

DETERMINANTS OF INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM IMPLEMENTATION, IN THE NATIONAL GOVERNMENT DEPARTMENTS: A SURVEY OF MERU COUNTY

Maina Patrick Wambugu

Master's in Business Administration (Finance), Kenya Methodist University, Kenya

Dr. Ken Mugambi

Lecturer, Kenya Methodist University, Kenya

Abel Moguche

Lecturer, Kenya Methodist University, Kenya

©2019

International Academic Journal of Economics and Finance (IAJEF) | ISSN 2518-2366

Received: 4th July 2019

Accepted: 11th July 2019

Full Length Research

Available Online at: http://www.iajournals.org/articles/iajef_v3_i3_296_321.pdf

Citation: Maina, P. W., Mugambi, K. & Moguche, A. (2019). Determinants of integrated financial management information system implementation, in the national government departments: A survey of Meru County. *International Academic Journal of Economics and Finance*, 3(3), 296-321

ABSTRACT

Upon the promulgation of the Constitution of Kenya (CoK) 2010, the Kenya administrative and governance structure changed drastically as it created 47 county governments under the leadership of an executive and legislature. Pundits and opinion leaders view that this establishment of County governments is one of the most progressive features of the COK 2010. The devolved government has an executive led by an elected governor and this executive is over sighted by the county assemblies. There is however correlation between the county and national government as they work independently and interdependently, with the national government being the source of disbursement of the funds from the national government. A lot of functions are still held by the national government. The national government has endeavored to implement a fiscal management system at both the national and county government to enhance prudent and accountable management of resources, putting in place the Integrated Financial Management Information System (IFMIS) that ensures budgeting and execution of finance commitments of the government bodies. The general objective of this study was to establish the determinants of IFMIS implementation in the national government departments in Meru County. In order to

address this aim, the study was guided by the following objectives, namely to: - establish the influence of staff competence on IFMIS implementation in public organizations; assess the influence of government policies on IFMIS implementation in public organizations; determine the influence of top management support on IFMIS implementation in public organizations; and find out the influence of technological infrastructure in IFMIS implementation in public organizations. The study aimed at bridging the gap in knowledge on factors impeding the implementation of IFMIS in national government department in Meru County with the aim of suggesting strategies and approaches that can aid in promoting the implementation and use of the system. A target population of 68 employees of the national government in Meru County was used and a census was conducted. Descriptive and advanced inferential statistics was used to analyze data specifically by use of Pearson Correlation Technique. Frequency distribution tables, pie charts and bar graphs were used to represent the data more easily.

Key Words: *integrated financial management information system, implementation, national government departments, Meru County*

INTRODUCTION

Integrated Financial Management System (IFMIS) is an information system that tracks financial events and summarizes financial information. In its basic form, an IFMIS is little more than accounting system configured to operate according to the needs and specifications of the environment in which it is installed. Generally IFMIS refers to the use of information and communications technology in financial operations to support management and budget decisions, fiduciary responsibilities, and the preparation of financial reports and statements.

In the government realm, IFMIS refers more specifically to the computerization of the public financial management processes, from budget preparation and execution to accounting and reporting, with the help of an integrated system for financial management of line ministries, spending agencies and other public sector operations (Chado, 2015).

Western countries are convinced that the information society will result in economic and social benefits (Audenhove, 2013). The author quoting Organization for Economic Cooperation and Development notes that information infrastructures are expected to stimulate economic growth, increase productivity, create jobs and improve the quality of life. Establishment of an IFMIS has become an important benchmark for the country's budget reform agenda often regarded as a precondition for achieving effective management of budgetary resources (Karanja & Ng'ang'a, 2014).

Countries like New Zealand, Australia, the UK, undertook significant public sector changes to break from the traditional bureaucratic model of public administration (Hood, 1991 cited by Barcan, 2010) that involved the breaking of the larger units into smaller manageable otherwise equated to devolved units in Kenya today. Governments have started to: constrain public spending, sell off public assets, and outsource many services that were previously provided exclusively by the public sector to private companies, develop public asset performance measurement, output and outcome-based budgeting and business-type accounting.

Governments are responsible and should be accountable for providing quality public services to their citizens' at the most favorable terms because it is seen as the custodian of public funds and properties. Governments have been constantly under pressure to improve public services quality while containing costs and enhancing public accountability at the same time (Mwaura, 2016). Since the 1980s, many developed and developing countries have been embarking on public sector management reforms. According to the Economic Commission for Africa (2015), the main reason for reform of public sector reforms in the 1980s and 1990s was due to inefficiencies and ineffectiveness that normally led to high costs for projects, thus the need for governments to come up with modalities to check and balance on the projects being undertaken. It includes the mobilization of revenue; the allocation of these funds to various activities; expenditure; and accounting for spent funds (Baloyi, 2011).

Integrated Financial Management Information Systems (IFMIS) has the ability to improve public sector management because it has the ability to provide financial information to the users to provide timely information for users and accountability to the public. The introduction of an IFMIS can be regarded as an organizational reform which deeply affects work processes and institutional arrangements governing the management of public finance (Baloyi, 2011).

Governments in developing countries are progressively adopting ways and systems to modernize and improve public financial management due to its significant contribution to the countries' economic growth (Kishor, Sajeev, & Callender, 2013). Globally, governments are investing a great deal of resources to streamline and improve public financial management and are implementing new financial management systems that manage tenders and payments through a web site. This is geared towards enhancing accessibility of government financial

transactions, increasing efficiency and saving costs (faster and cheaper) in government financial management and improving transparency (to reduce corruption) in financial management services (Njoroge, 2015; Bilyai, 2013).

In addition, e-government has resulted to the adoption and implementation of an Integrated financial management information system (IFMIS) within the Public Financial Management (PFM) system (Dorotinsky & Cho, 2010). This is aimed at supporting the achievement of fiscal discipline, strategic and efficient allocation and use of funds, value for money and probity in the use of public funds.

