ASSESSMENT OF FACTORS AFFECTING THE IMPLEMENTATION OF INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM IN THE COUNTY GOVERNMENTS: A CASE OF NYANDARUA COUNTY, KENYA

C. K. Kahari ✉

School of Human Resource Development

Jomo Kenyatta University of Agriculture and Technology, Kenya

kimcharles005@gmail.com

G. Gathogo

School of Human Resource Development

Jomo Kenyatta University of Agriculture and Technology, Kenya

george.gathogo@yahoo.com

D. Wanyoike

School of Human Resource Development

Jomo Kenyatta University of Agriculture and Technology, Kenya

danwanyoike@gmail.com

Abstract

The study sought to assess factors affecting implementation of Integrated Financial Management Information System (IFMIS) in County Governments in Kenya. On focus was how staff resistance, and capacity and skills of IFMIS users affected IFMIS implementation. The study took place in Nyandarua County. The study employed descriptive survey research design. The target population constituted 70 employees. The study adopted census design. Structured questionnaires were used for data collection. The Statistical Package for Social Sciences tool aided in data analysis. Both descriptive and inferential statistics were employed in data analysis. The findings were presented in form of statistical tables. The study revealed that there exists a

strong, negative and statistically significant relationship between staff resistance and IFMIS implementation; and that there exists a strong, positive and statistically significant relationship between capacity and skills of IFMIS users and its implementation. It was inferred that there is uncertainty on whether county government had instituted strategies to minimize resistance to change. The study recommended that county government should uphold the strategic plan that identifies all the constraints that derail implementation of IFMIS. The study further recommended that county government should focus on reinforcing capacity in the IFMIS project team and ensure continuity of key personnel in the system's development and implementation.

Keywords: Capacity and skills, county government, IFMIS, IFMIS implementation, employee resistance

INTRODUCTION

All over the world there is increased determination to enhance the quality of public financial management with many developed and developing countries making vital and impressive achievements in strengthening management of finance in their public sector. In the past decade, developing countries have been encouraged to reform their public expenditure management systems and have increasingly embarked on major projects to computerize their government operations. Integrated financial management information system (IFMIS) has been incorporated in the U.S. Department of Homeland Security (DHS) as the official accounting and financial management system to track all financial transactions (Thaggard & Callahan, 2011). According to a report by the United States Agency for International Development (USAID, 2008), the introduction of a new IFMIS system is accompanied by a plethora of issues which needs to be planned for. These include aspects related to legal framework, business/functional processes, organizational arrangements, budget classification structures, chart of accounts, change management, systems requirements/specifications, systems development, procurement of software and hardware, configuration of software and hardware, and data conversion/migration. Further, Diamond and Khemani (2005) assert that governments and their departments have found it difficult to provide an accurate, complete, and transparent account of their financial position to parliament or to other interested parties, including donors and the general public. This lack of information has hindered transparency and the enforcement of accountability in government, and has only contributed to the perceived governance problems in many of these. Due to the aforementioned adverse developments, many developing countries have been obliged to push for adoption of integrated financial management information systems (IFMIS).

IFMIS refers to computerization of public expenditure management processes including budget formulation, budget implementation and accounting with the help of a fully integrated system for financial management of the line ministries and other spending agencies. The full system should also secure integration and communication with other relevant information systems. In the sphere of government operations, IFMIS refers to the computerization of public financial management processes, from budget preparation and execution to accounting and reporting, with the help of an integrated system for the purpose of financial management (Lianzuala & Khawlhring, 2008). Arguably, using the term "IFMIS" can sometimes be erroneously interpreted as describing a system that can capture all the functional processes, and the relevant financial flows, within public expenditure management. However, the complexity of information systems within the government sector is, to a large extent, due to the multiplicity of functions and policy areas. IFMIS can be explained to be a management tool, a system, and it should provide a wide range of non-financial and financial information. Over the years, according to Chene (2009), there has been an introduction of the IFMIS 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.

As asserted by Hendris (2012), the effective implementation, operation and maintenance of IFMIS require staff with the necessary knowledge and skills. However, lack of capacity he argues that it is an inhibition to effectiveness of IFMIS. Lack of capacity, according to this scholar, is regarded as one of the major causes for the delay in the implementation process experienced by Ghana. In Tanzania emphasis on capacity building via training was observed to be one of the primary contributors to their success. Resistance to change amongst staff was noted by Chene (2009) to be a factor that could possibly derail the implementation of IFMIS. The implementation of IFMIS is said to be a complex, risky, resource-intensive process that requires major procedural changes and often involves high-level officials who lack incentives for reform. Chene asserts that indeed IFMIS implementation demands a commitment for change. Rodin-Brown (2008) argues that there some institutional challenges that hinder effective implementation of IFMIS. This is supported by the assertion that the introduction of IFMIS involves more than only automation of public finance tasks and processes. There are a number of institutional issues that should be anticipated and planned. These include organizational arrangements, the legal framework, and business functional processes amongst others.

