

Integrated Financial Management Information System in County Treasuries in Kenya: Empirical Analysis of the Implementation

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Abstract:- The implementation of Integrated Financial Management Systems (IFMIS) in County Treasuries in Kenya was meant to enhance transparency, improve decision-making and financial controls by availing dependable 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 pointing out to the fact that certain factors influence implementation and effective usage of all IFMIS modules. The purpose of the research was to carry out empirical analysis of implementation of IFMIS in County Treasuries in Kenya. Relevant literature was reviewed to determine the gap with existing research and also to find out the theoretical framework that could guide the research. The authors adopted survey methodology and the main instruments of data collection were structured questionnaire, administered through stratified and random sampling, and semi-structured interviews. The study's sample was 141 respondents (for questionnaire) and 16 for interviews in which 129 questionnaires were returned duly completed representing a response rate of 91.5% while 10 interviews were carried out. The findings established that the number of ICT equipment were not adequate thus hampering effective and efficient delivery of services related to IFMIS. The study further found out that IFMIS uptime was not excellent and network/connectivity was the main contributor to IFMIS down time. The study further found out that software that supported IFMIS was 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 was 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 treasuries have qualified staff to oversee effective use, including promotion of IFMIS. The study recommended that more ICT equipment needed 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 would be

used by County Treasuries to improve successful implementation and effective usage of IFMIS.

Keywords:- *Integrated Financial Management Systems (IFMIS); Implementation; Empirical; Analysis.*

I. INTRODUCTION

➤ *Background of the Study*

Information and Communication Technology (ICT) innovations offer rich opportunities for governments to greatly improve their delivery of services, transparency and accountability. Financial systems such as Integrated Financial Management Systems (IFMIS) can play a vital role in mitigating corruption in public finance systems used in county treasuries of devolved units of 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 [3].

The observation by [7] is that the ICT implementation between developed and developing countries share some differences and similarities. The similarities noted include insufficient finances, bureaucracy and changing user needs. However, the difference is on how the existing hitches are addressed in different countries. Developed economies with adequate resources and advanced technology, find it easier to implement ICT projects as compared to developing countries. Most developing countries are typified with inadequate infrastructure, weak legal frameworks and shortage of skilled human resources.

According to [3], several developed countries such as New Zealand, Australia and the UK made significant changes in the public sector to break away from the traditional bureaucratic model of public administration, which involved the splitting of the larger units into smaller, more 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 met key design problems and the pilot run in four local governments and six-line ministries did not take off as envisaged. The main design problem was the structure of the chart of accounts (COA) that the government had approved which was not consistent with that provided by IFMIS and thus requiring to be restructured which was found to be costly [13]. As a result, the IFMIS implementation in Uganda is performing under its potential with piecemeal and ad-hoc solutions decreasing the efficiency of the system [18]. In Ethiopia, the introduction of IFMIS faced major challenges of insufficient financial resources, capacity, infrastructure, changes in government and dependency on foreign aid policies. In Tanzania, according to [9], the implementation process was successfully done 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 (COA). Secondly, capacity building was embedded in the reform process in the Ministry of Finance. Lastly, the Tanzanian government revised and developed accounting principles, enabling legislative framework, systems and necessary organizational arrangements.

According to [9], the government of Kenya and the Donor communities had for a long time been very much concerned with persistent poor performance in financial management in public sector due to lack of reliable and timely information for decision making. Thus, a need to develop strategic plan was mooted aiming at improving sound 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 conceptualizing the idea of the introduction of information technology system and thus the birth of IFMIS.

➤ *Implementation of IFMIS in Kenya*

IFMIS was introduced in Kenya as part of financial reforms that aimed at improving transparency, accountability in usage of public resources and services delivery in addition to removing bureaucratic processes at public service that can derail delivery of services to citizens [13]. The Integrated Financial Management Information System (IFMIS) system was first launched in Kenya in 2003. However, limited modules were introduced with other financial management processes remaining largely manual. IFMIS Re-engineering, which was launched in February 28th 2011, was thus considered very necessary to enable full cycle end-to-end integrated approach for efficient and effective public financial management. With the coming in of county governments in 2013, IFMIS by adopted by

County Treasuries but the vision of implementing the entire full cycle has not been achieved.

The introduction of an IFMIS was considered as part of a long process towards achievement of financial reforms. IFMIS is a major project requiring a structured approach in project management [9]. 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 [8], counties are at different levels of IFMIS implementation and the envisaged full cycle implementation has not been realized by any County Treasury. 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 [15]. Besides that, it can lead to misreporting of financial position, inconveniences to the public, lack of transparency and no value for money [4].

➤ *Statement of the Problem*

The implementation of any proposed management information system (MIS), such as IFMIS, should be sufficiently premeditated to prevent the eventualities of system failures. The finding on the identified challenges associated with the implementation of IFMIS in developing countries cannot be applied in unique settings in Kenya such as County Treasuries. Experience from the research done by [9] shows that IFMIS projects had tendencies of stalling in developing countries, as they may face major institutional challenges such as capacity of staff, political, technical and operational challenges. The envisaged full cycle implementation of IFMIS has not been realized by County Treasuries 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.

➤ *Purpose of the Study*

The purpose of the research was to carry out empirical analysis of implementation of IFMIS in County Treasuries in Kenya.

II. LITERATURE REVIEW

➤ *Overview of IFMIS*

Integrated Financial Management Information System (IFMIS) is an Enterprise Resource Planning (ERP) Software. ERP integrates large amount of data, functions and processes of an organization in a centralized database which is accessed through a secured network. ERPs have capabilities for handling enterprise-wide business processes such as accounting, manufacturing, logistics, distribution, inventory, shipping and invoicing. The functions of ERP are managed through a system of modules allowing for flexibility in implementing various functions [3]. Apart from streamlining the efficiency and effectiveness in the management of public financial resources, an ERP further contributes to minimizing corruption because of greater

comprehensiveness and transparency of information across government institutions.