In the recent past, the developing nations have also adopted public sector reform practices and are seen to be motivated by; first, governments were embarking on new terrain, and so naturally looked to learn from other governments' experiences. Public management reform, indeed the reform of the entire public sector became a major focus of most developed and developing countries after 1990 (Athanne, 2011). According to Roberts (2010), reform of different elements of the public sector, such as the recruitment and appointment of civil servants, goes back well over a hundred years and there were various efforts in many countries through the 1960s and 1970s to reform budgetary practices, expenditure management, and policy instruments such as state enterprises. However, the collapse of the Soviet Union in 1989-91 concentrated attention on major reform efforts in central and Eastern Europe, building on the Thatcher/Reagan movements to rebuild the state in the 1980s (Pal & Clark, 2014).

The government of Kenya has for a long time been very much concerned over the persistent poor performance in financial management due to lack of reliable and timely information for decision making. A review by the department of accountant general at treasury, financial management, accounting systems and role of audits revealed weaknesses in the management of financial information. The review focused on the need to develop a strategic plan aimed at improving the financial management systems; skills and capacity within the government financial operations units. It also reviewed how timeliness of financial information, if improved, could form the basis for improving control of expenditure against budget (Kinyua, 2011).

The government of Kenya took an initiative to address the shortcomings of the financial reporting system and to ensure good governance. The International Monetary Fund (IMF) carried out a survey in government accounting in early 1993 followed by a diagnostic study sponsored by the World Bank; this led to introduction of IFMIS. The main objective of this project was to computerize the whole accounting and auditing system in all the national government departments (Kinyua, 2011).

STATEMENT OF THE PROBLEM

The National Treasury is charged with the responsibility of providing proper budgetary and expenditure management of government financial resources. In this regard, the ministry has been continually striving to improve financial management systems through various public financial sector reform programmes, aimed at increasing transparency, accountability, as well as responsiveness of public financial resources to enhance the quantity and quality of public

service delivery to meet its developing priorities in government ministries (Karanja & Nyambura, 2014). The government has over the years introduced and implemented financial reforms in all the public organization through the ministry of finance in order to increase the accountability and transparency in the use of government funds. IFMIS was meant to institutionalize a culture of accountability, transparency and a measure of achievement.

IFMIS was supposed to be implemented in all national government departments and this has raised a number of issues since the system has not been functional in most of the national government departments. The central bank report (2013) on financial deepening service on IFMIS implementation showed that only 15% of national government departments have implemented IFMIS, which is far much below the expected 85% by 2013. Thus, in spite of all these government efforts to modernize and develop financial frameworks in the public financial management in all the national governments departments, the implementation of IFMIS which was to increase efficiency and effectiveness in service delivery remains a pipe dream in public sector.

GENERAL OBJECTIVE

The general objective of the study was to establish the determinants of IFMIS implementation in the national government departments in Meru County.

Specific Objectives

1. To establish the influence of staff competence on IFMIS implementation in public organizations
2. To assess the influence of government policies on IFMIS implementation in public organizations
3. To determine the influence of top management support on IFMIS implementation in public organizations
4. To find out the influence of technological infrastructure in IFMIS implementation in public organizations.

RESEARCH HYPOTHESIS

H1: There is a significant relationship between staff competence and IFMIS implementation in public organizations.

H2: There is a significant relationship between government policies and IFMIS implementation in public organizations.

H3: There is a significant relationship between top management support and IFMIS implementation in public organizations.

H4: There is a significant relationship between technological infrastructure and IFMIS implementation in public organizations.

THEORETICAL REVIEW

Financial System theory

In Systems theory, Wang (2005) refers to information in the sense that assuming information does not necessarily involve any conscious mind, and patterns circulating (due to feedback) in the system can be called information. In other words, it can be said that information in this sense is something potentially perceived as representation, though not created or presented for that purpose. According to Rudholf (2015), Systems theory is a science which has the comparative study of systems as its object. While Kang'ethe (2002), opines that a system is a group of related and interacting components, which work together to achieve a desired purpose or set of objectives.

Chado (2016) posited that the need for efficiency and effectiveness therefore brings forth another need of ensuring harmony and synergy between the human resource as the core resource that controls other resources on the one hand and the other tools of trade, in particular modern ICT on the other hand so as to realize the objectives of office secretarial management. There is therefore the clear need to understand the perception of human resource and areas with potential for conflict in the course of interaction between the human resource and modern ICT. When computer and communication technologies are combined, the result is information technology systems, or InfoTech. Information technology is a general term that describes any technology that helps to produce, manipulate, store, communicate, and/or disseminate information. Presumably, when speaking of information technology as a whole, it is noted that the use of computers and information are associated.

In this study, this theory plays an important role by helping in fighting corruption in public finance systems by promoting greater comprehensiveness and transparency of information across government institutions. As a result, the introduction of IFMIS has been promoted as a core component of public financial reforms in many developing countries. Yet, experience shows that IFMIS projects tend to stall in developing countries, as they face major institutional, political, technical and operational challenges. Case studies of more successful countries indicate that factors supporting successful implementation include clear commitment of the relevant authorities to financial reform objectives, ICT readiness, sound project design, a phased approach to implementation, project management capability, as well as adequate resources and human resource capacity allocated to the project.

Theory of Corporate Financial Management

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. They noted 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.

The theory concludes that 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.

Holbeche (2016), structuration theory tries to recast structure and agency as a mutually dependent duality. Canary and Tarin (2017) describes structuration is a social process that involves the reciprocal interaction of human actors and structural features of organization. Medlin (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 Giddens's ideas by including an explicit IT dimension in social analysis (Godara, 2010). 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 Folger (2014) describes as the duality of structure. 'Structures' consist of norms, rules and resources those human actors recursively employ in their everyday interactions. These rules and resources mediate human action and at the same time delimit the same action.

In this study, the theory helps to understand the key conceptual approach by providing 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.

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 (LarMonte, 2018).

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 National Governments departments. 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

national Governments departments.

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, national governments departments 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 national governments departments, 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.

This theory helps in 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.