According to the Kenya's IFMIS Re-engineering Strategic Plan (2011 – 2013), IFMIS is said to be an automated system that is used for public financial management. It interlinks planning, budgeting, expenditure management and control, accounting, auditing and reporting. IFMIS is designed to improve systems for financial data recording, tracking and information

management. This is in response to increasing demands for greater transparency and accountability in the management of the public's finances. IFMIS was first launched in 2003 in Kenya but only limited modules were introduced with other financial management processes remaining manual. IFMIS Re-engineering which is an initiative of the Finance Ministry to enhance efficiency and effectiveness in Public Financial Management (PFM) was launched in February 28th 2011. According to the Government of Kenya (GOK, 2012), the IFMIS system ensures higher degree of data quality improves workforce performance for improved business results and links planning, policy objectives and budget allocations.

In the Kenya's context, the IFMIS since its inception has been largely implemented in the Central Government. It has hitherto not taken root in the 47 Counties spanning the entire country. It has been greatly feared that corruption among other vices such as general misappropriation of public funds are not only bound to be devolved to but are also likely to be multiplied at County levels. One of the most effective ways of sealing any potential loopholes, through which public finances could be lost, according to different sources, is to ensure that all the County Governments have an IFMIS in place. This study sought to evaluate the implication of selected factors on IFMIS implementation in County Government of Nyandarua.

Statement of the Problem

Various factors determine the success of IFMIS development and implementation in developing countries. Though, the national government of Kenya has made ambitious steps in adopting and implementing IFMIS, the County Governments are yet to embrace the same. Due to the fact that financial mismanagement has been almost the norm in many Counties since they came into existence on April, 2013 according to the Auditor General's Report, it is of socio-economic importance to establish urgent solutions to this harsh reality. Corruption and/or misappropriation of public finances at County level is bound to not only bear negative socio-economic consequences on the residents of any given County but is also very likely to lead to grand negative ramifications on the nation at large.

Poor budgeting and planning by County Governments was blamed by the Controller of Budget to have led to the larger proportion of budgetary allocations going to recurrent and non-essential expenditure at the expense of developmental expenditure. Poor and/or mismanagement of funds are very likely to derail various important projects in the Counties which defeat the very purpose of their creation. In the research project, the purpose is to assess factors affecting implementation of IFMIS in County Governments in Kenya and to suggest possible solutions that can serve as best practice guidelines in the implementation of an IFMIS in these governments. The research problem that this study aims to address borders on assessment of the successes and challenges relating to the implementation of IFMIS and to

present best practice guidelines that will facilitate successful implementation of IFMIS in the County Governments. This will go a long way in fast-tracking developmental projects in individual Counties. This will in turn lead to uplifting the lives of citizens and the realization of economic pillar of Kenya's Vision 2030.

General Research Objective

The main objective was to assess the factors that affect the implementation of integrated financial management information system in Kenya's County Governments.

Specific Research Objectives

i. To establish the implication of staff resistance on the implementation of IFMIS in the County Governments

ii. To determine the influence of capacity and skills of IFMIS users on its implementation in County Governments

Research Questions

i. What is the implication of staff resistance on the implementation of IFMIS in the County Governments?

ii. How do capacity and skills of IFMIS users influence IFMIS implementation in County Governments?

THEORETICAL FRAMEWORK

The study relied on a number of theories pertinent to financial management in general and IFMIS in particular.

Theory of Corporate Financial Management

One of the theories pertinent to this study is the 'Theory of Corporate Financial Management' which is a summary of broad flow of financial literature and 'Normative Theory' which provides a powerful logic for designing information and decision-making structures in order to support corporate planning. The study will also borrow concepts from 'Structuration Theory' as applied in sociology to understand organizational perspective in county governments (Indeje & Zheng, 2010).

McInnes and Carleton (1982), assert that a theory of corporate financial management is summarized from the broad flow of finance literature. Within this, contributions to a normative theory, amenable to corporate financial modeling are reviewed in some detail. The central

propositions of a normative theory are isolated to provide a basis of comparison for the practice of financial modeling as observed through field research study. The two scholars note that compared to previous experience, computer-based financial modeling systems are today gaining much greater acceptance in business organizations and government institutions. Against this backdrop, a wide gap seems to exist between the information and logic structures programmed into financial models, and the precepts and algorithms derived from a normative theory of corporate financial management.

It was further argued that there are three major implementation difficulties creating the gap between theory and practice (McInnes & Carleton, 1982). First, it is observed that there is a constraint in constructing the relevant information in a form which would be meaningful in a normative framework. Within the broad set of managerial activities of an organization, there are several relevant logic structures, including: a financial accounting structure; an economic structure dealing with cash flow, economic value, and marginal rates of return to investment: operating information structures dealing with the conduct of an organization's work; and strategic information structures dealing with an assessment of the external and internal human needs which provide a rationale for an organization's present and future existence. The systematic provision of information in each logical mode, and the translation between modes, poses a considerable intellectual and practical challenge. Then there is the problem of dealing satisfactorily with strategic uncertainty, and the way that uncertainty is distributed within the managerial organization. Finally, multiple and conflicting goal dimensions posed considerable problems in terms of explicit modeling of corporate objective function. Beyond the intellectual difficulties, moreover, there are political dimensions which cause a reluctance to address an objective function explicitly and directly.

