

**Determinants of Successful Implementation of Integrated
Financial Management Information System (IFMIS) in the
Ethiopian Public Sectors in Jimma District**



Jimma University
College of Business and Economics
Departments of Accounting and Finance

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June, 2022

Jimma Ethiopia

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A Thesis Submitted to the School of Graduate Studies of Jimma University in Partial Fulfillment of the Requirements for the Award of the Master of Science Degree In Accounting and Finance.

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Board of Examiner Approval Sheet

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Declaration

I, Kelemuwa Tibebu, hereby declare that the study entitled “**Determinants of Successful Implementation of Integrated Financial Management Information System (IFMIS) in the Ethiopian Public Sectors in Jimma District**” is my original work and has not been presented in Jimma University or any other University. I have carried out the study independently with the guidance and support of the research advisor Mohammed Sultan (Assistant Professor) and Co-advisor Haymanot Alemayehu (MSc). All other contributors or sources used for the study have been duly acknowledged.

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LIST OF ABBREVIATIONS

GDP - Gross Domestic Product

ICT - Information Communication Technology

IFMIS - Integrated Financial Management Information System

IT - Information Technology

Abstract

The integrated financial management information system (IFMIS) is an information system that allows for optimal resource allocation and improves management decision making by providing timely financial and other information to aid in the acceleration of economic growth. The objective of this study was to assess Determinants of successful implementation of integrated financial management information system (IFMIS) in the Ethiopian selected Public Sector Jimma area. This study used a descriptive research approach. The target population for the study were all employees regardless of their positions who are work in the Ethiopian Minster of Revenues, the Ethiopian Human Rights commission, and Gumuruk Commission in Jimma district. The targeted population for the study was the IFMIS users in three selected public sector in Jimma district which is 130 population and census method was used to collect the data population. The researcher used this method since the number is manageable to the researcher as the population size is small. The study utilized data that was both primary and secondary where primary data was collected by use of a questionnaire that was semi structured while secondary data was obtained from the IFMIS implementation review reports by three selected sector in Jimma district, the government IFMIS project implementation strategies published, and other IFMIS project related report. The analysis of data was accomplished through the use of descriptive statistics, regression and correlation analysis. Descriptive entailed the mean and standard deviations while correlation and regression analysis were used as inferential statistics to come up with conclusion on the relationship between the variables. The study found that staff capacity, top management commitment, staff resistance, and ICT infrastructure had a significant and positive relationship with the implementation of the Integrated Financial Management Information Systems. However, the results established that there was a positive but insignificant relationship between government policy and IFMIS implementation. The study concluded that IFMIS implementation is significantly and majorly influenced by top management commitment. The study recommended that the administration of county governments should support the implementation of IFMIS in county governments.

Keyword: *IFMIS, Technological Infrastructure, Top Management Commitment, Government policy, staff resistance, staff capacity.*

CHAPTER ONE

Introduction

1.1. Background of the Study

Businesses nowadays are dynamic, necessitating the use of methods designed to counter the competition while also maintaining performance and responsibility. This has resulted in the implementation of the Integrated Financial Management System data system. The Integrated Financial Management Information System (IFMIS) is an information system that tracks and summarizes financial occurrences (Mbaka, A. O., and Namada, J. M., 2019). The term Integrated Financial Management Information System (IFMIS) refers to the computerization of public financial management operations, ranging from budget preparation and implementation to accounting and reporting, using an integrated system for financial management (Ogachi,V., and Muturi,D.W., 2016). According to Anne and Ngungi, (2018), an IFMIS is an information system that tracks financial events and summarizes financial data.

IFMIS is an information system that allows for optimal resource allocation and improves management decision making by providing timely financial and other information to aid in the acceleration of economic growth. Since 1984, the World Bank has promoted this strategy to assist countries in managing their public funds (Okello Jared et al., 2017). Latin America and the Caribbean areas stand out among World Bank-funded regions for successfully implementing IFMIS (Rodin-Brown,E. 2008a).

As the writers Umble et al. (2003) conducted a research in Europe and discovered that successful execution of information systems projects is important to the prosperity and even survival of modern enterprises. This is due to the fact that efficient implementation of IFMIS usually results in large increases in organizational efficiency (Okello Jared et al., 2017) and frequently provides firms with critical competitive advantages (Poon and Wagner, 2001).

The majority of developing countries are characterized by a paucity of computer applications in the public sector, a shortage of skilled labor, and inadequate infrastructure. If each department implements its own Integrated Financial Management Information System initiatives without respect for interoperability throughout the government, uncoordinated efforts at different levels of

technology utilization may result in redundancy (Muwema,T., and Phiri, J., 2020). Most African countries are looking for measures to strengthen and modernize the public financial management process. For example, over the years, the Integrated Financial Management Information System (IFMIS) has been introduced as one of the most common financial management reform practices, with the goal of promoting efficiency, effectiveness, accountability, transparency, data management security, and comprehensive financial reporting(Chene, M. 2009).

In Ethiopia, the Integrated Financial Management Information System (IFMIS), an initiative of the Expenditure Management Control Program (EMCP), covers the Financials, Supply Chain, and Payroll modules across 6 Federal Ministries and 2 regional MOFED as pilot implementations beginning in November 2011. Some public sector institutions are still working on implementing IFMIS (Mechale, 2021). However; putting such a proposal into action has proven to be a difficult task that has not been met with resounding success. And, while the breadth and capabilities of an IFMIS vary by country, it often constitutes a massive, complex, strategic reform project (Chêne, M., 2009). The sheer scale and complexity of an IFMIS presents substantial hurdles and a variety of hazards to the deployment process in Ethiopia that extend far beyond the mere technological risk of failure and insufficient functionality.

The introduction of an IFMIS can be regarded as an organizational reform which deeply affects work processes and institutional arrangements governing the management of the Ethiopian public finance. Challenges and obstacles can have a devastating effect on the success of the implementation and management of the process and should not be underestimated (Rodin- Brown 2008; Hove & Wynne 2010).Various factors determine the success of IFMIS development and implementation in Ethiopia starting from November, 2011 up to the current time. Within 5 years the Ethiopian government can implement this integrated financial management system in 11 public bodies, 6 branches of Ethiopian revenue & Custom Authority and the Ethiopian Road Authority plus in Addis Ababa University. But, the effectiveness of this implementation is not good due to different factors.

The researcher hopes to discover some of the determinants the successful implementations of IFMIS and suggest answers that can serve as best practice guidelines in the deployment of an IFMIS in this study. The research problem that this study attempts to address is identifying the problems

associated with IFMIS implementation and proposing best practice guidelines that would assist successful IFMIS implementation in case of the Jimma selected public sectors.

1.2. Statements of the Problem

There is a broad agreement that a fully functioning IFMIS can improve governance by providing real-time financial information that managers can use to administer programs effectively, formulate budgets, and manage resources (Rodin-Brown, 2008). The Ministry of Finance and Economic Cooperation is charged with the responsibility of providing proper budgetary and expenditure management of government financial resources. However, the Government of Ethiopia has for a long time been much concerned over the persistent poor performance in financial management due to lack of reliable and timely information for decision making.

The benefits of IFMIS are contribution in improving financial management, striving to improve financial management systems through various public financial sector reform programmers', aimed at increasing transparency, accountability and Responsiveness of public financial resources, strengthening government financial and accounting functions. It will be recommended that commitment and support of top management, staff motivation and facilitation, automation system must have to gain a due consideration. They also allow for the decentralization of financial functions and processes under the overall control of the Ministry of Finance, force financial discipline, decrease operating costs by reducing administrative tasks and civil servants' workload (Pollitt, 2008).

The current challenge for an organization is to have an information technology system that can effectively respond to the needs of the organization, adapt to rapid technological changes, and flexibly respond to expansion. The proposed new management information system is well planned and it is essential to take into account the needs of the myriad of users to prevent the possibility of system failure (Wambugu, 2019 and Rodin-Brown, 2008b).

According to Ogachi and Muturi, (2016) pointed out that, a well-designed IFMIS provides various significant characteristics that aid in the detection of overpayments, fraud, and theft. Patterns of suspicious activity, automated identification of exceptions to normal operations, automated cross-referencing of personal identification numbers for fraud and asset inventories with equipment

purchases to detect theft, and automated cash disbursement rules and identification of non-existent workers are just a few examples IFMIS implementation.

In line with this, the Ethiopian government has launched a number of reforms in the public sector in order to ensure effective service delivery as well as a motivated civil service that is more productive and excited about serving the residents. Because the modification aligned with the four main drivers of public sector reform: context, ownership, purpose, and strategy, the IFMIS in Ethiopia was part of a bigger renovation of its PFM to international standards.

The Ethiopian government has requested that the United States provide technical and financial help to the Ministry of Finance and Economic Development (MOFED) in the deployment of IFMIS Oracle (USAID, 2011). The Ethiopian government's stated purpose in implementing this system is to "assist public entities and regions in generating accurate, accessible, and timely government-wide financial information and reports that contribute to the improved quality of the nation's financial decision making."

The implementation was done correctly, but it did not meet with resounding success and did not achieve the majority of the intended objectives. A studies indicate that the IFMIS implementation has had problems with the implementing agencies (Okello Jared,O.,Migiro,S., & Mutambara,E. et al., 2017). As Makiya, (2020) pointed out that in Ethiopia, the automation process faced major challenges of resources, capacity, infrastructure, changes in government and dependency on foreign aid policies.

