

Analysis of Factors Influencing Implementation of Integrated Financial Management Information System

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ABSTRACT: Integrated Financial Management Systems (IFMIS) was introduced in the County Treasuries to enhance transparency, improve decision-making and financial controls by availing reliable and timely financial information, improve efficiency and controls, enable budgeting and increase government revenue. However, the envisaged full cycle implementation of IFMIS has not been achieved by Bomet County Treasury pointing out to the fact that certain factors influence implementation and effective usage of all IFMIS modules. The purpose of the research was to analyze factors that influence implementation of IFMIS in Bomet County Treasury. The researchers adopted survey methodology and the main instruments of data collection were structured questionnaire, administered through stratified and random sampling, and semi-structured interviews. The research targeted a population of 118 respondents drawn from different IFMIS user sections within county treasury. The data collected was cleaned, coded and analyzed with the aid of Statistical Package for Social Scientists (SPSS) Version 21. Descriptive data analysis technique was used to draw comparisons and conclusions. The findings established that the number of ICT equipment are not adequate thus hampering effective and efficient delivery of services related to IFMIS. The study further found out that IFMIS uptime is not excellent and network/connectivity is the main contributor to IFMIS down time. The study further found out that software that supports IFMIS is generally appropriate and reliable. Top management support was positive and thus good indication of IFMIS implementation. The existence of policy and Standard Operating Procedures (SOPs) was satisfactory. Training was also found to be necessary if IFMIS implementation is to succeed as it improves understanding and use of the system. Area of specialization, accounting and ICT skills were found to be necessary in IFMIS implementation. The study also found out that County treasury has qualified staff to oversee effective use, including promotion of IFMIS. The study recommends that more ICT equipment need to be provided to achieve a ratio of 1:1 between computers and IFMIS users, continuous IFMIS training both to management and IFMIS users, upgrading of IFMIS network and involvement of IFMIS users in training needs analysis. It is hoped that the findings will be used by County Treasury to improve successful implementation and effective usage of IFMIS in addition to providing other researchers and industry practitioners with better understanding on factors influencing IFMIS implementation at County Treasuries.

Key Words: *Factors, Implementation, IFMIS*

1. Introduction

Information and communication technology (ICT) innovations offer rich opportunities for governments to greatly improve their delivery of services and to interact more openly with their constituents. Financial systems such as Integrated Financial Management Systems (IFMIS) can play a vital role in mitigating corruption in public finance systems used in county governments by promoting greater comprehensiveness and transparency of information.

IFMIS is a computer application that integrates key financial functions such as accounts and budgets. This can promote efficiency and security of data management and elaborate financial reporting. IFMIS is an Enterprise Resource Planning (ERP) system. ERP applications are large-scale computer software systems that integrate all data, processes and functions into a unified and centralized database which can be accessed through a secure network (Diamond & Khemani, 2006).

Heeks (2002) observes that there are differences and similarities between ICT implementation and use between developed and developing countries. Some of the similarities include funds which are never sufficient, bureaucracy and user needs. The difference can arise on how the existing problems are addressed in different countries. It can be reasoned that, with their adequate resources and advanced technology, the developed countries have an easier way of implementing ICT projects than developing countries. Most developing countries are characterized by limited computer applications in the public sector, inadequate infrastructure and shortage of skilled manpower (Waruinge, 2017).

According to Diamond & Khemani (2006), several developed countries, such as New Zealand, Australia, UK, undertook significant public sector changes to break from the traditional bureaucratic model of public administration that involved the breaking of the larger units into smaller manageable units which can be equated to devolved units in Kenya today. It was then

that IFMIS was introduced to control public spending, develop public asset performance measurement and proper budgeting. It was implemented without many challenges.

In Africa, countries such as Ghana, Ethiopia, Uganda and Tanzania have implemented IFMIS. In Uganda, it is reported that IFMIS project encountered key design problems and the pilot run in six line ministries and four local governments did not take off as expected. The main design problem was associated with the chart of accounts that the government had approved and the costs involved to rebuild the system were considerable. As a result, the Uganda IFMIS is performing under its potential with piecemeal and ad-hoc solutions decreasing the efficiency of the system. In Ethiopia, the automation process faced major challenges of resources, capacity, infrastructure, changes in government and dependency on foreign aid policies. In Tanzania, according to Kimwele (2012), the implementation process was good and reported to have been done successfully since the Ministry started by an initial review of the public expenditure management processes affecting budget execution and the introduction of an improved expenditure control framework and chart of accounts. Secondly, capacity building was embedded in the reform process in the Ministry of Finance. Lastly, the Tanzanian government revised and developed an enabling legislation, accounting principles, systems and necessary organizational arrangements.