Normative finance theory provides a powerful logic for designing information and decision-making structures to support corporate planning. At present, however, the research by McInnes and Carleton (1982), reported that the finance model is incomplete, particularly with regard to inclusion of behavioral and political dimensions of institutional processes under uncertainty.

Structuration theory was advanced by Giddens (1984) and is based on the premise that the classic structure dualism has to be conceptualized as a duality, that is, the duality of structure. The structural properties of social systems exist only in forms of social conduct and are reproduced chronically across time and space. Behaviour and structure are intertwined; people go through a socialization process and become dependent of the existing social structures, yet at the same time social structures are altered by their activities. This implies that social structures are the medium of human activities as well as the result of those activities

(Indeje & Zheng, 2010). Social structures not only restrict behaviour but also create possibilities for human behaviour. The Structuration of institutions can be understood in terms of how it comes about that social activities become 'stretched' across wide spans of time-space. According to Rose (1999), structuration theory tries to recast structure and agency as a mutually dependent duality. Giddens (1984) describes structuration as a social process that involves mutual interaction of human actors and structural features of the organization or institution. Hardon et al. (2001) assert that ideas, practices, organizational arrangements, roles and statuses in the information system reflect the wider socio-cultural and political economic context in which they occur and are influenced by that context.

Given the pervasiveness of technology in organizations' everyday operations and especially the role of IT in the process of enactment and reality construction in contemporary organizations, some attempts have been made to advance Gidden's ideas by including an explicit IT dimension in social analysis (Walsham, 2002). As a result of such attempts, structurationist analyses have helped to increase our understanding of important IT-based contemporary phenomena. Structuration theory is based on the fact that it provides an understanding of human work as social interaction within a culture, mediated by artifacts such as tools, language, rules and procedures, and open to change. Thus this theory as posited by Indeje and Zheng (2010), offers a broad understanding of the organizational culture in which the IFMIS development and implementation process is taking place.

The structuration theory recognizes that human actions are enabled and constrained by social structures, which emanate from previous human actions, which Giddens (1984) describes as the duality of structure. 'Structures' consist of norms, rules and resources that human actors recursively employ in their everyday interactions. These rules and resources mediate human action and at the same time delimit the same action. Consequently, the key conceptual approach of structuration theory provides the link between human actions in financial information systems - FIS (that is, the personnel involved in county government financial management) and the social structures, the public financial management organizational structure within which the FIS is found. People act within structures that they change through their actions, which gives them the ability to change their environment (Bratteteig & Gregory, 1999).

Rodger's Theory of Diffusion of Innovation

Diffusion of innovation (DOI) theory was developed by Rodgers in 1962, and is argued to be one of the oldest social science theories. It originated in communication to explain how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific

population or social system. The end result of this diffusion is that people, as part of a social system, adopt a new idea, behavior, or product. Adoption means that a person does something differently than what they had previously (that is, purchase or use a new product, acquire and perform a new behavior, etcetera). The key to adoption is that the person must perceive the idea, behavior, or product as new or innovative. It is through this that diffusion is possible (Sahin, 2006).

Adoption of a new idea, behavior, or product (that is, innovation) does not happen simultaneously in a social system; rather it is a process whereby some people are more apt to adopt the innovation than others. When promoting an innovation to a target population, it is important to understand the characteristics of the target population that will help or hinder adoption of the innovation (Rodgers, 2003). According to Medlin (2001), Rodger's theory of innovation's diffusion is the most appropriate in understanding the adoption of a given technology. In the context of the current study, the aforementioned theory enables the investigation of adoption of IFMIS by County Governments. As Rodgers posits, adoption is a decision of full use of an innovation as the best course of action available, while rejection is a decision not to adopt an innovation. This reasoning will be applied to explain embracing of and resistance to IFMIS in County Governments.

In tandem with Rodgers theory, four main elements in the diffusion of innovations ought to be understood. 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 other unit of adoption. In this light, County Governments regard IFMIS as an innovation since it fits the aforementioned description. Communication is asserted to be the process in which participants create and share information with one another with the aim of reaching a mutual understanding. Communication is occurs through channels between sources. To enhance the diffusion of IFMIS in County Governments, it should be ensured that the system is communicated through the most effective channels. It is further observed that innovation diffusion process includes a time dimension. More so, the nature of social system affects individuals' innovativeness, which is argued to be the main criterion for categorizing adopters.

