



The impact of Smart Integrated Financial Management Information System on public financial management: An Empirical Investigation of Accounting Transactions

Case study: Ministry of Economic and Finance

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Financial Management: An Empirical Investigation on Accountancy
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In my capacity as a Supervisor, I do hereby authorize the student to submit this dissertation.

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Date:...../...../.....

DECLARATION

I declare that this Dissertation contains my own work except where specifically acknowledged

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ABSTRACT

Nowadays, the information technology becomes a mean and speeding up the economy. The Information and Communication Technology (ICT) contributes the enhancement to public financial management and to developing governance through excellent management. This document focused on the evaluation of impact of Smart Integrated Financial Management Information System (Smart IFMIS) implemented in Ministry of Economic and Finance in Rwanda to enhance public financial management. The data for the case study was collected through the interviews focused on individual discussion. The focus was the perspectives of impact of Smart IFMIS on accountancy transaction on public financial management. The data was analyzed using qualitative methods. The results illustrate that Smart IFMIS implementation had potential improvements in the majority indicators of effectiveness and efficiency of accountant transaction. The efficiency of accountant transaction promotes good governance values such as transparency, accountability, participatory, equitability, and responsiveness that linked to positive impacts of Smart IFMIS in public finance.

KEY WORDS

Smart IFMIS; Information Technology; Accountant transaction; public financial management; good governance

LIST OF SYMBOLS AND ACRONYMS

CBM: Chief Budget Manager

CCP: Content Context Process

FMIS: Financial Management Information System

ICT: Information and Communication Technology

IFMIS: Integrated Financial Management Information System

PFM: Public Financial Management

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1. INTRODUCTION

The public finance management (PFM) has led the reform movement in public sector across developing countries over the last decade (Barton, 2009). In particular, the adoption of accrual reporting of taxing and government spending has been essential to such reform because of their influence to enhance efficiency, effectiveness and accountability in the public sector (Barton, 2009). Therefore, the feature of government overspending covers the whole budget cycle, from the budget preparation to execution, accounting, audit procurement and other deals for monitoring and reporting (Barton, 2009). The PFM reforms wide objectives focus on improving transparency, accountability and responsiveness to the public expenditures policy priorities, fight against corruption and inefficient spending that resulting to improvement of public financial management (Selfano, Peninah, & Sarah, 2014). While the imperatives for public financial management reform have yielded beneficial results in terms of cutting spending and the reduction of fiscal deficits, these benefits have been offset by the aspects of funding misuse resulting from programs that are driven by the objective of reducing spending rather than improving greater efficiency, effectiveness and accountability in the public sector (Waema & Mitullah, 2007)

Many governments across the world have embraced emerging information technologies (IT) as an opportunity to improve responsiveness and broaden the services provided to citizens and businesses. Some of the expected benefits that have been suggested to result from the diffusion of IT in public sector (Pe´rez, Boli´var, & Herna´ndez, 2008) include, improvement of government performance in efficiency of government’s financial functions, effectiveness of policy and accountability (Chêne & U4Helpdesk, 2009), (Waema & Mitullah, 2007). In the similar manner that the private sector has employed emerging IT to make financial information more transparent, the public administrations could adopt these new technologies to meet the public financial management imperatives (Chêne & U4Helpdesk, 2009). Furthermore, emerging information technologies not only the potential to make the programs for public financial management more efficient and effective public management, but it can also contribute to make management of public finance more transparent, democratic, participative and responsive (Waema & Mitullah, 2007), (Chêne & U4Helpdesk, 2009). In view of this, many governments in

developing countries have committed billions of dollars to implement Integrated Financial Information Management Systems as part of the e-Government enabled public financial management (Pe´rez, Boli´var, & Herna´ndez, 2008).

For example, since 2007, the Government of Rwanda has embarked to implement the Smart IFMIS with objective to improve the budget planning and execution by providing timely and accurate data for budget management and decision making (ACORYS, November 2012). In particular the system does not only cover the budget cycle, from planning to execution, but assists to avoid fraud in budget management, inadequate utilization of funds, overspending on expenditure or budget deficit and misallocation of budget. Despite the huge contribution of IT-enabled services to transform the public management systems via initiatives such as Smart IFMIS we know very little about the extent to which financial information available on Smart IFMIS impact the performance of public administrations, and to what extent such systems are influenced by the context in which the public sector operates. The accounting transaction is performed from the central government to the local government in terms of offer services across people and other entities. This is why the assessment of impacts of IFMIS provides the performance of Smart IFMIS, and provides solution to inappropriate procedures and records of financial transaction in the government institutions.

The aims of this study are to critically examine the impacts of Smart IFMIS System on accountant financial transaction performance as a result of Smart IFMIS application that provides efficiency, timely, perfect, reliable, complete and appropriate information. The project aims describe the extent that Smart IFMIS improves accountant financial transaction to foster governance in Rwanda. The purpose of this research is to find out the essential answer to related research question: To what extent the Smart IFMIS can impact accountant financial transaction to foster governance in Rwanda?

Moreover, the ministry of finance adopted Smart IFMIS platform to facilitate planning and budget preparation as well as budget execution. Accountant duties focused on elimination of frauds of public funds, inadequate utilization of funds, budget deficit and overspending of expenditures. Therefore the Smart IFMIS cannot achieve the successful results without financial agents' involvement. Moreover, the objective of the study is to figure out the impacts regarding

accountancy perception of Smart IFMIS. The Smart IFMIS contributes to the quality of government financial services and challenges in public administration.