According to Kimwele (2012), the government of Kenya and the Donor communities have 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. Thus, a need to develop a strategic plan was mooted and it was aimed at improving the financial management systems, skills and capacity within the government financial operations units and timeliness of financial information. It is envisaged that such improvement could form the basis for improving control of expenditure against budget. As a result, consultants and other advisors of the Kenya government started toying with idea of the introduction of information technology system and thus the birth of IFMIS.

2. IFMIS Implementation in the Government of Kenya

IFMIS was introduced in Kenya as part of financial reforms that aimed at improving transparency and accountability in usage of public resources and further remove bureaucratic processes associated with public service that can derail services delivery. The Integrated Financial Management Information System (IFMIS) system was first launched in Kenya in 2003. This however introduced only limited modules, with other financial management processes remaining manual. IFMIS Re-engineering was therefore deemed necessary to introduce a full cycle end-to-end integrated approach for efficient and effective public financial management and service delivery to citizens and was launched on February 28th 2011. With the coming in of county governments in 2013, IFMIS was adopted but the vision of implementing the entire full cycle has not been achieved.

The introduction of an IFMIS should be regarded as part of a long process towards achievement of reforms. IFMIS is a major project requiring a structured approach in project management (Kimwele, 2012). Despite substantial time spent and huge amount invested in developing, customizing and rolling out of the IFMS in various counties, it has not progressed well. According to reports compiled by ICT Authority (2015), counties are at different levels of IFMIS implementation and the envisaged full cycle implementation has not been realized by any county. This has potential implications such as inferior public services delivery, wastage of public funds and other resources, increased corruption and fraud related and accountability issues due to weakened citizen participation. Besides that, it can lead to misreporting of financial position, inconveniences to the public, lack of transparency and no value for money.

3. County Government of Bomet

The promulgation of the Constitution of Kenya (COK) in 2010 marked a major milestone in the manner the country was going to be governed. It created two levels of government: National and County. COK (2010) defined the devolution of political power and economic resources from Nairobi headquarters to the grassroots (Article 174(h), COK (2010)). As a result, forty-seven (47) county governments were established and have been running since last general elections which were held on 4th March, 2013. The objectives of devolved government include; to ensure accountability, promote socio-economic development, ensure equity, improved efficiency in the delivery of government services, compliance with government regulations and strengthening of citizen participation. County Government of Bomet is one of the forty seven (47) counties and it is situated in the former Rift Valley Province of Kenya. Its capital and largest town is Bomet. The county has a population of 730,129 (population and housing census 2009) and an area of 2,039.4 km². It has ten departments headed by County Executive Committee Member.

Integrated Financial Management Information System (IFMIS) was rolled out in County Treasuries, Bomet included, from 2013 and is hosted by the National Treasury. With the devolution of huge amounts of financial resources to the 47 counties, the adoption of IFMIS is now more critical than any other time in the Kenyan history. (IFMIS) is used by county government and owned by the County Treasury. The County Treasury has five units utilizing IFMIS and includes Revenue, Finance, Procurement, Audit and Budgeting.

The level of IFMIS implementation in Bomet County Treasury is above average. So far, the basic financial system functionalities such as accounts payable, general ledger maintenance and accounts receivable have been fully implemented. Fixed assets, cash management, integration with existing revenue system and e-procurement is still pending and thus the envisaged end-end cycle therefore yet to be achieved.

4. Statement of the Problem

The envisaged full cycle implementation of IFMIS has not been realized by Bomet County Treasury leading to real time revenue reporting issues, delayed disbursement of funds sometimes affecting salary payments, debt and assets management difficulties and inconsistencies in provision of essential services such as water and drugs to the citizens. The implementation of any proposed new management information system, such as IFMIS, should be adequately planned to prevent the eventuality of system failure. The finding on the identified problems associated with the implementation of IFMIS in developing countries cannot be applied in unique settings in Kenya such as counties. Experience from the research done by Kimwele (2012) shows that IFMIS projects tend to stall in developing countries, as they may face major institutional challenges such as capacity of staff, political, technical and operational challenges. Therefore, this study sought to answer the question; what factors influence implementation of IFMIS?

5. Purpose of the Study

The purpose of the research was to analyze factors that influence implementation of IFMIS in Bomet County Treasury.

