such as provincial and regional governments, is one of the main challenges in the implementation of the IFMIS in developing countries. Brar further suggested that the government should prioritize on its needs by putting more emphasis on personal development. He also suggested that the education system should be structured such that it aligns itself with information and communication technology requirements of the country and focus on attracting and retaining of the rare ICT skills within the public sector or Government.

For the implementation process of the IFMIS to be effective, be in operation and also well maintained the personnel running it must possess the required skills and knowledge. Diamond and Khemani (2006) posit that lack of capacity is regarded as one of the primary causes for the delay in IFMIS implementation process in Ghana. In Tanzania, one of the most influential factors that led to the success of implementation of the system was the prioritization of capacity building through conduction of several pieces of training on various stakeholders. Chene (2009) adds that absence of staff with the requisite information technology (IT) knowhow and experience cannot be mitigated with ease through training and hiring. The employment terms and salary structure in the Government sector are not suitable enough to fend off interests from the private sector. Individuals possessing such skills will opt to work in the private sector rather than working in the public sector even after being trained by the

government.

For effective implementation of the IFMIS system, the Government should be very careful when outsourcing the technical services from an external team for each phase of the implementation process. It should ensure that the person contracted to perform the tasks are well conversant with the management of financial operations within the government institutions. These consultants should have the capacity to design, implement, manage and operate government accounts. The consultant should also have experience in management and implementation of projects. The scholars caution that the consultants need to be managed closely since they may be inclined towards pursuing their own interests to the detriment of the institution's IFMIS objectives (Diamond & Khemani, 2006).

Murphy (2002) notes that weak human resource management and management capacity has been responsible for the derailment of IFMIS implementation in Kenya. Improvements on the system are characteristically undermined by the failure of the government in addressing human resource related issues such as manpower planning, recruitment of qualified staff, offering of attractive incentives and training of staffs. Improvements on the system have also been hampered by failure in restructuring of the organization and limited capacity in management by overlooking important aspects such as delegation of duties, empowerment of the middle level managers and advocating for team building skills. According to GoK (2010), Kenya's IFMIS Re-Engineering Strategic Plan 2011 – 2013 has identified appropriate capacity building for system's sustainability, competent firms and consultants supporting the implementation as some of the key success factors for the IFMIS Re-Engineering Strategy.

2.2.4 Top Management Commitment

It is very important that commitment from the top management takes the center stage during introduction and execution of new innovations. This is because management commitment serves as an impetus for change by providing leadership and moral and financial support for a successful project (Murphy, 2002). Negative outcomes may result when the top management neglects or shows lack of dedication.

Diamond and Khemani (2005) in their IMF working paper on *Introducing Financial Management Information Systems in Developing Countries*, sought to investigate the reasons for the almost universal failure to implement and sustain IFMIS in developing countries. Findings established that top managers in developing countries rarely delegate responsibilities despite the fact that they lack experience in technology-supported accounting i.e. computerized accounting making them unable to explore the system's capacity and capabilities in the management of financial operations. In such an environment, chances of the system being user-friendly are very low and end up not matching the requirements of the managers ending up not having the required level of management ownership. Diamond and Khemani (2005) recommended that the implementation of Integrated Financial Management Information System should be characterized by a strong backing from the political sector which will move down to management level. In their study, they indicated this is the approach that made adoption of IFMIS in Tanzania to be the most successful among all Anglophone countries.

Kimwele (2011) in his study established that top management laxity in supporting the implementation and usage of the Integrated Financial Management Information System in the way it should be done affects its efficiency and effectiveness in utilization by authorized users within the government. Their study further indicated

that their failure to inspire and little understanding of the usage of the IFMIS system collectively have been a stumbling block towards successful adoption of IFMIS.

2.3 Summary and Research Gaps

Integrated Financial Management Information System is still regarded as a new concept or system among the staffs or employees within the Technical Institutions of Kenya. It is in human nature to resist change and by virtue of the new system, it is bound to receive some resistance. To overcome the resistance, it is important that a comprehensive change management exercise or training be carried out. Muriuki (2009) describes change management as the creation, maintaining and systematic evaluation of changes in an organization. Other than reducing the adverse impact of resistance by employees or staffs on the adoption or implementation of new innovations change management can also be used to maximize on the benefits to be expected upon full adoption of the new system by involving an educated and committed personnel. The process of change management entails development of stakeholders, management model, development of an effective strategy for communication and developing a framework for assessing change readiness.

Technical challenges that impede the accomplishment of IFMIS key objectives are numerous. Numerous IFMIS projects have not succeeded because there was no clear specification of the functionality of the system from the onset of introduction or intervention. In some situations, creations of interfaces with the existing systems in Information Technology have to be developed to be in line with the specific settings of the country. IFMIS, which involves major hardware requirements, is also meant to be subjected to the local context and environment with a consideration to use Off-The-Shelf (OTS) or locally developed software (Dener et al., 2011).

For the implementation process of the IFMIS to be effective, be in operation and also well maintained the personnel running it must possess the required skills and knowledge. Diamond and Khemani (2006) posted that lack of capacity is regarded as one of the primary causes for the delay in IFMIS implementation process. Murphy (2002) notes that weak human resource management and management capacity has been responsible for the derailment of IFMIS implementation in Kenya. Improvements on the system are characteristically undermined by the failure of the government in addressing human resource related issues such as manpower planning, recruitment of qualified staff, offering of attractive incentives and training of staffs. Improvements on the system have also been hampered by failure in the restructuring of the organization and limited capacity in management by overlooking important aspects such as delegation of duties, empowerment of the middle level managers and advocating for team building skills.

It is critical that commitment from the top management should take center stage, during introduction and implementation of Integrated Financial Management Information System. This is because management commitment serves as an impetus for change by providing leadership and moral and financial support for a successful project (Murphy, 2002). Negative outcomes may result when the top management neglects or shows lack of dedication.

A key outcome from the literature reviewed in this chapter is the fact that IFMIS has been faced with a number of challenges even though various studies appreciate the IFMIS role towards effective management practices.

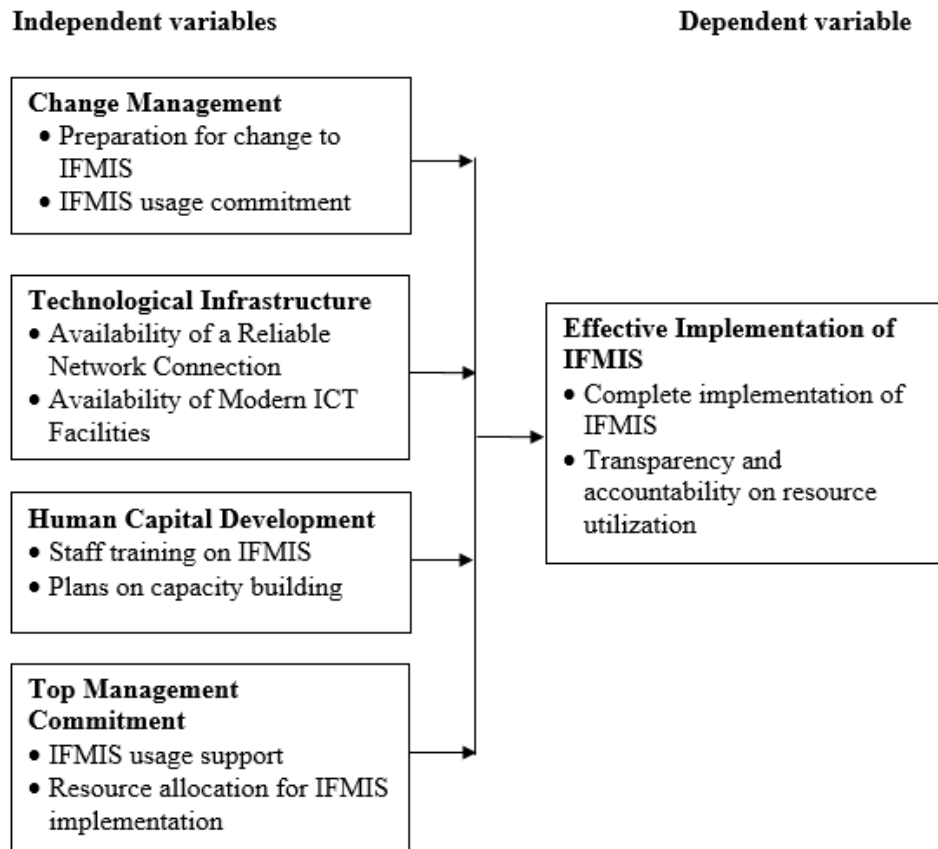
Though there are a number of research papers on the challenges of IFMIS implementation in Kenya, most of the research covers the developed economies with very little literature existing on IFMIS contribution towards effective management at

the Technical and Vocational Education and Training Institutions in Kenya. It is further possible to argue that IFMIS contribution towards effective management in developed countries is different from countries like Kenya, which are still developing and faced with other unique challenges especially the fact that devolution is a new system to them. It is due to the scarceness of information in this field that this study sought to seal the gap by assessing the challenges facing the implementation of IFMIS in Technical and Vocational Education and Training Institutions in Kenya.

2.4 Conceptual Framework

The conceptual framework involves forming ideas about relationships between variables in a study and showing relationships graphically or diagrammatically (Fuller, 2011). The independent variables will comprise of change management, technological infrastructure, human capital development, and top management commitment while the dependent variable will be the effective implementation of IFMIS.

Figure 1: Conceptual Framework



Source: Author (2018)

For effective implementation of IFMIS, change management process must be well carried out. This will involve sensitization of the system users on the positive impacts expected from the system. This will greatly improve on their level of commitment towards seeing the implementation being effective.

For effective implementation of IFMIS, appropriate technological infrastructure must be made available. There must be reliable network connectivity as required by the IFMIS system due to its complexity. Due to frequent upgrades on the system, the organizations must always be ready to procure modern ICT equipment to facilitate the process in order to optimize on its utilization.

For effective implementation of IFMIS, human capital development is very important. Even with the availability of modern technology infrastructure and proper sensitization of the systems to the users, without human capital development, the

implementation process is bound to fail. The users must be well trained so as to have the capacity to use the system effectively. Organizations must be encouraged to develop long-term capacity building plans so as to ensure constant improvement on the skills of the users

For effective implementation of IFMIS human top management support is very crucial. It is responsible for overseeing the entire implementation process which entails allocation of resources for purchasing of the necessary technological infrastructure, resources for human capital development and resources for sensitization of users among others. Without their support, the implementation process is bound to fail.