It is recommended that, as one way f enhancing the diffusion of a technology (or innovation), it is of particular importance to understand the innovation decision process. The process entails five phases which include knowledge, persuasion, decision, implementation, and confirmation phases (Rodgers, 2003). The current study will seek to investigate how the respective users are informed of the introduction of IFMIS in the system of County Governments. Also, it would be ration to understand how the elements of elative advantage,

compatibility, complexity, trialability, and observability, are of essence in persuading the pertinent County Government officials to embrace IFMIS in their operations. In addition, understanding, the decision made by the relevant personnel (if at all they have a choice on the same) and how the IFMIS is implemented will be of utmost importance. Conclusively, by applying the Rodgers theory, the researcher will be in a position to confirm the potential effects of diffusion of IFMIS by the County Governments, and in particular, Nyandarua County Government.

EMPIRICAL REVIEW

This section covers a review of previous studies touching on IFMIS in general and specifically on the effectiveness of the system. The studies are reviewed in line with the objectives of the study.

Staff Resistance

IFMIS is largely a new concept or system granted that it is yet to take sufficient roots especially in the county governments. Needless to say, therefore, this system is bound to face considerable resistance from the staff expected to implement it. To overcome this resistance there needs to be effective change management. Barcan (2010) describes change management as the creation, maintaining and systematic evaluation of changes in an organization. The objective of change management besides overcoming employees' resistance is to maximize the institution's capacity to achieve success through involved, educated and committed personnel. O'Sullivan (2008) posits that change management includes stakeholder's management model, a communication strategy, a change-readiness assessment framework and certain design elements.

Indeje and Zheng (2010) contend that the introduction of a new information system such as IFMIS fundamentally changes the way operations are carried out and, therefore, requires a carefully managed process in order to avert probable staff resistance. This process results in the creation of a new organizational culture, that is, change in the way the organization operates. 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. The success of any reforms boils down to the capacity of an

institution to change, to manage the change and to survive whilst changing. He further warns that resistance to change may emanate from various organizational stakeholders. These may include amongst others, persons with vested interests such as members of staff who benefited from previous methods, civil servants who perceive the change as an imminent threat to their jobs and also individuals who resist change simply because they dread the unknown. According to Joshi and Moore (2010), an IFMIS project director must have among others capacity to entrench organizational change management especially to overcome any resistance.

Change management strategies should be developed immediately an IFMIS project 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). It is warned that failure to address this issue early in the project and possibly prior to the project commencement, then the IFMIS is bound to face resistance and derailments from executive officials, elected political leaders and personnel who are anticipated to use the system regularly.

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. Communication can be executed through a variety of media, seminars, workshops, training sessions, organization's website, conferences and/or newsletters. Through the IFMIS Re-engineering process as outlined in the Kenya's IFMIS Re-Engineering Strategic Plan 2011 – 2013, the Kenyan government hopes to address the change management and communication challenges previously experienced in the pilot phase of IFMIS implementation, which greatly contributed to lackluster performance of the 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).

The Kenya's IFMIS Re-Engineering Strategic Plan incorporates a change management strategy (CMS) and recommended approaches for effective re-launch of the IFMIS components. The CMS is drawn from lessons learnt from past IFMIS implementation experiences, as well as best global practices for similar financial systems re-engineering programmes and/or projects. The CMS's main object is to guarantee the requisite buy-in from all stakeholders and ensure that all stakeholders work together in concert to successfully implement and sustain the IFMIS Re-engineering process (GOK, 2010). Every organization has a set of unstated rules by which the transformation process is managed. The IFMIS Re-engineering process will align the IFMIS

Re-engineering strategies for successful transition with the reality of the work ethos and culture within the Ministry of Finance and the entire public service. it is argued that change arising from IFMIS implementation calls for an absolute paradigm shift in the mindset of all IFMIS users as well as top-down and bottom-up approach to generate the support and commitment needed to successfully implement all aspects of the IFMIS re-engineering process. As outlined in the Strategic Plan, CMS was to focus on awareness creation, increasing broad-based commitment, managing expectations, change coordination staff development and aversion of resistance to the implementation of the system. Indeed, staff facilitation and motivation have been identified as some of the key success factors of the IFMIS Re-Engineering Strategy. A study by Kwena (2013) established that the use of IFMIS in the ministries in Kenya is affected largely by sabotage and resistance.

Capacity and Skills of Users

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. At the same time, they note that it is equally important to develop the necessary skills and capacity of the central IT department to provide strong support to the IFMIS. For the success of the IFMIS project it ought to be ensured that there is continuity of key personnel involved in the system's development and implementation. 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. This factor according to him is very pertinent to the South African context with its nine provinces and the consequent demand that the duplication of efforts creates for skills and knowledge, of which a shortage already exists. Farelo and Morris (2006) further contend that the personnel development issue within government needs prioritization, the education system needs to be aligned with the information and communication technologies (ICT) demands of the country and scarce ICT skills need to be attracted and retained particularly within the government.

