

The roles and Adaptation of Integrated Financial Management Information System (IFMIS) Free Balance on public finance management and service delivery in South Sudan

Chol Gabriel Majer, Ayuen Bol Mathew, & Lual Daniel Kur

Abstract

Generally, the purpose of the study was to examine the roles and adaptation of Integrated Financial Management Information System (IFMIS) Free Balance, on public finance management and service delivery in South Sudan. The research adopted a mixed-method research design where qualitative and quantitative data were gathered using questionnaires, interviews and document analysis. The study used multistage sampling to pick the respondents for the questionnaires and interview. Results of analysis were presented in tables, various independent variables, identified as; Accountability, transparency, decision-making support, Management and efficiency-oriented and evaluation. Each attribute was analyzed in relation to the effect it has on Integrated Financial Management Information System (IFMIS). Both Secondary and primary data were the main source considered as important source of this study by researchers. The primary data was subjected to tabulation using Advance excel as well as SPSS Software. Mixed method approach was significant qualitative and quantitative. The findings relate to the research questions that guided the study. The presentation of the results was done in line with specific objectives that guided the study. The researchers encountered many limitations while conducting the research when collecting the data. This study was limited to just four independent variables. These variables are not the only ones which determine implementation of IFMIS in National Government departments, as indicated by the strength of the analysis. The study was ones again limited by boundaries Government departments, where as IFMIS is implemented in the entire country, with even National Governments adopting it. Practical implications, originality/Value the study was that National Ministry of Finance and Planning should improve the financial data, organizes and makes access to financial information easy. The study concluded that, policies without appropriate implementation interventions are not effective in promoting IFMIS implementation. The study recommended that government of South Sudan to work on staff competency, right from recruiting qualified personnel, and embracing on on-job training on IFMIS operation.



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Introduction

The purpose of this study is to examine the roles and adaptation of Integrated Financial Management Information System (IFMIS) Free Balance, on public finance management and service delivery in South Sudan. Since 2005 and in 2011 during the referendum of South Sudan for separation from former one Sudan, the major multilateral organizations such as the World Bank, the IMF, the East African Community EAC, African Development Bank, the European Union (EU) and the International Bank for Reconstruction and Development (IBRD), and several Bilateral development organizations such as the United Kingdom's Department for International Development (DFID), the United States Agency for International Development (USAID), the Danish International Development Agency (DANIDA), and the German Organization for Technical Cooperation (GTZ and UNDP have been involved in a number of initiatives to modernize the policies, financial institutional structures in South Sudan and systems required to manage public finances in member countries. Automation of Government Financial Statistic Management (GFSM) Systems is one of the core elements of the reform program since independent in 2011 availability of timely and accurate information is critical to the management of government finances and public funds; and it may simply not be possible to obtain the information required for public financial management in a timely manner without some degree of monitoring and evaluation, in view of the large transaction volumes involved and their dispersal across multiple sites around the country.

The widely held virtue of balanced budgets is being jettisoned in the face of dire economic necessity. South Sudan Government is borrowing heavily in order to protect their national banking and economic systems from decline. A similarly dramatic re-think is also required in terms of the type of the public sector financial management reforms which the international financial institutions and the international aid agencies have been promoting across the country for sixteen years since 2005. Two of the most frequently recommended reforms for governments are the Medium Term Expenditure Framework (MTEF) and Integrated Financial Management Information Systems (IFMIS). For example the two core chapters to the World Bank's Public Expenditure Management Handbook were devoted to these reforms (World Bank, 1998). Great claims were made for the benefits of such reforms and many of the claims made have been based more on theory and what might happen after the reforms have worked their way through the system. These reforms have been heavily supported by the international financial institutions and the country aid agencies. However, the actual level of success from their implementation has led to establishment of non oil revenue task force and formation of NRA National revenue Authority South Sudan. In many cases, where results have not lived up to expectations, this is not laid at the door of the "reforms" but rather at the door of the government who have not gone far enough, or have backed off under pressure from 'vested interests

Therefore, South Sudan National Ministry of Finance and Planning adopted the uses of integrated financial management information systems (IFMIS) systems to support management of public sector budgetary, financial, and accounting operations and promote better public financial management (PFM) with a centralized registry of public sector revenues and expenditures. The IFMIS integrate budgetary, accounting, treasury, and public debt management processes, as well as generate corresponding reporting documents, mainly the financial statements from Bank of South Sudan. The successful implementation of integrated financial management information systems (IFMIS) in NRA will produce timely, relevant, and reliable financial data to promote fiscal discipline, assist with resource allocation, and improve operational efficiency and fiscal transparency. IFMIS, therefore,

constitute a powerful tool to enhance the Public Financial Management, although they tend to be very complex and demand significant human and financial resources. Every country has integrated financial management information systems (IFMIS); it is the region where these systems are more prevalent today. In 2011, 45 percent of World Bank projects involved a high proportion of information and communications technology (ICT) for public financial management purposes; that is, 25 out of 55 projects according to (Dener, Watkins, and Dorotinsky, 2011). Furthermore, from approximately the mid-1990s onwards, the Inter-American Development Bank (IDB) has supported integrated financial management information systems (IFMIS). Following two decades of operation, several countries in Africa have engaged in updating their IFMIS, specifically Somalia, Uganda, Tanzania, the Rwanda, Kenya, and Zimbabwe despite Financial institutional differences of systems development, there are a number of strategic aspects that should be considered to improve the success of the design and implementation of IFMIS so as to ensure its benefits from the outset. The most significant considerations are the political economy, information technology programming strategy, software guarantees, and acceptance testing, as well as actual implementation and systems maintenance.