Schumpeterian Theory of Creative Destruction

Schumpeter (1939) viewed innovations as everlasting gales of creative destruction that were substantive forces propelling growth rates in a capitalist system. Schumpeter's initial thinking was developed over his entire lifetime to the extent that some researchers have distinguished his initial thought where the innovation was greatly dependent on exceptional persons willing to take up exceptional hazards as "an act of will", i.e., entrepreneurs, from his later thought that recognized the role of big enterprises in organizing and supporting innovation. This culminated in his emphasis on the role of oligopolies in embracing innovation and which later on was falsely perceived as the major contribution of his work. Schumpeter (1939) highlighted the disruptive nature of technological change that brings the inseparable combination of long-term growth and short-term instability. He wasn't a technological determinist but appreciated the organization and social forces that played key roles in the cyclical process of industrial change. Schumpeter continued to argue that entrepreneurs, who could be R&D engineers or independent inventors in large corporations, created new profits opportunity with their innovations. In turn, imitators attracted by high profits would commence a wave of heavy investment that would eventually erode the profit margin for the sought innovation. However, before the organization could equilibrate a new type of innovation or set of innovations, conceptualized by Schumpeter as Kondratiev cycles, would emerge to start the business cycle over again. However even with that knowledge on innovation role, Schumpeter still falls short of explaining the source of innovation. He pointed out its role and importance in economic cycles timing but failed to address its source. To this end, the innovation research that followed the opinion set by Schumpeter has always concentrated on the development of innovation and the following diffusion between firms. In this study, Schumpeterian theory is relevant because new technology, marketing and management innovation could bring a short term disruption but a long term benefit.

EMPIRICAL LITERATURE REVIEW

Staff Competence and IFMIS Implementation in Public Organizations

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 (2010) 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 (Wong, 2010).

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).

Mwiwa (2011) 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 (2011), 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.

Gakure and Ngumi (2013) suggests that the key to service delivery in financial management is to adapt to circumstances that are constantly changing and that the long-term winners are the best adapters, but are not necessarily the winners of today's race for market share. Government quality of service often fails because of the sum total of seemingly inconsequential events arising from employees lack of capacity as in itself service delivery requires specific skill levels and experience which must be continuously learned.

According to Bascal (2009), financial management is one of the basic functions practiced in all organizations. It is the way forward and represents the future for best practice organizations. Through this function, bases are determined for authority levels of financial control, budgeting and processing financial resulting information. Through time and as practice demands, some organizations merge the role of human resource management with administration, hence, titles such as head of finance and administration, finance and logistics, or manager of support services. The governance of an organization is the practice of putting things together orderly and making an organization to function effectively.

Government Policies and IFMIS Implementation in Public Organization

According to Kenya Treasury (2015), the government has put in place policies to support the IFMIS implementation in public organization. However these policies may not be enough to support IFMIS. Ouma (2011) argued that there is rigidity in public organization policy formulation and this resulted to delay in the IFMIS implementation in public organization.

Most public organizations rely much on policies cascaded from the top authority in order to IFMIS implementation in public organization.

According to Zarruk (2008), delays in formulating friendly and supportive strategies will always make IFMIS implementation in public organization to fail. In his study, he recommended that the government should give authority to managers in the ground to formulate policies that they consider necessary for strategic implementations. However, all these policies have to be in line with the legal framework set the government and help in realizing the mandate of the organization as provided by the Act or by any other written law. Great strategies are worth nothing if they cannot be implemented. It can be extended to say that better to implement effectively a second grade strategy than to ruin a first class strategy by ineffective implementation. Less than 50% of formulated strategies get implemented.

Every failure of implementation is a failure of formulation. The utility of any tool lies in its effective usage and so is the case with strategy. Strategy is the instrument through which a firm attempts to exploit opportunities available in the business environment. The performance of a firm is a function of how effective it is in converting a plan into action and executing it. Thus implementation is the key to performance, given an appropriate strategy (Barajas et al., 2007). Implementation has been defined as “the process by which strategies and policies are put into action through the development of programs, budgets and procedures”. This involves the design or adjustment of the organization through which the administration of the enterprise occurs. This includes changes to existing roles of people, their reporting relationships, their evaluation and control mechanisms and the actual flow of data and information through the communication channels which support the enterprise (Capri, 2010).

Top Management Support and IFMIS Implementation in Public Organizations

Ncebere (2000) many organizations fail due to poor management. In order to establish how an organization profitability is measured through efficiency of its management. According to Kibera (2008), management can be defined as a set of activities directed at the efficient and effective utilization of resources in pursuit of one or more objectives. The resources are usually people, machines, materials, time and managerial know-how. There is concern on the calibre of leaders who run public organizations. Since they are public entities government can appoint anybody they like, who may not necessarily have the skills to run the organization.

Sambu (2010), poises that the duty of the management is to oversee, guide and direct public sector movement in terms of human resource. This is supervised by a chairman of public service, who has authority derived from the public service Act. The management of public organizations comprises of the top manager and the same management team with the primary responsibility of ensuring performance. Specific management practices have been found to improve corporate performance;- three dimensional strategy comprise exploration of new horizons, selectivity and drive, making wisdom contagious by empowering independence, interaction and communication among employees, focusing on group performance rather than individual performance, external processes which include benchmarking, systems for feedback both from suppliers and customers and continuous innovation based on internal and external evaluation.

According to Mwaura (2012), actions of top management affect performance. He also recommended that members, when electing office bearers, including delegates, should ensure that they elect trustworthy persons. Success and hence performance depends on the calibre of the officials that they elect. Corporate governance seeks to find appropriate mechanisms for governing relationships for constituent groups with the company so as to generate a long term value. It also seeks to reduce conflict of interests among the stakeholders by making sure that right people make the decisions. Corporate governance is to create and implement internal organisation of the company and define more closely and represent more pressing interests to which the management should respond and goals towards which they should strive. Therefore it implies that corporate power is exercised in the best interest of the society.