2. LITERATURE REVIEW

The previous research on accounting information system argued that many information systems fail during and after implementation. In this sub-section we reviewed the IS success factor and IFMIS implementation success and failure for purpose of measuring the impact of the information system. Then, the review of PFM reform, the role of IFMIS on accountancy and financial management agility section are essential to support the assessment of Impact of IFMIS on accountancy transaction.

2.1 Historical background

Selfano et. Al (2014) argued that more countries embraced democracy liberalized economies and allow for a free market. Thus, increased pressure on the government by citizens and development partners to enhance accountability and to improve service delivery and enhance transparency lead to reforms in the way public finances are managed (UN, June 2007). The international donors and the development partners structured some conditions before sending funds that lead to the reform called public financial management (PFM) (Simson & Aziz, 2011). The PFM reforms handle change in legal framework, institutional reforms, treasury Single accountant and finally adoption of Integrated Financial Management Information System (IFMIS) which is an information system that tracks financial events and summarize financial information to enable the government make macroeconomic decision making (Rodin-Brown, 2008).

An integrated financial management information system (IFMIS), is an information system that follows financial events and summarizes financial information to support management and budget decisions, fiduciary responsibilities, and the preparation of financial reports and statements (Rodin-Brown, 2008). The IFMIS is designed to eradicate unnecessary duplication of data entry in cash management, (Selfano, Peninah, & Sarah, 2014); therefore it highlight standard data classification for recording as well as internal control over data entry, transaction processing and reporting (Rodin-Brown, 2008). The IFMIS is planned to support interface with

other information systems in other department such as human resources, payroll, procurement, tax and custom and central bank (Rodin-Brown, 2008). Moreover, Rodin-Brown (2008) argued that the role of IFMIS does not limited to technological aspects, or inefficient processes will not necessary to make it more efficient but it necessitates change in magement and organization structures as well as change in workflow, role and responsibilities.

2.2 Public Finance management reform in Africa

The African countries adopted the public finance management (PFM) reform agenda to enhance efficiency and transparency in the use of public resources, to improve accountability from the public officer and services delivery to the citizens (Selfano, Peninah, & Sarah, 2014), to enhance economic growth and effective use of funds given by donors and eliminates wastage of public services in purpose of achieving effective delivery of public services. The Integrated Financial Management Information System (IFMIS) has been implemented in 1984 that help to make possible efficiency resources allocation, enhance management decision and accelerating economic growth (Jared, Migiro, & Mutambara, 2017). The information system carry facilitate communication and link managerial functions within institutions to improve processing, policies practices, operational process, staff management and feedback devices (Munirat, Sanni, & Kazeem, 2014). The effective use of IFMIS has a critical importance on economic growth and crucial improvement in institutional productivity (Jared, Migiro, & Mutambara, 2017). Jared et Al. (2017) argued that some IFMIS has been failed from the implementation stage due to the political factors, technological issues and organizational factors. The function of information system is to enhance organizational effectiveness in services delivery, to produce perfect, reliable, real-time and help to achieve organizational mission (Zakaria, Anuar, & Udin, 2011). Therefore the role of information system do not limited to service delivery and information, but it facilitate the direct interaction of public regardless of physical locationand increase performance of public sector institutions with significant effort to transform culture and integrate principles of democracy, transparency, accountability, and effectiveness which are characteristic of good governance (Kalsi, Kiran, & Vaidya, 2009). The implementation of IFMIS in Africa faced slow down challenges such as corruption, functional data migration, implementation and lack of

capacity (Jared, Migiro, & Mutambara, 2017). Jared et Al (2017) argued that the effective implementation, maintenance and operation of IFMIS have need of staff with essential knowledge and skills.

2.3 The role of IFMIS in accountancy

The ICT improved communication and knowledge exchange of information resources; therefore it becomes key enabler of development goals due to its crucial role in sustainable human development and governance (Mwaura, 2016). The developed and developing countries aware of public sector management reforms with objectives of enhancing public accountability and to improve public services quality in terms of costs (Mwaura, 2016). The Accountant transaction is main function of cash management that is the responsible of short term financial activities. The IFMIS changed the finance environment such as cash position, including managing accounts receivable, improving cash flow, transferring funds, and controlling cash disbursements (Selfano, Peninah, & Sarah, 2014); as well as to support management and budget decisions, responsibilities, and reporting financial statement.

Improving Public finance management had a tendency to enhance confidence and credibility of the budget through greater comprehensiveness and transparency of information (Dorotinsky (2003). Therefore IFMIS promote superior control over budget execution through the full integration of data. It is a tool of decentralization of financial functions and process, and provides enhancement control of operating cost by reducing administrative tasks. In addition IFMIS core requirement is its ability to provide collect accurate, timely, complete, reliable and consistent information that support the government to take policy decision (Michael, Oyewale, & Oladosu, 2017).