It is noted that the effective implementation, operation and maintenance of an IFMIS require personnel with the required knowledge and expertise. 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. On the other hand, the emphasis on capacity building

through training was one of the major contributing factors to the success of IFMIS in Tanzania. 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 salary structure and terms of employment in the public sector are more often than not unable to compete at par with the private sector. Needless to say, candidates possessing it skills are not incentivized to join the public sector. To aggravate the situation, many trained personnel leave the public service for better job opportunities elsewhere.

For the IFMIS project to be successful, in addition to internal resources, great care should be taken when outsourcing especially in terms of technical assistance during different phases of the system's development and implementation . The external consultant should have extensive experience in the public sector financial management. The consultant should essentially be an expert in design, implementation, management and operation of government accounting, budget and financial management systems especially in a developing country's environment. He or she must have experience in the management and operation of modern computerized financial systems in a government budgeting and accounting environment. Complementary experience in training, management development, human resource management and organizational change in developing countries ought also to be a prerequisite. The consultant, finally, should also have experience in project management and implementation, working in the advisory and training capacity in developing countries. 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 (2004) notes that weak human resource management and management capacity has been responsible for the derailment of IFMIS implementation in Kenya. Systems improvements (that is, macro model, MTEF, performance budgeting, cash management, IFMS, payroll/personnel systems) are typically undermined by failure to address complimentary human resource (manpower planning, recruitment, incentives, training), organizational restructuring and improved management capacity (delegation, middle management empowerment, team building). He further posits that IFMIS implementation is hindered by over-complex change projects requiring high levels of technical and management capacity. According to GoK (2010), the 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. Kwena (2013) in his study of Kenya's ministries found that the capacity and technical knowhow was low due to lack of training and hurried implementation of the system. He recommends that

the users of the system need to undergo on-the-job training in order to improve their skills and capacity to use the system.

Conceptual Framework

The conceptual framework illustrates how the variables of the study relate to each other. In the context of the current study, there were four independent variables and one dependent variable as illustrated in Figure 1.

Figure 1: Conceptual Framework
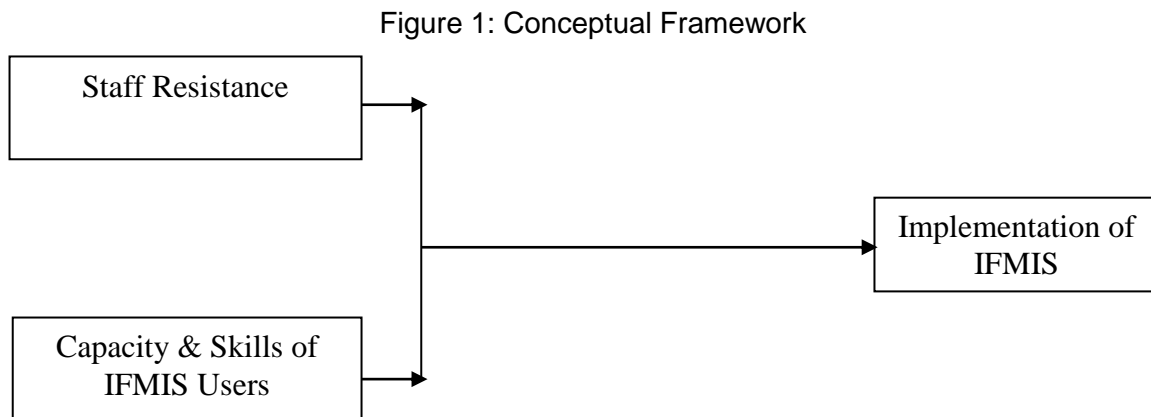
The variables were in tandem with both the main objective and specific objectives of the study. The two independent variables were staff resistance, and capacity and skills of IFMIS users. The independent variables were in line with the specific objectives. The dependent variable was the implementation of IFMIS. It was presumed that staff resistance and capacity and skills of IFMIS users influenced IFMIS implementation.

METHODOLOGY

Research Design

Yin (1994) posits that a research design should be determined by the nature of the research questions. A research design is paramount to the achievement of the study objectives (Mbwambo, 2005). The study adopted descriptive research design.

Target Population

Study population is simply an aggregate of all objects, subjects or members that conform to a set of specifications (Polit & Hungler, 1999). The population to whom the findings of the study will be generalized included all the management and finance/accounting staff of Nyandarua

County governments. The target population is further said to refer to the group or individuals to whom the survey applies (Kitchenham & Pfleeger, 2002). In other words, the researcher surveyed those individuals who will be in a position to answer the questions and to whom the results of the study will apply. The target population of this study constituted management/administrative and finance/accounting staff working with Nyandarua County government. Precisely the target population was comprised 70 respondents as illustrated in Table 1 (management/administrative and finance/accounting staff drawn from the Nyandarua County Headquarters and the 5 sub-Counties' offices).