The focus of corporate governance is on the systems by which companies are directed and controlled. Corporate governance is the process by which organisations are directed, controlled and held accountable. Corporate governance is at the heart of corporate success and it can have a significant influence on the country's development. Effective corporate governance will ensure long-term strategic objectives and plans are established and that proper management structure is in place to achieve those objectives while at the same time making sure that the structure functions to maintain the company's integrity, reputation and accountability to its relevant constituencies. The right systems of checks and balances should be on the basis of merit or any corporate governance system (Kroszner, 2005).

According to Ibrahim (2012), a good governance system is one that respect and follow the due process of organizational policies and procedures. It should have checks and balances, and there must be segregation of duties. Good governance does not favour concentration of functions on one individual, it encourages cut off points where each employee respects the limits of his or her authority in the organization. As far as organizational governance is concern, finance and administration are two separate functions, and separation must come into play, else there is no separation or segregation of duties, one person is executing or strongly influencing the functions of human resource and of administration.

Technological Infrastructure and IFMIS Implementation in Public Organizations

IFMIS is largely a new concept or system granted that it is yet to take sufficient roots especially in the national Governments departments. 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. Kinyeki and Kipsang (2008) observe 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.

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) 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 mind-set 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 (Rozner, 2008).

A study by Kwena (2013) established that largely sabotage and resistance affect the use of IFMIS in the ministries in Kenya. Many IFMIS projects have failed because the basic system functionality was not clearly specified from the onset of the intervention. Chene (2009) posits that an IFMIS must be carefully designed to meet the needs and functional requirements, including the accounting and financial management tasks the system should perform. Consideration must be given to the type of systems that will be implemented, for example, off-the-shelf (OTS) or custom-built systems that fit the requirements of the specific country. An analysis of the different systems used by developing countries indicates that they make use of both off-the shelf systems as well as custom-built systems.

RESEARCH METHODOLOGY

Research Design

The study adopted a descriptive research design which is concerned with describing the characteristics of a particular individual, or groups (Kothari, 2010). This method is suitable since it allows flexible data collection and the respondents will not be manipulated. Walter (2009) argues that descriptive research design is used when the problem is known and well designed. This is the research design that was used to establish the determinants of IFMIS implementation in the national government departments in Meru County.

Target Population

The target population of the study was 34 national government departments in Meru County, which are the only national government departments in the region, according to Office of County Commissioner, Meru County. The study respondent was 68 management staff, comprising of two personnel from each department. These are the head of the departments and the finance officers. These respondents were selected since they are the people who play critical role in designing, implementing the policies and strategies of IFMIS in their departments.

Sample Size and Sampling Procedure

The study adopted a census sample design since the target population is manageable and the respondents are within systems that they can be accessed easily. According to Kothari (2014), census is a complete enumeration of all items in the population. It is presumed that in a census inquiry, all the respondents are covered and there is no element of chance which is left and the highest degree of accuracy is obtained especially when the population is small as it is evident in this study hence the sample size which will be used is 68 respondents.

Research Instruments

Data was collected through questionnaire. The questionnaire had both open ended and close ended questions. The questions were simple and logical. They contained simple but straight forward directions for the respondents to have ease in answering the questions. The method was the best in terms of costs since it is inexpensive, free from bias of the interviewer, adequacy of time to give well thought out answers, convenience in reaching respondents, and the results are more dependable and reliable (Saunders & Lewis, 2015).

Data Collection Procedures

The drop and pick method of the questionnaires was done to the sampled population to collect data after booking appointment with the respondents. This method is useful in administering the questionnaires to the sampled population since it ensures that respondents are reached without any external influences (Neville, 2007). The questionnaires were picked after 3 days and this ensured that respondents filled the questionnaires at their convenient time within given timelines.

Data Analysis and Presentation

Data analysis is the whole process which starts immediately after data collection and ends when processed results are interpreted. Data was analysed using descriptive statistics. Kothari (2013) defines descriptive statistics as the development of certain indices from the raw data. Logistic regression aided by SPSS (Version 20) was used to link the relationship between the independent variables (staff competence, government policies, top management support and technological infrastructure) and the dependent variable (IFMIS implementation). This helped in indicating the strength and direction of the relationship between the variables. Multiple Logistic Regression was used because the dependent variable was categorical i.e. the IFMIS implementation was either done or not. The general form of the Multiple Logistic Regression was expressed as:

$$\ln \frac{P(y)}{1-P(y)} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$$

Where: Y is the utility function of the event (ifmis implementation); P(y) = probability of ifmis implementation being implemented; β_0 : The regression constant i.e. $Y = \beta_0$ when $X_1, X_2, X_3, \dots, X_k = 0$; β_1 : Coefficient of influence of staff competence (independent variable X_1); β_2 : Coefficient of influence of government policies (independent variable X_2); β_3 : Coefficient of influence of top management support (independent variable X_3); β_4 : Coefficient of influence of technological infrastructure (independent

variable X_4)

For all statistical tests, the alpha (significance) level was set at 0.05. Analysed data was presented in the form of frequencies and percentages.

RESEARCH RESULTS

Effect of Staff Competency on IFMIS Implementation in Government Institution

It was observed that majority of the respondents were unable to use IFMIS given that 84 percent disagreed with the assertion that they were adept with the latter system. Furthermore, 88.3 percent of the respondents in Table 4.9 affirmed that they did not have skills to solve financial issues using IFMIS. It was further observed that 89.8 percent of the respondents were recruited without any form of knowledge on IFMIS. Out of the recruited staff, only half of the accounting and finance employees were trained on IFMIS.

In regards to IFMIS implementation, results show that approximately two thirds (76.8 percent) of the respondents were of the opinion that IFMIS has been implemented up to 20 percent. It was further observed that a consistent two thirds of the respondents (74 percent) were of the opinion that only 10 percent of the government departments implemented IFMIS. This shows that there was poor IFMIS implementation across the government departments.

The joint observation of poor IFMIS implementation and poor staff competency towards IFMIS usage indicates a positive correlation between these two variables from a descriptive standpoint. No wonder 82.6 percent of respondents were of the opinion that staff competency influenced IFMIS implementation. In this study, the inadequacy of staff competency led to poor IFMIS implementation across the government departments. The hypothesis testing also revealed the same findings from an inferential standpoint. Findings show that the p-value of staff competency was 0.005 that was less than 5 percent significance level. Hence, staff competency had a significant influence on IFMIS implementation.