2.5 Operationalization of variables

Table 1 shows the Operationalization of variables. It outlines the indicators to the variables, the measurement scale and type of analysis to be conducted under each variable.

Table 1: Operationalization of variables

| Variables | Indicators | Measurement scale |
|------------------------------|--|---|
| Independent variable | | |
| Change management | <ul style="list-style-type: none"> • Information sharing • Communication • Networking/partnership | <ul style="list-style-type: none"> • 5 point Likert scale <p>The mean of the responses will be used to indicate the level of implementation.</p> |
| Technological infrastructure | <ul style="list-style-type: none"> • Reliable network connection • Modern ICT facilities | <ul style="list-style-type: none"> • 5 point Likert scale <p>The mean of the responses will be used to indicate the</p> |

| | | |
|-----------------------------------|--|---|
| | | level of implementation. |
| Human capital development | <ul style="list-style-type: none"> • ICT skills Competency • Plans on capacity building | <ul style="list-style-type: none"> • 5 point Likert scale <p>The mean of the responses will be used to indicate the level of implementation.</p> |
| Top management commitment | <ul style="list-style-type: none"> • Accountability • Transparency • Resource allocation | <ul style="list-style-type: none"> • 5 point Likert scale <p>The mean of the responses will be used to indicate the level of implementation.</p> |
| Dependent variable | | |
| Effective implementation of IFMIS | <ul style="list-style-type: none"> • Transparency/accountability on resource utilization • Complete IFMIS implementation | <ul style="list-style-type: none"> • 5 point Likert scale <p>The mean of the responses will be used to indicate the level of implementation.</p> |

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

Research methodology is an operational framework within which the facts are placed so that meaning may be seen more clearly (Leedy, 1993). Kothari (2005) describes it as a systematic way of solving a research problem. Creswell (2003) further defines research methodology as the approach by which the meaning of data is extracted and

the way research is conducted. This chapter discusses the research design that was adopted in the study. It also covers the target population, sample and sampling techniques, data collection instruments, pilot study, data collection procedure, data analysis and presentation and the ethical considerations of the study

3.1 Research Design

Research design refers to the organization of conditions for gathering and examination of data in a way that objects to combine significance to the research (Creswell, 2003). This study used descriptive research design. According to Cooper and Schindler (2003), a descriptive study is concerned with finding out the what, where and how of a phenomenon. Descriptive research design provides factual, accurate and systematic data Mugenda (2012). The choice of the descriptive research design was based on the fact that in this study, the researcher is interested in the state of affairs already existing in the field and no variable would be manipulated. This study, therefore, was able to generalize the findings to a larger population.

3.2 Target Population

According to Creswell (2003) population is the entire group of individuals, events or objects having common observable characteristics from which the researcher wants to generalize the results of the study. A target population can be defined as a group of people that the researcher wants to draw a conclusion from (Mugenda and Mugenda, 2003). There are a total of 12 Technical and Vocational Education and Training Institutions in Nairobi County which constituted our target population. The target respondents comprised of 72 employees from the administration, procurement, and finance sections of the institutions. These are employees who are involved in the day to day usage of IFMIS. Complete enumeration technique was used in this study which entailed gathering information from all the members in the target population. This

was so because the size of the target population was relatively small making it possible for the researcher to observe each individual in it. The summary is as shown in Table 2

Table 2: Target Population

| Category | No. of Institutions | No. of Staff | Target Population |
|---------------------|----------------------------|---------------------|--------------------------|
| Manager | 12 | 2 | 24 |
| Technical staff | 12 | 2 | 24 |
| Finance officer | 12 | 1 | 12 |
| Procurement officer | 12 | 1 | 12 |
| Total | 12 | 6 | 72 |

3.3 Data Collection Instruments

Data collection is a means by which information is obtained from the subject of investigation (Creswell, 2003). Questionnaires were used to collect primary data for this study. The questionnaire ensured that details and relevant information on the subject of the study were collected using a mixture of both open and closed-ended questions. Open-ended questions allowed for in-depth clarification of information while closed-ended questions were used to seek specific information. The study used a questionnaire because it is flexible and facilitates the capture of a large amount of data. As a method of data collection, questionnaires are appropriate because they are easy to analyze and is cost effective. (Kothari, 2011)

3.4 Pilot Study

Marczyk, DeMatteo, and Festinger (2005) observe that the pilot test is the start phase in data gathering of the research process. The pilot test is conducted to identify weaknesses in the data collection instruments and to provide alternative data for

selection of a probability sample. They note that a pilot test should draw subjects from the target population and simulate the procedures and protocols that have been designated for data collection. In summary pilot test measures the reliability and validity of the instrument.

To avoid misrepresentation and to minimize errors, the researcher ran a pre-test of the questionnaires before the actual data collection on 7 respondents. The research instrument was piloted to ensure validity and reliability. The instruments were tested to see if it is obtaining the results required, whether there are any ambiguities, test how long it takes to fill it and eliminate/alter the questions accordingly.

3.4.1 Validity

According to Berg and Gall (1989), validity is the degree by which the sample of test items represents the content the test is designed to measure. According to Gay (1981) validity of the research, instrument refers to the extent to which the instrument measures what it was intended to. Content analysis of the instruments of data collection was conducted to ensure that important themes of the study are captured in the questionnaire. During the pilot study, the researcher ensured that the respondents interpret the questions in a uniform way. The content validity was determined by the supervisors looking at the questions in the questionnaire and check if they answered the research questions and addresses the objectives of the study.

3.4.2 Reliability

Reliability of a research instrument is the degree of consistency of the instrument on repeated trials. A reliable instrument is the one which gives consistent findings (Kothari, 2011). Reliability is the measure of how consistent results from a test are (Kombo and Tromp, 2003). It's a question of whether you are likely to arrive at the

same findings if a test is administered to the same population more than once. In this study, the test-retest method was used to establish the instrument reliability. The instrument's reliability was boosted by allowing anonymity and treatment of the information gathered with utmost confidentiality (Gay, 1981).

3.5 Data Collection Procedure

The researcher obtained an introductory letter from the University. After the introductory letter, the researcher obtained a research permit from the National Commission of Science, Technology Innovation (NACOSTI) and proceeded to the field to book appointments with the relevant officers. The researcher then visited the departments of the respondents to be involved in the study so as to familiarize with the environment and meet the respondents for the purpose of explaining the reasons for visits. The researcher then administered the questionnaires to individual respondents in person and guided them on how to fill them.

3.6 Data Analysis and Presentation

Collected data were analyzed both qualitatively and quantitatively. Qualitative data were analyzed using thematic analysis. Braun and Clarke (2006) defined thematic analysis as a method of analyzing and identifying patterns, themes within data. Braun and Clarke (2013) stated the steps as familiarizing self with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and lastly producing the report.

Statistical software (SPSS) was used to analyze quantitative data which was presented in the tabular and graphical form. The collected data was processed before being analyzed. The study also made use of inferential statistics, namely correlation analysis to test the degree of association between pairs of variables and *regression analysis*.

The multivariate regression model to be developed will be as follows: -

$$EI = \beta_0 + \beta_1 CM + \beta_2 TMC + \beta_3 HCD + \beta_4 TI + \varepsilon$$

Where:

EI= Implementation of IFMIS

β_0 = Constant (The intercept of the model)

β = Coefficient of the X variables (independent variables)

CM = Change Management Process

TMC= Top Management Commitment

HCD = Human Capital Development

TI = Technological Infrastructure

ε = error term

3.7 Ethical Considerations

Ethics are considered an essential dimension in any research project for data collection processes and to make generalizations. According to Johnson and Christenson (2008) treatment of research, participants is the most important and fundamental issue that researchers must confront. Indeed, the application of appropriate ethics can reduce the harm during the research process when the researcher creates tension between his or her aims to identify the truth and generalize results against data from people at one side and people's rights and values from another side (Cohen et al, 2007).

According to Kothari (2004), these ethical standards are anonymity, confidentiality, and privacy. Likewise, De Vaus (2002) and Gorman (2007) suggested that all kinds of research need to be based on four ethical standards: informed consent, anonymity, non-harm or beneficence and confidentiality.

Gorman (2007) and De Vaus (2002) suggested that the consent form include indications of the identity of the organization conducting the research, that participant

cooperation was voluntary and that participant response are guarded with respect to confidentiality. This was achieved through the informed consent letter given to the respondents beforehand. The informed consent explains the identity of the researcher, voluntary participation, anonymity, and confidentiality.

In terms of anonymity and confidentiality, according to Mertens (2010) anonymity means that the researcher will not and cannot identify the respondents whereas confidentiality means that the researcher can match names with responses but ensures that no-one else will have access to them. In terms of confidentiality, this was done by outlining the information sheet and consent form to participants before they participated in the questionnaire filling so that they understand everything associated with the study. They were assured that data will be kept confidential and not accessible to anyone other than the researcher and the information is given would solemnly be used this study and the publication of results only. As for anonymity, participants were notified that their identities will not be explicitly made known at any stage of this research. Participants' anonymity was strictly adhered to in order to avoid any contrary impact to them.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.0 Introduction

This chapter presents research findings and discussion of the study. Data collected was analyzed and presented according to the research objectives. The findings included the extent to which change management, technological infrastructure, human capital development, and top management commitment affect effective

implementation of IFMIS. Regression analysis was also conducted in this chapter, whereby a multiple regression model was developed which showed the extent to which the four independent variables can be used to predict the effectiveness of IFMIS implementation process.

4.1 General Information

4.1.1 Response Rate

Table 3: Response Rate

| | Frequency | Percentage |
|--------------|------------------|-------------------|
| Response | 60 | 83.3 |
| Non-response | 12 | 16.7 |
| Total | 72 | 100 |

Eighty-three percent of the respondents were available for the study. The response rate was considered adequate for the analysis. One hundred percent response rate was not attained because the questionnaires were administered through the drop and pick method. Some of the respondents did not return the questionnaires while some were absent during the picking time.