Table 1: Study Population

Office	Management Staff	Finance/Accounting Staff	Total
County Headquarters	40	10	50
Ndaragwa sub-County	3	1	4
Ol Kalou sub-County	3	1	4
Ol Joorok sub-County	3	1	4
Kipipiri sub-County	3	1	4
Kinangop sub-County	3	1	4
Total	**55**	**15**	**70**

Census Design

The study adopted census design due to the small number of the potential respondents and also because this method was bound to enhance reliability of the findings. The choice of a census design maximized the confidence level while at the same time greatly reduced the margin of error. Jacobs (2011) further asserted that in order to avoid sampling error, a census of the entire target population must be taken. The scholar continues to argue that for smaller target populations (N<100), there is little point in sampling; but instead the entire population should be considered. Census design enabled each member of the target population to participate in the research study.

Data Collection Instrument

The researcher collected primary data from the respondents by use of structured questionnaires with close-ended questions. The rationale of employing structured questionnaires is driven by the assertion that they are easy to administer to respondents.

Validity Test

Validity simply refers to "correctness of measure". Czaja and Blair (2005) posit that, for an instrument to be valid, the survey questions must measure the identified dimension or construct of interest. According to Knortz (2009), validity is determined not by a single statistic but by a body of research that illustrates the relationship between the test and attitude or behaviour it is intended to measure. Knortz when quoting (Galvan, 2006) argues that there are various types of validity based on scope, relevance, predictive quality and association. They include content validity, construct validity, criterion-related validity and face validity. In this study, the most relevant is the content validity. This type of validity is argued not to be statistically measurable. Therefore, the researcher sought expert opinion of his University supervisors to determine the validity of the research instrument.

Reliability Test

Lanyon and Goodstein (1982), defined reliability as the repeatability of dependability of measurement. According to Muijs (2004), the two most common types of reliability are temporal stability (consistency of results over time) and internal consistency (the degree to which individual items in a test, or group of items correlate with each other or with the total score on the test. The latter type of reliability is the most pertinent to the proposed study. The Cronbach alpha computation which is one of the most widely used methods of examining internal consistency (Galvan, 2006), will be employed in this study. Cronbach alpha scores range from 0.00 to 1.00, with values at or above 0.75 generally considered to indicate adequate internal consistency reliability when one scale is involved (Galvan, 2006) or 0.7 or higher when five or more subscales are involved. All the study variables returned alpha values greater than 0.7as shown in Table 2 and were as such deemed reliable.

Table 2: Reliability Results

Study Variables	No. of Items	Alpha Values
Staff Resistance	8	0.77
Capacity and Skills of IFMIS Users	10	0.79
Implementation of IFMIS	5	0.81

Data Processing and Analysis

Mugenda and Mugenda (1999) refer to data processing as the operations performed on a certain set of data with the view extracting the required information in an appropriate form such as diagrams, reports, tables amongst others. According to them, data analysis is a process of

creating order, structure and meaning to the data collected. Responses on the study variables constituted factors on a 5 point Likert scale. After the collection of the data, processing and analysis will follow. This procedure encompassed grouping of questionnaires, editing and coding of responses and then running the processed data using the Statistical Package for Social Sciences (SPSS) tool. The researcher employed the Pearson's Product Moment Correlation Coefficient (PPMC) in data analysis. Both the descriptive statistics (frequencies, percentages, means, and standard deviations) and inferential statistics (correlation) were used to analyze the data collected. The findings were presented in form of tables.

ANALYSIS AND FINDINGS

Descriptive Analysis for Staff Resistance

The study analyzed the views of respondents on how the resistance of the County Government staff affects the implementation of IFMIS in Nyandarua County. Table 3 outlines the relevant findings. It was established that respondents agreed (mean ≈ 4.00; std dev > 1.000) with the propositions that county government has strategic plan that identifies political, administrative and capacity constraints; county government has devised convenient methods of overcoming change resistance; county government stakeholders who benefitted from previous methods perceive change as a threat to their jobs, hence resist it; and that county government develops change management strategies immediately an IFMIS project is conceived. However, respondents were indifferent (mean ≈ 3.00; std dev > 1.000) to the notion that Nyandarua County Government has instituted CMS for successful IFMIS implementation; county government has capacity to make changes, manage changes and survive while changing; county government has instituted strategies to minimize resistance to change and that county government has formulated guidelines for successful IFMIS implementation.

Table 3: Descriptive Statistics for Staff Resistance

		n	Min	Max	Mean	Std. Dev
i.	County Govt has instituted CMS for successful IFMIS implementation	58	2	5	2.98	1.221
ii.	County Govt has capacity to make changes, manage changes and survive while changing	58	2	5	3.14	1.161
iii.	County Govt has instituted strategies to minimize resistance to change	58	1	5	3.14	1.235
iv.	County Govt has formulated guidelines for successful IFMIS implementation	58	1	5	3.34	1.305

		n	Min	Max	Mean	Std Dev	
v.	County Govt develops change management strategies immediately an IFMIS project if conceived	58	2	5	3.66	1.396	Table 3….
vi.	County Govt stakeholders who benefitted from previous methods perceive change as a threat to their jobs, hence resist it	58	1	5	3.67	1.330	
vii.	County Govt has devised convenient methods of overcoming change resistance	58	2	5	3.83	1.110	
viii.	County Govt has strategic plan that identifies political, administrative & capacity constraints	58	2	5	4.02	1.084	