2.4 Financial Management agility

The IFMIS change financial management to an agile management of funds, it decreases internal barriers and slow decision making; the information system improves organization function, control and knowledge sharing within the institutions. The Enterprise Resources Planning (ERP) influence dynamic capability of organizational agility (Kharabe, Lyytinen, & Grover, 2013). The

conceptual model of an agility depends on organizational design, flexibility, adaptability and responsiveness (Holsapple & Li, 2008); and the concept of agility awareness to change of environmental and internal and ability in responding to change in flexible manner and timely (Holsapple & Li, 2008). The agility of institution is ability to improve operational processes focusing business model (Kharabe, Lyytinen, & Grover, 2013).

These operational capabilities are defined by the accurate and real time to obtain data, flexible Human resource management and stakeholders' perspective on current organizational situation (Kharabe, Lyytinen, & Grover, 2013). The old financial management system had limitation on timeliness, accuracy and represent duplication of data as well as lack of transparency that lead to bad governance of public funds (Michael, Oyewale, & Oladosu, 2017). In addition it was not easy to report cash flow and to provide the funds transaction status to stakeholders so that they would be informed while they take decisions (Michael, Oyewale, & Oladosu, 2017). The transparency, efficiency and accountability are important factors to support good quality of services and dimensions of public sector governance (Waema & Mitullah, 2007).

2.5 IFMIS Implementation success and failure

Selfano, Peninah, & Sarah, 2014 argued that the introduction of introduction of Integrated Financial Management Systems has become a key enabler of financial reforms to promote efficiency, security of data management and comprehensive financial reporting. IFMIS enhance effectiveness and transparency of public resources management by an integrated financial package (Selfano, Peninah, & Sarah, 2014). The information system projects failure in developing countries is not new stories; Heaks (2001) argued that e-government project has characterized by a high collapse rate. He argued that 35% of the projects are totally failures, 15% projects are success while 50% projects are partial failures. The factors that influenced projects failures in developing countries are related to limited availability of resources, digital divides, ICT allocation turned in global inequality (Heeks, 2006). Diamond & Khemani (2006) argued that the cause of fail of FMIS implementation in developing countries due to lack of clear ownership of the system and unclear of authority who should be immediately in charge of an FMIS project (Diamond & Khemani, 2006). The Budget department has a dominant

responsibility in resource allocation , while general accountant department has a significant regulatory and control functions (Diamond & Khemani, 2006). The failure also may be due to failure of clearly specifying the basic functionality (Diamond & Khemani, 2006). They argued that functional requirement document should describe financial management and the accounting tasks the system must perform, the operating environment and plan for development any necessary programming (Diamond & Khemani, 2006). Therefore the failure may be due to neglect spending enough time on the design phase, it is essential to take sufficient time during planning of the project and listing all user requirements for information to be derived from FMIS (Diamond & Khemani, 2006). In addition, the reengineering procedures and to undertake parallel reforms required by FMIS may root project failure (Diamond & Khemani, 2006).

According to Michene (2017), the Ministry of Finance in Kenya adopted IFMIS development in 1998, therefore the system was Enterprise Resource Planning (ERP) software application integrated its operation through centralized database which are accessed through a secure network Michene (2017). The FMIS project was introduced in 1997 but the project stalled due to lack of IT and communication wide area network architectures (Diamond & Khemani, 2006). After implementation other issues arose such as the issues of unreliable connectivity, human capacity inadequate capacity of users and low local revenue collection arising the delay of adoption of IFMIS in Kwale Counties (Mwakio & Wekesa, 2016). In Guatemala the FMIS implementation faced political issues, especially the resistances from provincial government over federal control of the payment function for expenditures, lack of project management capacity as well as technical capacity for implementing modern computer based automated system, the resistance to the separation of audit and accountant as some feeling of loss of career viewpoints for audit and accounting staff, the last is the lack of viewpoint for technical IT staff. (Dener, Watkins, & Dorotinsky, 2011). The implementation of the budgeting and cash management modules has been delayed up to 2005/06 budget cycle for a number of reasons as well as external and internal audit modules has been inadequate (Diamond & Khemani, 2006). Whoever various development, the Ministry of finance implemented IFMIS as part of its public financial management that ensure the effective, efficiency and transparency of public resources Michene (2017). In Uganda and Malawi, the design and development of Financial Management System was not satisfying due to the lack of clear reporting requirements and approval from

authorities on the intend of a variety of report (Diamond & Khemani 2006; Hendriks 2012). In Uganda FMIS has handover user acceptance and testing operation by 2004, the purpose of implementation of FMIs was to improve the budget and expenditure management processes at the central and decentralized government level (Diamond & Khemani, 2006). The core module of application was budget management, purchase order, accounts payable, accounts receivable, cash management, general ledger, and financial reporting however the system provides a provides a facility to allow the generation of cash-based year-end financial statements to meet the audit requirements (Diamond & Khemani, 2006). The benefits intended to the full implementation of FMIS are: ensuring the availability of adequate resources in terms of staff capacity and maintenance budget as well as deepening the functionality and utilization of the system (Diamond & Khemani, 2006). According to Hove & Wynne 2010, the FMS reforms can deeply affects work process of organization and institutional arrangements governing the management of public finance (Hove & Wynne 2010). Therefore, he computerized budgetary and accounting system was introduced with number of initiatives to improve public expenditures management since 1995 (Diamond & Khemani, 2006). The framework including technical specifications was completed on time but the project encountered numerous difficulties in implementation process limited involvement and neglect of the system by main players (Diamond & Khemani, 2006). The government of Tanzania introduced an IFMIS in 1997/99 with central server in office off general accounting. By the end of 2000 the number of user 500 users increased up to 500 at more than 85 sites (Diamond & Khemani, 2006) throughout Tanzania. Diamond & Khemani, 2006 argued that in 2006 IFMIS has only using few modules such as general ledger, accounts payable, accounts receivable, cash management, purchase order, multi-currency, budget module, foreign exchange report writer, and Crystal report writer. At this time, the benefits of the IFMIS have been extensive with restitution of expenditures control and improved level of transparency and accountability that led to the elimination of overspending. Therefore the IFMIS project in Tanzania is successfully and it a critical tool for achieving accountability in the public sector. The successful implementation of FMS is strategic that take out in modular process to eliminate incompatibilities problems, thus Michene (2017) argued that clear goals, expectation of boards, senior staff and other stakeholders are crucial success factor of