4.1.2 Summary of Demographic Information

Table 4: Summary of Demographic Information

| Category | | Frequency | Percentage |
|-----------------|----------------|------------------|-------------------|
| Gender | Male | 44 | 73.3 |
| | Female | 16 | 26.7 |
| | Total | 60 | 100 |
| Age of the | Below 25 years | 0 | 0 |
| | 25-35 years | 23 | 38.3 |

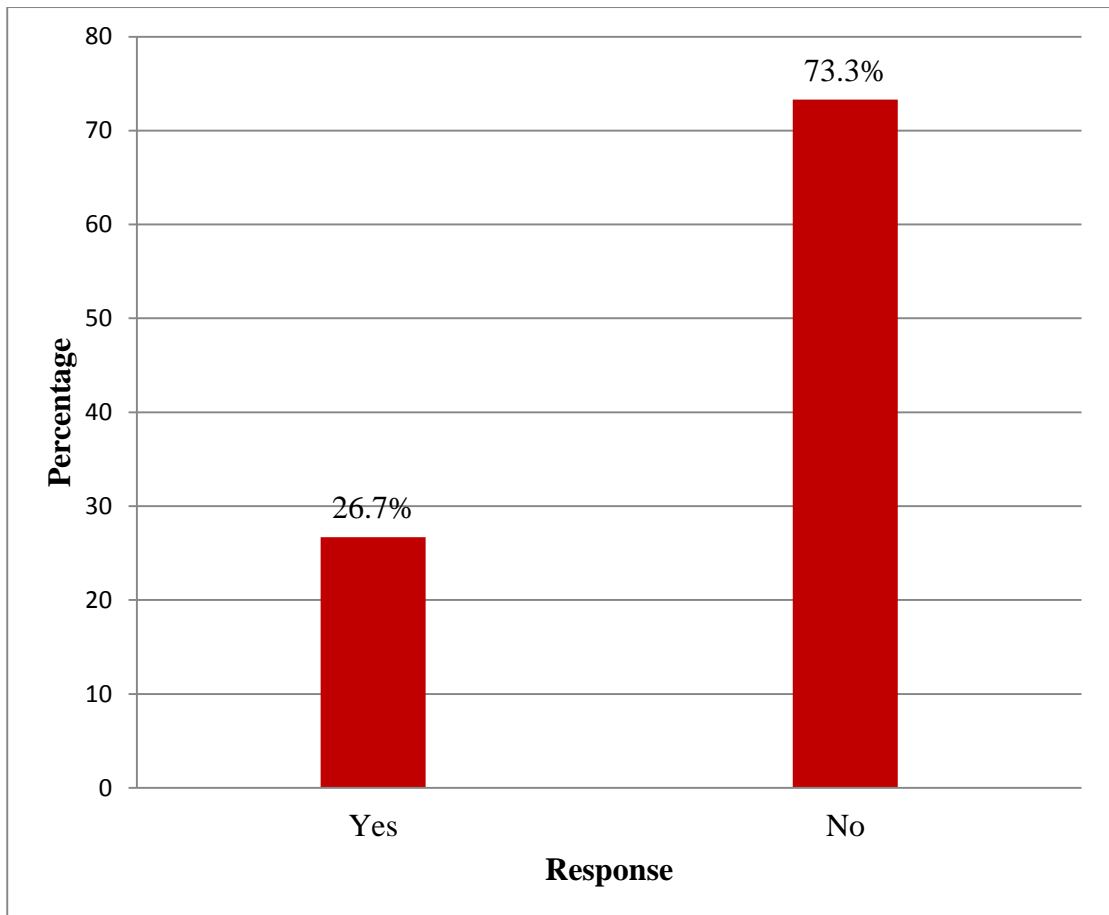
| | | | |
|----------------------------------|-----------------------------------|-----------|------------|
| Respondent | 36-45 years | 9 | 15.0 |
| | 46-55 years | 25 | 41.7 |
| | Above 55 years | 3 | 5.0 |
| | Total | 60 | 100 |
| Highest Level of Education | Primary education | 0 | 0 |
| | Secondary education | 4 | 6.7 |
| | Certificate | 0 | 0 |
| | Diploma | 8 | 13.3 |
| | Bachelors degree | 36 | 60.0 |
| | Masters degree | 12 | 20.0 |
| | Total | 60 | 100 |
| Department of the Respondent | Procurement Department | 21 | 35.0 |
| | Finance and Accounting Department | 39 | 65.0 |
| | Total | 60 | 100 |
| Duration in the Current Position | Less than 5 years | 28 | 46.7 |
| | 5-10 years | 15 | 25.0 |
| | 11-20 years | 9 | 15.0 |
| | Above 20 years | 8 | 13.3 |
| | Total | 60 | 100 |

The study sought to establish general information of the respondents who took part in this study. From the findings, 73.3% of the respondents were males while 26.7% were females. This clearly portrayed there was gender imbalance in job distribution within the Institutions. Most of the senior positions in the institutions were occupied by males. Majority of the respondents (41.7%) were aged between 46 and 55 years old, 15% of them were aged between 36 and 45 years, 38.3% of them were aged between 25 and 35 years and the remaining 5% were aged above 55 years old. This showed that only 38.3% of the senior employees were the youth clearly indicating that most of these positions were not evenly distributed age wise as the findings showed that it favored the elderly at the expense of the youth.

All the respondents had acquired a post-secondary education with the majority (60%) having a bachelors degree as their highest level of education. This was so because most of these positions are competitive and required individuals who are highly qualified academically. Thirty-five percent of the respondents were from the procurement department while 65% of them were from the finance and accounting department. The study chose these staff since they are more likely to use the Integrated Management Information System when carrying out their daily operations. Most of these respondents (46.7%) have been working in their current positions for a period of fewer than 5 years, 25% of them have been working in their current positions for a period of between 5 years and 10 years, 15% of them have been working in their current positions for a period of between 11 years and 20 years while the remaining 13.3% of them have been working in their current positions for over 20 years. This might have been so because of the frequent changes in the top management of the institution leadership might have prompted such changes downwards to middle level and lower level managers.

4.1.3 Involvement in the use of IFMIS in the Department

Figure 2: Involvement in the use of IFMIS in the Department



The study sought to establish whether the respondents were involved in using IFMIS in their various departments. From the findings, 26.7% of them acknowledged being involved whereas 73.3% did not. From these findings, it can be established that majority of the respondents were not being involved in using the Integrated Financial Management Information System in their various departments.

The study further sought respondents opinion on what can be done to improve on the implementation of IFMIS in their institution. The findings established that most of the respondents suggested that employees should be subjected to more training on the usage of the system and increased accessibility of the system to the employees.

4.2 Change Management

Table 5: Change Management

| Statements | S.D | D | N.S | A | S.A | Mean | S. Dev |
|--|-----------|-----------|-----------|-----------|---------|------|--------|
| | F (%) | F (%) | F (%) | F (%) | F (%) | | |
| There was a detailed orientation on the expected changes in technology and the benefits associated with the changes upon introduction of IFMIS | 19 (31.7) | 17 (28.3) | 13 (21.7) | 8 (13.3) | 3 (5) | 2.32 | 1.200 |
| There was a detailed orientation on the expected changes in processes and the benefits associated with the changes upon introduction of IFMIS | 17 (28.3) | 9 (15) | 19 (31.7) | 10 (16.7) | 5 (8.3) | 2.62 | 1.290 |
| There was a detailed orientation on the expected changes in procedures and the benefits associated with the changes upon introduction of IFMIS | 18 (30) | 8 (13.3) | 4 (6.7) | 25 (41.7) | 5 (8.3) | 2.85 | 1.448 |
| There was a detailed orientation on the expected changes in responsibilities and the benefits associated with the changes upon introduction of IFMIS | 17 (28.3) | 12 (20) | 15 (25) | 11 (18.3) | 5 (8.3) | 2.58 | 1.306 |
| There was a detailed orientation on the expected changes in skills required and the benefits associated with the changes upon introduction of IFMIS | 18 (30) | 11 (18.3) | 19 (31.7) | 7 (11.7) | 5 (8.3) | 2.50 | 1.269 |
| There was a detailed training on the expected users on the basic skills on how to use the IFMIS system | 17 (28.3) | 17 (28.3) | 9 (15) | 12 (20) | 5 (8.3) | 2.52 | 1.321 |

| | | | | | | | |
|---|-----------|-----------|-----------|----------|-------|-------------|--------------|
| There were frequent training on the users so as to improve on their level of awareness about the IFMIS system | 20 (33.3) | 16 (26.7) | 14 (23.3) | 7 (11.7) | 3 (5) | 2.28 | 1.195 |
| There were frequent training on the user's attitude towards the IFMIS system so as to ward off the negative attitude by highlighting on the benefits expected upon adoption of the IFMIS system | 19 (31.7) | 25 (41.7) | 10 (16.7) | 3 (5) | 3 (5) | 2.10 | 1.069 |
| Composite Mean | | | | | | 2.47 | 1.262 |

The study sought to assess various statements on change management carried out in the institution. On assessment as to whether there was a detailed orientation on the expected changes in technology and the benefits associated with the changes upon introduction of IFMIS, majority of them (31.7%) strongly disagreed. On assessment as to whether there was a detailed orientation on the expected changes in processes and the benefits associated with the changes upon introduction of IFMIS, majority of them (31.7%) were not sure. On assessment as to whether there was a detailed orientation on the expected changes in procedures and the benefits associated with the changes upon introduction of IFMIS, majority of them (41.7%) agreed. On assessment as to whether there was a detailed orientation on the expected changes in responsibilities and the benefits associated with the changes upon introduction of IFMIS, majority of them (28.3%) still strongly disagreed. On assessment as to whether there was a detailed orientation on the expected changes in skills required and the benefits associated with the changes upon introduction of IFMIS, majority of them (31.7%) were not sure. On assessment as to whether there was a detailed

training on the expected users on the basic skills on how to use the IFMIS, majority of them (28.3%) still strongly disagreed while the same percentage disagreed too. On assessment as to whether there were frequent training on the users so as to improve on their level of awareness about the IFMIS system, majority of them (33.3%) strongly disagreed. On assessment as to whether there were frequent training on the users' attitude towards the IFMIS system so as to ward off the negative attitude by highlighting on the benefits expected upon adoption of the IFMIS system, majority of them (41.7%) still disagreed.