Descriptive Analysis for Capacity and Skills of IFMIS Users

The findings as shown in Table 4 illustrated that respondents agreed (mean = 3.50; std dev = 1.354) that county government has reviewed salary structure to compete at par with the private sector to deter trained personnel exit. The respondents, however, were neutral (mean ≈ 3.00; std dev > 1.00) regarding the propositions that county government has taken necessary measures to reinforce capacity in IFMIS project team; county government has personnel with requisite knowledge & expertise for effective IFMIS implementation, operation, and maintenance; county government has aligned education system with IT to meet demand of ICT personnel; county government engages external consultants with extensive experience in public sector financial management; county government conducts capacity building to its personnel through training; county government has taken necessary measures to develop requisite skills and capacity of the central IT department; county government takes great care when outsourcing technical assistance from external consultants; skilled personnel are incentivized to join the county government and that county government ensures continuity of key personnel involved in system's development and implementation. The relatively larger standard deviations (std dev > 1.000) implied that there were some respondents who had extreme views regarding capacity and skills of IFMIS users.

Table 4: Descriptive Statistics for Capacity and Skills of IFMIS Users on its Implementation

		n	Min	Max	Mean	Std. Dev
i.	County Govt ensures continuity of key personnel involved in system's development & implementation	58	1	5	2.84	1.121
ii.	Skilled personnel are incentivized to join the County Govt	58	2	5	2.88	1.258
iii.	County Govt takes great care when outsourcing technical assistance from external consultants	58	2	5	3.16	1.348
iv.	County Govt has taken necessary measures to develop requisite skills & capacity of the central IT dept	58	2	5	3.19	1.177

		n	Min	Max	Mean	Std. Dev	
v.	County Govt conducts capacity building to its personnel through training	58	2	5	3.31	1.158	Table 4….
vi.	County Govt engages external consultants with extensive experience in public sector financial management	58	2	5	3.33	1.276	
vii.	County Govt has aligned education system with IT to meet demand of ICT personnel	58	2	5	3.40	1.337	
viii.	County Govt has personnel with requisite knowledge & expertise for effective IFMIS implementation, operation, & maintenance	58	1	5	3.41	1.312	
ix.	County Govt has taken necessary measures to reinforce capacity in IFMIS project team	58	2	5	3.41	1.298	
x.	County Govt has reviewed salary structure to compete at par with the private sector to deter trained personnel exit	58	2	5	3.50	1.354	

Descriptive Analysis for Implementation of IFMIS

As outlined in Table 5, the respondents strongly admitted (mean ≈ 5.00; std dev < 1.00) to the argument that ICT staff have requisite expertise and qualifications for IFMIS implementation and that its implementation at county level is supported by the national government. Moreover, it was agreed (mean ≈ 4.00; std dev < 1.00) that there is sufficient infrastructure that ensures effective IFMIS implementation; county government has embraced IFMIS and that Nyandarua county has adequate staff to ensure IFMIS implementation. The small standard deviations across all factors implied that respondents did not hold extreme opinions regarding the propositions floated to them.

Table 5: Descriptive Statistics for Implementation of IFMIS

		n	Min	Max	Mean	Std. Dev
i.	Nyandarua County has adequate staff to ensure IFMIS implementation	58	1	5	4.07	.915
ii.	County Govt has embraced IFMIS	57	1	5	4.18	.848
iii.	There is sufficient infrastructure that ensures effective IFMIS implementation	58	3	5	4.45	.535
iv.	IFMIS implementation at County level is supported by the National Govt	58	3	5	4.67	.509
v.	ICT staff have requisite expertise & qualifications for IFMIS implementation	58	4	5	4.71	.459

Inferential Analysis

Relationship between Staff Resistance and Implementation of IFMIS

The study findings as indicated in Table 6 illustrated that the relationship between staff resistance and IFMIS implementation was strong, negative and statistically significant (r =

−0.461; p < 0.01).This implies that staff resistance has an adverse effect on implementation of IFMIS. As the staff resistance increases, the implementation of IFMIS is compromised and the reverse is true. In other words, if the staff resistance is acute then implementation of IFMIS would be less effective. As such, in order to enhance the implementation of the system, the County Government should ensure that the staff resistance is addressed. The study concurred with Indeje and Zheng's (2010) observations that IFMIS could potentially face resistance from the employees.