IFMIS implementation, those factors are additional to institution factors, political factors and technical factors (Combaz, 2015).

2.6 The factors affecting IFMIS effectiveness

In developing countries IFMIS does not limited to achieve effective control over finances, however it also contribute to increase of transparency and accountability, acting as prevention to corruption and fraud and reducing political carefulness (Cherotich & Bichanga, 2016). The IFMIS implementation in Kenya faced challenges due to fear of redundancy and fact that IFMIS ensure transparency lead to discovery of fraud therefore it challenging the existing corrupt system (Cherotich & Bichanga, 2016), top management, human technical capacity, culture, change management, Modern ICT infrastructure compatibility as well as system complexity itself Miheso (2013). In Mongolian, the Government Financial management Information System enhanced the budget execution and accountability, facilitated accurate and timely reporting, supported budget oversight and monitoring, and increased budget accounting and internal auditing capacity at the central and regional levels (Dener, Watkins, & Dorotinsky, 2011), lack of information technology capacity, lack of capacity to sustain complex system implementation and difficulties in business changing (Dener, Watkins, & Dorotinsky, 2011) but appropriate political stable political environment and strong ownership were recorded as the key factors influencing project performance. In Mongolia the GFMIS had a significant impact on the efficiency of civil spending and consolidate public accounting reform as well as supporting decentralization of budget execution. Moreover FMIS implementation successful in Turkey contributed significantly in getting better efficiency of public resources allocation and use (Cherotich & Bichanga, 2016) it provided a precious feedback for performance monitoring and economic policy for formulation. In addition in Guatemala the IFMIS had significant impacts as it improved performance in national budget with the medium term expenditure frame work, budget , accounting and treasury functions are more efficient as well as budget execution, dept services, transfers and procurement procedures information are accessible to the public through the internet (Dener, Watkins, & Dorotinsky, 2011).

3. CONCEPTUAL FRAMEWORK AND METHODOLOGICAL DESIGN

The content context process (CCP) framework was introduced by Pettigrew (1985) (Piotrowicz & Irani, 2008). Later the framework was proposed for the information system evaluation case study. The three main components of the CCP framework are content that stands for what is being evaluated, context stands for why and who evaluate IS implementation and process stands for how and when the evaluation is being done (Piotrowicz & Irani, 2008). Based on the literature review from the previous research, a conceptual framework (figure 1) has been developed to assess what the impact of using Smart IFMIS in public finances. Table I summarizes the perspectives and related group of questions used to identify the impact of Smart IFMIS depending on the objectives identified in the literature review regarding such Information system. The consideration of impacts of information system relies on factors which help the users being satisfied and how the use of this information system impacted on financial transaction in daily duties. Therefore, the four major perspectives were identified: Content, context and process as the information system's performance evaluation, accountant transaction, impact and good governance. On the starting point of this conceptual framework, the assessment of impacts of using Smart IFMIS in public finance from accountancy transaction perspectives.

3.1 Conceptual Framework

The context, content and process (CCP) evaluation perspectives helped to evaluate the external and internal environment of information system regarding technology, government policies, economic situation, political issues, cultures influences and social influences, etc. Therefore, the content of IS helped to identify the system quality in perspectives of adaptability, availability, reliability and usability. Secondly, information quality point toward whether the accountant have the required information to perform their duties with a completeness, relevance, personalization security and easy of understanding the information. Finally, the service quality referred to the responsiveness and assurance. The above perspectives specify the extent to which the users of Information system are satisfied and their net benefits in using this technology.