6. Literature on Factors Affecting IFMIS Implementation

Integrated Financial Management Information System (IFMIS) is an Enterprise Resource Planning (ERP) system and researchers borrowed a lot from factors influencing implementation of ERP. Different authors on different research areas, which are not related to County Governments, have carried out many researches about the success factors of ERP implementation generating different theories and factor checklists. According to Esteves et al. (2003), the reason of the high failure rate of ERP implementation is due to technology, in addition to management. Some of the management parameters mentioned include the Management support, teamwork composition, Project management, Business Process Reengineering, Change management, just to mention a few. Parr and Shanks (2002) employ the project management method to set up the ERP project process, and suggested Management support, Release of business experts with relevant knowledge onto the project, Empowered decision makers, Deliverable dates, Champion, Smaller scope, Definition of scope and goals, balanced team, and Commitment to change by both users and management.

Somers and Nelson (2001) while carrying out implementation of integrated financial systems summarizes the literatures and listed some 22 success factors of ERP implementing and rank these as: Top management support, Project team competence, Interdepartmental cooperation, Clear goals and objectives, Project management, Interdepartmental communication, Management of expectations, Project champion, Vendor support, Careful package selection, Data analysis, Conversion, Dedicated resources, Use of steering committee, User training, Education on new processes, Business Process Reengineering, Minimal customization, Architecture choices, Change management, Vendor Partnership, Vendors' tools use, and Use of consultants. The shortcoming of this finding is that none of 'companies' in the industry surveyed belong to the public sector, thus it is difficult to judge whether findings are relevant to county governments.

Zhang et al. (2005) studied systems implementation success and based on the literature, the researchers classified factors into five categories. Firstly, organizational environments – including top management support, re-engineering business process, effective project management, and company-wide commitment. Secondly, people characteristics – includes education and training, and user involvement both at system requirements definition and project implementation. Thirdly, technical problems such as suitability of software and hardware and data accuracy. Fourthly, vendor commitment, including vendor support and lastly cultural impact. This categorization was based on literature and were not empirically tested.

Gergeya and Brady (2005), using content analysis approach and searching more than 100 articles and books, identified and proposed Working with functionality/Maintained scope, Internal Readiness/Training, Project Team/Management Support/Consultants, Adequate testing and Project Management (Planning, Development and Budgeting) as the possible factors.

Aris et al. (2009), in their research, classify the factors into 3 i.e. Strategy, People and Organizational. Under strategy, Top management commitment, system strategy, clear goals, focus and scope and legacy systems management are identified. Training and education, employees' attitude, empowerment, project team and user involvement are classified under people factors. Organizational factors constitute organizational culture, effective communication, computer culture, effective project management, change management and process management. The weakness of these findings however is that they were not tested empirically and thus cannot be relied upon.

In these researches, no framework developed seems appropriate for county government treasuries as the factors presented were either done in industries, companies or other organizations with little focus on devolved units. Besides that, Western and Eastern cultures, where majority of the researches were carried out, are different from those found in Kenya.

7. Theoretical Framework

Corporate financial management theory by Morris and William (1987) mainly focused on Computer Based Financial modeling, Managerial activities including financial accounting structure; economic structure- cash flow, economic value, and marginal rates of return of investment; operating information structures dealing with the conduct of an organization's work; and strategic information structures dealing with assessment of the external and internal human needs which provide a rationale for an organization's present and future existence. This theory is very important because it focuses on many aspects of company like using computer in all activities with an aim of making a profit. However, this theory did not emphasize on the factors that can influence implementation of ICT systems.

The second main important theory on the research was the theory of Financial Organization created by Edwin and Robert (1999) was based on computerization of financial functions and then shows how financial resource allocation decisions are characterized in terms of attributes. Computerization of financial systems perform six principal functions: completing payments hence improved efficiency, pooling resources, transferring resources over time, managing risk, producing information through reporting and managing incentives, especially incentives associated with informational differences and how these functions can be implemented.

8. Summary of Major Findings

The general purpose of the study was to analyze the factors that influence implementation of IFMIS at Bomet County Treasury.

Descriptive statistics was used to analyze the data; the results were then presented in charts, graphs and tables. The study targeted a sample of 118 respondents (for questionnaire) in which 108 questionnaires were returned duly completed representing a response rate of 91.5%. The male respondents of the research were 65.12% while female was 34.88% drawn from Sections within County Treasury – Finance, Budget, Revenue, Procurement and Audit. The age bracket for the majority of the respondents was between 21-30 years corresponding to 60.5% while 31-40 years were at 34.9 % of all the respondents. The respondents with Bachelors' degree were 65.1% while 20.9% had tertiary or middle-level College Certificate.