Different factors are raised for the failure of implementations of IFMIS. Most studies on the success of IFMIS stated that IFMIS had a post-implementation method for reviewing IFMIS implementation (Chene,M. 2009; Rodin-Brown, 2008a and Ogachi and Muturi, 2016). On the other hand, the Oracle team has not been able to make much progress in this area because of lack of clear specifications on the government reporting requirements. Because of the system's complexity, major design and implementation issues and delays have occurred (Njuguna,S.M 2020). The complexity and changes it brings are significant challenges in the implementation process, and the challenges are more than just technological failures (Wanyoike,M.N. 2015).

The ability and know-how of government employees has always been and continues to be a serious concern and the government continues to rely on the assistance of consultants (Rodin-Brown,E.

2008b). Technical failures are a common occurrence when implementing any system. An IFMIS project drastically alters the way staff members work, which creates resistance. It also involves a large amount of public resources, which opens the door to corruption(Wanyoike, M. N. 2015). As a result, numerous critical difficulties must be addressed before IFMIS used effectively. In general, the implementation phase has not gone well, owing to clearly limited involvement and some system neglect on the part of the primary stakeholders.

Implementations faced a lot of determinant in the success full implementations of the system in Public sectors of Jimma. According to preliminary observations and surveys conducted in Jimma's Public sectors, the IFMIS implementation process has its own set of challenges, such as the organization's performance status, gathering and organizing start-up data, converting and transferring data to the IFMIS standard and training end users.

Challenges and obstacles can have a negative impact on the success of a Management Information System and should not be underestimated because they lead to slow system utilization and, in some cases, system failure. Keeping this in mind, the purpose of this research will be to identify the determinants of the successful implementation of an integrated financial management information system (IFMIS) in the case of Jimma selected public sector. Because this is a new system for the Ethiopian public sector, no previous research has to the best knowledge of the researcher been conducted on this topic specifically in Jimma area; thus, the researcher focuses on the factors influencing integrated financial management information system (IFMIS) deployment.

1.3. Research Questions

The research question intended to answer in the proposed study were:

1. Does government policy influence IFMIS implementation in the Ethiopian Public Sectors in Jimma District?
2. Does user capability and competence influence the effective adoption of IFMIS in in the Ethiopian Public Sectors in Jimma District?
3. Does top Management commitment influencing the efficiency and efficacy of IFMIS deployment in the Ethiopian Public Sectors in Jimma District?

4. Does staff resistance influence the effective adoption of IFMIS in Ethiopian government organizations in the Ethiopian Public Sectors in Jimma District?
5. Does information and communication technology infrastructure influence the effective implementation of IFMS in the Ethiopian Public Sectors in Jimma District?

1.4. Research Objective

1.4.1. General Objective

The main objective of this study was to assess the Determinants of successful implementation of integrated financial management information system (IFMIS) in the Ethiopian Public Sectors in Jimma District

1.4.2. Specific Objectives

The specific objectives of this study intended to address were:

1. To assess whether government policy affects the implementation of IFMIS in the Ethiopian Public Sectors in Jimma District
2. To assess whether users' capacity and skills affects the implementation of IFMIS in the Ethiopian public sector in Jimma district.
3. To assess whether top management commitment affect the implementation IFMIS in the Ethiopian public sector in Jimma district.
4. To assess the whether staff resistance affect the implementation of IFMIS in the Ethiopian Public Sector Jimma district.
5. To assess whether the ICT infrastructure affect the implementation of IFMIS in Ethiopia's public sectors Jimma district.

1.5. Research Hypothesis

H1: Government policy has a positive and significant impact on the implementation of IFMIS in the Ethiopian Public Sectors in Jimma District

H2: Users' capacity and skills has a positive and significant impact on the implementation of IFMIS in the Ethiopian public sector in Jimma district.

H3: Top management commitment has a positive and significant impact on the implementation IFMIS in the Ethiopian public sector in Jimma district.

H4: staff resistance has a positive and significant impact on the implementation of IFMIS in the Ethiopian Public Sector Jimma district.

H5: ICT infrastructure has a positive and significant impact on the implementation of IFMIS in Ethiopia's public sectors Jimma district.

1.6. Significance of the Study

The study have the following contribution: First, the study will provide insights to government institutions, particularly the Ministry of Finance and Economic Development (MOFED), the government entity in charge of IFMIS implementation, on how they may lay the groundwork for more effective IFMIS implementation throughout the country. Second, it would serve as a guide for the government Ministry of Finance and Economic Development (MOFED) on how to overcome hurdles or other variables that may impede full IFMIS implementation success. As a result, the study will make relevant recommendations to address the problems encountered and benefits gained by deploying IFMIS. Third, the study would be beneficial to policymakers and decision-makers since it aims to provide advice on some best practices that may be improved for effective IFMIS implementation. Last but not least, the study is a source of reference information for future scholars or academicians on other similar issues; it can also assist others who will be studying the same topic.

1.7. Scope of the Study

The research was focused on the factors that contribute to the successful adoption of IFMIS in Ethiopian public sectors Jimma district. It especially assessed how government policy, staff resistance, user competency, senior management support and commitment, and technological infrastructure influence IFMIS implementation in Ethiopian public sector in Jimma district. The study were focused all employees regardless of their positions who are work in the Ethiopian Minster of Revenues in Jimma Branch Office, the Ethiopian Human Rights commission in Jimma Branch, and Gumuruk Commission in the Jimma Branch.

1.8. Limitation of the study

There are certain limitations to this study. Any factor that is present from the start and affected or may have affected the acquisition of research objectives was considered a constraint for this study. These events and circumstances are beyond the researcher's control, limiting the study's scope and potentially affecting the study's outcome and conclusion. Different challenges might rise during the research, such as a lack of time to discourse-related source materials, and some targeted respondents may unwilling to share sensitive information, while others misinterpreted the research's intentions and refused to provide accurate information despite assurances of confidentiality. However, explaining the study's relevance to the respondents was aid in providing the necessary information. As a result, the study was conducted within expected and inherent limitation of the study.

1.9. Organization of the Study

The study was organized into five chapters. The first chapter discusses the study's background, problem statement, objective of the study, research questions, significance of the study, scope of the study, and organization of the study. The second chapter includes a review of related literature, including theoretical, empirical, and conceptual workings. The research design and methodology are presented in the third chapter. The fourth Chapter is concerned with data presentation, analysis, and interpretation. The final chapter contains the study's summary, conclusion, and recommendations.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

Introduction

This chapter covers theoretical views related to theories and concepts of Determinants of successful implementation of integrated financial management information system (IFMIS). Likewise, the chapter includes the research finding on the determinants of successful implementation of integrated financial management information system (IFMIS). In addition, this chapter at the end presented a conceptual framework of the study.

2.1. The Concept of IFMIS

According to Arnety & Wepukhulu (2013) IFMIS refers to the computerization of public financial management processes, from budget preparation and execution to accounting and reporting, with the help of an integrated system for the purpose of financial management. According to (Dorotinsky, 2003) an IFMIS is an information system that tracks financial events and summarizes financial information.

Integrated Financial Management Information System (IFMIS) is a fiscal tool for government that bundles all financial management functions into one suite of applications. It is an Information Technology (IT) based budgeting and accounting system designed to assist the government entities on how to plan budget requests, spend their budgets, manage and report on their financial activities, and deliver services to the public more efficiently, effectively and economically (Diamond & Khemani, 2005).

According to both Dorotinsky (2003) and Rozner (2008) an IFMS is an information system that tracks financial events and summarizes financial information. It supports adequate management reporting, policy decisions, fiduciary responsibilities and the preparation of auditable financial statements. In its basic form, an IFMS is little more than an accounting system configured to operate according to the needs and specifications of the environment in which it is installed Rodin-Brown (2008). In general terms, it refers to the automating of financial operations.

2.1.1. IFMIS Implementation in Government of Ethiopia

Over the last Six years, the Ethiopian government has initiated some capital investment towards set up and installation of ICT infrastructure. Funding for these investments is achieved through partnerships between the government and development partners. The foreign funding component constitutes the largest percentage of this investment in terms of technology. The government contribution is usually in the form of technical and support staff and facilities including buildings. So far, the Government Information Technology Investment and Management Framework is connecting all ministries to the Internet under the Executive Network (USAID 2012). The government is also connecting the Ministries to run integrated information systems for example the Integrated Financial Management Information System (IFMIS) and the Integrated Personnel and Pensions Database (IPPD). In Ethiopia, most ICT projects are initially donor funded and hence IFMIS was no exception. Again, some donations are made without prior consultation or carrying out a needs analysis by the recipient organization. Further, operational/running costs are met by the government with donor funding (capital and human resource requirements) ending with the first project phase. The budgets for such projects are inadequate but rising, there is lack of ICT policies and master plans to guide investment to the extent that, with different number donors funding several ICT projects, there has been cases of multiple investments for the same product due to lack of coordination. Finally, there has been lack of focus on ICT applications that support traditional administrative and functional transactions rather than on effective information processing and distribution within and without government departments. For instance, an investigation carried out Accountants General office, Parasuraman and Colby (2009) found that the computer upgrade in the various Ministries including treasury has suffered from persistent problems, limiting the department's capabilities. In a similar vein, DFID has also commented more generally that: "In Ethiopia there is a lack of political or bureaucratic will to use the budget as the authoritative tool in resource allocation or to use the output of the IFMIS to hold people to account. At an absolute minimum, the Ministry of Finance Accountant General's Department may not be willing and able to substantially influence the accounting operations of spending Ministries" (DFID, 2003). This confirms the fears that the implementation of the IFMIS in Ethiopia is facing serious doubts among management, and employees using it are resisting in their own ways.