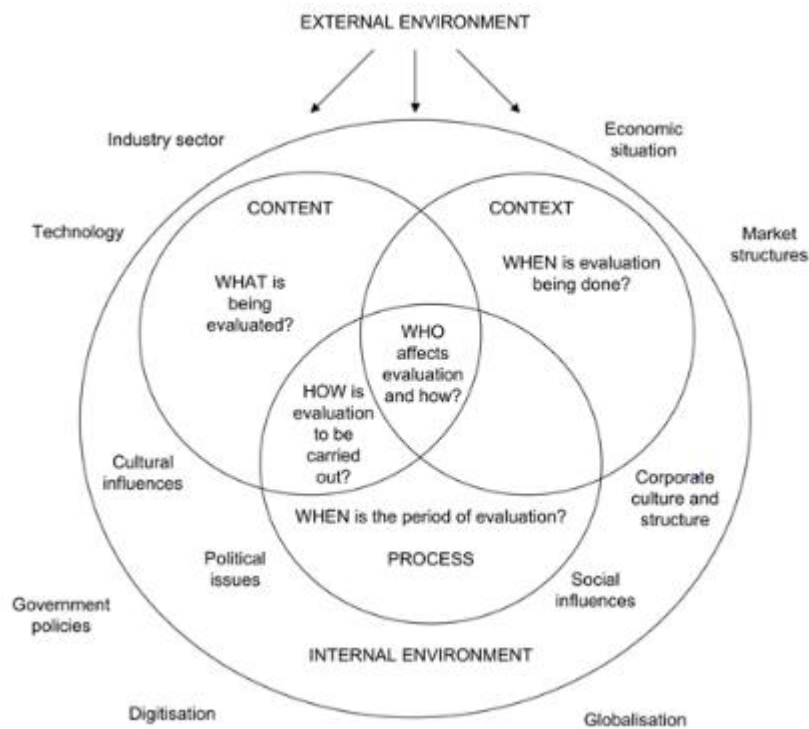


Figure 1: CCP Framework (Piotrowicz & Irani, 2008)

Therefore, the context, content and process (CCP) framework is used through evaluation of the cross organizational impact of information technology. The CCP model is used to assess the Smart IFMIS impacts with empirical evaluation to examine user and client’s adoption in public finance. These impacts may affect various stakeholders, production cost as well as the users depending on their knowledge of IT change (Rajiv D Banker, 2010). The public financial of accountant focus on to serve clients and good management of public benefits, The IT was to help managers, auditor, accountant and other staffs in daily workload in purpose of delivering good service (Rajiv D Banker, 2010).

4. METHODOLOGY

In this research, the previous empirical research was used and the interviews served to look for the impacts of Smart IFMIS in public financial management. The theoretical perspective of this research based on qualitative analysis that produced a valuable context of Smart IFMIS

effectiveness on accountant transactions for developing an evaluation framework being used to evaluate this framework. Therefore, the qualitative investigation is good theory to drive a methodical approach which starts a concept while as case study is a crucial method for empirical investigation when the evidence between the observable fact and context are not clear. Interpretive approach data can be produced through observations, interviews or by means of existing researches (Gilgun, 2010). The qualitative analysis utilized to answer the research questions while the conceptual framework was used to describe relationship of specific variables identified. The data for the study will be collected through structured interviews. The inquiries were used to discuss impacts and challenges of Smart IFMIS that lead towards the relevant finding.

4.1 Qualitative method with structured interviews

A qualitative method with structured interviews was selected for this research to investigate the extent to which Smart IFMIS impacted the accountant transaction in public financial management. A qualitative method focused on holistic viewpoint of personal experience, which provides the research a more aspects description of what the impacts are by means of the use of Smart IFMIS in public finance from the users' perspectives. The advantages of structured interviews are standardization of the questions process efficiently. It is easily to compare the answers as all respondents answers the same questions, and they give more detail responses. The Open-ended questions are used to conduct these research interviews, which provide respondents to formulate their answers freely.

4.2 Sample

The user of Smart IFMIS in government institutions were chosen for interviews because they are the ones known how Smart IFMIS impacted their duties as well as public financial management. The recruitment of interviewees was conducted by phone calls, I explain who I am, I explain them the objective of interviews and finally I asked them appointment for interviews. I promise the participants that your results would be reported secretly. The resultant from recruitment tends to a sample of seven people. The sample was composed by one person in Smart IFMIS

development unit, one person in reporting department at ministry of finance, two director of finance at district level, two accountants at sector level and one accountant in district hospital.

4.3 Interview questions and guide

The useful information in context to the research was selected, therefore the item that relating to research question was described as well as the adoption of conceptual framework to analyze the data. It involves the structured questions for interview in terms of collecting the information from the Smart IFMIS users who are working in ministry of economic planning and finance, chief budget manager (CBM) and accountant in local sectors. The seven users of Smart IFMIS were interviewed and their opinions provided an understanding of the assessment of the impact of the entrance information system. The interviewed people were included the members of accountancy, reporting, audits and Smart IFMIS implementation. The asked questions were the same to all members of sample. The table 1 illustrates a group of major valuation questions and their corresponding perspectives aspects. The full interview guide is presented in appendix 1.

Perspectives	Major evaluation questions
Users (in terms of content, context and process)	Question relating to Smart IFMIS performance as software that helps the accountant to fulfill their duties in terms of content, context and process
Accountant transaction	The question about Smart IFMIS financial performance and the role played in enhancing finance management, as well as its impacts on accountant transactions.
Impacts	The questions relating to extent of Smart impact on accountant transactions
Governance	The question communicated to effectiveness and efficiency of Smart IFMIS performance in relationship to improvement of good governance

Table 1: Group of question for evaluation

4.4 Method of data collection and data design

The interviews were conducted from 28th December 2017 to 31st January 2018. Data was collected by using interviews of seven people; the interviews take between 30 minutes to 50 minutes for each interview. The audio recording devices are used to get interviews. The data analysis was conducted by analyzing the recorded audio in purpose of finding general description of the information required during the research. Some interviewees prefer make interview and I wrote down their answers. The useful information in context to the research was selected, therefore the item that relating to research question was described as well as the adoption of conceptual framework to analyze the data. It involves the structured questions for interview in terms of collecting the information from the Smart IFMIS users who are working in ministry of economic planning and finance, chief budget manager (CBM) and accountant in local sectors. The seven users of Smart IFMIS were interviewed and their opinions provided an understanding of the assessment of the impact of the entrance information system.