Table 6: Relationship between Staff Resistance and Implementation of IFMIS

		Implementation of IFMIS
Staff Resistance	Pearson Correlation	−. 461[**]
	Sig. (2-tailed)	.000
	n	58

**. Correlation is significant at the 0.01 level (2-tailed).

Relationship between Capacity and Skills, and Implementation of IFMIS

Moreover, the study examined how capacity and skills relate to implementation of IFMIS. In other words, it sought to establish how capacity and skills of the personnel entrusted in IFMIS implementation affected the implementation itself. Table 7 shows the relevant findings. The findings indicated a strong, positive and statistically significant (r = 0.749; p < 0.01) relationship between capacity and skills and implementation of IFMIS. Capacity and skills had a positive effect on the implementation of IFMIS. It can be deduced that further improving the capacity and skills of IFMIS users would enhance the implementation of IFMIS. The study concurred with Diamond and Khemani (2006) observation that necessary measures should be taken to reinforce the capacity in the IFMIS project team.

Table 7: Relationship between Capacity and Skills, and IFMIS Implementation

		Implementation of IFMIS
Capacity and Skills	Pearson Correlation	.749[**]
	Sig. (2-tailed)	.000
	n	58

**. Correlation is significant at the 0.01 level (2-tailed).

SUMMARY

It was agreed that county government has strategic plan that identifies political, administrative and capacity constraints; county government has devised convenient methods of overcoming change resistance; county government stakeholders who benefitted from previous methods perceive change as a threat to their jobs, hence resist it; and that county government develops change management strategies immediately an IFMIS project is conceived. It was however, unclear that county government has instituted CMS for successful IFMIS implementation; county government has capacity to make changes, manage changes and survive while changing; county government has instituted strategies to minimize resistance to change and that county government has formulated guidelines for successful IFMIS implementation. Further, correlation analysis illustrated that there exists a strong, negative and statistically significant relationship between staff resistance and IFMIS implementation ($r = -0.461$; $p < 0.01$).

It was established that county government has reviewed salary structure to compete at par with the private sector to deter trained personnel exit. However, respondents were indecisive on whether county government has taken necessary measures to reinforce capacity in IFMIS project team; county government has personnel with requisite knowledge & expertise for effective IFMIS implementation, operation, & maintenance; county government has aligned education system with IT to meet demand of ICT personnel; county government engages external consultants with extensive experience in public sector financial management; county government conducts capacity building to its personnel through training; county government has taken necessary measures to develop requisite skills & capacity of the central IT department; county government takes great care when outsourcing technical assistance from external consultants; skilled personnel are incentivized to join the county government and that county government ensures continuity of key personnel involved in system's development & implementation. Further analysis indicated a strong, positive and statistically significant relationship between capacity and skills of IFMIS users and its implementation($r = 0.749$; $p < 0.01$).

It was strongly admitted that ICT staff have requisite expertise and qualifications for IFMIS implementation and that its implementation at county level is supported by the national government. It was further agreed that there is sufficient infrastructure that ensures effective IFMIS implementation and that county government has embraced IFMIS and that Nyandarua County has adequate staff to ensure IFMIS implementation.

CONCLUSIONS

The study concluded that county government had a strategic plan that identifies political, administrative and capacity constraints and that it had devised convenient methods of overcoming change resistance. In line to the above, it is further concluded that county government develops change management strategies immediately an IFMIS project is conceived. Further, the study concluded that county government stakeholders resisted change since they perceived it as a threat to their jobs. Further, the resistance was possibly because of the uncertainty of the capacity of the county government to make changes, manage changes and survive while changing. It was further, inferred that there are uncertainty on whether county government had instituted strategies to minimize resistance to change and whether county government had formulated guidelines for successful IFMIS implementation.

It was inferred that county government has reviewed salary structure to compete at par with the private sector to deter trained personnel exit. The county government efforts to reinforce capacity in IFMIS project team and ensuring continuity of key personnel in the system's development and implementation was however unclear. It was further concluded that there were uncertainties on the existence of personnel with requisite knowledge and expertise for effective IFMIS implementation, operation, and maintenance. That county government conducts capacity building to its personnel through training and that skilled personnel are incentivized to join the county government were all inconclusive. In addition, the external consultants' engagement with the county government was further concluded to be indecisive.

RECOMMENDATIONS

The study recommended that county government should uphold the strategic plan that identifies all the constraints that derail implementation of IFMIS. Further, it is recommended that county government should enhance their capacity to make changes and to manage changes and to survive while changing. In addition, county government should institute strategies to minimize resistance to change and formulate guidelines for successful IFMIS implementation. Moreover, county government should conduct capacity building exercises to ensure that the teams and key personnel involved in IFMIS are equipped with the necessary skills to provide a robust support to IFMIS and its implementation.

The study further recommended that county government should focus on reinforcing capacity in the IFMIS project team and ensure continuity of key personnel in the system's development and implementation through upholding the salary structure and the terms of employment to match the private sector and further conducting capacity building to its personnel through training. Moreover, only personnel with requisite knowledge, experience and expertise

for effective IFMIS implementation, operation, and maintenance should be engaged. The county government should also create an enabling environment to lure the external consultants with the right skills and capacity. In the long term, in order to curb the low demand of ICT professionals, county government should continue upholding the alignment of its education system with the information technologies.

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