The system has been seen as too complex to handle daily routine work and the experts in the Ministry of Finance doubt the adequacy of the solution provided by the new system. In addition and perhaps because of the 5 other problems, there has been some resistance and sabotage to the project, and hence the challenge of dealing effectively with resistance to implement it (World Bank, 2004). The management commitment for change is questionable if the gap is too large. If existing rules are ignored or manipulated by powerful interest groups, it is difficult to imagine that this behavior will fundamentally change with a new IFMIS, which is based on compliance with formal rules. There is increasing concern on IFMIS effectiveness, at a time when most Ministries have rolled out the system. The final users of the system have not been properly prepared to handle a system of such magnitude. This is attributed to the fact that training in Ministry is supply, rather than demand driven Dimantopawulos (2004). The introduction of an IFMIS by any government should be regarded as part of a long process of reform. This process takes time to fully implement, costs millions of dollars, and has a substantial recurring operating cost. Thus IFMIS should be regarded as a major project requiring a structured project management approach. However, a hurried installation of the system may be the government undoing Gibson and Nolan (2003).

2.2. Theoretical Review

This section discusses the study's theories. These are the theories that underpin this IFMIS and implementation study. According to Brown Jeffy, S., and Cooper, J. E. (2011), defines a theory as a set of interrelated concepts which can be used in the study, definitions, prepositions that have been put forth to explain or predict a scenario under study. The theoretical framework on which this research study is based is comprised of the theories and models listed below.

2.2.1. Resource based View Theory

Resource based theory argues that's that a firm has the ability to achieve and sustain competitive advantage if it possesses resources that are valuable, rare, imperfectly imitable and non-substitutable Berchicci, L. (2013). The supporters of these arguments argue that organizations should look inside the company to find the sources of competitive advantage instead of looking at competitive environment for it (Vogel & Guttel, 2013). The goal of an organization is to ensure it has access to and control of valuable resources by developing and securing all the relevant resources either

internally or externally. If a firm possess critical resources that have strategic value, it is better to retain the activity in house (Ullrich, 2013). On the contrary, if the strategic value of target activities is low and no internal resources are available to perform such activities, it is beneficial for the company to outsource them. For the sustainable competitive advantages, firms are forced to rely on a multitude of outside supplier for parts, software, knowledge and sales and in doing so gain access to valuable resources and external capabilities (Gariga & Mele, 2013).

The source of an organization's competitive advantage lies mainly in how it exploits its distinctive internal resources and competencies, by setting strategic objectives based on what they enable it to (Gariga & Mele, 2013). The resource-based approach starts with the organization's strengths and seeks an environment that will enable it exploit them by changing environments to suit what it does best rather than changing what it does best to fit the environment (Kehoe & Wright, 2013). One of the key insights of the resource-based view is that not all organizational resources are a potential source of competitive advantage. The above theory relates to human resource capacity on performance of Integrated Financial Management Information System implementation.

2.2.2. The E -Technology Perspective Theory

E-Technology lacks an overarching definition and encompasses a wide range of business activities. For example, (O'Neil & Perez, 2013) state that e-procurement remains a first generation concept aimed at buyers, which should progress into e-sourcing and ultimately into e-collaboration. E-Collaboration allows customers and suppliers to increase coordination through the internet in terms of inventory management, demand management and production planning (Saurin & Henringson, 2013). The internet has been widely adopted by companies with the aim of improving performances both in internal processes and in processes going beyond their boundaries. Despite the fact that business-to-business (B2B) trade has enjoyed a quieter existence online than business-to-consumer (B2C) the benefits of IFMIS in a public setting are significant (Holland & Kaplan, 2013). Indeed it has been claimed that ICT has become the catalyst that allows companies to finally integrate their supply chains from end-to-end, from supplier to the end user, with shared pricing, availability and performance data that allows buyers and suppliers to work to optimum and mutually beneficial prices and schedules.

Usually organizations or governments adopt IFMIS systems to manage the purchase of low critical products and services. In summation it is noted that the extent of e-IFMIS adoption remains in a formative stage, falling short of the type of e-sourcing and e-collaboration suggested by (Foss & Kruesden, 2013). Common IFMIS and e-procurement tools are online catalogues and direct auctions, where reverse auctions remain unpopular with sellers. IFMIS implementation is characterized by the direct and indirect public sector divide, where firms tend to use online systems for uncritical items (Gariga & Mele, 2013). The transition to IFMIS calls for strategic adaptation and well laid infrastructure. It is one strategy, though, that requires much organizational change (Janita & Miranda, 2013). The above theory relates to the Information Communication Technology infrastructure on effective implementation of Integrated Financial Management Information System.

2.2.3. Last Planner Theory

A theory, often called Last Planner, for project management and implementation, has been developed by Ballard (Korinek & Mendoza, 2013). At first sight, Last Planner deviates from the conventional project management doctrine in terms of planning, execution and control. The term Last Planner refers to the hierarchical chain of planners, where the last planner acts at the interface to execution. Thus, this method concentrates on the detailed planning just before execution, rather than the whole planning process. In look ahead planning, the prerequisites of upcoming assignments are actively made ready, in other words, they are transferred to the can category this, in fact, is a pull system that is instrumental in ensuring that all the prerequisites are available for the assignments.

Theoretically interpreting, the execution phase in Last Planner is similar to the language/action perspective model in that communication is a two-way process, and commitment is created for the realization of the tasks within the planning conversation where plans prepared by one crew are understood as promises to others and through the obligation to report on the completion of the task. Control consists of measurement of the realization rate of assignments, investigation of causes for non-realization and elimination of those causes (Cope & James, 2013). Here a metrics called Percent Plan Complete (PPC) is used. In conventional project management, main control consists of comparing progress with the performance baseline, expressed in money or hours. Theoretically interpreting, Last Planner is using the scientific experimentation model of control. The above theory

relates to the influence of implementation strategy on performance of Integrated Financial Management Information System implementation in public sector.

2.2.4. Weick's Model Theory of Organizing

One of the sophisticated theories of organizational structure is Weick's model theory of organizing. It takes into account the high-stressed, fast-paced nature of today's business and reduces equivocality. Equivocality boils down to any lack of productivity due to an employee, on any level, having to check with superiors which is brought about by bureaucracy and unaligned organizational structure which greatly affect the management style of the organization. In the Weick's model, there is an information system, which includes frequently and sometimes previously tackled issues (Langley, Smallman, Tsoukas & Van de Ven, 2013). Employees have access to this information and use it to combat any ambivalence or inertia that might hinder making business decisions. The decisiveness gained by using the information system leads to higher productivity due to ease with which structures and policies can be modified to suit the prevailing or anticipated needs. The Weick model theory of organizing relates to the government policy on performance Integrated Financial Management Information System.

2.3. Empirical Review

Staff in the public sector can easily extract and present data from IFMIS in ways that facilitate analysis. Information security risks in IFMIS affected specific information that employees needed to do their jobs (Regev,G and Wegmann,A. 2006). IFMIS enabled public sector employees in the State Department to track all stages of transaction processing. IFMIS automated bank reconciliation, allowing for a more in-depth monitoring of outstanding bills and cash in bank accounts. The ministry had sufficient resources to effectively promote the use of IFMIS (Anne and Ngungi, 2018). But in different countries face failures in implementing the IFMIS.

2.3.1. Capacity and Technical Skills

According to the authors Ogachi,V and Muturi,D.W. (2016),most counties did not have different strategic approaches to IFMIS implementation; the ICT platform for rolling out IFMIS is in place; there are no regular skills upgrading courses on IFMIS and no motivation to retain skilled personnel;

the political class is not supportive of IFMIS implementation; and counties have not allocated enough resources to IFMIS implementation.

Change management plans should be developed as soon as an IFMIS project is conceived. Consideration should be given to the implications of change for various stakeholders, including politicians, senior officials, heads of departments, IT personnel, and civil servants, among others, who are expected to support the new system (Rozner, 2008). It is warned that if this issue is not addressed early in the project, possibly before the project begins, the IFMIS will face resistance and derailment from executive officials, elected political leaders, and personnel who are expected to use the system on a regular basis.

According to Rozner and Rodin-Brown, E. (2008), the most convenient way to overcome change resistance is to ensure clear communication, education, and training, as well as 'quick wins' that demonstrate the benefits of the change. Communication can take place via a variety of media, including seminars, workshops, training sessions, an organization's website, conferences, and/or newsletters. The Kenyan government hopes to address the change management and communication challenges that were previously experienced during the pilot phase of IFMIS implementation, which greatly contributed to the system's lackluster performance, through the IFMIS Re-engineering process, as outlined in the Kenya's IFMIS Re-Engineering Strategic Plan 2011–2013.

