

Effect of Integrated Financial Management Information System on Financial Management of The Public Financial Management in Rwanda; A Case of Ministry of Finance and Economic Planning

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Abstract: *Financial management information systems are not a new phenomenon. On the contrary, the recording of financial information is the oldest known form of record keeping, dating back thousands of years. Yet financial information has long presented problems, particularly since the invention of money. Governments in developing countries are increasingly exploring methods and systems to modernize and improve public financial management. In Rwanda, majority of public ministries are faced by several obstacles in their managerial systems due to poor implementation of Integrated Financial Management Information Systems (IFMIS) in their institutions. The purpose of the study was to determine the effect integrated financial management information system on the financial performance of government institutions in Rwanda. To achieve this the study was guided by the following specific objectives; to determine the effect of plans and budget formulation using IFMIS influence financial performance of government institutions in Rwanda, to determine the effect of expenditure using IFMIS on performance of government institutions in Rwanda, to determine the effect of reporting using IFMIS on financial performance government institutions in Rwanda, and to determine the effect of revenue collection using IFMIS on financial performance of government institutions in Rwanda. The issues discussed on the literature review included concept of financial performance, influence of components of IFMIS on financial performance, theoretical review, empirical review and conceptual framework. Descriptive survey was used to collect both primary and secondary data. The target population of the study was employees of Ministry of Finance. Questionnaires are the research instruments that were used. Secondary data included periodicals and administrative challenge decisions. Data was analyzed using SPSS version 21. Summaries of data findings together with their possible interpretations was presented by tables, mean, percentages, frequencies, variances, and standard deviation. The study found that IFMIS has positive effects in financial performance. The ANOVA results for regression coefficient indicate that the significance of the F is 0.00 which is less than 0.05. This implies that there is a positive significant relationship between effect of IFMIS and financial performance and that the model is a good fit for the data. The ANOVA results for regression coefficient indicate that the significance of the F is 0.00 which is less than 0.05. This implies that there is a positive significant relationship between effect of IFMIS and financial performance and that the model is a good fit for the data. IFMIS ensures the timely provision of quality information, promotes empowerment of employees and long term goals, intervention aimed at improving entrepreneurship and self-employment, IFMIS has modernize the system of financial management in the county. It has led to economic growth, the country government has become more accountable, and IFMIS eliminate waste and corruption in the use of public assets. The study concluded that IFMIS improved financial performance. The study also recommends that government should make the adoption of technology easy by reducing cost of acquiring new equipment and other innovations. Access to technologies depends largely on government policy and a strong will to implement those policies.*

1. Background of the study

In the world today, systems for financial management are not a fresh phenomenon. Apparently, financial information recording is the one of the earliest known methods of record maintenance and can be traced back to thousands of years (Gijssels & Devetere, 2017). Despite this monetary information has long presented challenges, predominantly since the introduction of money. Despite this monetary information has long presented challenges, predominantly since the introduction of money. The current financial management stems back to the 15th Century when the accounting system in use today of double entry was codified by Luca Pacioli (Schroy, 2010). Comprehensive accounting and monetary management are grounded on principles which include: accountability, flexibility, legitimacy, contestability, transparency, and predictability. To realize these principles, effective accounting and financial systems

are amongst the fundamentals that strengthen Sacco's ability to allot and use assets efficiently and effectively (Edelberg, 2016).

The Public sector and in particular the civil service plays an indispensable role in the effective delivery of public services that are key to the functioning of a state economy. When the delivery of services is constrained or becomes ineffective, it affects the quality of life of the people and nation's development process (Kobia, 2016). Many developing countries, however, continue to suffer from unsatisfactory and often dysfunctional governance systems that include rent seeking and malfeasance, inappropriate allocation of resources, inefficient revenue systems, and weak delivery of vital public services (Kragbe, 2012).

In most countries today, there are increasing expectations from ordinary citizens, business leaders and Civil Society

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that Governments will establish and deliver higher standards of ethicality and integrity in the Civil Service, agencies of government (Ministries and parastatals), and Government itself (Whitton, 2011). The author identifies that most modern civil service ethics laws endorse minimum set of principles, the core of which are; that civil servants and public officials are expected to maintain and strengthen the public's trust and confidence in government, by demonstrating the highest standards of professional competence, efficiency and effectiveness, upholding the Constitution and the laws, and seeking to advance the public good at all times; and secondly, that civil servants and public officials are expected to make decisions and act solely in the public interest, without consideration of their private interests.