Effect of Government Policy on IFMIS Implementation in Government Institution

From the descriptive frequencies, majority of the respondents (85.5 percent) observed that there were sufficient policies in place addressing IFMIS implementation. This corroborates the findings where 88.4 percent of the respondents also affirmed the presence of IFMIS policies in the government departments. However, majority (76.2 percent) of the respondents were not of the view that various government departments were involved in creation of these policies. This lack of involvement might have triggered the apathy that the various departments had towards IFMIS implementation policies. This is because 84 percent of the respondents affirmed that these policies were not operational in the government departments. Results also corroborate this by showing that 62 percent of the respondents of the opinion that there was slight influence of these policies on IFMIS implementation while 27 percent denied any sort of influence.

Given that there were sufficient policies on IFMIS implementation and at the same time poor operationalization of these policies, it depicts mixed reaction towards IFMIS policies. Findings show slightly more than half of the respondents (59 percent) were dissatisfied with

government policies on IFMIS implantation. Results further strongly show that there was poor implementation of IFMIS despite the shy operationalization of IFMIS policies. Therefore, there was no obvious correlation between government policies and IFMIS implementation from a descriptive standpoint. The p-value of government policy was also observed to be 0.658 that was more than 5% significance level. Therefore, it was concluded that government policy did not significantly affect the implementation of IFMIS in government departments.

Effect of Management Support on IFMIS Implementation in Government Institution

Management support was described in terms of skillfulness of the management staff in support of IFMIS and in terms of involvement of stakeholders in implementation of IFMIS. Observations show that majority of the respondents (88.3 percent) were not of the opinion that there were highly skilled management staff to support IFMIS implementation. There was inadequate involvement of stakeholders in implementation of IFMIS where 81.1 percent of the respondents shared this opinion. In general, when asked whether they were satisfied with the current management support on IFMIS implementation, approximately half of the respondents disagreed with this assertion.

On average, there seems to be little management support on IFMIS implementation that correlates positively with the poor state of IFMIS implementation. The hypothesis on management support was rejected with a p-value of 0.016, which was less than 5 percent significance level. This means that management support significantly influences the implementation of IFMIS in government departments. However, it had lower significance compared to staff competency going by the p-values.

Effect of Technological Environment on IFMIS Implementation in Government Institution

The study found that there was inadequate infrastructure funding where 88.3 percent of the respondents were of this view. Corroborating the latter findings, 75.3 percent of the respondents disagreed with the assertions that the existing technological infrastructure enhanced IFMIS implementation. The adverse effects of the existing technological infrastructure risk being worse subject to the poor investment on IFMIS technological infrastructure as observed in Table 4.25 where 81 percent of respondents shared this view. From the results, a majority of 79.7 percent expressed dissatisfaction with the current technological infrastructure in the implementation of IFMIS.

The poor state of technological infrastructure for IFMIS implementation correlates positively to the poor IFMIS implementation from a descriptive statistics standpoint. This relationship is confirmed by the conclusion of the hypothesis testing where the p-value of Technological environment was 0.006 that was less than 5 percent significance level. Therefore, technological environment significantly affect the implementation of IFMIS across government departments.

HYPOTHESIS TESTING

This section presents findings of model testing in regards to strength of the binary logistic regression model and Wald statistics for testing the hypotheses of the study. The discussed findings in this subsection are omnibus test of model coefficients; Nagelkerke R Square in Model Summary; Hosmer and Lemeshow test; Wald statistics and Odds ratio in Variables in the Equation table.

Table 1: Omnibus Tests of Model Coefficients

	Chi-square	df	p-value
Step	34.760	4	0.000
Block	34.760	4	0.000
Model	34.760	4	0.000

Omnibus Test of model coefficients shows the significance of the predictive capacity of the overall model containing all independent variables of the study. From Table 1, the observed p – value of the model is 0.000, which is less than the significance level set for the study (0.05) indicating that the model has significant predictive capacity.

Table 2: Model Summary

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
38.900	0.405	0.607

The Nagelkerke R Square is a statistic that is similar to the Pearson’s R Square (coefficient of determination) and it ranges from zero to one. Being a pseudo coefficient of determination, it shows the amount of variations in the dependent variable (IFMIS Implementation) explained by the independent variables of the study (Staff Competency, Government Policies Technological Environment and Management Support). The observed Nagelkerke R Square in Table 2 is 0.607 (60.7%) which implies that about 60 per cent of IFMIS implementation directly contributed by Staff Competency, Government Policies Technological Environment and Management Support. Therefore, it is construed that the model has a strong predictive capacity deeming the variables appropriate for the measuring the implementation of IFMIS in the government departments.

Table 3: Hosmer and Lemeshow Test

Chi-square	df	p-value
5.453	7	0.605

Table 3 shows results from Hosmer and Lemeshow Test that tests the null hypothesis that the model has a statistically good fit against the alternate hypothesis that the model does not have a statistically good fit. The observed p-value from the Hosmer and Lemeshow test was 0.605 that was more than 0.05 hence study did not reject the null hypothesis. Therefore, the model had a significant predictive capacity corroborating the findings in Table 4 of the Omnibus test of the model coefficients.

Table 4: Variables in the Equation

	B	S.E.	Wald	df	p-value	Odds Ratio	95% Odds Ratio C.I.for	
							Lower	Upper
Staff Competency	0.449	0.160	7.874	1	0.005	1.567	1.145	2.143
Government Policies	0.094	0.213	0.196	1	0.658	1.099	0.724	1.668
Technological Environment	0.660	0.273	5.853	1	0.016	1.935	1.133	3.302
Management Support	0.836	0.301	7.702	1	0.006	2.306	1.278	4.161
Constant	-23.626	7.552	9.787	1	0.002	0.000		

Table 5 displays the results for the variables in the binary logistic equation.