According to Brar (2010), one of the main challenges in the implementation of the IFMIS in developing countries is a lack of capacity for system implementation at the sub-national level, such as provincial and regional governments. This factor, he believes, is particularly relevant to the South African context, with its nine provinces and the resulting demand for skills and knowledge, both of which are in short supply. Farelo and Morris (2006) argue that the personnel development issue within government must be prioritized, the education system must be aligned with the country's information and communication technologies (ICT) demands, and scarce ICT skills must be attracted and retained, particularly within the government.

Complementary experience training, management development, human resource management, and organizational change should also be required in developing countries. Finally, the consultant should have experience in project management and implementation, as well as working in advisory and training capacities in developing countries. The Scholars warn that the consultants must be

closely managed because they may be tempted to pursue their own interests at the expense of the institution's IFMIS objectives (Diamond and Khemani, 2006).

2.3.2. Complexity of the System

The World Department stated in its main report on the 2013 Country Integrated Financial Assessment, "The IFMIS is highly complex, sophisticated, and expensive." Having chosen this path, the Ethiopian government must overcome a number of major challenges in order to fully realize the system's benefits while ensuring its security. Failure to address specific issues relating to the system's sustainability, functionality, and extension is likely to result in higher rather than lower levels of fiduciary risk from an accounting financial reporting standpoint." In addition, the associated country financial accountability assessment reported the following risk: "should the IFMIS fail, there is currently no current back up other than the continued use of existing systems in parallel" (GAO, 2004).

2.3.3. Government Policies and IFMIS Implementation in Public Organization

According to Kenya Treasury (2015), the government has put policies in place to support the implementation of IFMIS in public organizations. These policies, however, may not be sufficient to support IFMIS. According to Ouma (2011), there is rigidity in public organization policy formulation, which has resulted in a delay in IFMIS implementation in public organizations. In order to implement IFMIS in public organizations, most rely heavily on policies that are cascaded from the highest level of authority.

Internal control systems are the policies and procedures put in place by a government agency's management to ensure that the agency meets its objectives while also complying with external laws and regulations. These policies and procedures typically cover financial bookkeeping and reporting, performance monitoring, asset management, and procurement (Simson, 2011). As a management tool, IFMIS can also help management control aggregate spending and the deficit, prioritize expenditure across policies, programs, and projects, and achieve efficiency and transparency in resource allocation. It also makes better use of budgeted resources, with the goal of achieving outcomes and producing outputs at the lowest possible cost (Hendricks, 2012). In other words, the benefits of implementing IFMIS include improved governance, reduced fraud, increased

transparency and accountability, and improved monitoring and evaluation. The goal of financial managers, including controllers and treasurers, according to Oz (2006), is to manage an organization's money as efficiently as possible.

2.3.4. Top Management Support and IFMIS Implementation

The responsibility of management in the public sector is to oversee, guide, and direct human resource movement. This is overseen by a public service chairman, whose authority is derived from the Public Service Act. The top manager and the same management team with the primary responsibility of ensuring performance comprise the management of public organizations (Muwema & Phiri, 2020). Specific management practices have been found to improve corporate performance; a three-dimensional strategy that includes exploring new horizons, selectivity, and drive, making wisdom contagious by empowering independence, interaction, and communication among employees, focusing on group performance rather than individual performance, external processes such as benchmarking, systems for feedback from suppliers and customers, and continuous innovation based on intuition (Yaokumah and Biney, 2020).

IFMS necessitates a commitment from top management in terms of procedures and processes, as well as changes in skills, behavior, and responsibilities (Chêne, 2009). IFMIS is a complex and risky system that requires motivation to change in order to be effectively implemented. This necessitates both top management and staff willingness and commitment to change in the use of technology (Otieno, Migiro and Mutambara, 2017). The involvement of top management is critical.

2.3.5. Technological Infrastructure

An IFMIS project director must be able to entrench organizational change management, particularly in order to overcome any resistance. Change management plans should be developed as soon as an IFMIS project is conceived. Consideration should be given to the implications of change for various stakeholders, including politicians, senior officials, heads of departments, IT personnel, and civil servants, among others, who are expected to support the new system (Mbaka, A.O and Namada, J.M., 2019).

2.3.6. Staff or Users Resistance

According to Indeje and Zheng (2010), the implementation of a new information system such as IFMIS fundamentally changes the way operations are carried out and, as a result, necessitates a carefully managed process in order to avoid potential staff resistance. This process results in the formation of a new organizational culture, i.e., a shift in how the organization operates. In general, an IFMIS implies fundamental changes in operating procedures and should be preceded by a detailed functional analysis of the processes, procedures, user profiles, and requirements that the system will support (Chene, M. 2009). The changes brought about by the implementation of IFMIS should be communicated to the staff in order for them to embrace it.

IFMIS is a relatively new concept or system that has yet to gain traction, particularly in county governments. Needless to say, the staff that will be tasked with implementing this system will be vehemently opposed to it. Effective change management is required to overcome this resistance. Change management, according to Barcan (2010), is the creation, maintenance, and systematic evaluation of changes in an organization. Aside from overcoming employee resistance, the goal of change management is to maximize the institution's capacity for success through involved, educated, and committed personnel. According to some authors, change management entails a stakeholder management model, a communication strategy, a change-readiness assessment framework, and specific design elements (Rodin-Brown, E. 2008b).

Poor employee competency, insufficient management support, insufficient technology infrastructure, and the presence of government policy on IFMIS adoption were among the findings of a study done in Meru country. The study found that staff competency, management support, and technological infrastructure all had a positive significant impact on the deployment of IFMIS in government departments, in addition to the distinct descriptive observations of each variable (Wambugu and Moguche, 2019).

According to the findings of a study conducted in South Africa, there are a number of factors that influence the deployment of an IFMIS. A collection of best practice guidelines has been produced to help with the implementation. The sheer size and complexity of an IFMIS creates major problems and hazards during implementation. However, there are crucial success criteria or best practices that can be implemented to ensure the project's success. (Hendriks, 2012)

The finding of the study done in Kenya pointed out that Financial Management Information System (IFMIS) on financial reporting in KCC and to establish the challenges facing implementation of IFMIS towards effective management of IFMIS practice in Kenya Co-Operative Creameries (Njuguna, 2020).

The implementation of Integrated Financial Management Systems (IFMIS) has been supported as a major component and, in many cases, a driver of public financial reforms in many developing nations, according to a case study done by the Anti-Corruption Resource Center. Despite the significant resources given to such programs, experience suggests that IFMIS projects in underdeveloped countries tend to stagnate due to serious institutional, political, technical, and operational obstacles. (Chene,M. 2009)

MOFEC did not manage change to IFMIS effectively, the technological infrastructure for the roll out was not available, some aspects of human capital development were not addressed, there was a lack of top management commitment to IFMIS, and MOFEC did not allocate enough resources to IFMIS implementation, according to the findings of this study conducted in Addis Ababa. This study suggests that, in order for IFMIS to be successful, change management should be improved, MOFEC should teach IFMIS users on a regular basis, there should be technological and infrastructural availability in the business, and proper change management should be done (Wasihun, 2018).