The objectives of research study was to examine the roles and adaptation of Integrated Financial Management Information System of public finance, function integration, technological and functional definitions, and process prioritization during the various stages of development in which interim chart of accounts COA, entered in to the IFMIS by MOFP management and are effective for use.

Statement of the Problem

In South Sudan in general, budget execution and accounting processes are either manual or supported by very old and inadequately maintained software applications. This has had deleterious effects on the functioning of their public expenditure management (PEM) systems that are often not adequately appreciated. The consequent lack of reliable and timely revenue and expenditure data for budget planning, monitoring, expenditure control, and reporting has negatively impacted budget management. The results have been a poorly controlled commitment of government resources, often resulting in a large buildup of arrears; alleged corruption, tax evictions, delays of government staff salaries, and misallocation of resources, undermining the effectiveness and efficiency of service delivery and efficiency in work. Therefore, South Sudan government has found it difficult to provide an accurate, complete, and transparent account of the financial position to parliament or to other interested parties, including donors and the general public. This lack of information has hindered transparency and the enforcement of accountability in government and has only contributed to the perceived governance problems in South Sudan. To promote accountability and financial management practices in South Sudan public sector, Implementation of Integrated Financial Management Information System commenced for use by MOFP since 2015. The system was meant to promote accountability and best financial management practices in the public sector and hence improve financial performance. However, the setting up phase has not progressed well as expected apart from assigning some technical accountants from treasury department in MOFP. In East Africa, researchers examining implementation of integrated financial management information systems by the Governments found that implementation of IFMIS was not successful due to lack of support by political class and the counties had not allocated enough resources to implementation. The impending question is which factors constitute to successful implementation of IFMIs among state institutions noting that successful implementation of IFMIS will lead to improvement on the institutions' financial sustainability and transparency. The research project report was sought to examine roles and Adaptation of

Integrated Financial Management Information System (IFMIS) Free Balance on public finance management and service delivery in South Sudan. The objectives of the study are (i) To examine the roles and adaptation of Integrated Financial Management Information System, (ii) to verify effects of IFMIS on budgeting of public finance, (iii) to assess how adaptation of IFMIS has affected public finance management, and (iv) to establish how IFMIS has affected public finance management and service delivery

LITERATURE REVIEW

This chapter presents the review of theoretical literature relating to FMIS adoption, conceptual framework, and literature review of the research project and critique of existing literature. The review provides a theoretical ground for the study through identification of the research gaps that needs to be address and a detailed outline of the underlying concepts and variables. The literature on PFM is replete with stories of failed reforms that were driven by donors rather than led by the country; such reforms may initially appear to be successful, but they are unlikely to be sustained and, in the worst cases, may be reversed after the withdrawal of donor support, despite these harsh warnings, the Declaration claims that it is the responsibility of the government of each country in the Global South, "to take leadership of its development processes, rather than the international financial institutions and aid agencies, as the dominant partners, having the responsibility to ensure that the Global South is allowed to control its own destiny. In practice the international financial institutions and aid agencies (led by the IMF and the World Bank) maintain close control over the public financial reforms in all Sub-Saharan African countries. Poverty Reduction Strategy Papers were an initiative of the IMF and the World Bank in 1999 and, although developed by each country, they then have to be approved by the boards of both of these financial institutions (IMF, 2008). They form the basis for aid and concessional loans from the IMF and World Bank themselves and the major donors whose support is often conditional on a country being 'on-track' with the international financial institutions. In addition, the level of aid received by Sub-Saharan African countries is clearly uneven. For example, according to the latest available Zambia, with a per capita GDP of more than twice that of neighboring Malawi, received almost twice as much aid per person (World Bank, 2008b). Most public financial management projects which are funded by World Bank loans will have originated from a World Bank report. In addition, many aid projects are also micro-managed by the aid agencies, for example, all contracts let under World Bank funded projects for public financial management reform have to be screened by World Bank officials to receive a 'no objection' clearance before the contract can be awarded. In addition, the contracts may be managed by independent agencies and periodically reviewed by World Bank officials. As a former senior official of the IMF and World Bank said at an IMF seminar in October 2008, "There is little or no country ownership.

Integrated Financial Management Information System (IFMIS): IFMIS consists of introducing specialized software to track all individual payments made by the public purse in an automated manner. A positive correlation between introducing IFMIS and reduced corruption can be safely assumed (Free-Balance, 2013), as the software allows for a faster, and more comprehensive data processing as individual balance-sheets, or even paper-based files could do. However, IFMIS alone will not lead to a significant reduction of corruption if introduced in an overall corrupt environment where many corrupt schemes may still remain outside the system

Public Financial Management : Procedures as well as policies that are put in place by management of government agency with the aim of ensuring the agency achieves its set