This study further sought to establish the general rating of each statement on change management from the respondents involved in this study. The rating scale based on the mean scores adopted was as follows; (1.0-1.4)-Strongly Disagree, (1.5-2.4)-Disagree, (2.5-3.4)-Not sure, (3.5-4.4)-Agree, (4.5-5.0)-Strongly Agree. The findings indicated that the respondents generally disagreed with the fact that there was a detailed orientation on the expected changes in technology and the benefits associated with the changes upon introduction of IFMIS but not sure on the orientation on the processes, procedures, and responsibilities was that detailed enough. The respondents also generally disagreed with the fact that there were frequent training on the users so as to improve on their level of awareness about the IFMIS system. They also generally disagreed with the fact that there were frequent training on the users' attitude towards the IFMIS system so as to ward off the negative attitude by highlighting on the benefits expected upon adoption of the IFMIS system. However, generally, the respondents were not sure as to whether the orientations on the expected changes in skills required and the benefits associated with the changes upon introduction of IFMIS were detailed enough. They were equally not sure as to

whether the training on the expected users on the basic skills on how to use the IFMIS system was detailed enough.

This study further sought to establish the general rating of the level of change management carried out. The composite mean was used which was obtained using the means of each statement on table 5. The rating scale adopted was as follows; (1.0-1.4)-Very Low, (1.5-2.4)-Low, (2.5-3.4)-Moderate, (3.5-4.4)-High, (4.5-5.0)-Very High. The findings established that the general rating of the level of change management carried out was generally moderate as indicated by a composite mean of 2.47. This implies that the nature of the orientation carried by the management was not adequate enough to ensure smooth implementation of the Integrated Management Information System. Most employees still had mixed reactions about the system probably because of the fear of unknown due to the changes expected. As Indeje and Zheng (2010) noted that with the adoption of new information system like the IFMIS primarily changes the way operations will be carried out hence requires a careful process of management to avert possible staff resistance which might arise due to the fear of unknown.

Karl Pearson's correlation coefficient was obtained to establish the strength of the association between change management and implementation of IFMIS.

Table 6: Correlation Coefficient (Change management)

| | Implementation of IFMIS | Interpretation |
|--------------------------|--------------------------------|------------------------------|
| Change Management | 0.650 | Strong Positive Relationship |

The findings established that there was a strong positive correlation between change management and implementation of IFMIS implying that the extent to which change

management affected implementation of IFMIS system in Technical and Vocational Education Training institutions is high.

A univariate regression model was applied to determine the extent to which change management can contribute to the effective implementation of IFMIS. The study adopted the following model

$$I = \beta_0 + \beta_1 CM + \varepsilon$$

Where:

I:Implementation of IFMIS

β_0 : Constant (The intercept of the model)

β_1 : Coefficient of Change Management

CM:Change Management

ε :error term

A summary of the coefficients of the regression equation is presented in Table 7.

Table 7: Coefficients of Regression Equation-Change Management

| | Unstandardized Coefficients | | Standardized Coefficients | T |
|------------|-----------------------------|------------|---------------------------|-------|
| | B | Std. Error | Beta | |
| (Constant) | 19.751 | 4.696 | | 4.206 |
| CM | 1.422 | 0.218 | 0.650 | 6.514 |

The fitted regression model, therefore, became as follows:

$$I=19.751+ 1.422CM$$

Table 8: Regression Model Summary (Change Management)

| R | R Square | Adjusted R Square | Std. Error of the Estimate | Sig. |
|----------|-----------------|--------------------------|-----------------------------------|-------------|
| 0.650 | 0.423 | 0.413 | 14.371 | 0.000 |

As indicated in Table 8, the fitted model was diagnosed and found that the regression model was statistically significant at 5% significance level. This shows that change management affects the response variable (implementation of IFMIS). Further, R square = 42.3% implying that change management accounted for 42.3% of the response variable. This implies that 42.3% of the variation in the effective implementation of IFMIS is explained by change management leaving 57.7% unexplained. The P- the value of 0.000 (less than 0.05) implies that the model is significant at the 5% level of significance.

4.3 Technological Infrastructure

Table 9: Technological Infrastructure

| Statements | S.D | D | N.S | A | S.A | Mean | S.Dev |
|---|--------------|--------------|--------------|--------------|--------------|-------------|--------------|
| | F (%) | F (%) | F (%) | F (%) | F (%) | | |
| The ICT equipment available are adequate enough to serve all the offices using the IFMIS system | 11(18.3) | 16(26.7) | 8(13.3) | 12(20) | 13(21.7) | 3.00 | 1.450 |
| The ICT equipment available are easily available/accessible to the IFMIS system users | 11(18.3) | 20(33.3) | 6(10) | 17(28.3) | 6(10) | 2.78 | 1.316 |
| The ICT equipment available have the capacity to run the IFMIS system efficiently | 11(18.3) | 15(25) | 22(36.7) | 6(10) | 6(10) | 2.68 | 1.186 |
| There is a frequent upgrade of the ICT infrastructure to accommodate IFMIS system upgrade | 15(25) | 16(26.7) | 12(20) | 15(25) | 2(3.3) | 2.55 | 1.213 |

| | | | | | | | |
|--|----------|----------|----------|----------|---------|-------------|--------------|
| The network available is reliable enough to enable the IFMIS system run efficiently | 14(23.3) | 13(21.7) | 14(23.3) | 11(18.3) | 8(13.3) | 2.77 | 1.358 |
| There is a quick response in replacing the damaged ICT equipment upon reporting to ensure the smooth running of the IFMIS system | 10(16.7) | 13(21.7) | 18(30) | 15(25) | 4(6.7) | 2.83 | 1.181 |
| There is a regular update of the IFMIS software for the purpose of improvement on its service delivery | 18(30) | 17(28.3) | 18(30) | 3(5) | 4(6.7) | 2.30 | 1.154 |
| Composite Mean | | | | | | 2.70 | 1.265 |

The study sought to assess various statements on technological infrastructure in the institution. On assessment as to whether the ICT equipment available are adequate enough to serve all the offices using the IFMIS system, majority of them (26.7%) disagreed. On assessment as to whether the ICT equipments available are easily available to the IFMIS system users, majority of them (33.3%) still disagreed. On assessment as to whether the ICT equipments available have the capacity to run the IFMIS system efficiently, majority of them (36.7%) were not sure. On assessment as to whether there is a frequent upgrade of the ICT infrastructure to accommodate IFMIS system upgrade, majority of them (26.7%) still disagreed. On assessment as to whether the network available is reliable enough to enable the IFMIS system run efficiently, majority of them (23.3%) strongly disagreed while the same percentage were not sure. On assessment as to whether there is a quick response in replacing the damaged ICT equipments upon reporting to ensure smooth running of the IFMIS system, majority of them (30%) were not sure. On assessment as to whether there is a regular update of the IFMIS software for the purpose of improvement on its service

delivery, majority of them (30%) strongly disagreed while the same percentage were not sure.

This study further sought to establish the general rating of each statement on technological infrastructure from the respondents involved in this study. The rating scale based on the mean scores adopted was as follows; (1.0-1.4)-Strongly Disagree, (1.5-2.4)-Disagree, (2.5-3.4)-Not sure, (3.5-4.4)-Agree, (4.5-5.0)-Strongly Agree. The findings indicated that the respondents generally were not sure with the fact that the ICT equipments available are adequate enough and have the capacity to run the IFMIS system efficiently enough to serve all the offices using the IFMIS system. The respondents also generally were not sure with the fact that there is a quick response in replacing the damaged ICT equipments upon reporting to ensure smooth running of the IFMIS system. They were also, generally not sure as to whether the ICT equipments available are easily available to the IFMIS system users and have the capacity to run the IFMIS system efficiently. They were equally not sure as to whether the network available is reliable enough to enable the IFMIS system run efficiently. However they generally disagreed with the fact that there is a regular update of the IFMIS software for the purpose of improvement on its service delivery.

This study further sought to establish the general rating of the level of technological infrastructure capacity existing. The composite mean was used which was obtained using the means of each statement on table 9. The rating scale adopted was as follows; (1.0-1.4)-Very Low, (1.5-2.4)-Low, (2.5-3.4)-Moderate, (3.5-4.4)-High, (4.5-5.0)-Very High. The findings established that the general rating of level of technological infrastructure capacity existing was generally moderate as indicated by a composite

mean of 2.70. This showed that the technological infrastructure within the institution still lacked the capacity to ensure smooth running of IFMIS. The system was still not that efficient due to challenges relating to technology.

Karl Pearson’s correlation coefficient was obtained to establish the strength of the association between change management and implementation of IFMIS.

Table 10: Correlation Coefficient (Technological Infrastructure)

| | Implementation of IFMIS | Interpretation |
|-------------------------------------|--------------------------------|------------------------------|
| Technological Infrastructure | 0.518 | Strong Positive Relationship |

The findings established that there was a strong positive correlation between technological infrastructure and implementation of IFMIS implying that the extent to which technological infrastructure affected implementation of IFMIS system in Technical and Vocational Education Training institutions is high.

A univariate regression model was applied to determine the extent to which technological infrastructure can contribute to effective implementation of IFMIS. The study adopted the following model

$$I = \beta_0 + \beta_1 TI + \varepsilon$$

Where:

I : Implementation of IFMIS

β_0 : Constant (The intercept of the model)

β_1 : Coefficient of Technological Infrastructure

T.I : Technological Infrastructure

ε :error term

A summary of the coefficients of regression equation is presented in Table 11.

Table 11: Coefficients of Regression Equation-Technological Infrastructure

| | Unstandardized Coefficients | | Standardized Coefficients | T |
|------------|-----------------------------|------------|---------------------------|-------|
| | B | Std. Error | Beta | |
| (Constant) | 22.745 | 5.834 | | 3.899 |
| T.I | 1.327 | 0.288 | 0.518 | 4.609 |

The fitted regression model therefore became as follows:

$$I=22.745+ 1.327T.I$$

Table 12: Regression Model Summary (Technological Infrastructure)

| R | R Square | Adjusted R Square | Std. Error of the Estimate | Sig. |
|-------|----------|-------------------|----------------------------|-------|
| 0.518 | 0.268 | 0.255 | 16.179 | 0.000 |

As indicated in Table 12, the fitted model was diagnosed and found that the regression model was statistically significant at 5% significance level. This shows that technological infrastructure affects the response variable (implementation of IFMIS). Further, R square = 26.8% implying that technological infrastructure accounted for 26.8% of the response variable. This implies that 26.8% of the variation in effective implementation of IFMIS is explained by technological infrastructure leaving 73.2% unexplained. The P-value of 0.000 (less than 0.05) implies that the model is significant at the 5% level of significance.