2.4. Research Gap

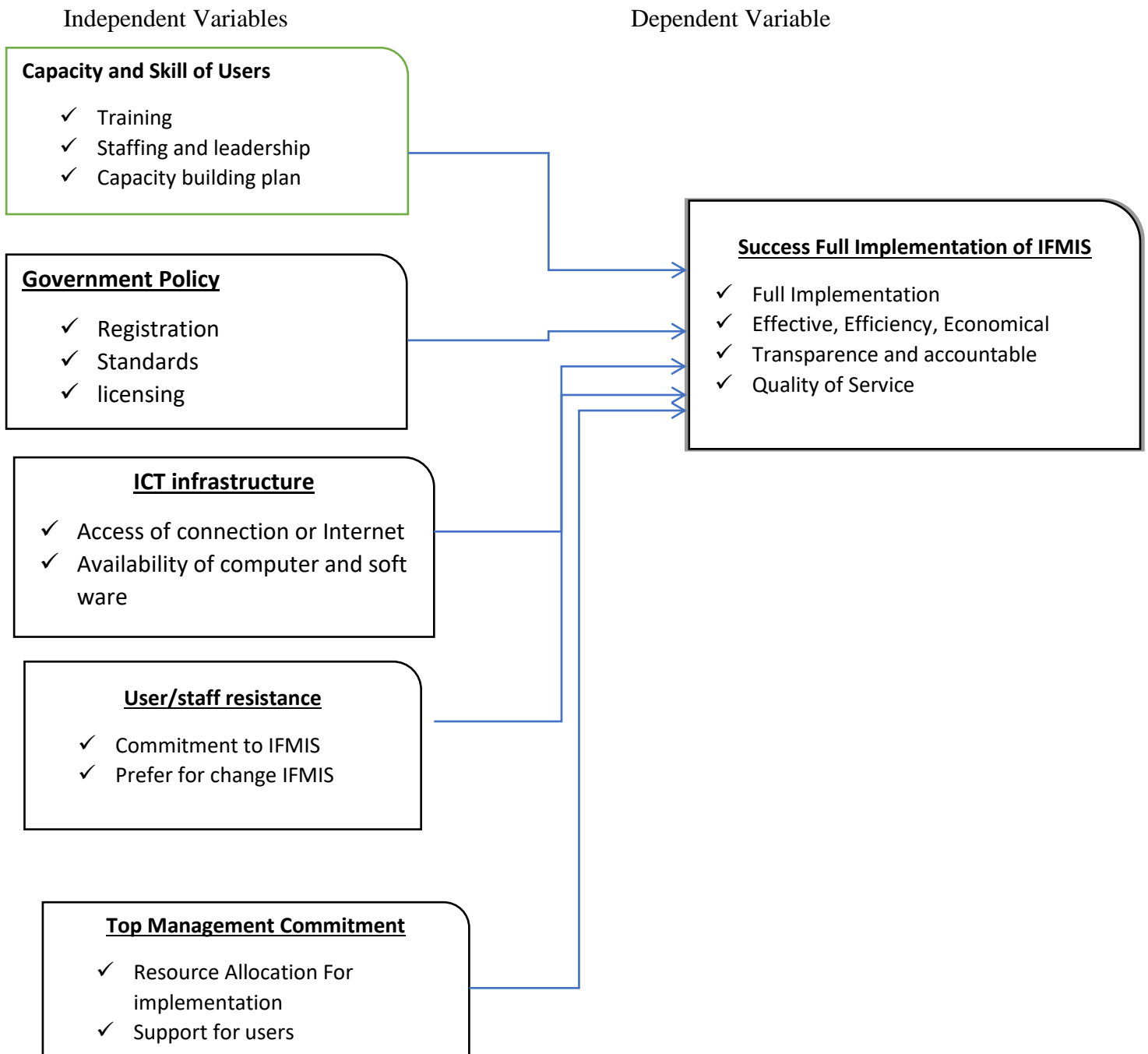
Previous studies have adequately described the numerous drivers and barriers for implementation of IFMIS in most African countries but there is no studies have adequately described the numerous drivers and barriers for implementation of IFMIS Ethiopia. The review of the relevant research in the field shows that scholars focused either on challenges and conducted their analysis from a single perspective or investigate them by looking at only one of the aspects of their application – effects and positive side of implementing IFMIS in public sector (Maake, 2007; Farelo& Morris, 2006; Chene,2009, Rose, 2009). According to International Telecommunication Union (ITU), (2012) observes that a sound regulatory environment and stable institutions are the key factors driving ICT investment. Gerster Consulting, (2008) also recommended that African Governments and their international partners create and support enabling environments, consisting of both ICT specific

regulatory frameworks and an overall policy framework that promotes sound economic and political governance. However, these studies were not conducted in Ethiopia which is a unique field by itself. This study therefore sought to fill the gap by the factors affecting IFMIS implementation of Ethiopian public sectors. Therefore the researcher justification on the research project started by describing on FGE focus which is the Federal Government of Ethiopia accounting system used the former system IBEX up to GC 2012 which was in service for more than 10 years. After 10 years use our government decided to change the previous accounting system due to the limitation of the former accounting system and to add new standard features of accounting system. So the Government decided that there was a need to reform the former accounting processes (IBEX) as an integral part of the Civil Service Reform towards the new accounting system which is the Integrated Financial Management Information System (IFMIS) with a big cost which is more than 17,632,450.50 USD or 29,228,032.50 ETB for the remaining Federal public bodies implementations. That is why my research project focuses on this.

2.5. Conceptual Framework

A conceptual framework is a concise description of the phenomenon under study that is accompanied by a graphical or visual representation of the study's major variables. According to educational researcher Yadav (2010), conceptual frameworks are made up of a collection of broad ideas and theories that assist a researcher in properly identifying the problem at hand, framing their questions, and locating relevant literature. Most academic research begins with a conceptual framework because it assists the researcher in clarifying his research question and goal (Van Kamp and De Hollander, 2003). In the proposed study, the researcher describes five independent factors and one dependent variable, as shown in Figure 1, in order to assess how these deterrent factors affect the success of IFMIS implementation in the Jimma public sector, as follows.

Figure 2.1: Conceptual frame work (Dependent variable & Independent Variable)



CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Introduction

This section gives an overview of the methods and materials used to undergo the thesis. The section outlines the general research approach, the research design; the target population, the sampling method and sample size determination, the data collection tool, the data collection procedure, the reliability and validity test and an ethical consideration.

3.1. Research Design

Research Design provides a blueprint for data collection, measurement and analysis, Kothari, (2003). The choice of study design depends on how the researcher sees the world in which he or she is studying. Qualitative research is subjective and is used to explain and interpret research results using non-mathematical methods to study how organizations, groups, and individuals behave and interact. (Robson, 2002, Quoted in Njuguna, 2020). Quantitative research, sometimes referred to as positivists, is an objective and scientific approach that collects and uses numerical data. A triangulation of the two research methodologies have been employed in this study.

This study was conducted by using a descriptive research design. The design of the descriptive study involves measuring a variety of naturally occurring variables (Gravetter and Forzano, 2011 as adopted in Anne and Ngungi, 2018) and attempting to provide answers to immediate questions about the current situation (Matthews and Kostelis, 2011). Descriptive study design is appropriate because it minimizes bias and maximizes reliability. According to Denscombe (2007), descriptive design focuses on creating databases created through real-world observations with a goal-oriented structured approach.

The researcher can infer the relationships between variables from related variations and find dependent and independent variables (Polit and Beck, 2001). The descriptive design of the study is used because of its ability to provide a snapshot of the current situation. The major variables studied in this study are factors that affect the implementation of the Integrated Financial Management Information System (IFMIS) in the public sector.

3.2. Study Population

The study population includes a group of people, objects, boxes, items, or objects that have common characteristics that exist in space at a particular time. Due to their exposure and day to day use of the IFMIS system, the target population of this study was top, middle and lower level employees from 3 selected public sectors of Ethiopia Jimma district. Namely: Ethiopian Minister of Revenues Jimma district, the Ethiopian Human Rights commission Jimma Branch, and Gumuruk Commission in Jimma Branch. According to the preliminary data gathered from the sectors, a totally 110 employees are directly related to the implementation of the IFMIS in those 3 selected sector.

3.3. Sample Size and Sampling Technique

This study used a census of all the staffs who are implementing the IFMIS, and hence no sampling strategy was applied. Thus, the provisional number of participants was 110.

3.4. Sources of Data and Collection Methods

For this study the primary data were collected from employees of 3 selected public sectors of Ethiopia Jimma district (i.e.; Ethiopian Minister of Revenues Jimma district, the Ethiopian Human Rights commission Jimma Branch, and Gumuruk Commission in Jimma Branch) who works in integrated financial management information system. Collection technique utilizes questionnaires which is designed to hold different information such as demographic information about the respondent, general information about functional works and other specific information for the situation which holds the evaluation of given objectives. The questionnaire is organized with different major parts and sub parts. The questionnaire format is provided at the appendix part of this paper. The data collected from those employees were highly accurate in terms of current condition and situations of the IFMIS. Data collection mechanism were used a questionnaire that was filled by those employees.

The questionnaire were contains close ended questions. The questionnaires were created from the literature and were divided into two parts. The first part focuses on the general background of the respondents, the second part focuses on the determinants of the implementation of IFMIS. In

addition, secondary data is collected from the websites of institutions such as document analysis and reporting, planning and journals.

3.4.1 Primary Data Sources

The primary data was collected from the questionnaire that is distributed for the respondents in 3 selected public sectors of Ethiopia in Jimma district.

3.4.2 Secondary Data Sources

For this study the secondary data were collected from different reports, articles, research papers, and other web resources. In addition to these the researcher tried to review different types of project documentation such as; project plans, reports, manuals, website and soon.

3.5 Procedures of Data Collection

The questionnaire in this research is close ended and subdivided into two subgroups. Part one is about the respondent demographic characteristics information includes gender, age, educational level and working experience. The part two of questioner categorized based on five major factors affects the successful implementation of IFMIS projects which are government policy, staff resistance, top management commitment, staff capacity, and Technological infrastructure. The questionnaires were picked after 3 days and this ensured that respondents filled the questionnaires at their convenient time within given timelines.

3.6. Method of Data Presentation and Analysis

After all data collected, the researcher conducted data cleaning, which involved identification of incomplete or inaccurate responses then correct them to improve the quality of the responses. This involved inspection and editing for completeness, coding and accumulation of missing data. The data was categorized, coded and entered in the computer for analysis using the Statistical Package for Social Sciences (SPSS) version 21 software. The data was then coded using Likert scale values corresponding to the number of options in the research question. The coded data was then analyzed using descriptive statistics such as mean scores and standard deviations. The mean scores gave the standardized response for each of the research questions and the standard deviation established the

variation of the responses from the standardized response. Data from the questionnaires were recorded and descriptive analysis was performed to summarize the data. The direction and strength of the relationship between the independent variable (government policy, staff capacity, top management commitment, staff resistance, and ICT infrastructure) and dependent variable (successful implementation of integrated financial management information system (IFMIS)) was examined using linear regression analysis. The interpretation of the results was based on the results used to draw conclusions concerning the significance of the findings.

3.7. Model Specifications and Methods of Data Analysis

3.7.1. Independent Variables of the Study

The main variables, in this study, are the five dimensions of IFMIS (i.e., independent variables). These are (1) government policy, (2), staff resistance, (3) top management commitment (4) user capacity, and (5) ICT infrastructure as perceived and rated by sample employee respondents using a five-point Likert-Scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) for each of the item in the closed-ended questionnaire.