According to [9], IFMIS has Accounts Payable, Accounts Receivable, Fixed Assets, General Ledger, Cash Management, Payment and e-Procurement modules. When all these modules are fully implemented, the benefits that can be achieved including efficient resource allocation mechanisms, improved decision making, effective linkage between key players in accounting and financial management, improved financial management and controls by availing reliable and timely financial information, enhanced accounting, recording and reporting through timely, accurate financial data provision, enhances development partners' confidence, reduction of costs, improved budgeting and increased government revenue.

➤ *Literature on Factors Affecting IFMIS Implementation*

Integrated Financial Management Information System (IFMIS) is an Enterprise Resource Planning (ERP) system and authors 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 [5], technology and its management is the reasons for the high failure rate of ERP implementation. Some of the management parameters mentioned include the Management support, teamwork composition, Project management, Business Process Reengineering, Change management, just to mention a few. The project management method was employed by [14] to set up the ERP project process, and concluded that success of IT projects require management support, use of experts, empowering decision makers, sticking to project deliverable dates, having project champion, precise definition of scope and goals, having balanced team, and commitment to change by both users and management.

While carrying out implementation of integrated financial systems by [16] and [17], summarizes the literatures and listed some 22 success factors of ERP implementing and rank these as: Top management support, Project team competence, Project management, Interdepartmental cooperation, User training, Education on new processes, Clear goals and objectives, Change management, Interdepartmental communication, Management of expectations, Project champion, Vendor support, Careful package selection, Data analysis, Conversion, Dedicated resources, Use of steering committee, Business Process Reengineering, Minimal customization, Architecture choices, 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 Treasuries.

In the study of systems implementation success and based on the literature by [19], the authors classified factors into categories of organizational environments – including

top management support, re-engineering business process, effective project management, and company-wide commitment; people characteristics – including education and training, and user involvement both at system requirements definition and project implementation; technical - suitability of software and hardware and data accuracy and lastly vendor commitment, including vendor support and lastly cultural impact. This categorization was based on literature and were not empirically tested.

Using content analysis approach and searching more than 100 articles and books, [6] identified and proposed working within functionality/scope, internal readiness/training, project team/management support, adequate testing and project management (Planning, Development and Budgeting) as the possible factors.

In the research by [1], classified 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 include 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 studies, the proposed frameworks are inappropriate for county 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.

III. SUMMARY OF MAJOR FINDINGS AND DISCUSSION

The general purpose of the study was to carry out empirical analysis on the implementation of IFMIS at County Treasuries in Kenya. Descriptive statistics was used to analyze the data; the results were then presented in charts, graphs and tables. The study targeted a sample of 141 respondents (for questionnaire) in which 129 questionnaires were returned duly completed representing a response rate of 91.5%. The male respondents of the research were 65.12% while female were 34.88% drawn from sections within County Treasuries – 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. In terms of education background, 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 Treasuries. On adequacy of ICT equipment,

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 it sometimes occurred. About 2% of the respondents reported that there was no support from the county government. The finding implies that there is still need for top management support. In terms of policy framework, 72.09% agreed 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 not received formal training except through on job. 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 Treasuries who have requisite experience and skills to oversee the implementation and effective usage of IFMIS. On the existence of capacity to effectively promote use of IFMIS, majority of the respondents gave a positive response (81.4%). This finding implied that IFMIS could be felt within individual treasury sections and even across different sections or departments. Promotion of IFMIS implies accountability, proper planning of work and an integrated work environment among the users.

From interview and questionnaire findings, it was established that ICT infrastructure influence implementation of IFMIS in County Treasuries. The findings established that the number of ICT equipment were not adequate, hence hampered 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 was generally appropriate and reliable.

The level of top management support of county governments was further found to greatly influence IFMIS implementation in County Treasuries. The respondents acknowledged support from top management and national treasury 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 improved 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 was also found to be satisfactory, therefore, the need for top management to be versed with IFMIS system.

Finally, employee skills have effect on IFMIS implementation in the County Treasuries. The area of specialization and skills in ICT were established to be necessary in IFMIS implementation and the County treasuries should have qualified staff to oversee effective use and promotion of IFMIS.

IV. RECOMMENDATIONS

➤ *In order to advance the success of IFMIS implementation in the County Treasuries, the following recommendations are necessary:*

- There is need to provide more ICT equipment to achieve a 1:1 ratio of computers to IFMIS users
- Installing controlled Virtual Private Network (VPN) software in all strategic computers to allow continuous access of IFMIS.
- Establishment of dedicated network for IFMIS or upgrading of the existing one. Alternatively, carrying out integration of IFMIS network with existing county Internet Service Provider (ISP).
- The county management and staff should continuously receive education and training on IFMIS.
- Involvement of IFMIS users in Training Needs Analysis (TNA)
- IFMIS users who do not have ICT and Business course (s) related background to be given basic induction.
- Kenya's National Treasury to further re-engineer IFMIS to simplify the system further and oversee implementation of all the envisaged modules. County treasuries to be fully involved in the process.

V. CONCLUSION

Full implementation of IFMIS is paramount in order to achieve the envisaged benefits of enhanced transparency, improved decision-making and financial controls, reliable and timely financial information, improved efficiency, better budgeting and increased government revenue through seamless integration with other systems. Therefore, County

Treasuries need to put more effort in support from the National Treasury in the implementation of IFMIS.

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