objectives and comply with external laws as well as regulations is what is termed as Internal control systems. There is a tendency of those policies and procedures covering monetary book-keeping and reporting, monitoring of performance, management of asset as well as procurement (Simson et al., 2011). IFMIS being a tool of management makes it possible for the management to: take control of spending as well as deficit, prioritization of expenditure across policies, projects as well as programs in order to allocate resources in an efficient and equitable manner, making better use of budgeted resources, with the aim of achieving results using the lowest cost possible (Hendricks, 2012). The advantages of implementing IFMIS are that it improves governance, lowers fraud and improved monitoring and evaluation. However, Oz (2006) indicated that the objective of financial managers is managing finances of the company in the most efficient way. To achieve their goal, they collect money as soon as possible, make payments latest time as provided by the law/contract, ensure availability of sufficient funds for daily operations and take advantage of arising opportunities to attain high yields on funds not currently used. Simson et al (2011) indicated that with the aim of effectively managing government's flow of cash and prevent accumulation of debt, it's important to monitor future payments pipeline. Additionally, the common source of corruption is procurement, thus their systems have a tendency of having controls with the aim of detecting and deterring corruption via IFMIS. Hendricks (2012) indicated that Integrated Financial Management Information System (IFMIS) that has been designed properly provides several features which might assist in detecting excess payments, fraud as well as theft. They are inclusive of automatic identification of exceptions to normal operations, patterns in activities that are suspicious, automatic cross-referencing of personal identification numbers to detect fraud, cross-referencing of asset inventories with equipment purchase for detecting theft, automatic disbursement rules of cash and ghost workers identification.

Theories of Integrated Financial Management Information System IFMIS

System Theory: As argued by Kang'ethe (2002), a system is a group of related and interacting components, which work together to achieve a desired purpose or set of objectives. The writer further observes the need to have control elements to ensure that the process gives the desired level of out-put and avoid or reduce wastage. Emerging Information and Communication Technology (ICT) can play an important role in fighting corruption in public finance systems by promoting greater comprehensiveness and transparency of information across government institutions. As a result, the introduction of Integrated Financial Management Information System in South Sudan has been promoted as a core component of public financial reforms in many developing countries. Yet, experience shows that IFMIS projects tend to stall in developing countries, as they face major institutional, political, technical and operational challenges. Case studies of more successful countries indicate that factors supporting successful implementation include clear commitment of the relevant authorities to financial reform objectives, ICT readiness, sound project design, a phased approach to implementation, project management capability, as well as adequate resources and human resource capacity allocated to the project (Chena, 2009).

Communication Theory: Bill (2001) said that communication theory provides a numerical measure of the uncertainty of an outcome. For example, we can say that "the signal contains thousands of bits of information". Communication theory tends to use the concept of information entropy, generally attributed Information Communication Technology (ICT) which is a general term that describes any technology that helps to produce, manipulate, communicate or disseminate information. ICT merges computing with high-speed communications links carrying data, sound and video. ICT can also be defined as an automatic

acquisition, storage, manipulation, movement, control, display, switching interchange, transmission or reception of data or information. The two important major components of ICT are computers and telecommunications (Michale, 2001).

IFMIS as Instruments of Public Financial Management

Public Financial Management PFM is a broad and complex concept that has a variety of dimensions that take into account the political economy of public institutions and the diverse fields and disciplines within government (e.g., legal aspects and management systems, organizational theory, computer science, and human resource management) (Allen, Hemming, and Potter, 2013). The concept of PFM, therefore, is a general term that includes a combination of administrative elements, tools, and management systems that generate information, according to certain processes and rules, to support fiscal policy decision making (Cangiano, Curristine, and Lazare, 2013). PFM is also a set of directly and indirectly related processes and instruments that support macroeconomic estimates and projections to collect and allocate resources and report financial outcomes (Schick, 2013). This group of processes and instruments incorporates some practices such as fiscal rules and fiscal councils, the medium-term fiscal framework, a results-based budget (RBB), and IFMIS.

The main objectives of PFM are prioritized to ensure fiscal solvency, appropriate allocation of resources, and efficient public delivery of goods and services. To achieve them, PFM procedures and systems must operate efficiently and integrally within an institutional framework that incorporates appropriate and steadfast rules, structures, processes, and capacities. The potential of IFMIS to contribute to a better PFM is strong. By generating timely and accurate information, it can streamline processes carried out by the public sector, according to financial management procedures. One of the key objectives of IFMIS is to produce financial data that is relevant to decision making. Information, therefore, should be timely, relevant, and reliable to support adequate fiscal policy decision making and contribute to sustainable development of initiatives that will improve public management. A financial and accounting information system that operates efficiently enhances the government's capacity to allocate and use public resources effectively and efficiently (Dorotinsky and Watkins, 2013). IFMIS is essential to provide fiscal transparency (i.e., clarity, reliability, frequency, punctuality, relevance, and openness) by gathering data to enable the publication of past, present, and future public finance positions (IMF, 2012). These elements are critical to the effectiveness of fiscal policy.

Integrated Financial Management Information System (IFMIS) is also essential for public management reform in its entirety due to the capacity it has to integrate the diverse administrative functions of the public sector and to link PFM to the management of human resources, assets, and the procurement of public goods and services, among others. In effect, the evolution of IFMIS in Latin America has seen many changes in public administration that changed the focus from a legal and formal approach to a more managerial one. Integrated Financial Management Information System (IFMIS), therefore, has the capacity to support decision making beyond matters of finance by contributing to the modernization of public administration so that the governments can delivery public services more efficiently

A growing number of empirical studies have highlighted the positive relationship between Public Financial Management (PFM) and fiscal transparency, fiscal outcomes, and the perception of fiscal solvency (IMF, 2012). While significant steps were made during the 1990s to improve fiscal data transparency, the 2008 financial crisis showed that advanced economies also had weaknesses in the scope of information relating to their fiscal situations

prospects and the associated risks. Furthermore, a direct relationship exists between the higher evaluation scores of Public Expenditure and Financial Accountability (PEFA) indicators, the Corruption Perception Index (CPI), and the Open Budget Index (OBI).