4.4 Human Capital Development

Table 13: Human Capital Development

| Statements | S.D | D | N.S | A | S.A | Mean | S.Dev |
|--|----------|---------|----------|--------|--------|------|-------|
| | F (%) | F (%) | F (%) | F (%) | F (%) | | |
| The institution has a proper training program for the use of IFMIS | 28(46.7) | 12(20) | 7(11.7) | 9(15) | 4(6.7) | 2.15 | 1.338 |
| The institution no | 17(28.3) | 7(11.7) | 14(23.3) | 18(30) | 4(6.7) | 2.75 | 1.336 |

| | | | | | | | |
|---|----------|----------|----------|----------|---------|-------------|--------------|
| longer relies heavily on experts to run the system | | | | | | | |
| The users are well trained to handle IFMIS | 20(33.3) | 7(11.7) | 18(30) | 11(18.3) | 4(6.7) | 2.53 | 1.308 |
| Most users have accounting background which is essential in the use of the system | 19(31.7) | 8(13.3) | 18(30) | 9(15) | 6(10) | 2.58 | 1.344 |
| The staff have sufficient skills to use the system effectively | 9(15) | 6(10) | 19(31.7) | 22(36.7) | 4(6.7) | 3.10 | 1.160 |
| The staff are frequently trained so as to be up to date with their skills in running the system | 20(33.3) | 20(33.3) | 12(20) | 4(6.7) | 4(6.7) | 2.20 | 1.176 |
| The institution has sufficient number of staffs who have the capacity to use the system effectively and with ease | 11(18.3) | 12(20) | 6(10) | 19(31.7) | 12(20) | 3.15 | 1.436 |
| The staff have good ICT background skills which will enable them to easily adopt the system | 7(11.7) | 9(15) | 5(8.3) | 27(45) | 12(20) | 3.47 | 1.295 |
| There is a frequent invite of IFMIS professionals/experts/consultants to facilitate capacity building among the users | 25(41.7) | 14(23.3) | 1(1.7) | 12(20) | 8(13.3) | 2.40 | 1.520 |
| Composite Mean | | | | | | 2.70 | 1.324 |

The study sought to assess various statements on human capital development in the institution. On assessment as to whether the Institution has a proper training program

for the use of IFMIS, majority of them (46.7%) strongly disagreed. On assessment as to whether the institution no longer relies heavily on experts to run the system, majority of them (30%) agreed. On assessment as to whether the users are well trained to handle IFMIS, majority of them (33.3%) strongly disagreed. On assessment as to whether most users have accounting background which is essential in the use of the system, majority of them (31.7%) strongly disagreed. On assessment as to whether the staffs have sufficient skills to use the system effectively, majority of them (36.7%) agreed. On assessment as to whether the staffs are frequently trained so as to be up to date with their skills in running the system, majority of them (33.3%) strongly disagreed while the same percentage disagreed too. On assessment as to whether the institution has sufficient number of staffs who have the capacity to use the system effectively and with ease, majority of them (31.7%) agreed. On assessment as to whether the staffs have good ICT background skills which will enable them to easily adapt the system, majority of them (45%) agreed. On assessment as to whether there is a frequent invite of IFMIS professionals/experts/consultants to facilitate capacity building among the IFMIS users, majority of them (41.7%) strongly disagreed.

This study further sought to establish the general rating of each statement on human capital development from the respondents involved in this study. The rating scale based on the mean scores adopted was as follows; (1.0-1.4)-Strongly Disagree, (1.5-2.4)-Disagree, (2.5-3.4)-Not sure, (3.5-4.4)-Agree, (4.5-5.0)-Strongly Agree. The findings indicated that the respondents generally were not sure with the following statements. The Institution no longer relies heavily on experts to run the system, the Institution's IFMIS users are well trained to handle IFMIS, most users the Institution have accounting background which is essential in the use of the system, the staff have

sufficient skills to use the system effectively, the staff have good ICT background skills which will enable them to easily adapt the system and the Institution has sufficient number of staffs who have the capacity to use the system effectively and with ease. However, the respondents generally disagreed with the fact that the Institution has a proper training program for the use of IFMIS, the staff are frequently trained so as to be up to date with their skills in running the system and there is a frequent invite of IFMIS professionals/experts/ consultants to facilitate capacity building among the users.

This study further sought to establish the general rating of the level of human capital development carried out in the institutions. The composite mean was used which was obtained using the means of each statement on table 13. The rating scale adopted was as follows; (1.0-1.4)-Very Low, (1.5-2.4)-Low, (2.5-3.4)-Moderate, (3.5-4.4)-High, (4.5-5.0)-Very High. The findings established that the general rating of the level of human capital development carried out in the institution was generally moderate as indicated by a composite mean of 2.70. This showed that, in as much as the institutions were applying effort to build up the capacity of the IFMIS users, the effort was still not enough. Most employees still lacked the capacity to effectively and efficiently use the system as it is supposed to be. As Diamond and Khemani (2006) stated, for the implementation process of the IFMIS to be effective, be in operation and also well maintained the personnel running it must possess the required skills and knowledge. Diamond and Khemani (2006) posit that lack of capacity is regarded as one of the primary causes for the delay in IFMIS implementation process. This was also echoed by Hendrick (2012) who stated lack of capacity as one of the most poignant derailments to the effectiveness of an IFMIS.

Karl Pearson’s correlation coefficient was obtained to establish the strength of the association between change management and implementation of IFMIS.

Table 14: Correlation Coefficient (Human Capital Development)

| | Implementation of IFMIS | Interpretation |
|----------------------------------|--------------------------------|------------------------------|
| Human Capital Development | 0.572 | Strong Positive Relationship |

The findings established that there was a strong positive correlation between human capital development and implementation of IFMIS implying that the extent to which human capital development affected implementation of IFMIS system in Technical and Vocational Education Training institutions is high.

A univariate regression model was applied to determine the extent to which human capital development can contribute to effective implementation of IFMIS. The study adopted the following model

$$I = \beta_0 + \beta_1 HCD + \varepsilon$$

Where:

I : Implementation of IFMIS

β_0 : Constant (The intercept of the model)

β_1 : Coefficient of Human Capital Development

HCD: Human Capital Development

ε : error term

A summary of the coefficients of regression equation is presented in Table 15.

Table 15: Coefficients of Regression Equation- Human Capital Development

| | Unstandardized | Standardized | T |
|--|-----------------------|---------------------|----------|
|--|-----------------------|---------------------|----------|

| | Coefficients | | Coefficients | |
|------------|--------------|------------|--------------|-------|
| | B | Std. Error | Beta | |
| (Constant) | 18.649 | 5.848 | | 3.189 |
| HCD | 1.200 | 0.226 | 0.572 | 5.315 |

The fitted regression model therefore became as follows:

$$I = 18.649 + 1.200HCD$$

Table 16: Regression Model Summary (Human Capital Development)

| R | R Square | Adjusted R Square | Std. Error of the Estimate | Sig. |
|-------|----------|-------------------|----------------------------|-------|
| 0.572 | 0.328 | 0.316 | 15.508 | 0.000 |

As indicated in Table 16, the fitted model was diagnosed and found that the regression model was statistically significant at 5% significance level. This shows that human capital development affects the response variable (implementation of IFMIS). Further, R square = 32.8% implying that human capital development accounted for 32.8% of the response variable. This implies that 32.8% of the variation in effective implementation of IFMIS is explained by human capital development leaving 67.2% unexplained. The P-value of 0.000 (less than 0.05) implies that the model is significant at the 5% level of significance.

4.5 Top Management Commitment

Table 17: Top Management Commitment

| Statements | S.D | D | N.S | A | S.A | Mean | S.Dev |
|--|----------|----------|---------|--------|---------|------|-------|
| | F (%) | F (%) | F (%) | F (%) | F (%) | | |
| Top management has the drive to inspire the use of IFMIS | 19(31.7) | 4(6.7) | 8(13.3) | 21(35) | 8(13.3) | 2.92 | 1.499 |
| The management is well versed with IFMIS | 17(28.3) | 14(23.3) | 12(20) | 9(15) | 8(13.3) | 2.62 | 1.391 |

| | | | | | | | |
|---|----------|----------|----------|----------|----------|-------------|--------------|
| Top management has allocated sufficient financial resources to support IFMIS implementation process | 23(38.3) | 1(1.7) | 22(36.7) | 12(20) | 2(3.3) | 2.48 | 1.282 |
| Top management has facilitated frequent training programs to the users of the system | 19(31.7) | 24(40) | 11(18.3) | 1(1.7) | 5(8.3) | 2.15 | 1.147 |
| Top management has been on the frontline in approving the hiring of experts to foresee the implementation process | 15(25) | 20(33.3) | 7(11.7) | 15(25) | 3(5) | 2.52 | 1.255 |
| Top management has been on the frontline in encouraging its employees to adopt the system positively | 22(36.7) | 11(18.3) | 11(18.3) | 11(18.3) | 5(8.3) | 2.43 | 1.370 |
| Top management has been on frontline in ensuring availability of modern ICT structures to support the running of the system | 15(25) | 8(13.3) | 7(11.7) | 19(31.7) | 11(18.3) | 3.05 | 1.489 |
| Composite Mean | | | | | | 2.59 | 1.348 |

The study sought to assess various statements on top management commitment in the institution. On assessment as to whether the top management has the drive to inspire the use of IFMIS, majority of them (35%) agreed. On assessment as to whether the top management is well versed with IFMIS, majority of them (28.3%) strongly disagreed. On assessment as to whether the top management has allocated sufficient

financial resources to support IFMIS implementation process, majority of them (38.3%) strongly disagreed. On assessment as to whether the top management has facilitated frequent training programs to the users of the system, majority of them (40%) disagreed. On assessment as to whether top management has been on the frontline in approving the hiring of experts to foresee the implementation process, majority of them (33.3%) disagreed. On assessment as to whether the top management has been on the frontline in encouraging its employees to adopt the system positively, majority of them (36.7%) strongly disagreed. On assessment as to whether the top management has been on frontline in ensuring availability of modern ICT structures to support the running of the system, majority of them (31.7%) agreed.

This study further sought to establish the general rating of each statement on top management commitment from the respondents involved in this study. The rating scale based on the mean scores adopted was as follows; (1.0-1.4)-Strongly Disagree, (1.5-2.4)-Disagree, (2.5-3.4)-Not sure, (3.5-4.4)-Agree, (4.5-5.0)-Strongly Agree. The findings indicated that the respondents were generally not sure with the following statements. The top management has allocated sufficient financial resources to support IFMIS implementation process, the top management has been on the frontline in approving the hiring of experts to foresee the implementation process, the top management has been on the frontline in encouraging its employees to adopt the system positively and the top management has been on frontline in ensuring availability of modern ICT structures to support the running of the system and the top management is well versed with IFMIS and has the drive to inspire the use of IFMIS. However, the respondents generally disagreed with the fact that the top management has facilitated frequent training programs to the users of the system.