4.5 Data analysis

The data was analyzed through the write out data to acquire ideas of what the interviewees had said during interviews. The needless sections were removed during analysis, the section which was not related to the purpose of research. The data that provided overall descriptive information in the context of aims of research were identified. Other identified segment are those that are relevant to answer the research question, which are identifying extent to which the Smart IFMIS can improve accountant financial transaction to foster governance in Rwanda. Lastly, the conceptual framework for data analysis was carried out help the segment that are relevant to research question.

5. RESULTS AND DISCUSSION

5.1 Efficient Accountant transaction and governance relationships

Basic Smart IFMIS concepts and the ability to visualize the public financial in a variety ways of being able to relate and combine the financial information require a foundational framework. This framework concept does not impose prescriptive or restrictive concepts in practicing the financial management. The framework illustrates financial management transparency that enables more efficient transformation across planning and budget preparation unit, Budget execution unit, audit unit, reporting unit, capabilities and other stakeholders.

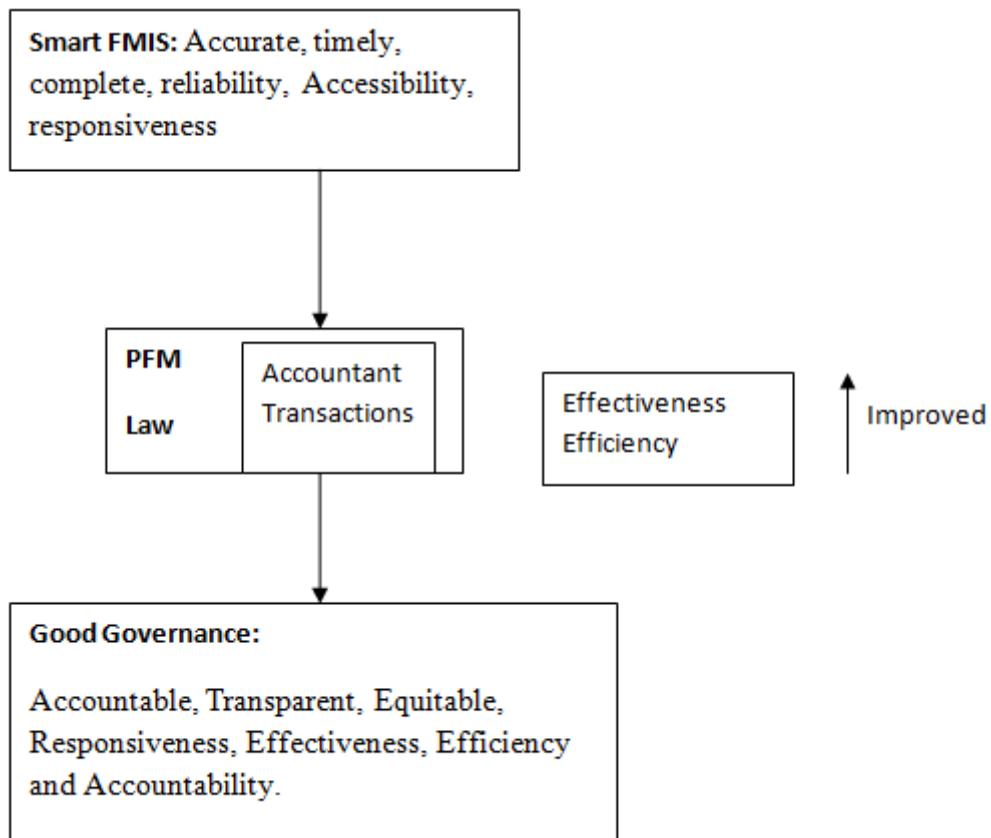


Figure 2: Accountant transaction and governance relationships

The comprehensive definition of e-government and good governance are characterized as being participatory, accountable, transparent, equitable, responsiveness, effectiveness and efficiency (Waema & Mitullah, 2007). The Smart IFMIS tends to support to efficiency of service delivery and get better the accountability of public funds which are keys enabler towards development and poverty reduction in Rwanda. Moreover the Smart IFMIS performance supports and strengthens the Public Finance Management (PFM) overarching objectives. Moreover, Smart IFMIS sustains linkage between planning and budget to avoid deviation of budget, makes stronger fiscal planning and reporting, enhancing the correlation of programs to activities and outcomes, improving government of Rwanda’s capacity of aggregate fiscal management enabling more efficiency resource allocation mechanisms, improving information for decision

making, increasing public accountability and transparency and establishing effective links between key players in government accounting and financial management.

Smart IFMIS like other information system have good quality of a success information system. To evaluate impacts of the Smart IFMIS, we focus on the information accuracy and completeness of information that facilitate user to communicate information. Moreover, the Smart IFMIS reduces the reporting cost and time so that the senior accountant managers recover information of spending and cash flow information on time without spending much money that lead to cost beneficially.