Characteristics of integrated financial management information systems (IFMIS)

Integrated financial management information systems (IFMIS) are computerized systems that automate the financial procedures to register information on the collection of public revenue and commit them to public sector objectives (Farías and Pimenta, 2012). Although there is a range of definitions for IFMIS in the literature, they generally share the concept that it is a complex computer information system containing financial and accounting mechanisms that relate to the public sector, and that it comprises a combination of subsystems and processes that are governed by general procedures and guidelines based on a Public Financial Management (PFM) regulatory framework. The main objective of integrated financial management information systems is to provide the public sector with the necessary information to plan, execute, and monitor public finance. This includes the execution of the budget, consistent and systematic accounting recording, and assisting the Treasury to meet its commitments and manage its payments and debts, while simultaneously ensuring the quality of financial statements.

It is essential, therefore, that integrated financial management information systems (IFMIS) contain a separate information system for each level of government to its greatest extent possible, in parallel with Treasury Single Accounts (TSA) coverage. The integrated financial management information systems (IFMIS) should also include the central and decentralized administrations and social security entities to be able to register, at every stage of the budget execution, the revenues, payments, expenditures, pre-commitments, commitments, and accruals of finance and accounting in a timely manner. For this to effectively occur, the budget classification should be entirely consistent with the chart of accounts, in accordance with international standards example the training. The *Manual on Government Finance Statistics GFS* Government Finance Statistics Manual (GFSM) 1986 framework to the Government Finance Statistics Manual 2014 (GFSM) 2014, published by the International Monetary Fund (IMF)'s *Functional Classification of Expenditure*

Integrated financial management information systems is a set of sub-systems that interrelate with each other and which adopt a comprehensive approach to financial management; that is, a set of tools to achieve effective, efficient, and transparent public resource management within a framework for fiscal solvency. From this perspective, integrated financial management information systems should not be viewed as an end in itself, but rather as an instrument that gathers information to support fiscal policy while improving public policy design through efficient resource allocation. As such, under public financial management (PFM), it will improve the management of public expenditures and strengthen transparency and accountability, as well as macro- and micro fiscal policies

Integrated Financial Management Information Systems (IFMIS) In South Sudan

The integrated financial management information system (IFMIS) in South Sudan is oriented toward performance informed budgeting, following the Public Financial Management (PFM) reform focused on improving the managing for results framework. The conceptual approach is the public value chain, since it allows for synergies in both the planning phase of public policies and the implementation phase, where the budget gains momentum. This way, the outcomes identified in the performance-informed budget relate directly to strategic goals set by the government.

Accountability, transparency, and evaluation: performance-informed budgeting tools included in the FMIS solution (South Sudan ranked sixth in the East Africa region since 2005). Outputs identified for 75 percent of budgetary programs, and outcomes informed and updated quarterly for 40 percent of central government spending.

Decision-making support: User-customized reports and queries, fed by the online database with FMIS tools. Integrated program outputs and outcomes included in the online database.

Management and efficiency-oriented: Digital signature and electronic trays. Automatization and paperless management and Transaction flow monitoring.

Solid policy background: review of best practices and building on 20 years of Public Financial Management (PFM) reform, Interoperability revenue agency, banking system. Flexibility IFMIS solution for the central and sub national government levels

Open budget: E-Proc portal: web access to government vendors with user validation from the tax revenue services agency.

Alternatives at the Programming and Development Stages: Based on the experience of South Sudan, there are four alternative methods to develop an Integrated Financial Management Information System (IFMIS). These include in-house development; development through consulting firms; outsourced development; and parameterization of commercial off-the-shelf systems.

Development through consulting firms: While the National Ministry of Finance and Planning usually maintains control of systems development, it leaves the contracting of individual specialists to one or more consulting firms, usually at a monthly rate, to minimize the administrative costs of recruiting, selection, contracting, and remuneration.

The responsibilities of the project team include: defining the profiles of operations and technology specialists; drafting terms of reference for human resource providers; supervising and coordinating the activities of the individual consultants; managing the contracts in liaison with consultancy firms; carrying out operational and technical testing cycles to ensure software quality and performance; and defining and executing maintenance services. The cost of software adjustments caused by errors in the system is met by the government. The consulting firms assume the responsibilities of hiring the consultants and managing their activities, ensuring the specialists have the required technical qualifications, and complying with the terms of the contract. The responsibility of the firms excludes development activities and the final outcome. This option was adopted by South Sudan Government as part of the data consolidation and reporting component of financial institutions.

IFMIS Support of a Single Treasury Account: A Single Treasury Account (TSA) in South Sudan, Ministry of Finance and Planning is a crucial element of Public Financial Management (PFM) reform in terms of cash management, and is an essential part of an IFMIS. This unified structure for the bank accounts of South Sudan government enables consolidation and optimal use of cash resources, including the capture and control of financial transactions, and contributes to Public debt management. The output relating to the cash position at the end of each day is based on the fungibility of government resources, irrespective of source mobilization. For the Single Treasury Account (TSA) to operate smoothly there is a distinction to be made between each cash transaction by way of the accounting module, as is done in

some countries that have different accounts for collection and payment purposes. This eliminates the need to manage each type of transaction within multiple bank accounts. The design of a Single Treasury Account (TSA) should include the scope of its coverage, structure of government bank accounts, role of the National Ministry of Finance and Planning, bank of South Sudan, NRA and commercial banks in terms of TSA management, and a system to process transactions and corresponding cash flows statement. The fourth aspect depends on the IFMIS to process cash transactions. To facilitate this, transactions should be automated in parallel to electronic payments systems. The IFMIS accounting and treasury modules must be designed so that it will record and gather data on all transactions, irrespective of the cash flows of specific bank accounts. The various cash transactions i.e., receipts and payments may be treated separately and should be captured by a system that consolidates the accounts in such a way as to allow the monitoring and control of annual allocations, as well as facilitate the issuance of monthly and quarterly statements by the Ministry of Finance.