This study further sought to establish the general rating of the level of top management commitment in the institution. The composite mean was used which was obtained using the means of each statement on table 17. The rating scale adopted was as follows; (1.0-1.4)-Very Low, (1.5-2.4)-Low, (2.5-3.4)-Moderate, (3.5-4.4)-High, (4.5-5.0)-Very High. The findings established that the general rating the level of top management commitment was generally moderate as indicated by a composite mean of 2.59. This showed that, in as much as the top management showed some commitment towards the adoption and effective implementation of the IFMIS, the level of commitment was still not enough. Most employees still believed that the top managers were not fully supporting the system as it is required despite the fact that they are aware how important their influence is. As stated by Murphy (2002) it is very important that commitment from the top management takes the centre stage during introduction and execution of new innovations. This is because management commitment serves as an impetus for change by providing leadership and moral and financial support for a successful project. Negative outcomes may result when the top management neglects or shows lack of dedication.

Karl Pearson's correlation coefficient was obtained to establish the strength of the association between change management and implementation of IFMIS.

Table 18: Correlation Coefficient (Top Management Commitment)

| | Implementation of IFMIS | Interpretation |
|----------------------------------|--------------------------------|-----------------------------------|
| Top Management Commitment | 0.711 | Very Strong Positive Relationship |

The findings established that there was a very strong positive correlation between top management commitment and implementation of IFMIS implying that the extent to

which top management commitment affected implementation of IFMIS system in Technical and Vocational Education Training institutions is very high.

A univariate regression model was applied to determine the extent to which top management commitment can contribute to effective implementation of IFMIS. The study adopted the following model

$$I = \beta_0 + \beta_1 TMC + \varepsilon$$

Where:

I : Implementation of IFMIS

β_0 : Constant (The intercept of the model)

β_1 : Coefficient of Top Management Commitment

TMC:Top Management Commitment

ε :error term

A summary of the coefficients of regression equation is presented in Table 19.

Table 19: Coefficients of Regression Equation- Top Management Commitment

| | Unstandardized Coefficients | | Standardized Coefficients | T |
|------------|-----------------------------|------------|---------------------------|-------|
| | B | Std. Error | Beta | |
| (Constant) | 14.638 | 4.641 | | 3.154 |
| TMC | 1.828 | 0.237 | 0.711 | 7.703 |

The fitted regression model therefore became as follows:

$$I=14.638+ 1.828TMC$$

Table 20: Regression Model Summary (Top Management Commitment)

| R | R Square | Adjusted R Square | Std. Error of the Estimate | Sig. |
|----------|-----------------|--------------------------|-----------------------------------|-------------|
| 0.711 | 0.506 | 0.497 | 13.295 | 0.000 |

As indicated in Table 20, the fitted model was diagnosed and found that the regression model was statistically significant at 5% significance level. This shows that top management commitment affects the response variable (implementation of IFMIS). Further, R square = 50.6% implying that top management commitment accounted for 50.6% of the response variable. This implies that 50.6% of the variation in effective implementation of IFMIS is explained by top management commitment leaving 49.4% unexplained. The P-value of 0.000 (less than 0.05) implies that the model is significant at the 5% level of significance.

4.6 Effectiveness of IFMIS System

Table 21: Effectiveness of IFMIS System

| Statements | S.D | D | N.S | A | S.A | Mean | S.Dev |
|--|--------------|--------------|--------------|--------------|--------------|-------------|--------------|
| | F (%) | F (%) | F (%) | F (%) | F (%) | | |
| The IFMIS system is regularly stable | 12(20) | 9(15) | 22(36.7) | 11(18.3) | 6(10) | 2.83 | 1.237 |
| All activities in the departments run within the IFMIS system | 28(46.7) | 11(18.3) | 13(21.7) | 4(6.7) | 4(6.7) | 2.08 | 1.253 |
| All payment approvals are carried out in IFMIS | 28(46.7) | 21(35) | 9(15) | 0(0) | 2(3.3) | 1.78 | 0.940 |
| Payment vouchers are prepared and approved in IFMIS before payment | 26(43.3) | 23(38.3) | 9(15) | 0(0) | 2(3.3) | 1.82 | 0.930 |
| Purchase orders are generated exclusively through IFMIS | 26(43.3) | 16(26.7) | 9(15) | 7(11.7) | 2(3.3) | 2.05 | 1.171 |
| LPOs and Invoices are fully captured onto the IFMIS | 26(43.3) | 19(31.7) | 6(10) | 7(11.7) | 2(3.3) | 2.00 | 1.150 |

| | | | | | | | |
|--|----------|----------|----------|----------|----------|------|-------|
| system | | | | | | | |
| IFMIS has supported institution budgeting process | 22(36.7) | 21(35) | 15(25) | 2(3.3) | 0(0) | 1.95 | 0.872 |
| IFMIS has robust support towards procurement of institution items | 22(36.7) | 18(30) | 12(20) | 6(10) | 2(3.3) | 2.13 | 1.127 |
| IFMIS is highly reliable to manage the accounts payable and account receivables | 15(25) | 20(33.3) | 13(21.7) | 10(16.7) | 2(3.3) | 2.40 | 1.138 |
| IFMIS has in build controls at each level to ensure strict authorization of institution expenditure | 15(25) | 19(31.7) | 13(21.7) | 10(16.7) | 3(5) | 2.45 | 1.185 |
| IFMIS strongly supports the institution Cash Management policy | 18(30) | 20(33.3) | 6(10) | 11(18.3) | 5(8.3) | 2.42 | 1.319 |
| IFMIS easily supports customization of required management reports based on the user levels or various revenue and expenditure streams | 18(30) | 9(15) | 17(28.3) | 13(21.7) | 3(5) | 2.57 | 1.267 |
| IFMIS has great capabilities of ensuring audit trails remaining intact for a considerable period | 18(30) | 9(15) | 14(23.3) | 11(18.3) | 8(13.3) | 2.70 | 1.418 |
| The IFMIS has improved the record management in the institution | 20(33.3) | 14(23.3) | 13(21.7) | 9(15) | 4(6.7) | 2.38 | 1.277 |
| The IFIMIS is a scalable system providing ability to add new additional services as they come up | 18(30) | 5(8.3) | 20(33.3) | 10(16.7) | 7(11.7) | 2.72 | 1.367 |
| IFMIS has provided real time reports on | 16(26.7) | 10(16.7) | 17(28.3) | 6(10) | 11(18.3) | 2.77 | 1.430 |

| | | | | | | | |
|---|----------|----------|----------|----------|----------|-------------|--------------|
| customers service | | | | | | | |
| IFMIS has been highly integrated with other systems in the institution with ease | 19(31.7) | 11(18.3) | 17(28.3) | 9(15) | 4(6.7) | 2.47 | 1.268 |
| IFMIS has inbuilt capabilities to escalate long outstanding customer issues | 16(26.7) | 5(8.3) | 23(38.3) | 10(16.7) | 6(10) | 2.75 | 1.297 |
| IFMIS is able to generate reports on number of services offered on daily basis per department | 16(26.7) | 8(13.3) | 17(28.3) | 8(13.3) | 11(18.3) | 2.83 | 1.440 |
| IFMIS user interface is friendly to the users | 16(26.7) | 8(13.3) | 20(33.3) | 7(11.7) | 9(15) | 2.75 | 1.373 |
| Composite Mean | | | | | | 2.39 | 1.223 |

The study sought to assess various statements on the effectiveness of IFMIS System in the institution. On assessment as to whether the IFMIS system is regularly stable, majority of them (36.7%) were not sure. On assessment as to whether all activities in the departments run within the IFMIS system, majority of them (46.7%) strongly disagreed. On assessment as to whether all payment approvals are carried out in IFMIS, majority of them (46.7%) strongly disagreed. On assessment as to whether payment vouchers are prepared and approved in IFMIS before payment, majority of them (43.3%) strongly disagreed. On assessment as to whether the purchase orders are generated exclusively through IFMIS, majority of them (43.3%) strongly disagreed. On assessment as to whether the LPOs and Invoices are fully captured onto the IFMIS system, majority of them (43.3%) still strongly disagreed. On assessment as to whether IFMIS has supported institution budgeting process, majority of them (36.7%) strongly disagreed. On assessment as to whether IFMIS has robust support towards procurement of institution items, majority of them (36.7%) still strongly disagreed.

On assessment as to whether IFMIS is highly reliable to manage the accounts payable and account receivables, majority of them (33.3%) disagreed. On assessment as to whether IFMIS has in build controls at each level to ensure strict authorization of institution expenditure, majority of them (31.7%) still disagreed. On assessment as to whether IFMIS strongly supports the institutions Cash Management policy, majority of them (33.3%) disagreed. On assessment as to whether IFMIS easily supports customization of required management reports based on the user levels or various revenue and expenditure streams, majority of them (30%) strongly disagreed. On assessment as to whether IFMIS has great capabilities of ensuring audit trails remaining intact for a considerable period, majority of them (30%) strongly disagreed. On assessment as to whether IFMIS has improved the record management in the institution, majority of them (33.3%) strongly disagreed. On assessment as to whether IFMIS is a scalable system providing ability to add new additional services as they come up, majority of them (33.3%) were not sure. On assessment as to whether IFMIS has provided real time reports on customers' service, majority of them (28.3%) were not sure. On assessment as to whether IFMIS has been highly integrated with other systems in the institution with ease, majority of them (31.7%) strongly disagreed. On assessment as to whether IFMIS has inbuilt capabilities to escalate long outstanding customer issues, majority of them (38.3%) were not sure. On assessment as to whether IFMIS is able to generate reports on number of services offered on daily basis per category, majority of them (28.3%) were not sure. On assessment as to whether IFMIS user interface is friendly to the users, majority of them (33.3%) were not sure.