Binary Logistic Equation (i)

$\ln(P/1-P)$	=	-23.626	+ 0.449X ₁	+ 0.094 X ₂	+ 0.660 X ₃	+ 0.836X ₄
<i>Wald Statistics</i>		9.787	7.874	0.196	5.853	7.702
<i>P-value</i>		0.002	0.005	0.658	0.016	0.006
<i>Odds Ratio</i>		0.000	1.567	1.009	1.935	2.306

Where: P: Probability of Implementation of IFMIS; Ln (P/1-P): Logit of Implementation of IFMIS; X₁: Staff Competency; X₂: Government Policy; X₃: Technological Environment; X₄: Management Support

The study had four hypotheses and the results thereof are in Table 5 based on the p-value corresponding to the Wald statistic.

Table 5: Hypotheses Conclusions

Null Hypothesis	P-Value	Decision
□ ₀ : There is no significant relationship between Staff Competency and IFMIS implementation	0.005	□ ₀ rejected
□ ₀ : There is no significant relationship between Government Policy and IFMIS implementation	0.658	□ ₀ failed to be rejected
□ ₀ : There is no significant relationship between Technological Environment and IFMIS implementation	0.016	□ ₀ rejected
□ ₀ : There is no significant relationship between Management Support and IFMIS implementation	0.006	□ ₀ rejected

The conclusions of the hypotheses show that Staff Competency, Technological Environment and Management Support had significant relationships with IFMIS implementation while Government policy was the variable that did not have a significant relationship to IFMIS implementation. From the beta coefficients and Binary Logistic Equation (i), a marginal increase in Staff Competency increases the logit of IFMIS implementation by 0.449 while holding other factors constant. By observing the odds ratio, a marginal increase in Staff

Competency increases the odds (likelihood) of IFMIS Implementation by 1.567 while controlling for the individual differences of other variables in the study.

Marginal increase in Government Policy increases the logit of IFMIS implementation by 0.094 while holding other factors constant. By observing the odds ratio, a marginal increase in Government Policy increases the odds (likelihood) of IFMIS Implementation by 1.009 while controlling for the individual differences of other variables in the study.

Marginal increase in Technological Environment increases the logit of IFMIS implementation by 0.660 while holding other factors constant. By observing the odds ratio, a marginal increase in Technological Environment increases the odds (likelihood) of IFMIS Implementation by 1.935 while controlling for the individual differences of other variables in the study.

Marginal increase in Management Support increases the logit of IFMIS implementation by 0.836 while holding other factors constant. By observing the odds ratio, a marginal increase in Management Support increases the odds (likelihood) of IFMIS Implementation by 2.306 while controlling for the individual differences of other variables in the study.

CONCLUSION

From the study, it has been established that there was poor staff competency, inadequate management support, insufficient technological infrastructure and presence of government policies on IFMIS implementation. In addition to the separate descriptive observations of each variable, the study has established that staff competency, management support and technological infrastructure had positive significant influence on the implementation of IFMIS in government departments. Of the three variables, staff competency had the largest influence on IFMIS implementation, followed by management support. Government policy did not significantly affect IFMIS implementation. This demonstrates that the presence of policies without appropriate implementation interventions is not effective in promoting IFMIS implementation.

RECOMMENDATIONS

Based on the study findings, staff competency had a significant influence on IFMIS implementation. The researcher therefore recommends the government to work on staff competency, right from recruiting the right personnel, and embracing on on-job training. The government can also develop some interventions to improve on the motivation of the workers. The researcher also recommends the government to promote specialization, as it promotes competency through experience. The study also proved that management support was insufficient, and therefore the researcher recommends the government to develop managerial capacity, enough to implement IFMIS. The management staff should also be trained on strategies to manage change, so that they can be in a position to handle the other staff members. The other area of concern in relation to the findings of the study is the technological infrastructure. The government should invest in technology and mostly in modern technology to improve on efficiency. Good technology saves on cost, in relation to time and money.

REFERENCES

- Audenhove, L.V. (2008). *Information and Communication technology policy to Africa: A Critical Analysis of Rhetoric and Practice*. Retrieved from: <https://www.mhprofessional.com/9780071599641>
- Baloyi, M. R. (2011). Address by the Minister for Public Service and Administration, MrMasenyani Richard Baloyi, at the Integrated Financial Management System (IFMS) Human Resource (HR) go live celebration Pretoria Zoological Gardens'. Retrieved from <http://www.info.gov.za/>
- Barajas et al (2007). *Performance leadership: The next practices to motivate your people align stakeholders and lead your industry*. USA: McGraw Hill. Retrieved from: <https://perpustakaan.bappena.go.id>
- Canary, H. E. & Tarin, C. A. (2017). *Structuration Theory*. Retrieved from: <https://doi.org/10.1002/9781118955567.wbieoc197>
- Chado, H. (2015). *The Effect of Integrated Financial Management Information System on The Financial Management Of Public Sector In Kenya*. Nairobi, Kenya: University Of Nairobi. Retrieved from <http://erepository.uonbi.ac.ke/>
- Chado, H. M. (2015). *The effect of integrated financial management information system on the financial management of public sector in Kenya. Unpublished MSC Project, University of Nairobi*. Retrieved from <http://hdl.handle.net/11295/94721>
- Chado, W. (2016). *The Effect Of Integrated Financial Management Information System On The Financial Management Of Public Sector In Kenya*. Nairobi, Kenya: University of Nairobi. Retrieved from <http://erepository.uonbi.ac.ke/>
- Chebets, R. (2013). *The Critical Success Factors In the Implementation of the Re-Engineered Integrated Financial Management Information System in Government Ministries, Kenya. Unpublished MBA Thesis, University of Nairobi*. Retrieved from <http://erepository.uonbi.ac.ke:8080/xmlui/handle/123456789/58711>
- Chêne, M. (2009). *The Implementation of Integrated Financial Information Management Systems (IFMS)*. Retrieved from: <http://www.u4.no/helpdesk/helpdesk/query.cfm?id=19>
- Cherono, S. C. (2016). *The Effects of Integrated Financial Management Information Systems, On Accounting Operations of Government Agencies in Kenya* (Doctoral dissertation, Masters Dissertation, University of Nairobi, Kenya). Retrieved from <http://hdl.handle.net/11295/100367>
- Cherotich, A., & Bichanga, O. W. (2016). Factors affecting effective implementation of integrated financial management information systems by the county governments of kenya. *Journal of Economics, Commerce and Management*, 4(4). 1049- 1068. Retrieved from <http://ijecm.co.uk/wp-content/uploads/2016/04/4461.pdf>
- Combaz, E. (2015). *Implementing integrated financial management information systems*. GSDRC Helpdesk Research Report 1229. Birmingham, UK: GSDRC, University of Birmingham. Retrieved from <https://www.gov.uk> › Research for Development Outputs
- Diamond, J. & Khemani, P. (1999). *IFMIS in developing countries*. IMF paper 6 October 1999. Retrieved from <https://www.imf.org/external/pubs/ft/wp/2005/wp05196.pdf>