To support the TSA, the IFMIS: at the design stage should incorporate a chart of accounts and a budget classifier, configured so that it can identify the various accounts and desegregations. This will facilitate the capture of revenues, payments, financing, and investment of surpluses. Electronic interaction between the treasury, spending units, and Central bank including commercial banks is important. This will reduce transaction costs, allow for electronic payments, and capture receipts on a daily basis for financial transaction report. It is agreed by Pessoa and Williams (2012) that an IFMIS is important to carry out the core requirements of modern treasury management in Financial Institutions. An efficient set of systems will manage, monitor, control, reconcile, and produce budget and accounting reports on account balances in particular on the TSA itself. In addition, the Treasury Single Account (TSA) should be able to project cash flow collection and payments over the short term; make projections that reflect information relating to the delay between payments and disbursements; compile three-month projections of daily cash flows administered by the TSA, in addition to year-end forecasts; and monitor as close to real time as possible the variations in the aggregated TSA balance. Although IFMIS, in general, lack a module for cash flow forecasting done by way of Excel-type spreadsheets in South Sudan they do hold financial data relating to daily financial collection and government expenditures payments such as salaries, wages, operation cost and procurement payments that are essential to prepare an accurate cash flow projection. To effectively implement a TSA with the requirements of PFM, the IFMIS should be able to consistently produce timely financial data on budget commitments, accruals, and actual treasury transactions. Coverage should also be as broad as possible.

Prioritizing Project Development Efforts: The establishment of an Integrated Financial Management Information System (IFMIS) requires significant human and financial resources. Efforts, therefore, must be prioritized throughout every stage. A distinction should also be made between the original and new functions of the system in National Ministry of Finance and Planning in South Sudan. According to the literature and based on the experiences gained in the region, project development that takes place in various incremental stages has less risk of failure than if it were carried out in one stage (Dener, Wat-kins, and Dorotinsky, 2011; Barros, 2012). The project, therefore, should be divided into three stages to reflect the budget cycle (example. formulation, execution, and evaluation, with the exception of the approval stage which is carried out by South Sudan legislature), so that the relative components can be designed sequentially and independently. These stages can be grouped into two: budget formulation in one and budget execution and evaluation in the other. What links these two phases together is the local Budget Law drafted with the support of the budget formulation

module that captures the data on the allocation of funds between institutions, budget items, and/or programs, and forms the starting point of the execution phase.

How Public financial management being used by government institutions in South Sudan

Macro-Economic Forecasting: This process assists expenditure and resource planning by developing a macroeconomic frame work linking the growth of national income, savings, investment, and balance of payments to public expenditures and revenues. It enables the development of: aggregates of the government budget, notably revenues, expenditures, and the overall fiscal deficit and its financing; the balance between the capital and recurrent components of the budget; composition of expenditures by the main sector spending agencies; revenue forecasts consistent with macro-economic assumptions; forecasts of non-tax revenues based on macroeconomic projections; estimates of resources available from domestic and external borrowings; projections of current expenditure.

Budget Preparation: Budget preparation starts with the development of circular indicating economic prospects, broad policy objectives, how the budget is expected to attain, them, and sectoral allocations and ceilings consistent with the macroeconomic framework. Next comes the preparation and analysis of line agency expenditure proposals and revenue forecasts and their consolidation into an annual budget document after a series of discussions at cabinet level, between line ministries, the MOF, the budgetary committees of parliament and approval by the legislature. These discussions focus on how the budget proposals would meet the policy objectives outlined in the budget circular, on priorities among the various proposals, the validity of the resource requirements contained in these proposals and how they can best be accommodated in the overall budgetary envelope.

Budget Execution, Accounting and Fiscal Reporting: These functions are associated with implementing the budget, and cover the procurement of goods and services in accordance with budget estimates, the recording and accounting of all government transactions, and development of periodic reports to monitor the overall flow of spending or use of appropriations, over the course of the year, highlighting major deviations from the planned budget and suggesting corrective measures.

Cash Management: This entails developing agency and central cash flow forecasts, the release of funds to spending agencies, the monitoring of inward and outward cash flows and expected cash requirements, and the issue and redemption of government securities for financing government programs.

Position, Payroll and Benefits/ Pensions Management for Govt. Retirees: The activities here are associated with the development and maintenance of government's human resource policies such as manpower planning, complement control, civil service pay and pension policies, the fiscal impact of these policies and their administration.

Debt Management: This defines the tasks associated with maintenance of records on all contracted public debt on an individual loan basis, classified according to source and type of loan. It assists economic and policy analysis by determining, for example, the debt implications of different fiscal and deficit financing options by preparing projections of debt service commitments under existing and anticipated contracts.

Revenue Administration (Customs, Tax and Excise and Internally Generated Revenues): The formulation and administration of tax policies and covers the actual levy and collection of revenues including taxes and duties as laid down in these policies, and the valuation and collection of non-tax revenues, such as stamp duties, user fees, charges for services etc.

Auditing: This deals with the analysis and scrutiny of public, financial, and other transactions to ensure compliance with government policies and procedures, and to ensure cost-effective use of public funds in accordance with overall government priorities.