3.7.2. The Dependent Variable of the Study

In this study, implementation of integrated financial management information system (IFMIS) has been taken as an outcome variable or dependent variable. Implementation of integrated financial management information system (IFMIS) has also been measured using a five-point Likert-Scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

3.7.3. Statistical Model for Data Analysis

The primary purpose of the study was to assess Determinants of successful implementation of integrated financial management information system (IFMIS) in Ethiopian public sector Jimma district. Accordingly, both descriptive statistics (such as mean, standard deviation) and inferential statistical methods (such as Pearson's correlation and multiple linear regressions) were used to test the effects of the independent variables on the outcome variable using SPSS21 software package. A statistical significance level of alpha is used in order to test whether the computed correlation and regression coefficients are statistically significant or not. Particularly, a multiple linear regression statistical model was used to test the total and relative effects of predictor variables (government

policy, staff capacity, top management commitment, staff resistance, and ICT infrastructure) and successful implementation of integrated financial management information system (IFMIS) (the outcome variable). Thus, the model is specified as follows:

Regression equation

$$Y = \beta_0 + \beta_1X_1 + \beta_2x_2 + \beta_3X_3 + \beta_4X_4 + \beta_4X_4 + \Sigma_0 + e$$

$$Y = \beta_0 + \beta_1(Gp) + \beta_2(Sc) + \beta_3(Tm) + \beta_4(Sr) + \beta_4(ICT) + e$$

$$Y = 0.236 + 0.117(Gp) + 0.214(Sc) + 0.218(Tm) + 0.289(Sr) + 0.223(ICT) + e$$

Where;

Y= the dependent variable (successful implementation of integrated financial management information system (IFMIS))

Gp= the first independent variable (Government policy)

Sc= the second independent variable (Staff capacity)

Tm= the third independent variable (Top management commitment)

Sr= the fourth independent variable (Staff resistance)

ICT= the fifth independent variable (ICT infrastructure)

β_0 =intercept of the equation e = error term

Finally, based on the results of data analysis, the findings were discussed; conclusions were drawn; and recommendations for policy and practice as well as suggestions for further study have been forwarded.

3.8 Data Validity and Reliability

3.8.1 Validity Test

Validity involves the degree to which the study is measuring what it is supposed to measure. More simply, it focuses on the accuracy of the measurement (John, et al., 2007). All measures used to construct the instruments have shown an acceptable level of construct and content validity in previous studies and are used in this study with slight modification. Besides, proper detection by an

advisor was also taken to ensure the validity of the instruments. Additionally, several measures were employed to ensure that the results are free from material errors from the design of the questionnaire. Such measures are clarity of instructions, clarity of the questions, the layout of the questionnaire, and other comments. Since the questionnaire is developed after a thorough review of Determinants of successful implementation of integrated financial management information system (IFMIS) academic literature, it is assumed that the construct validity is hold

3.8.2 Reliability Test

Reliability is concerned with the findings of the research and refers to the consistency of a measuring instrument (questionnaire). Reliability is internal consistency used to measure consistency between different items of the same construct. For reliability, the study used a scale test was used to produce Cronbach’s alphas which were then compared to the conventional cut-off point of 0.7. According to Field (2005), Pallant (2013) a Cronbach’s alpha higher than 0.7 indicates internal consistency on the instrument. Cronbach alphas were produced for each sub-scale and the results are presented in Table 3.1.

Table 3.1 Reliability Statistics

| Study Variables | No. of Items | Alpha values |
|------------------------------------|--------------|--------------|
| Government Policy | 5 | .856 |
| Capacity and Skills of IFMIS Users | 5 | .898 |
| Top Management Commitment | 6 | .892 |
| Staff resistance | 5 | .755 |
| ICT infrastructure | 4 | .813 |
| Implementation of IFMIS | 5 | .863 |
| Overall Reliability statistics | 30 | .904 |

Source: Own Survey, 2022

As shown from table 3.1 above the alpha coefficient for reliability dimension for government policy is 0.856, the alpha coefficient for Capacity and Skills of IFMIS Users is 0.898, the alpha coefficient for Top Management commitment is 0.892, the alpha coefficient for staff resistance is 0.755, the alpha coefficient for ICT infrastructure is 0.813, the alpha coefficient for Implementation of IFMIS

is 0.863. This shows that the data collected from the employees at public sector in Jimma district is reliable and consistent from the scale. Also, checking the reliability test by taking all the implementation of IFMIS dimensions together gives us the more reliable alpha coefficient which is 0.904. This means that the dimensions used to measure the Implementation of IFMIS for this study are very consistent.

3.9. Ethical Consideration

Ethical clearance and permission obtained from Jimma University office of post graduate. Permission is also granted from the concerned public sector through a formal letter. Participation in the study was on the voluntary basis and participants are asked for willingness before they are provided the questionnaire. The subjects are also assured that their responses are used only for the purpose of the study. An attempt is made first to explain the objectives and significance of the study to the respondents. Name and other identifying information are not used in the study. The researcher safeguarded all information related to the participants. Their privacy, identity, and confidentiality are maintained by assigning them code numbers instead of names (anonymity).

CHAPTER FOUR

PRESENTATION, INTERPRETATION, AND DISCUSSION OF FINDINGS

Introduction

This chapter presents data analysis and discussions of the study findings on the Determinants of Successful Implementation of Integrated Financial Management Information System (IFMIS) in Public sector of Ethiopia in Jimma district. The analysis is based on research questions and objectives as identified in chapter one of the study and then analyzed with the help of the statistical package for social science SPSS version 21 software. The data was obtained by use of questionnaires, analyzed, and presented in tables.

4.1. Response Rate

The study targeted a sample size of 110 respondents from which 105 filled and returned the questionnaires making a response rate of 95.45%, which was considered adequate to carry out the research.

Table 4.1: Response Rate of Respondents

| Description | Respondents |
|---------------------------|-------------|
| Target Population | 110 |
| Questionnaire distributed | 110 |
| Questionnaire returned | 105 |
| Response rate (%) | 95.45 |

Source: Field survey, 2022

4.2 Background Information

The study sought to establish the background information of the respondents regarding their gender, age, level of education, years worked in the organization, and position held in Ethiopian public sector Jimma district.

4.2.1 Distribution by Gender of Respondents

Respondents were asked to state their gender in the questionnaire. The frequencies and percentages of each gender were generated. The findings are shown in Table 4.2

Table 4.2. Gender of the Respondents

| Sex of the Respondents | | Frequency | Percent |
|------------------------|--------|-----------|---------|
| Valid | Male | 65 | 61.9 |
| | Female | 40 | 38.1 |
| | Total | 105 | 100.0 |

Source: Own Survey, 2022

As shown in the above table 4.2 regarding the gender distribution of respondents among 105 participants 65(61.9% were males whereas 40(38.1%) were females, which implies that there were more male respondents compared to female respondents in the study.

4.2.2 Distribution by Age of the Respondents

Respondents were also required to state the range within their ages lied. The frequency and percentages of the range of ages were computed. The findings are shown in Table 4.3

Table 4. 3: Age of the Respondent

| Age distribution of the respondents | | Frequency | Percent |
|-------------------------------------|--------------|-----------|---------|
| Valid | 20-30 | 19 | 18.1 |
| | 31-40 | 49 | 46.7 |
| | 41-50 | 28 | 26.7 |
| | 50 and above | 9 | 8.6 |
| | Total | 105 | 100.0 |

Source: Own Survey, 2022

As shown from the table 4.3 above, the majority of the respondents were in the age group between 31-40 (46.7%) and 20-30 (18.1%) years. The remaining age groups i.e. 41-50 years and 50 and

above accounted for 26.7% and 8.6. This implies that the respondents were well distributed in terms of their age.

4.2.3 Distribution based on Respondent's Level of Education

Respondents were required to select their level of education. The frequencies and percentages of the various choices were as shown in Table 4.4

Table 4. 4: Distribution of Educational Qualifications of Respondents

| Educational status | | Frequency | Percent |
|--------------------|---------|-----------|---------|
| | Diploma | 9 | 8.6 |
| | BA/BSC | 65 | 61.9 |
| | MA/MSC | 31 | 29.5 |
| | Total | 105 | 100.0 |

Source: Own Survey, 2022

The findings of this study indicated that the majority of the respondents 65(61.9%) had a bachelor's degree. In addition, 31 (29.5%) of the respondents had a master's degree while 9(8.6%) of them have a diploma. this implies that most of the respondents were well educated.

4.2.4 Period of Service

Respondents were also asked to state the period they had been serving in the sector. The frequencies and percentages for the various categories were computed and the results are presented in Table 4.5 below:

Table 4.5: Period served

| Length of Service | | Frequency | Percent |
|-------------------|-------------------|-----------|---------|
| Valid | Less than 2 yrs. | 35 | 33.3 |
| | 3-10 yrs. | 47 | 44.8 |
| | 11-15 yrs. | 17 | 16.2 |
| | 16 yrs. and above | 6 | 5.7 |
| | Total | 105 | 100.0 |

Source: Own Survey, 2022

Results in table 4.5 above indicated that, the majority of the respondents working with the targeted institutions have 3-10 years of experience (44.8%), 33.3% have less than 2 years of experience and it is followed by those with 11-15 of experience at (16.2%) and over 16 years of experience at (5.7%). This implies that the respondents had good/enough information about the company and its activities, including IFMIS Implementation and operationalization which was critical in this study.