The first objective was to find out how the level of ICT infrastructure influences implementation of IFMIS in the County Treasury. On adequacy of ICT equipment – computers, printers and UPSs, 62.79% of the respondents reported not being adequate while 37.21% did agree on adequacy. The respondents who supported the appropriateness and reliability of software supporting IFMIS was 90.7%. A total of 60.4% of the respondents reported that IFMIS up time was above 60% per week while approximately 30% of the reported to be poor. Network/connectivity issues, both internally and externally, were reported to be the major contributor of IFMIS downtime with 62.8% while 7.0% attributed to software supporting IFMIS.

The second objective was to find out how government support influences IFMIS implementation. Over 46% of the respondents agreed that they always received support from top management with more than 41% responded that this sometimes occur. About 2% of the respondents reported that there is no support from the county government. The finding implies that there is still need for top management support. There was 72.09% response on the existence of policy supporting IFMIS while 27.91% had no knowledge on the same. On training, 88.4% of respondents had received IFMIS training while 11.6% had no training. Majority of the respondents (79.1%) reported to have attended 0-2 trainings over the past one year, 18.6% attending 3-5

number of trainings and 2.3% attending over 5 trainings. On whether training had improved IFMIS users understanding and use, 46.5% of the respondents agreed while 4.7% disagreed. On involvement of IFMIS training needs identification, 65.1% reported that they were not involved while 34.9% were involved. On satisfaction of IFMIS Standard Operation Procedures (SOPs) currently in place, 72.1% of the respondents were satisfied while 27.9% had contrary opinion. Top management understanding of IFMIS was reported at 51.2% while 30.23% had no idea. Finally, over 88% of the respondents were satisfied with level of first level support from relevant department such as ICT

The final objective was to find out how employee skills influences IFMIS implementation. It was found out that over 48% of the respondents were specialized in Finance while over 20% in accounting and about 9% in other fields. Accounting and ICT skills were reported to be essential in IFMIS implementation with 90.7% and 93.0% of respondents agreed respectively. Over 90% of respondents agreed that there were qualified personnel within the County Treasury who have requisite experience and skills to oversee the implementation and effective usage of IFMIS.

9. Conclusions

IFMIS is a large information system implementation project with a vast impact on a number of different sections at the County Treasury and other County Departments. Therefore, successful implementation of this system is paramount.

The findings established that the number of ICT equipment are not adequate, hence hampers efficiency and effectiveness in delivery of quality services. The study further found out that IFMIS uptime was not satisfactory and network/connectivity was the main contributor to IFMIS down time. It was further found out that software that supports IFMIS is generally appropriate and reliable.

The respondents acknowledged support from government in IFMIS implementation. Furthermore, the existence of policy and Standard Operating Procedures (SOPs) was satisfactory. Training was found to be necessary for the success in IFMIS implementation as it improves understanding and use of the system, thus IFMIS users should be involved in identification of their training needs. The level of support from relevant service departments were also found to be satisfactory, therefore, the need for top management to be versed with IFMIS system.

Finally, the area of specialization and skills in ICT were established to be necessary in IFMIS implementation since the County treasury has qualified staff to oversee effective use and promotion of IFMIS.

10. Recommendations

The research study found out that in order to advance the success of IFMIS implementation in the County Treasuries, the following recommendations are necessary:

- i. There is need to provide more ICT equipment to achieve a 1:1 ratio of computers to IFMIS users
- ii. Installing controlled Virtual Private Network (VPN) software in all strategic computers to allow continuous access of IFMIS.
- iii. Establishment of dedicated network for IFMIS or upgrading of the existing one
- iv. The county management and staff should continuously receive education and training on IFMIS. This can be carried out within Bomet County or by other authorized training institutions like the Kenya School of Government
- v. Involvement of IFMIS users in Training Needs Analysis (TNA)
- vi. IFMIS users who do not have accounting background to be given basic induction.

11. Suggestions for Further Research

This research study focused on factors influencing implementation of integrated financial management information system in Bomet County Treasury. Comparative study may be appropriate in future to make evaluation on the factors amongst different County Treasuries. Future research could focus on how these factors differ among various IFMIS implementation partners such as managers, ICT specialists, vendors, and consultants. Additionally, assessment of other government organizations' readiness for IFMIS implementation can be a field of further research.

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