5.2 The successful of Smart IFMIS implementation

Smart FMIS was introduced to moderate the government against loss of revenue as well as unlawful expenditures. The Smart IFMIS functionalities improve accountability and transparency by providing real time information that help financial and other managers to control programs effectively, formulate budget and manage resources. During the implementation of Smart IFMIS reforms, the ministry of finance considered change management ability to achieve success through educated and committed team. The cause of fail of information system implementation in organizations is due to lack of commitment and clear ownership as argued by Diamond & Khemani, 2006; in addition to political factors and social factors in developed countries (Heeks, 2006). In case of Rwanda to overcome those factors there was political will and commitment of development team. The change management regards all stakeholders, communication strategies, change readiness assessment framework and other design elements. The six interviewees of seven agreed that the success of Smart IFMIS depends upon the capacity of stakeholder's to avoid resistance to change and to manage the change. They agreed that the implementation team did not face the resistance to change because the project concept was supported by the political will in order to improve public financial management. The development team organized seminar, training sessions, workshop to the news users and improved communication to reject any resistance to change.

5.3 User perception in perceptive of Smart IFMIS

All interviewees confirmed that the Smart IFMIS provide a good management, control, information on time and help to manage funds according to the priorities. The overall statement of interviewees appreciated the Smart IFMIS performance in their daily responsibilities. The accurate, reliable and timely information are essential Smart IFMIS' effective performance to enhance accountancy transaction accountability and transparency. The context and process of Smart IFMIS produces the accountability and transparency of accountant transaction that makes essential component of government effort to make different better decision on public finance management as results. The interviewees confirmed that the Smart IFMIS has different key report available on purpose of account consolidation that facilitates the reporting and audit units. They argued that each level of access has ability to consolidate the transaction report available in various keys on the system they appreciate the content of this information system. The key reports available are namely: Cash flows statement, Budget execution report, Trial balance, Bank reconciliation, Statement asset and reliabilities, Cash book, Revenue and expenditures account, outstanding statement report. In addition, the Smart IFMIS target user performance position of public accounting momentary look. The Smart IFMIS helps to improve public finance accountability in government entities.

5.4 Significant role of Smart IFMIS

Therefore, Smart IFMIS provides quick access of information and reduces the reporting time without delaying through travelling, because all recorded transaction reaches the reporting department automatically. Moreover, the Smart IFMIS is reliable and accurate itself, the accuracy and reliability provided to the user depends on the correct record of transactions according to accounting principles. The public accountancy faced the problem of public funds management in various government entities. Therefore, Smart IFMS enhances efficiency and effectiveness by facilitating to produce report of financial information without delaying when the

transaction took place. The interviewees argued that it increases transparency in public financial management information specifically according to the Public Financial Management (PFM). All respondents confirmed that Smart IFMIS brings a good management and control because the transaction is controlled by more than one person. The use of Smart IFMIS helped to produce reports effectively on time when the transactions were recorded and were occurred. When the users recorded transactions according to accounting principles it improved performance in one way to another.

5.5 Impact on accountancy transaction

In perspective of Public financial management, the respondents confirmed that the Smart IFMIS increases transparency and accountability in public finance sector. It improves the ability to fight corruption because each transaction must be authorized by more than one person, the responsibility are shared among users that means each transaction should have the supporting document. Therefore, the users of Smart IFMIS appreciate this information system due to its ability to avoid overspending, to avoid frauds and deviation of public funds as well as to avoid inadequate utilization of funds. Of course each transaction can be verified and approved by different persons in the same department but the person in charge of recording is not the one who verified and approve. The respondents argued that the Smart IFMIS implementation in public finance sector, helped in budgeting and control of use of funds, it facilitate reporting and financial statement. It increases responsiveness and transparency by keeping key financial information in a suitable way. The Smart IFMIS helps auditors to trace a specific transaction when it was performed by respecting rules and regulations. In addition, Smart IFMIS facilitates planning process in some public sectors of local government; district hospital and district pharmacy, since it keeps the previous year's information which can be basic of the current planning. The respondent confirmed 100% that Smart IFMIS assists in accountant transaction positively. But they said the Smart IFMIS does not interact directly with other system online instead the reports from other system are entered in Smart IFMIS manually for consolidation purposes.

5.6 Smart IFMIS to promote good governance

Hence, the Smart IFMIS impacted performance of public financial management; it increased the transparency on specific transaction. The Smart IFMIS assists government to implement project in the local government in purpose of citizens' development and improvement of services delivery. The Smart IFMIS users learn to respect rules and regulations in specific place. The good governance values such as transparency and accountability have been referred to the respondent's perception of Smart IFMIS' result after its implementation. Five of respondents argued that Smart IFMIS increased transparency and accountability in public finance management, which influenced the financial governance being increased. They argued that it is not easy to link money governance to the good governance in public administration. But they confirmed it is one of way to promote good governance because if the financial sector performance seemed perfect may influence public administration.

The high level of control of Smart IFMIS transaction of budget execution imposed central and local government to implement the planned project accordingly. The efficiency and effectiveness of Smart IFMIS at high level rate enhance accountability, responsiveness, equitability and communication ability that results in good governance growth. The respondents confirmed that the ability to fight corruption opportunities increases, as soon as account does not process a document already in the system he must explain why the document has not been processed. Additionally, the ability to avoid a frauds and deviation increases due to internal control and process that passes through authorization of different users. Rodin-Brown, 2008; Selfano, Peninah, & Sarah, 2014 argued that the use of information system in financial management eradicate the unnecessary duplication of data entry and highlight standard of internal control, transaction processing and reporting. The transparency appears on the payment in order in which they are recorded and reduction of emotion, lastly the management committee. The respondents confirmed that the transparency of public funds has crucial impacts to foster governance. The stability of funds management in institutions involved the stability of governance. The Smart IFMIS permit the public administration to work for the public.