Summary

For the summary, the literature reviewed and discussed above, which is primarily focused on the factors that affect implementation of IFMIS in public sector identify a number of potential factors that might affect the adoption of IFMIS within the public sector in different countries in Africa, namely Kenya, South Africa and Tanzania. The above studies provide an important aspect regarding IFMIS and its components. They also provide results and conclusions of researches done on IFMIS in different countries and environments.

How is Public Finance tied to Improved Citizen Services

The level of Public Financial Management (PFM) maturity can be tied to citizen service delivery (EY, 2015). "Recent literature has highlighted the importance of sound PFM systems to service delivery. (Pretorius and Pretorius, 2009)"

Mature PFM processes can lead to improved service delivery through: Chart of Accounts (CoA) tied to programs and government objectives to manage budgets and finance by goals – "Ideally, Chart of Accounts for the sector should allocate funds and report on spending using codes that relate in a meaningful way to the objectives of policy (Foster 2008)" Accrual accounting and integrated real time financial information to improve decision-making, Treasury Single Account with effective cash and debt management for predictability to fund citizen services, Standardized reporting, citizen transparency and open data to improve accountability

Public Financial Management (PFM) is seen to improve service delivery across the budget life-cycle of planning through audit. Public service capacity is critical to achieving improved service delivery through PFM. Trust in government is a factor in the perception of citizen service delivery. Trust in government increases "if there is strong financial stewardship. Public Financial Management (PFM) contributors to service delivery include:

Information Management: The automation of PFM functions with GRP systems is considered "a precondition for achieving effective management of the budgetary resources. (Diamond and Khemani, 2005)" Financial systems, in combination with PFM processes improve efficiency through automation and effectiveness through controls and reporting. (Free Balance, 2013)"

Participation: Citizen Participation can improve the quality of public services. "By fostering human capabilities and promoting fundamental freedoms, citizen engagement contributes to people's wellbeing and quality of life. From an instrumental perspective, citizen engagement is promoted as a means to achieving ...improved public services, increased social capital, etc. (GCSPE, 2016)" Citizen participation has enabled government to improve services by providing opportunities and incentives" to respond to community needs. (Commins, 2007)"

Allocation Efficiency: Effective budget planning is a cornerstone of smart Public Financial Management. This improves the allocation of funds for all government goals including service delivery. Budget planning includes "setting priorities in the allocation of public resources, planning to achieve policy goals, managing operations with fiscal prudence, efficiency, and integrity, and improving government performance in service delivery. (Sarr, 2015)" Budget

allocations are tied to sector service delivery objectives such as health or education. Effective PFM ensures that the “budget structure reflects those objectives (Foster, 2008)” by incorporating program concepts with the financial Chart of Accounts. This can shift focus on budget inputs to outputs that align with government objectives (Morgner, 2013).

Operational Efficiency: Smart public finance ensures operating efficiency in the delivery of services to citizens. “Operational efficiency is the ability of the government to implement programs at the lowest cost per unit of output while maintaining desired service quality levels. From funding growth to funding efficiency; from resource-intensive business models to more-efficient and agile models; and from risk management as a corporate function to risk management as a discipline embedded across the enterprise as an enabler of agile decision-making. (Deloitte, 2014)” Many governments have leveraged the use of smart financial information to implement alternative methods of service delivery. “One of the most notable developments in public administration over the past 30 years has been the increased attention to alternative methods of public service delivery, which represents an array of approaches ranging from privatizing service provision, to franchising contracting, volunteerism, tax expenditures, self-service, or service coproduction, etc. (Kioko et al, 2011)”

Value for Money: Public sector organizations are tying public procurement of goods and services to objectives in order to improve the “value for money” for spending. South Sudan Government senior executives are demand a shift from lowest cost to value for money. Ramcial Group of Companies Limited public procurement enables government to “use value criteria to determine the cost per unit of outcome improvement (Hadden, 2012)” This value criteria is tied to budget objectives classified in the Chart of Accounts. South Sudan Government also seeks to improve the cost for the procurement of commodities. Smart procurement savings enables governments to improve the quality and quantity of services provided.

Accountability: Governance, transparency and accountability are needed to improve citizen services. Smart finance ensures that service delivery processes can be audited and improved (Williamson, 2008), including the use of citizen feedback. “When “service delivery” is the goal then incorporating the feedback of direct users (of water, of schools, of health services, of roads) into the accountability of agents expands the range of inputs and information available to assess performance. (Andrews et al, 2017)” The use of information technology to improve service delivery “works particularly well when combined with digital user feedback mechanisms Public service accountability is enhanced when “timely, relevant information is accessible and widely shared (Foster, 2008)” Civil service behavior can improve thanks to transparent information and accountability incentives.

Decision-Making: Smart public finances enabled data-driven decisions. “Sound public sector governance encourages better decision-making and the efficient use of resources. It can also improve management, leading to more effective implementation of the chosen interventions, better service delivery, and, ultimately, better outcomes. People’s lives are thereby improved. (Sarr, 2015)” Public finances in South Sudan “provides more and better information on government goals and priorities, and on how different programmes contribute to achieve these goals, (Curristine et al, 2007)” enabling improvement. Poor PFM systems often lack important management information this “lack of information has hindered transparency and the enforcement of accountability in government. There is significant evidence that smart public finance can lead to improved citizen service delivery. Others views of PFM and service delivery focus on areas like capital funding and staff wages in South Sudan

Summary: For the summary, the literature reviewed and discussed above, which is primarily focused on the factors that affect implementation of IFMIS in public sector identify a number of potential factors that might affect the adoption of IFMIS within the public sector in different countries in Africa. The above studies provide an important aspect regarding IFMIS and its components. They also provide results and conclusions of researches done on IFMIS in different countries and environments.