This study further sought to establish the general rating of the level of effectiveness of IFMIS System in the institutions. The rating scale based on the mean scores adopted

was as follows; (1.0-1.4)-Strongly Disagree, (1.5-2.4)-Disagree, (2.5-3.4)-Not sure, (3.5-4.4)-Agree, (4.5-5.0)-Strongly Agree. The findings indicated that the respondents generally disagreed with the following statements. All activities in the departments run within the IFMIS system, All payment approvals are carried out in IFMIS, Payment vouchers are prepared and approved in IFMIS before payment, Purchase orders are generated exclusively through IFMIS, LPOs and Invoices are fully captured onto the IFMIS system, IFMIS has supported institution budgeting process, IFMIS has robust support towards procurement of institution items, IFMIS is highly reliable to manage the accounts payable and account receivables, IFMIS strongly supports the institutions Cash Management policy and IFMIS has improved the record management in the institution. However, generally, the respondents were not sure as to whether the IFMIS system is regularly stable, IFMIS easily supports customization of required management reports based on the user levels or various revenue and expenditure streams, the IFMIS is a scalable system providing ability to add new additional services as they come up and whether IFMIS has provided real time reports on customers service, IFMIS has been highly integrated with other systems in the institution with ease, IFMIS has in build controls at each level to ensure strict authorization of institution expenditure, IFMIS has great capabilities of ensuring audit trails remaining intact for a considerable period and IFMIS has inbuilt capabilities to escalate long outstanding customer issues, IFMIS is able to generate reports on number of services offered on daily basis per category.

This study further sought to establish the general rating of the level of effectiveness of IFMIS System in the institution. The composite mean was used which was obtained using the means of each statement on table 21. The rating scale adopted was as follows; (1.0-1.4)-Very Low, (1.5-2.4)-Low, (2.5-3.4)-Moderate, (3.5-4.4)-High, (4.5-

5.0)-Very High. The findings established that the general rating the level of effectiveness of IFMIS System in the institution was generally low as indicated by a composite mean of 2.39. This showed that in as much as the system was already implemented and in operation, the entire process of implementation was not that effective. There were still some loopholes which needed to be taken care of.

4.7 Regression Analysis

A multivariate regression model was applied to determine the relative importance of each of the variables with respect to effective implementation of IFMIS. In relation to the objectives, the study adopted the following model

$$I = \beta_0 + \beta_1CM + \beta_2TI + \beta_3HCD + \beta_4TMC + \varepsilon$$

Where:

I : Implementation of IFMIS

β_0 : Constant (The intercept of the model)

β_j : Coefficients of the independent variables (**CM, TI, HCD, TMC**)

CM : Change Management

TI : Technological Infrastructure

HCD: Human Capital Development

TMC: Top Management Commitment

ε :error term

A summary of the coefficients of regression equation is presented in Table 22.

Table 22: Coefficients of Multiple Regression Equation

| | Unstandardized | Standardized | T |
|--|----------------|--------------|---|
|--|----------------|--------------|---|

| | Coefficients | | Coefficients | |
|------------|--------------|------------|--------------|-------|
| | B | Std. Error | Beta | |
| (Constant) | 5.945 | 5.295 | | 1.123 |
| CM | 0.050 | 0.340 | 0.023 | 0.147 |
| TI | 0.335 | 0.350 | 0.131 | 0.956 |
| HCD | 0.714 | 0.244 | 0.340 | 2.925 |
| TCM | 1.645 | 0.449 | 0.640 | 3.666 |

The fitted regression model therefore became as follows:

$$I = 5.945 + 0.050CM + 0.335TI + 0.714HCD + 1.645TCM$$

Table 23: Regression Model Summary

| R | R Square | Adjusted R Square | Std. Error of the Estimate | Sig. |
|-------|----------|-------------------|----------------------------|-------|
| 0.773 | 0.597 | 0.568 | 12.327 | 0.000 |

As indicated in Table 23, the fitted model was diagnosed and found that the regression model was statistically significant at 5% significance level. This shows that the combination of these factors (change management, technological infrastructure, human capital development and top management commitment) affect the response variable (implementation of IFMIS). Further, R square = 59.7% implying that the explanatory variables accounted for 59.7% of the response variable. This implies that 59.7% of the variation in effective implementation of IFMIS is explained by technological infrastructure, human capital development and top management commitment leaving 40.3% unexplained. The P-value of 0.000 (less than 0.05) implies that the model is significant at the 5% level of significance.

4.8 Discussion of Key Findings

The study established that the extent to which change management process had affected effective IFMIS implementation process was high. The findings further

established that the general rating of level of change management carried out was generally moderate. This implies that the nature of the orientation carried by the management was not adequate enough to ensure smooth implementation of the Integrated Management Information System. Most employees still had mixed reactions about the system probably because of the fear of unknown due of the changes expected. As Indeje and Zheng (2010) noted that with the adoption of new information system like the IFMIS primarily changes the way operations will be carried out hence requires a careful process of management to avert possible staff resistance which might arise due to the fear of unknown.

The study also established that the extent to which technological infrastructure had affected effective IFMIS implementation process was high. The findings further established that the general rating of level of technological infrastructure capacity existing was generally moderate. This showed that the technological infrastructure within the institution still lacked the capacity to ensure smooth running of IFMIS. The system was not that efficient due to challenges relating to technology. Hendricks, (2012), in his research pointed out that lack of capacity with IT knowledge and infrastructure as one of the leading impediments to successful adoption of the IFMIS system. Hendricks (2012) further noted that the use of obsolete infrastructure cannot be able to handle the IFMIS software that requires advanced and improved software and hardware.

The study established that the extent to which human capital development had affected effective IFMIS implementation process was high. The findings further established that the general rating of level of human capital development carried out in the institution was generally moderate. This showed that, in as much as the institution was applying effort to build up the capacity of the IFMIS users, the effort

was still not enough. Most employees still lacked the capacity to effectively and efficiently use the system as it is supposed to be. As Diamond and Khemani (2006) stated, for the implementation process of the IFMIS to be effective, be in operation and also well maintained the personnel running it must possess the required skills and knowledge. Diamond and Khemani (2006) posit that lack of capacity is regarded as one of the primary causes for the delay in IFMIS implementation process. This was also echoed by Hendrick (2012) who stated lack of capacity as one of the most poignant derailments to the effectiveness of an IFMIS.

The study also established that the extent to which top management commitment had affected effective IFMIS implementation process was very high. The findings further established that the general rating of the level of top management commitment was generally low. This showed that, in as much as the top management showed some commitment towards the adoption and effective implementation of the IFMIS, the level of commitment was still not enough. Most employees still believed that the top managers were not fully supporting the system as it is required despite the fact that they are aware how important their influence is. As stated by Murphy (2002) it is very important that commitment from the top management takes the centre stage during introduction and execution of new innovations. This is because management commitment serves as an impetus for change by providing leadership and moral and financial support for a successful project. Negative outcomes may result when the top management neglects or shows lack of dedication.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings based on the objectives. It also presents the conclusions made based on the findings. This chapter also presents recommendations made based on the findings of the study and suggestions for further studies.

5.2 Summary of the Findings

The study established that the extent to which change management process had affected effective IFMIS implementation process was high. The findings further established that the general rating of level of change management carried out was generally moderate. The findings indicated that the respondents generally disagreed with the fact that there was a detailed orientation on the expected changes in technology and the benefits associated with the changes upon introduction of IFMIS but not sure on the orientation on the processes, procedures and responsibilities was that detailed enough. The respondents also generally disagreed with the fact that there were frequent trainings on the users so as to improve on their level of awareness about the IFMIS system. They also generally disagreed with the fact that there were frequent trainings on the users' attitude towards the IFMIS system so as to ward off the negative attitude by highlighting on the benefits expected upon adoption of the IFMIS system. However, generally, the respondents were not sure as to whether the orientations on the expected changes in skills required and the benefits associated with the changes upon introduction of IFMIS were detailed enough. They were equally not sure as to whether the training on the expected users on the basic skills on how to use the IFMIS system was detailed enough.

The study also established that the extent to which technological infrastructure had affected effective IFMIS implementation process was high. The findings further established that the general rating of level of technological infrastructure capacity existing was generally moderate. The findings indicated that the respondents generally were not sure with the fact that the ICT equipment's available are adequate enough and have the capacity to run the IFMIS system efficiently enough to serve all the offices using the IFMIS system. The respondents also generally were not sure with the fact that there is a quick response in replacing the damaged ICT equipment's upon reporting to ensure smooth running of the IFMIS system. They were also, generally not sure as to whether the ICT equipment's available are easily available to the IFMIS system users and have the capacity to run the IFMIS system efficiently. They were equally not sure as to whether the network available is reliable enough to enable the IFMIS system run efficiently. However they generally disagreed with the fact that there is a regular update of the IFMIS software for the purpose of improvement on its service delivery.

The study established that the extent to which human capital development had affected effective IFMIS implementation process was high. The findings further established that the general rating of level of human capital development carried out in the institution was generally moderate. The findings indicated that the respondents generally were not sure with the following statements. The Institution no longer relies heavily on experts to run the system, the Institution's IFMIS users are well trained to handle IFMIS, most users the Institution have accounting background which is essential in the use of the system, the staff have sufficient skills to use the system effectively, the staff have good ICT background skills which will enable them to

easily adopt the system and the Institution has sufficient number of staffs who have the capacity to use the system effectively and with ease. However, the respondents generally disagreed with the fact that the Institution has a proper training program for the use of IFMIS, the staff are frequently trained so as to be up to date with their skills in running the system and there is a frequent invite of IFMIS professionals/experts/consultants to facilitate capacity building among the users.

The study also established that the extent to which top management commitment had affected effective IFMIS implementation process was very high. The findings further established that the general rating of the level of top management commitment was generally moderate. The findings indicated that the respondents were generally not sure with the following statements. The top management has allocated sufficient financial resources to support IFMIS implementation process, the top management has been on the frontline in approving the hiring of experts to foresee the implementation process, the top management has been on the frontline in encouraging its employees to adopt the system positively and the top management has been on frontline in ensuring availability of modern ICT structures to support the running of the system and the top management is well versed with IFMIS and has the drive to inspire the use of IFMIS. However, the respondents generally disagreed with the fact that the top management has facilitated frequent training programs to the users of the system.

5.3 Conclusion

The change management process affected the IFMIS implementation process highly. The orientation on the expected changes in technology, processes, procedures and

responsibilities and the benefits associated with the changes upon introduction of IFMIS were not that detailed enough.

The technological infrastructure within the institution affected the IFMIS implementation process highly. The ICT equipments available were inadequate enough and lacked the capacity to run the IFMIS system efficiently enough to serve all the offices using the IFMIS system.