According to Burgess (2014), financial probity is monitored through the standard procedures of accounting and auditing (Burgess, 2014). Such procedures are 4 embedded in electronic transaction processing technologies such as the Integrated Financial Management Information Systems (IFMIS). Financial management information systems (FMIS) is the computerization of public expenditure management processes including budget formulation, budget execution, and accounting with the help of a fully integrated system for financial management of line ministries and other spending agencies (Diamond & Khemani, 2015).

According to Beschel and Ahern (2012), integrated financial management information systems (IFMIS) can facilitate timely and accurate reporting; allow internal controls to be exercised through the IFMIS, and therefore support more consistent compliance; and allow central agencies to oversee budget execution by line ministries, therefore facilitating the devolution of responsibilities to front line managers while retaining information at the center.

Cole (2006) asserts that probity is achieved by using IFMIS as a tool to ensure the promotion of transparency in e-governance. Reviewing the experiences regarding the application of IFMIS to developing countries, Wescott, Bowornwathana and Jones (2009) noted that IFMIS can facilitate recurrent/capital budget integration and improve accounting and reporting systems, but only if the country's budget and accounts classification is reformed and the system is appropriately phased and adapted to a country's capacity to maintain it.

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 (Hendricks, 2012). Key high-level government goals will only be achieved if the IFMIS solution supports a wide range of business processes that transcend functional, business, organizational and geographic boundaries (Hendricks, 2012). Automated payments, combined with sophisticated document management and identity management systems associated with IFMIS enable governments globally to improve efficiency, effectiveness, security, convenience, financial control and stakeholder confidence (Sabatini, 2012).

One of the major reform initiatives rolled out by the government of Rwanda was the automation of public financial management processes through the establishment of IFMIS. According to Ministry of Finance and Economic Planning (2013), IFMIS was first launched in 20013 in Rwanda and the IFMIS Re-engineering Strategic Plan (2011-2013) was launched in 2011. The Ministry of Finance and Economic Planning (2013) defines IFMIS as an automated system that interlinks planning, budgeting, expenditure management and control, accounting, audit and reporting. It is intended to ensure a higher degree of data quality, improve workforce performance for improved business results and link planning, policy objectives and budget allocations. It is also intended to enhance reporting capabilities to support budget planning, automate the procurement process such as requisition, tendering, contract award and payment. Further, it is also intended to facilitate auto reconciliation of revenue and payment, automated revenue collections and automated bank reconciliation.

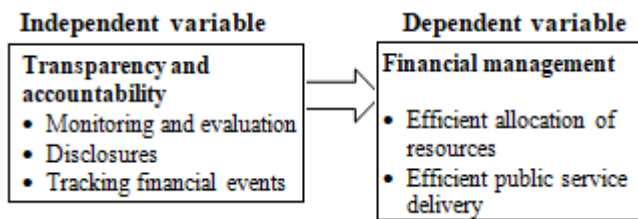
2. Statement of the problem

There is a broad agreement that a fully functioning IFMIS can improve accountability by providing real-time financial information that managers can use to administer programs effectively, formulate budgets, and manage resources. Diamond and Khemani (2015) noted that the Ministry of Finance is charged with the responsibility of providing proper budgetary and expenditure management of government financial resources. In this regard, the Government of Rwanda through MINECOFIN has implemented IFMIS as its sole accounting system since the year 2009 and from then the system has not been able to fully provide the expected benefits of integrated financial planning, implementation and control of expenditure (Kimwele, 2011). Despite the continuous heavy investment in infrastructure in terms of hardware and software, the stakeholders who include internal customers who include government employees and external customers such as suppliers have not realized the full benefit the financial management system was to address. According to Bwisa (2013), government should embrace the application of IFMIS for effectiveness and efficiency of operations. In the last decade, Rwanda has seen a lot of development in the application of ICT. Helsper (2014) suggested that a fully functioning IFMIS can improve governance by providing real-time financial information that managers can use to administer programs effectively, formulate budgets, and manage resources. Further, they said governments have found it difficult to provide an accurate, complete, and transparent account of their financial position and this lack of information has hindered transparency and the enforcement of accountability in government. In light of these adverse developments, this research sought to assess the influence of IFMIS on financial management in Rwanda referring to the Ministry of Finance and Economic Planning (MINECOFIN).

3. Objective of the study

To determine the effect of transparency and accountability systems in IFMIS on the financial management of the public financial management in Rwanda.