Critique of Literature: For the critique of the studies, it has been found that none of the studies have tackled IFMIS to the financial management of the public sector in South Sudan and here there is a clear gap of knowledge that need to be addressed. Therefore, this research was sought to fill that existing gap by seeking to establish the factors that might influence the level implementation IFMIS in financial management in the public sector in South Sudan. Whilst this study is explicitly built upon the factors identified in prior studies, it is envisaged that it would provide a far deeper and richer data set, upon which to draw conclusions.

Research Methodology and Design

The study applied descriptive research design to describe the effectiveness of IFMIS on performance of public sector relating to various independent variables, identified as; **Accountability, transparency, decision-making support, Management and efficiency-oriented and evaluation.** Each attribute was analyzed in relation to the effect it has on Interrelated Financial Management Information System (IFMIS). Secondary data was the main source considered as important source this restricted and guided the researcher in remaining focused on to the specific objectives of the study. The secondary data was subjected to tabulation using Advance excel as well as SPSS Software. Mixed method approach was significant (qualitative and quantitative).

Research Findings and Discussion

The research project employed different statistical techniques to explore factors influencing the implementation of IFMIS in Financial public institutions. This chapter describes the analysis of data followed by a discussion of the research findings. The findings relate to the research questions that guided the study. The presentation of the results is done in line with specific objectives that guided the study.

The research project employed different statistical techniques aided by SPSS 16.0 version to explore factors influencing the implementation of IFMIS in Juba City public institutions. This chapter describes the analysis of data followed by a discussion of the research findings. The findings relate to the research questions that guided the study. The presentation of the results is done in line with specific objectives that guided the study.

Table-1: Institution Directorates

Directorates	Frequency	Valid Percent	Cumulative Percent
Treasury Department	11	39.3	39.3
Budget Department	12	42.9	82.1
Internal Audit	3	10.7	92.9
Debt Management	2	7.1	100.0
Total	28	100.0	

Source: Primary Data SPSS analysis, 2021

Table-1: above showed that the majority of the respondents were from the Ministry of Finance at Treasury Department 39.3% Budget Department 42.9% Internal Audit 10.7% Debt

Management 7.1% working with the debt Management department. This indicated that all the targeted Institution Directorates were represented

Table-2: Technical Capacity of Staff

Statement	Frequency	Valid Percent
The institution has adequate staff for IFMIS implementation	4	14
The staff are well trained in IFMIS	8	29
There are qualified staff in MOFP institution to oversee the effective use of the system, on the use of IFMIS during after implementation you receive proper training	7	25
The institution has enough computer for IFMIS implementation	6	21
The Institution has input in place regular service and maintenance mechanisms	3	11
Total	28	100

Source: Primary Data SPSS analysis, 2021

Result from table and pie chart above have shown that majority of the respondents have agreed 29% that the institution has adequate staff for IFMIS implementation 14%, There are qualified staff in MOFP institution to oversee the effective use of the system, on the use of IFMIS during after implementation you receive proper training 25%, The Institution has input in place regular service and maintenance mechanisms 11%. The institution has enough computers for IFMIS implementation 21% staff are well trained in IFMIS; technical capacity of the staff was very low. This means that the system needs to be improved. In their study of developing countries specifically the Ghana, Malawi, Tanzania, Uganda and Kenya (Diamond, 2006) argue that necessary measures should be taken to reinforce the capacity in the IFMIS project team as well as the Director General of Accounts office and the budget office through all the project phases. At the same time, they note that it is equally important to develop the necessary skills and capacity of the central IT department to provide strong support to the IFMIS. For the success of the IFMIS project it ought to be ensured that there is continuity of key personnel involved in the system development and implementation. Similarly, lack of capacity has been pointed out (Hendriks, 2012) in his study as one of the most important to the effectiveness of an IFMIS. It is noteworthy that according to (Brar, 2010) low capacity for system implementation at the sub-national level such as provincial and regional governments is one of the main challenges in the implementation of the IFMIS in developing countries.

Table-3: Influence of Management Commitment on implementation of IFMIS

Opinions	Frequency	Percent	Valid Percent
Yes	24	85.7	85.7
No	4	14.3	14.3
Total	28	100.0	100.0

Source: Primary Data SPSS analysis, 2021

Results from table -3 above has indicated that the majority of the respondents were involved in the use of IFMIS as 85.7% responded with yes while only 14.3% have said no. Management Commitment on implementation of IFMIS

Table-4: Respondents' involvement in the use of IFMIS for recording and accounting transactions

Opinions	Frequency	Percent	Valid Percent
Yes	24	85.7	85.7
No	4	14.3	14.3
Total	28	100.0	100.0

Source: Primary Data SPSS analysis, 2021

Results from table above has indicated that the majority of the respondents were involved in the use of IFMIS as 85.7% responded with yes while only 14.3% have said no

Table-5: The Respondents deeply involvement in the use of IFMIS in their departments

Statement	Frequency	Valid Percent
There is proper budget allocation to the IFMIS project.	6	21
The internal controls ensuring effective money allocation	10	36
There is timeliness of releasing funds of the implementation process.	5	18
There is an effective plan on how the money allocated to projects	4	14
The financial management ensures effective approval of Funds	3	11
Total	28	100.0

Source: Primary Data SPSS analysis, 2021

Table 5 above showed that there was proper budget allocation to the IFMIS project 21%. The internal controls ensuring effective money allocation 36%, there is timeliness of releasing funds of the implementation process. 18%, there is an effective plan on how the money allocated to projects 14%, the financial management ensures effective approval of Funds 11% for Management Commitment on implementation