4.2.5 Regularity of Using IFMIS

Table 4.6. How frequently do you use IFMIS as part of your work?

| How frequently do you use IFMIS as part of your work? | | Frequenc y | Percent |
|---|--------|---------------|---------|
| Valid | Daily | 68 | 65 |
| | Weekly | 37 | 35 |
| | Total | 105 | 100.0 |

Source: Own Survey, 2022

As shown from the table 4.6 above, the respondents were asked to rate their frequency in day to day interaction with IFMIS system. The majority 68 (65%) of the respondent were used IFMIS on their working activity daily. It shows that most of respondents are direct and active interaction with IFMIS on their day to day works and activities. Whereas, the remaining 37(35%) of the respondents used IFMIS weekly.

4.3 Descriptive statistics Result

This part describes those investigated determinants of their contribution and level of effect on the effective implementation of IFMIS. These determinants are classified as a variable which are independent in our case, is presented with their relative tables of detail data presentation.

The main purpose of using this statistical parameter is to interpret the average response rate of respondents for each statement. According to Renjit Kumar (2011) any score can be assigned as long as the strength of the response pattern is reflected in the score and the highest score is assigned to the response with the highest intensity, therefore the study used judgment to classify the range of scores obtained of the five point Likert scale as follows: A variable with a mean score of 3.4 to 5.0 have taken as ‘strongly agree/agree’ on the five point Likert scale, a score of 3.3 to 3.4 as ‘neutral’

on the five point Likert scale and a score of 0.0 to 3.3 either ‘strongly disagree’ or ‘disagree’ on the Likert scale

4.3.1. Descriptive Statistics for questionnaires related to Government Policy

The first five questionnaires’ which are considered in this study as the success factor for the implementation of IFMIS are related to the Government policy. The study sought to establish the extent to which respondents agreed or disagreed with the five questions below in table 4.7 that relate to Government Policy to describe its influence of it on the implementation of IFMIS in Ethiopia's public sector Jimma district.

Table 4.7: Descriptive Statistics of questionnaires’ responses related to Government Policy

| Descriptive Statistics | | | |
|---|----------|-------------|-------------|
| Government Policy | N | Mean | StD. |
| There is no implementation of policy in the country in regard to use of IFMIS in the organization. | 105 | 3.84 | 1.46 |
| The government is not ensuring that there is compliance/conformity on the usage of IFMIS in the organization. | 105 | 3.96 | 1.46 |
| The government policy as well as the structure of the organization is comfortable for the implementation process. | 105 | 4.03 | 1.32 |
| MoFED plays a great role for IFMIS implementation using Government finance legislation framework. | 105 | 3.79 | 1.57 |
| Government financial rule and regulations is not influence performance of IFMIS in the organization. | 105 | 3.91 | 1.53 |
| Average mean and SD | 105 | 3.91 | 1.17 |

Source: Own Survey, 2022

As shown from the table 4.7 above agreed with the statement regarding whether the government policy as well as the structure of the organization is comfortable for the implementation process with a mean value of (M =4.03, and SD =1.32). The respondents were also agreed with the statement whether the government is not ensuring that there is compliance/conformity on the usage

of IFMIS in the organization with a mean score of ($M=3.96$ and $SD =1.46$). Also, the respondents were agreed with the statement whether the government financial rule and regulations is not influence performance of IFMIS in the organization with a mean score of ($M=3.91$, and $SD= 1.53$). Next, the respondents were agreed with the statement that there is no implementation of policy in the country regarding the use of IFMIS in the organization with a mean value of ($M =3.84$, and $SD =1.46$). This indicated that the majority of the respondent disagreed with the implementation policy of the country regarding the government policy as well as the structure of the organization for the comfortable implementation of IFIMS, and then the researcher can conclude the absence of implementation policy in the study area is one of the determinant factors for the implementation of IFMIS. Furthermore, the respondents have moderately agreed with the statement that MoFED plays a great role for IFMIS implementation using Government finance legislation framework with a mean value of ($M =3.79$, and $SD =1.57$).

4.3.2. Descriptive Statistics for questionnaires related to Capacity and Skills of IFMIS Users

Here, the study also sought to establish the extent to which respondents agreed or disagreed with the statements relating to the capacity and skill of IFMIS users to influence the implementation of IFMIS in Ethiopian public sector Jimma district and the researcher described with descriptive Statistics in table 4.8 below and analyzed as follows.

Table 4.8: Descriptive Statistics of questionnaires’ responses related to Capacity and Skills of IFMIS Users

| Descriptive Statistics | | | |
|---|-----|------|------|
| | N | Mean | StD. |
| Your organizations have personnel with requisite knowledge & expertise for Effective implementation, operation, & maintenance of IFMIS. | 105 | 3.68 | 1.50 |
| Every employee of the organization have adequate know how about IFMIS. | 105 | 3.77 | 1.72 |
| Your organization has taken necessary measures to develop requisite skills and capacity of the central IT dept. | 105 | 3.71 | 1.64 |
| Your organization arranges & provides adequate IFMIS training for the staffs of the organizations. | 105 | 3.87 | 1.61 |
| Your organization has taken necessary measures to reinforce capacity in IFMIS project team | 105 | 3.70 | 1.62 |
| Average mean and SD | 105 | 3.75 | 1.36 |

Source: Own Survey, 2022

As shown from the table 4.8 above the majority of the respondents agreed with the statement that whether your organization arranges & provides adequate IFMIS training for the staffs of the organizations with a mean score of (M=3.87, and SD=1.61). In addition, the respondents agreed with the statement whether every employee of the organization have adequate know how about IFMIS with a mean score of (M=3.77 and SD=1.72). Furthermore, the respondents agreed with the statement whether your organization has taken necessary measures to develop requisite skills and capacity of the central IT department with a mean value of (M=3.71, and SD=1.64). Besides, the respondents have also agreed with the statement whether your organization has taken necessary measures to reinforce capacity in IFMIS project team, and whether your organizations have personnel with requisite knowledge & expertise for Effective implementation, operation, & maintenance of IFMIS with a mean score of (M =3.70, and SD =1.62), and (M=3.68, and SD=1.50) respectively. The average mean for the perception of staff capacity is the mean value of 3, 75. This is above the average, indicating that the majority of respondents are towards agree on the level of

the development of Capacity and Skills of IFMIS Users for the implementation of IFIMS in the study area. The findings of the study are in agreement with Selfano & Serah (2014) who indicated that human resource capacity plays a significant role in the implementation of IFMIS in the organization. The effective implementation, operation, and maintenance of an IFMIS require staff with the necessary knowledge and skills. Sigei (2013) argues that low capacity for system implementation at the organizational level is one of the major challenges in the implementation of an IFMIS in developing countries. Hove & Wynne (2010) also contend that the human resource development issue within government needs prioritization, the education system needs to be aligned with the information and communication technologies (ICT) demands of the country and scarce ICT skills need to be attracted and retained particularly within Government. In general, from the finding, the researcher understood that staff capacity building is one of the determinant factors for the implementation of IFIMS in the study area.

4.3.3. Descriptive Statistics for Questionnaires Related to Top Management Commitment

The other sought of this study is to establish the extent to which respondents' point of view relating to top management commitment influence on the implementation of IFMIS in Ethiopian public sector and the researcher again described their point of view with descriptive Statistics in table 4.9 below.

Table 4.9: Descriptive Statistics on top management commitment

| Descriptive Statistics | N | Mean | StD. |
|--|----------|-------------|-------------|
| Top management takes action when the employee faces challenge during Implementation. | 105 | 3.88 | 1.75 |
| Top management of the organization tries their best for the critical success factors to the implementation of IFMIS. E.g. making the environment conducive for implementation. | 105 | 3.74 | 1.80 |
| Top management in your organization has awareness about the benefits of IFMIS. | 105 | 3.44 | 1.82 |
| Top management of your organization assists & encourages employee in IFMIS adoption. | 105 | 3.45 | 1.82 |
| Top management in your organization allocates enough financial to | 105 | 3.58 | 1.77 |

| | | | |
|---|-----|------|------|
| IFMIS implementation. | | | |
| The management of your organization strongly needs the implementation of IFMIS. | 105 | 3.55 | 1.78 |
| Average mean and SD | 105 | 3.61 | 1.44 |

Source: Own Survey, 2022

According to table 4.9 above, with regards to the top management commitment, the majority of the respondents were satisfied with the statement that the top management takes action when the employee faces challenges during Implementation with a mean value of (M =3.88, and SD= 1.75) which indicating that the majority of respondents have agreed that the top management takes an action when facing the challenge for the implementation of IFMIS. In addition, the respondents agreed with the statement that the top management of the organization tries their best to the critical success factors to the implementation of IFMIS. E.g. making the environment conducive for implementation with a mean score of (M=3.74, and SD=1.80). Also, regarding whether top management in your organization has awareness of the benefits of IFMIS, and about the management of your organization strongly needs the implementation of IFMIS the majority of the respondent neither agree nor disagree with the statement specified in the statement with a mean score of (M=3.44). In addition, concerning whether the top management of your organization assists & encourages employees in IFMIS adoption and whether the top management in your organization allocates enough financial to IFMIS implementation the respondent also agreed with a mean score of (M=3.45, and SD=1.82), and (M=3.58, and SD=1.77) respectively.