The Smart IFMIS help to achieve PFM objectives that lead to modernization of financial management in public sector. It allows public sector manager to manage public resources but at the same time is embrace more accountable. In addition, the Smart IFMIS ensures timely provision of quality information and helps to minimize wastage and corruption in the use of public benefits.

6. CONCLUSION

The ministry of finance undertakes reforms in public sector finance to modernize financial management. Smart IFMIS implementation impacted the public finances positively. Hence, it embraces assistance such as effective systematize over public finance. Smart IFMIS contributes to the improvement of transparency and accountability and provides prevention to corruption as well as the fraud of public assets. The improvement of public finance management towards effectiveness and efficiency contributed to better public funds accountability. The Smart IFMIS lead to better public accountancy transaction by avoiding fraud of funds, inadequate utilization of funds, overspending on expenditure, budget deficit. The information technology has a crucial contribution to enhance expending budget coverage, improving efficiency of the system, ensuring basic expenditure control and increasing greater budget performance orientation through empowering the relationship between the components of overall budget formulation and expenditure execution system.

This study showed the impact of Smart IFMIS implementation in public finance management where the accounting transactions are performed from the central government to the local government in terms of offering services across people and other entities. The government of Rwanda tried to overcome the obstacle such as lack of commitment, lack of capacity and the lack of internet infrastructures that help the success of implementation process. Thus, the positive impact of Smart IFMIS depends on commitment of all key players, capacity building of the users, good project management team that takes care of legal framework during implementation. The government of Rwanda had highly benefited from the use of Smart IFMIS in public finance management. Due to transparency and accountability in public finance influence good services delivery to citizens; finally it has a positive impact on good governance. The investment in Smart

IFMIS influenced planning, managing, reporting, auditing and execution impacted on the responsibility of accountants depending on the quality of the system. The accountant profession well built in information technology affects environment in terms of context, content and process. The role of Smart IFMIS may influence the entire environment like government policy, political, cultural, social economical and internal environment. Therefore, Smart IFMIS implies transparency of accountancy transaction information. In addition, the accountability of public finance management requires responding to questions about public finance management for effective spending and performance of public funds to achieve effective results. But it is not limited to establishing transparency and effective budget preparation and execution controls, and makes audit and reporting process easy.

7. RECOMMENDATION

Since Smart IFMIS has impacted positively the public finance as well as accountant transaction. The users require field inspection for the help purpose and provide support to user. Furthermore, the continuous capacity building depending on the new features on the system is crucial acts to the users. The Smart IFMIS is used in most of government entities; some of them are the sectors that are in the area which did not have electricity and internet connection. In those areas the users claim for the lack of internet because the speed of the used modem is slow. Due to significant impacts of Smart IFMIS in public assets management, I recommend such information system to the other Non Profit organizations as well as social society. Further development should be added in purpose of improvement so that the payroll system, e-payment management information system (MIS) should be integrated. The IFMIS believe to support interface with other information systems in other department such as human resources, payroll, procurement, tax and custom and central bank (Rodin-Brown, 2008).

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I. Appendix

QUESTIONNAIRES

A. In-depth interview guide for administrative staff

1. How Smart IFMIS empowered financial information within MINECOFIN?
2. How does Smart IFMIS enhance efficiency and effectiveness rate?
3. How does smart IFMIS increases responsiveness?
4. How does Smart IFMIS provide reliable and accurate information to user?
5. How Smart IFMIS users are prepared to use this information system?
6. How Smart IFMIS impact on your work performance?
7. What do you suggest for more improvement of Smart IFMIS?
8. a) What are the main challenges/problems did you face to work with Smart IFMIS?
9. b) If any, how do you manage to overcome those challenges
10. How did you monitor funds transaction in your department?
11. At which level do you appreciate Smart FMIS in terms of :
 - a. Ability to fight corruption
 - b. Ability to avoid overspending of expenditures
 - c. Ability to avoid inadequate utilization of funds
12. Ability to avoid frauds and deviation of public funds
13. What extent does Smart IFMIS facilitate planning process?
14. How are extra-budgetary funds handled on the system?
15. What are the key reports currently available on the system?
16. How does data from other system interact with Smart IFMS for consolidation purposes?

17. What would happen in case of a system or network failure?
18. Can Users access the Smart IFMIS from remote areas other than their own office?
19. How does live transactions execute out of the smart IFMIS is captured onto the system?
20. How does smart IFMIS impact performance of public financial management?
21. How Smart IFMIS has affected internal control in public finance?
22. How Smart IFMIS has affected performance of government projects in public finance
23. What are the impacts of Smart IFMIS on accountancy transaction in public finance?
24. How does Smart IFMIS impact the transparency in accountancy transaction in public finance?
25. At what level the Smart IFMIS impacted the effectiveness and efficiency of public finance management?
26. How does Smart IFMIS efficiency improve good governance?
27. How do you measure impact of Smart IFMIS during implementation?
28. Did you resist when the new system were introduced?

Thank you very much!!!!