4. Conceptual Framework



Research Design

The study was based on descriptive research design. According to Cozby (2005), descriptive research is used to obtain information concerning the status of the phenomena to describe what exists with respect to variables in a situation, by asking individuals about their perceptions, attitudes, behavior, or values. This research data collection tool was questionnaire and observations as the sources of primary and secondary data respectively. Newman (2003) outlines that surveys are appropriate for research questions about self-reported behaviors, attitudes, self-classification, knowledge, expectations and characteristics, and are strongest when the answers people give to questions measure variables.

Population of the Study

According to Borg and Gall (2007) a target population consists of all members of a real or hypothetical set of people, events or objects from which a researcher wishes to generalize the results of their research while accessible population consists of all the individuals who realistically could be included in the sample. Mugenda (2003) defines population as entire group of individuals, events, or objects having common observable characteristic. The population of the study was 110 employees from the Ministry of Finance and planning employees in the head office.

Sample Size

The study population was stratified into strata based on the level of management in the organization. Stratified sampling divides the population into homogeneous groups such that the elements within each group are more alike than the elements in the population as a whole (Nachimas & Nachimas 2008).

$$n = \frac{N}{1 + N (e)^2}$$

Where n = the desired sample size
 e= probability of error (i.e. the desired precision, e.g., 0.05 for 95% confidence level)
 N=the estimate of the population size.
 desired precision, e.g., 0.05 for 95% confidence level)
 N=the estimate of the population size.

$$n = \frac{110}{1+110 (0.05)^2} = 86 \text{ Respondents}$$

Data collection Instruments

The data collection instrument that was used in the study for primary sources is a questionnaire. According to Newman (2003), questionnaires provide data in the same form from all respondents. This ensured comparison of data, which made it easier for categorization. The content and organization of a questionnaire corresponds to researcher's research objectives. Questionnaire was appropriate because

it explored the implementation of IFMIS, considering all the challenges and impact on financial performance.

5. Research Findings and Discussion

Revenue Collection Using IFMIS Influence Performance, Respondents were asked to indicate on the level they agree to statements on influence of revenue collection using IFMIS on financial performance.

Table1: Influence of revenue collection on financial Performance

Statements		Mean	Std. Dev
IFMIS ensures timely collection of revenue	70	4.44	4.96
The Ministry's revenue has been rising steadily	70	4.17	.717
IFMIS ensures that revenue is collected from all the Ministry's projects	70	4.16	.951
The Ministry's is efficient in monetary allocation towards service delivery to the public	70	4.03	.964
Valid N (listwise)	70		

Source: Primary data, 2018

The respondents agreed that IFMIS ensures timely collection of revenue (mean of 4.44), the Ministry's revenue have been rising steadily (4.17), IFMIS ensures that revenue is collected from all the Ministry's projects (mean of 4.16), and that the county is efficient in monetary allocation towards service delivery to the public (mean of 4.03).

Table 2: Correlation between revenue collections on financial Performance

		Revenue collection	financial Performance
Revenue Collection	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	70	
Financial Performance	Pearson Correlation	.598**	1
	Sig. (2-tailed)	.000	
	N	70	70

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

Source: Primary data, 2018

Table 4.10 indicate Revenue collection are significantly correlated to financial performance (r=0.598, p<0.01). This implies that the ensuring Revenue collection would result to increased financial performance in the ministry of finance and planning.

6. Conclusion

The study concluded that IFMIS has positive effects on financial performance. As evident from this study, IFMIS ensures the timely provision of quality information, promotes empowerment of employees and long term goals, intervention aimed at improving entrepreneurship and self-employment, IFMIS has modernize the system of financial management in the county. It has led to economic growth, the country government has become more accountable, and IFMIS eliminate waste and corruption in the use of public asset.

In general, IFMIS influence financial performance of the water infrastructure projects positively. Their findings also

support significance of the transformational effects of IFMIS on organization performance and operational efficiency. Results from the data collected discovered that IFMIS had a positive and significant effect on financial performance.

The findings confirm that an increase in the use of IFMIS results to increased financial performance.

7. Recommendations

From the findings, the study recommends that IFMIS system should be fully implemented as it increases financial performance. For County Government to realize growth, investment in technology should be made in order to enhance service delivery and transparency. The study also recommends that government should make the adoption of technology easy by reducing cost of acquiring new equipment and other innovations.

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