- Diamond, J. & Khemani, P. (2006). Introducing financial management information systems in developing countries. *OECD Journal on Budgeting*, 5(3), 97-132. Retrieved from: <https://www.imf.org/external/pubs/ft/wp/2005/wp05196>.
- Dorotinsky, W. & Cho, C. (2010). *Implementing financial management system project: The World Bank experience preliminary results*. The World Bank. Retrieved from: <http://hdl.handle.net/10986/2297>
- Economic Commission for Africa (2015). *Public Sector Management in Africa*. Addis Ababa, Ethiopia: Economic Commission for Africa Retrieved from <http://unpan1.un.org/intradoc/groups/public/documents/uneca/unpan014953.pdf>
- Farelo, M. & Morris, C. (2006) "The status of E-Government in South Africa", Research Paper, ST Africa Conference, Pretoria, South Africa. Retrieved from: <https://pdfs.semanticscholar.org/ee8a/3ad61eedb18c05c17aaa417e6422bbdffde5.pdf>
- Folger, L. (2014). *Structuration Theory: The Duality of Structure*. Retrieved from: <https://core.ac.uk/download/pdf/58826082.pdf>
- Gakure, R. & Ngumi, P. (2013). Do bank innovations influence profitability of commercial banks in Kenya? *Prime Journal of Social Science*. 2(3), 237-248
- Giddens, A. (1984). *The third way: The renewal of social democracy*, Polity press, Cambridge, UK
- Godara, V. (2010). *Strategic Pervasive Computing Applications: Emerging Trends*. Hershey, New York: Information Science Reference. Retrieved from: <https://books.google.co.ke/>
- GoK (2011). *Economic Survey*. Nairobi, Kenya: Government printer. Retrieved from: <https://www.undp.org/content/dam/kenya/docs/IEG/Economic%20Survey%202016>.
- GoK (2011). *Integrated Financial Management Information System (IFMIS) IFMIS Re Engineering, From Modular, to Full Cycle End-To-End Processes, Strategic Plan 2011-2013*
- GoK & KPMG (June 1997). *A taskforce report on strengthening government finance and accounting functions*. Government Printer.
- Holbeche, L. (2016). *Influencing Organizational Effectiveness: A Critical Take on the HR*. USA: Taylor & Francis. Retrieved from <https://books.google.co.ke/>
- Indeje, W. & Zheng, Q. (2010). *Organizational Culture and Information Systems Implementation: A Structuration Theory*. Retrieved from: http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1348&context=sprouts_all
- Kahari, C. K., Gathongo, G., & Wanyoike, D. (2015). Assessment of factors affecting the implementation of integrated financial management information system in the county governments: A case of Nyandarua County, Kenya. *International journal of economics, commerce and management*, United Kingdom, 111(11)
- Karanja, J. K. & Ng'ang'a, E. N. (2014). Factors Influencing Implementation of Intergrated Financial Management Information System in Kenya Government Ministries. *Research Journal of Finance and Accounting*. 5(7). Retrieved from file:///C:/Users/intern.library/Downloads/12298-14704-1-PB.pdf
- Keya Treasury (2015). *IFMIS implementation in Kenya's Government* Retrieved from: <http://sokodirectory.com/2015/06/report-ifmis-implementation-in-kenyasgovernment/>
- Kimwele, J. (2011). Factors affecting effective implementation of integrated financial management information systems (IFMIS) in government ministries in