Table-6: Influence of Management Commitment on implementation of IFMIS in MOFP

Opinions	Frequency	Percent	Valid Percent
Yes	23	82.1	82.1
No	5	17.9	17.9
Total	28	100.0	100.0

Source: Primary Data SPSS analysis, 2021

In table-6 above when respondents were asked if they are deeply involved in the usage of IFMIS in their respective departments, 82.1% said they are deeply involved, while the remaining 17.9 % said they are not deeply involved

Table-7: Technical Capacity of Staff

Statement	Frequency	Valid Percent
The institution has adequate staff for IFMIS implementation	4	14
The staff were well trained in IFMIS	8	29
There are qualified staff in MOFP institution to oversee the effective use of the system, on the use of IFMIS during after implementation you receive proper training	7	25
The institution has enough computer for IFMIS implementation	6	21
The Institution has input in place regular service and maintenance mechanisms	3	11
Total	28	100

Source: Primary Data SPSS analysis, 2021

The table-7: above shown that technical Capacity of Staff institution has adequate staff for IFMIS implementation 14%, The staff were well trained in IFMIS 29%, There are qualified staff in MOFP institution to oversee the effective use of the system, on the use of IFMIS during after implementation you receive proper training 25%, The institution has enough computer for IFMIS implementation 21%, the respondents also said the Institution has input in place regular service and maintenance mechanisms 11%

Table-8: Implementation of IFMIS in Ministry of Finance and Planning

Statement	Frequency	Valid Percent
IFMIS is being implemented in phases	12	43
There is Coordination among user departments.	7	25
Qualified personnel and adequate resources allocated to IFMIS implementation	9	32
Total	28	100

Source: Primary Data SPSS analysis, 2021

According to table-8 above respondents were asked whether use of IFMIS is being implemented in phases, their response was somehow good; they were also asked if there is coordination among user departments. There seems to be a general agreement that the use of IFMIS has not made coordination among user departments any easy. The findings reveal that there are no adequate resources and qualified personnel allocated to IFMIS implementation. This can be shown by 43% said that, integrated Financial Management Information System is being implemented and operated in phases (IFMIS); 25% also said that, there is coordination among departments and the data shows that 32% of staff are academically qualified personnel with adequate resources allocated to IFMIS implementation in the Ministry of Finance & Planning

Recommendations

National Ministry of Finance and Planning South Sudan Government should adopt appropriate staff capacity enhancement to ensure quality, reliability and sustainability of the system. Also establish maintenance mechanism to avoid system persistent system breakdowns. National Ministry of Finance and Planning of South Sudan should allocate budget for implementation of IFMIS projects to ensure sustainability of the programme after World Bank Phase-out. National Ministry of Finance and Planning of South Sudan should emphasize and decentralize the implementation of IFMIS to the States administration levels. This would involve offering support to top management to increase their commitment as an indicator to enhancing accountability and transparency at lowest constituencies. The study recommends that the National Ministry of Finance and Planning should ensure that they have systems that are reliable; this will ensure that they provide complete, accurate, timely and consistent information. The Ministry of Finance and Planning should also ensure that the infrastructure supporting IFMIS is secure, corrupt free, secure from unauthorized access and breach of confidentiality this will boost efficiency in management of cash. Management in the National Ministry of Finance and Planning should ensure that the IFMIS in use have the ability of monitoring future pipeline of payment. This will ensure that there is effective management of government's flow of cash which will prevent accumulation of debt. It is also important to ensure that the system has the ability of detecting and deterring corruption automatically without human manipulations.

The study recommends that in future, a study be conducted on the effectiveness and adaptation of IFMIS in both private and public sector in South Sudan. The study was to identify the IFMIS adopted by institutions are important in improving the financial management and what other strategies can be adopted so as to improve financial management. This study concentrated on National Ministry of Finance and Planning based alone and thus did not collect the views from other institutions such as parastatals and other sectors of the economy. It is therefore recommended that in future, the study be conducted across all government institutions. This will be important so as to generalize findings for the entire public institutions in South Sudan

Conclusions

The following conclusion can be drawn that IFMIS and public finance in financial reporting, budgeting, internal control and government projects. This shows that IFMIS had influenced public finance management in South Sudan. Financial reporting in Ministry of Finance was greatly influenced by IFMIS. Budget was adequately managed by IFMIS in public finance in the State. Internal controls although faced with challenges had improved on use of IFMIS. The research paper also concludes that the technical capacity of the staff in terms of qualification and training the staff, availability of enough computers and service and maintenance does not affect implementation of IFMIS in South Sudan public institutions. This means that there is capacity building and training which enhance proficiency of the staff in IFMIS.

Literature indicate that implementation and enforcement of IFMIS show enhanced processing of the accounting transactions whereby despite the many numerous transaction points, IFMIS is able to consolidate the processes in real time in National Ministry of Finance and Planning in South Sudan. The adaptation of IFMIS helps in efficient allocation of resources in the National Ministry of Finance and Planning for all government institutions. IFMIS also enhance the production of the real time financial reports for decision making by top management. The research study also established that the level of financing or funding influences the implementation of the IFMIS in Ministry of Finance. The financing aspects leading to successful implementation of IFMIS include adequate budget allocation to the IFMIS projects, internal controls, timeliness of releasing funds securing adequate funding, effective plan on allocation of funds and effective approval of funds. Finally, IFMIS improved budgeting process by providing real time feedback on expenditure in comparison to the budget estimates and extreme variations can be identified and corrective action taken on time for public financial management

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