The human capital development carried out within the institution affected the IFMIS implementation process highly. Most staff lacked sufficient skills to use the system effectively. Most of the staff lacked ICT background skills which would have enabled them to easily adapt to the system.

The top management commitment within the institution affected the IFMIS implementation process very highly. The financial resources allocated by the top management to support the implementation process were not sufficient enough to purchase adequate ICT equipment and facilitate staff training.

5.4 Recommendations

Based on the findings of this study, the following recommendations were made.

- i. A comprehensive change management process should always be undertaken whenever a new innovation is adopted in any organization.
- ii. Government and private institutions should ensure availability of the required up to date technological infrastructure to ensure smooth implementation of technology based innovations. Responsiveness being one of the key elements of good governance, the management should be quick in responding to

emergencies pertaining to the breakdown or absence of key ICT infrastructures to ensure smooth running of the system.

- iii. Organizations should invest heavily in capacity building so as to ensure their employees are well equipped with the required skills in order to perform effectively. Frequent staff trainings should be conducted by the institution governments in order to improve on their capacity to handle the system efficiently.
- iv. The top management should offer support and act as role models as this will motivate their employees to perform even better. Participation being one of the key elements of good governance, the institution top management personnel should participate fully on the entire implementation process as this will greatly encourage junior staff to do the same.

5.5 Suggestions for further studies

This study was only focused on TVET institutions. Perhaps a similar study can be extended to other government institutions like the public universities.

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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

Dear Sir/Madam,

RE: ACADEMIC RESEARCH PROJECT

I am a Postgraduate student at The KCA University of Kenya pursuing a Master's Degree in Business Administration. I wish to conduct a research entitled "**Challenges facing the Implementation of Integrated Financial Management Information System in the Technical Institutions in Nairobi County Kenya**". A questionnaire has been designed and will be used to gather relevant information to address the research objectives of the study. The purpose of writing to you is to kindly request you to grant me permission to collect information on this important subject.

Please note that the study will be conducted as an academic research and the information provided will be treated in strict confidence. Strict ethical principles will be observed to ensure confidentiality and the study outcomes and reports will not include reference to any individuals.

Your acceptance will be highly appreciated.

Yours Sincerely

Clement Eshibukho Amukhuma



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P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/18/36357/25162**

Date: **15th September, 2018**

Clement Eshibukho Amukhuma
KCA University
P.O. Box 56808 - 00200
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Challenges facing the implementation of Integrated Financial Management Information System in Technical and Vocational Education and Training Institutions in Nairobi County, Kenya*" I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **14th September, 2019**.

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a **copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.


BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.

National Commission for Science, Technology and Innovation in P.O. Box 30623-00100

APPENDIX II: RESEARCH STUDY QUESTIONNAIRE

I am conducting a research on challenges facing the implementation of the Integrated Financial Management Information System in the Technical Institutions in Kenya. This research is purely for academic purposes. I kindly request you to cooperate and

fill out the questionnaire which seeks your views on this issue. The information that you give shall be treated confidentially and will only be used for academic reasons.

Circle your appropriate answer.

SECTION A: GENERAL INFORMATION

1. Gender
 - 1) Male
 - 2) Female
2. Age of the respondent
 - 1) Below 25 years
 - 2) 25-35 years
 - 3) 36-45 years
 - 4) 46-55 years
 - 5) Above 55 years
3. Highest level of education
 - 1) Primary education
 - 2) Secondary education
 - 3) Certificate
 - 4) Diploma
 - 5) Bachelor's degree
 - 6) Master's degree
 - 7) Other (specify).....
4. Department of the respondent
 - 1) Procurement Department
 - 2) Finance and Accounting Department
5. For how long have you in your current position
 - 1) Less than 5 years
 - 2) 5-10 years
 - 3) 11-20 years
 - 4) Above 20 years
6. Are you deeply involved in the usage of IFMIS in your department?
 - 1) Yes
 - 2) No
7. In your opinion what can be done to improve on the implementation of IFMIS in your institution
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SECTION B: CHANGE MANAGEMENT

8. The table below indicates statements regarding change management conducted among the IFMIS users. Indicate the extent to which you agree or disagree with each statement by ticking on the appropriate column, using the scale below.

1-(strongly Disagree), 2-(Disagree), 3-(Not Sure), 4- (Agree), 5- (strongly Agree)

| STATEMENTS | 1 | 2 | 3 | 4 | 5 |
|---|----------|----------|----------|----------|----------|
| There was a detailed orientation on the expected changes in technology and the benefits associated with the changes upon introduction of IFMIS | | | | | |
| There was a detailed orientation on the expected changes in processes and the benefits associated with the changes upon introduction of IFMIS | | | | | |
| There was a detailed orientation on the expected changes in procedures and the benefits associated with the changes upon introduction of IFMIS | | | | | |
| There was a detailed orientation on the expected changes in responsibilities and the benefits associated with the changes upon introduction of IFMIS | | | | | |
| There was a detailed orientation on the expected changes in skills required and the benefits associated with the changes upon introduction of IFMIS | | | | | |
| There was a detailed training on the expected users on the basic skills on how to use the IFMIS system | | | | | |
| There were frequent trainings on the users so as to improve on their level of awareness about the IFMIS system | | | | | |
| There were frequent trainings on the users attitude towards the IFMIS system so as to ward off the negative attitude by highlighting on the benefits expected upon adoption | | | | | |

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| of the IFMIS system | | | | | |
|---------------------|--|--|--|--|--|

SECTION C: TECHNOLOGICAL INFRASTRUCTURE

9. The table below indicates statements regarding technological infrastructure conducted among the IFMIS users. Indicate the extent to which you agree or disagree with each statement by ticking on the appropriate column, using the scale below.

1-(strongly Disagree), 2-(Disagree), 3-(Not Sure), 4- (Agree), 5- (strongly Agree)

| STATEMENTS | 1 | 2 | 3 | 4 | 5 |
|--|----------|----------|----------|----------|----------|
| The ICT equipment available are adequate enough to serve all the offices using the IFMIS system | | | | | |
| The ICT equipment available are easily available/accessible to the IFMIS system users | | | | | |
| The ICT equipment available have the capacity to run the IFMIS system efficiently | | | | | |
| There is a frequent upgrade of the ICT infrastructure to accommodate IFMIS system upgrade | | | | | |
| The network available is reliable enough to enable the IFMIS system run efficiently | | | | | |
| There is a quick response in replacing the damaged ICT equipment upon reporting to ensure smooth running of the IFMIS system | | | | | |
| There is a regular update of the IFMIS software for the purpose of improvement on its service delivery | | | | | |

SECTION D: HUMAN CAPITAL DEVELOPMENT

10. The table below indicates statements regarding human capital development conducted among the IFMIS users. Indicate the extent to which you agree or disagree with each statement by ticking on the appropriate column, using the scale below.

1-(strongly Disagree), 2-(Disagree), 3-(Not Sure), 4- (Agree), 5- (strongly Agree)

| STATEMENTS | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| The institution has a proper training program for the use of IFMIS | | | | | |
| The institution no longer relies heavily on experts to run the system | | | | | |
| The users are well trained to handle IFMIS | | | | | |
| Most users have accounting background which is essential in the use of the system | | | | | |
| The staff have sufficient skills to use the system effectively | | | | | |
| The staff are frequently trained so as to be up to date with their skills in running the system | | | | | |
| The institution has sufficient number of staffs who have the capacity to use the system effectively and with ease | | | | | |
| The staff have good ICT background skills which will enable them to easily adopt the system | | | | | |
| There is a frequent invite of IFMIS professionals/experts/consultants to facilitate capacity building among the users | | | | | |

SECTION E: TOP MANAGEMENT COMMITMENT

11. The table below indicates statements regarding top management commitment conducted among the IFMIS users. Indicate the extent to which you agree or disagree with each statement by ticking on the appropriate column, using the scale below.

1-(strongly Disagree), 2-(Disagree), 3-(Not Sure), 4- (Agree), 5- (strongly Agree)

| STATEMENTS | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Top management has the drive to inspire the use of IFMIS | | | | | |
| The management is well versed with IFMIS | | | | | |
| Top management has allocated sufficient financial resources to support IFMIS implementation process | | | | | |

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|---|--|--|--|--|--|
| Top management has facilitated frequent training programs to the users of the system | | | | | |
| Top management has been on the frontline in approving the hiring of experts to foresee the implementation process | | | | | |
| Top management has been on the frontline in encouraging its employees to adopt the system positively | | | | | |
| Top management has been on frontline in ensuring availability of modern ICT structures to support the running of the system | | | | | |

SECTION F: EFFECTIVENESS OF IFMIS SYSTEM

12. The table below indicates statements regarding effectiveness of IFMIS system conducted among the IFMIS users. Indicate the extent to which you agree or disagree with each statement by ticking on the appropriate column, using the scale below.

1-(strongly Disagree), 2-(Disagree), 3-(Not Sure), 4- (Agree), 5- (strongly Agree)

| STATEMENTS | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| The IFMIS system is regularly stable | | | | | |
| All activities in the departments run within the IFMIS system | | | | | |
| All payment approvals are carried out in IFMIS | | | | | |
| Payment vouchers are prepared and approved in IFMIS before payment | | | | | |
| Purchase orders are generated exclusively through IFMIS | | | | | |
| LPOs and Invoices are fully captured onto the IFMIS system | | | | | |
| IFMIS has supported institution budgeting process | | | | | |

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|--|--|--|--|--|--|
| IFMIS has robust support towards procurement of institution items | | | | | |
| IFMIS is highly reliable to manage the accounts payable and account receivables | | | | | |
| IFMIS has in build controls at each level to ensure strict authorization of institution expenditure | | | | | |
| IFMIS strongly supports the institution Cash Management policy | | | | | |
| IFMIS easily supports customization of required management reports based on the user levels or various revenue and expenditure streams | | | | | |
| IFMIS has great capabilities of ensuring audit trails remaining intact for a considerable period | | | | | |
| The IFMIS has improved the record management in the institution | | | | | |
| The IFMIS is a scalable system providing ability to add new additional services as they come up | | | | | |
| IFMIS has provided real time reports on customers service | | | | | |
| IFMIS has been highly integrated with other systems in the institution with ease | | | | | |
| IFMIS has inbuilt capabilities to escalate long outstanding customer issues | | | | | |
| IFMIS is able to generate reports on number of services offered on daily basis per department | | | | | |
| IFMIS user interface is friendly to the users | | | | | |