- Kenya. Unpublished Thesis, University of Nairobi: Kenya. Retrieved from <http://erepository.uonbi.ac.ke:8080/xmlui/handle/123456789/13330>
- Kinyua, J. K. (2011). *Kenya Economic Survey*. Ministry of Finance, Nairobi, Kenya.
- Kishor, V., Sajeev, A. S. & Callender, G. (2013). Critical Factors that Influence SCM Implementation Success in the Public Sector. *Journal of Public procurement*.6 (1&3), 70-79. Retrieved from <https://doi.org/10.1108/JOPP-06-01-02-2006-B004>
- Kothari, B. L. (2010). *Research Methodology: Tools And Technique*. Jaipur, India: ABD Publishers. Retrieved from <https://www.worldcat.org/title/research-methodology-tools-and-techniques/oclc/294988243>
- Kroszner, S. (2005). Checks and Balances: The Economics of Corporate Governance Reform Retrieved from <https://www.csoonline.com/>
- Kwena, F. I., (2013). Factors influencing the use of integrated financial management and information systems in public sector. A case of selected government ministries in Kenya. Unpublished thesis. Retrieved from <http://ir-library.ku.ac.ke/handle/123456789/6283>.
- LaMorte, W. (2018). Diffusion of Innovation Theory. Boston, USA: Boston University School of Public Health. Retrieved from <http://sphweb.bumc.bu.edu/>.
- Lundu, B. L., & Shale, N. (2015). Effect of intergrated financial management information system (IFMIS) implementation on supply chain management performance in the devolved government systems in Kenya: A case of Nairobi city county government. *International Academic Journal of Procurement and Supply Chain Management*, 1(5), 1-26. Retrieved from http://www.iajournals.org/articles/iajhrba_v2_i3_242_254.pdf
- Masaku, E. N. (2018). Role of Integrated Financial Management Information System (IFMIS) On Procurement Performance in Government Ministries in Kenya: A Case of Ministry Of Health. *Strategic Journal of Business & Change Management*, 5(2). Retrieved from <http://strategicjournals.com/index.php/journal/article/view/>
- McInnes, M. & Carleton, W. (1982). Theory, Models and Implementation in Financial Management Massachusetts, USA: Massachusetts Institute of Technology. Retrieved from: <https://doi.org/10.1287/mnsc.28.9.957>
- Medlin, B. D. (2001). The factors that may influence a faculty member's decision to adopt electronic technologies in instruction. Doctoral dissertation, Virginia Polytechnic Institute and State. Retrieved from <http://hdl.handle.net/10919/29125>
- Mugenda, A. & Mugenda, O. (2013.) *Research methods: Quantitative and qualitative approaches*. Nairobi: ACTS Press. Retrieved from DOI: 10.12691/education-2-11A-5
- Mwaura, D. N. (2005). Factors affecting the performance of Savings and Credit Cooperative Societies in Kenya. *A case study of Afya Cooperative Society Ltd*. Retrieved from: <https://chss.uonbi.ac.ke/sites/default/files/chss>.
- Neville, C. (2007). Introduction to research and research methods. USA: Bradford University School of Management. Retrieved from <https://www.unrwa.org/sites/default/files/introduction-to-research-and-research-methods.pdf>
- Mwaura, K. (2016). Factors Influencing Implementation of Integrated Financial Management Information System in Devolved Government in Kenya. *The International Journal Of Business & Management*. Retrieved from erepository.uonbi.ac.ke/handle/11295/6745

- Mwaura, K. Z. (2016). Factors Influencing Implementation of Integrated Financial Management Information System in Devolved Government in Kenya. *The International Journal of Business and Management*, 4(9.) 38-55. Retrieved from: <https://businessperspectives.org/images/pdf/applications/publishing/templates/article>
- Ncebere, R. (2000). *Excelling in Business. The Entrepreneur's Handbook*. Nairobi, Kenya: Publishers, Nairobi
- Njoroge, G. & Wanyoike, D. (2015). Influence Of Integrated Financial Management Information System on Procurement Performance In The County Government Of Nakuru, Kenya. *International Journal of Economics, Commerce and Management* 6(10) Retrieved from <http://ijecm.co.uk/wp-content/uploads/2016/10/41039.pdf>
- Nzilu, V. (2017). Determinants of Successful Implementation of Integrated Financial Management Systems by County Governments in Kenya. Unpublished MBA Thesis, University of Nairobi. Retrieved from <http://hdl.handle.net/11295/102806>
- O'Sullivan, G. (2008). Professional learning communities: Developing a school-level readiness instrument. *Canadian Journal of Educational Administration and Policy*, 74: 1–17. Retrieved from <https://pdfs.semanticscholar.org/97f6/5b23f19f3ec65ac8720e6af15c4c49ea8a7c.pdf>
- Ouma, J. (2011). The role of Kenya's public service in a changing global environment; Opportunities and challenges. Nairobi, Kenya: Kenya association of public administrators and Managers
- Pal, L. & Clark, I. D. (2014). Best Practices in Public Management: History, Theory and Application. *Best Practices in Public Management*. Retrieved from <http://www.atlas101.ca/pm/wp-content/uploads/2015/12/Best-Practices-in-Public-Management-Project-Outline>.
- Peterson, S., Kinyeki, C., Mutai, J. Kipsang, & Ndungu, C. (2006). Computerizing Accounting Systems in Developing Bureaucracies: Lessons from Kenya, *Public Budgeting and Finance*, 16(4), Winter, pp. 45-58. Retrieved from: <https://doi.org/10.1111/1540-5850.01085>
- Roberts, A. (2010). *The Logic of Discipline: Global Capitalism and the Architecture of Government*. New York: Oxford University Press. Retrieved from: <https://doi.org/10.1111/j.1754-7121.2012.00218.x>
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press. Retrieved from doi: [10.1016/j.jmig.2007.07.001](https://doi.org/10.1016/j.jmig.2007.07.001)
- Rozner, S. (2008). Best practices in fiscal reform and economic governance: Introducing integrated financial management information systems. Retrieved from https://blog-pfm.imf.org/pfmblog/files/ifmis_bpn_web1.pdf/
- Rudolf, S. (2015). *Systems Theory*. Retrieved from <https://pdfs.semanticscholar.org/>
- Sahin, I. (2006, April). Detailed review of rogers' diffusion of innovations theory and educational technology-related studies based on rogers' theory. *The Turkish Online Journal of Educational Technology*. 5 (2),14-23. Retrieved from <https://eric.ed.gov/?id=ED501453>
- Saunders, M. & Lewis, P. (2015). *Research Methods for Business Students* (7thed.).USA: University of Surrey.
- Sekaran, U. & Bougie, R.(2010). *Research Methods for Business: Forms of reliability and validity* (5thed). Chichester: John Willey & Sons.

- Wang, R. Y. (2005). *Redefining the Scope and Focus of Information Quality Work: Advances in Management Information Systems*. , Armonk, New York: M.E. Sharpe Inc.
- Wanjiru, L., (2017). Factors Influencing the Implementation of Integrated Financial Management System Projects Among State Corporations in Kenya. *International Journal of Innovations, Business and Management*, 11(4.). 40-56. Retrieved from www.arksonline.org
- Wong, T. (2010). Evaluation Resources for Nonprofit Organizations: Usefulness and Applicability. *Nonprofit Management and Leadership Journal*, 10(4), 463-472. doi: [10.1002/nml.10409](https://doi.org/10.1002/nml.10409)
- World Bank (2014). *Decision Time: Spend More or Spend Smart?. Kenyan Public Expenditure Review*. USA: World Bank Group. Retrieved from <https://openknowledge.worldbank.org/handle/10986/2109>