The aggregate mean value for top management is 3.61 indicating that top management of the organization is committed for the successful of implementation of IFMIS in public sectors in the study area.

4.3.4. Descriptive Statistics for questionnaires related to Staff Resistance

The other sought of this study is to establish the extent to which respondents' point of view relating to staff resistance influence the implementation of IFMIS in Ethiopian public sector Jimma district and the researcher again described their point of view with descriptive Statistics in table 4.10 below and analyzed as follows:

Table 4.10: Descriptive Statistics of questionnaires’ responses related to Staff Resistance

| Descriptive Statistics | | | |
|--|-----|------|------|
| | N | Mean | StD. |
| Your Organization has capacity to make changes, manage changes and survive while resistance | 105 | 3.59 | 1.78 |
| Every employee of the organization is happy for the implementation of IFMIS in their organization. | 105 | 3.95 | 1.58 |
| Some employee resists the implementation of IFMIS without any reason. | 105 | 3.84 | 1.55 |
| Your organization has devised (think) convenient methods of overcoming change resistance | 105 | 3.61 | 1.75 |
| The implementation of IFMIS results in any job losses for some employee. | 105 | 3.73 | 1.44 |
| Valid N (listwise) | 105 | 3.74 | 1.62 |

Source: Own Survey, 2022

As shown in the table 4.10 above the study analyzed the views of respondents on how the resistance of the public sector staff affects the implementation of IFMIS in the study area. Accordingly, most of the respondents agreed with the statement that every employee of the organization is happy with the implementation of IFMIS in their organization with the highest mean score of (M=3.95, and SD=1.58). The majority of the respondents also agreed that some employee resists the implementation of IFMIS without any reason with a mean score of (M=3.84, and SD=1.55). This mean value indicated a general consensus that respondents agreed with the statement. The results were further affirmed by the fact that the implementation of IFMIS results in job losses for some employees with a mean score of (M=3.73, and SD=1.44). This mean value showed there is a relatively moderate degree of consensus in the statement. In addition, the respondents moderately agreed with the statement specified whether your organization has devised (think) convenient methods of overcoming change resistance with a mean score of (M=3.61, and SD=1.75). Also, the respondents agreed with the statement regarding whether your Organization can make changes, manage changes and survive while resistance with a mean score of (M=3.59, and SD=1.78).

4.3.5. Descriptive Statistics for questionnaires related to ICT infrastructure

The last independent variable considered in this study as the determinant for the implementation of IFMIS is the availability of ICT infrastructure. Therefore study finally sought to establish the extent to which respondents agreed or disagreed with the four questions relating to the availability of ICT infrastructure to describe its influence of it on the implementation of IFMIS in Ethiopian public sector Jimma district. The respondent’s response is presented and analyzed in Table 4.11 below.

Table 4.11.: Descriptive Statistics of questionnaires’ responses related to the availability of ICT infrastructure

| Descriptive Statistics | | | |
|--|-----|------|------|
| ICT infrastructure | N | Mean | StD. |
| There is power inconsistency in the government organization which affects the implementation process. | 105 | 3.88 | 1.52 |
| The network dependency nature of IMFIS is the major implementation challenge. | 105 | 3.99 | 1.51 |
| In adequate ICT related equipment in your organization hinder the Implementation of IFMIS. | 105 | 3.92 | 1.48 |
| There is no reference manual for use of IFMIS & adequate computers for the staff to use for IFMIS in the organization. | 105 | 3.71 | 1.63 |
| Average mean and SD | 105 | 3.88 | 1.54 |

Source: Own Survey, 2022

As shown from the findings in table 4.11 above the highest portion of the respondents agreed with the statement that the network dependency nature of IMFIS is the major implementation challenge with a mean score of (M=3.99, and SD=1.51). The mean value of the statement indicated that the network dependency nature of IMFIS is the major implementation challenge in the study area. In addition, the major portion of the respondents also agreed with the statement in adequate ICT-related equipment in your organization hinders the Implementation of IFMIS with a mean score of (M=3.92, and SD=1.48). This mean value indicated that there is a lack of adequate ICT infrastructure availability such as computers, accessibility, and software to enable the users to perform their roles well thus affecting implementations of IFMIS in the organization. To accomplish this revitalization, governments should try to ensure well-laid ICT infrastructure to support IFMIS in

public sectors. Besides, the respondents were agreed with the statement there is no reference manual for use of IFMIS & adequate computers for the staff to use for IFMIS in the organization with a mean score of (M=3.71, and SD=1.63), and regarding there is power inconsistency in the government organization which affects the implementation process with a mean score of, and (M=3.88, and SD=1.52).

4.3.6. Descriptive Statistics for questionnaires related to the Implementation strategy

Table 4.12: Descriptive Statistics of questionnaires’ responses related to IFMIS Implementation

| Descriptive Statistics | | | |
|---|----------|-------------|-------------|
| IFMIS Implementation | N | Mean | StD. |
| IFMIS implementation strategies in your organization have a good plan and schedule. | 105 | 3.76 | 1.54 |
| The implementation of the IFMIS Project is continuously being assessed & managed. | 105 | 3.92 | 1.24 |
| The implementation of IFMIS information is not kept secure when started in your organization | 105 | 3.93 | 1.53 |
| There is an organized change management team from the IFMIS Project office to create awareness about IFMIS. | 105 | 3.88 | 1.51 |
| The MOFEC has an adequate & Skilled IFMIS implementation team to run IFMIS implementation. | 105 | 3.96 | 1.37 |
| Valid N (listwise) | 105 | 3.89 | 1.44 |

Source: Own Survey, 2022

According to the respondents the highest portion of the respondents were agreed with the statement specified that The MOFEC has an adequate & Skilled IFMIS implementation team to run IFMIS implementation with a mean score of (M=3.96, and SD=1.37), The implementation of IFMIS information is not kept secure when started in your organization with a mean score of (M=3.93, and SD=1.53), The implementation of the IFMIS Project is continuously being assessed & managed with a mean score of (M=3.92, and SD=1.24), There is an organized change management team from the IFMIS Project office to create awareness about IFMIS with a mean score of (M=3.88, and SD=1.51), and in the least place, respondents are described that IFMIS implementation strategies in the organization have a good plan and schedule. With a mean value of (M =3.76, and SD= 1.54).

The overall mean for successful implementation of Financial Management information system was 3.89 which could be interpreted as most of respondents agreed that there are adequate resources and qualified personnel allocated to IFMIS implementation.

4.4. Inferential Statistics

4.4.1 Correlations between the Variables

According to Gujarati (2009), correlation between two variables measures the degree of linear association between them. To find the association of the independent variables with the effectiveness of implementation of IFMIS, correlation coefficient was used. The values of the correlation coefficient are always ranged between +1.0 and -1.0. A correlation coefficient of positive one indicates a perfect positive association between the two variables; while a correlation coefficient of negative one indicates a perfect negative association between the two variables. A correlation coefficient of zero indicates that there is no linear relationship between the two variables or does not necessarily have. Thus, as part of the analysis the correlations among the variables in the regression model will be discussed as follows:

Table 4.13: Correlation Coefficient

| Correlations | | Government policy | Staff capacity | Top management | Staff resistance | ICT | IFMIS |
|---------------------|---------------------|-------------------|----------------|----------------|------------------|-----|-------|
| Government policy | Pearson Correlation | 1 | | | | | |
| | Sig. (2-tailed) | | | | | | |
| | N | 105 | | | | | |
| Staff capacity | Pearson Correlation | .272** | 1 | | | | |
| | Sig. (2-tailed) | .005 | | | | | |
| | N | 105 | 105 | | | | |
| Top | Pearson | .352** | .402** | 1 | | | |

| | | | | | | | |
|--|---------------------|--------|--------|--------|--------|--------|-----|
| management | Correlation | | | | | | |
| | Sig. (2-tailed) | .000 | .000 | | | | |
| | N | 105 | 105 | 105 | | | |
| Staff resistance | Pearson Correlation | .130 | .070 | .204* | 1 | | |
| | Sig. (2-tailed) | .185 | .477 | .037 | | | |
| | N | 105 | 105 | 105 | 105 | | |
| ICT | Pearson Correlation | .267** | .232* | .166 | .331** | 1 | |
| | Sig. (2-tailed) | .006 | .017 | .090 | .001 | | |
| | N | 105 | 105 | 105 | 105 | 105 | |
| IFMIS | Pearson Correlation | .349** | .406** | .441** | .438** | .436** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | |
| | N | 105 | 105 | 105 | 105 | 105 | 105 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | | | |
| *. Correlation is significant at the 0.05 level (2-tailed). | | | | | | | |

Source: Own Survey, 2022

According to the Table 4.13, there were significant positive relationship between the Effective implementations of IFMIS with Government policy, staff capacity, top management commitment, staff resistance and Technological Infrastructure. From the result the moderate positive correlation was between government policy (0.349), staff capacity (0.406), top management commitment (0.441), staff resistance (0.438), and technological infrastructure (0.436). In general, there were positive correlation between the Effective implementations of IFMIS with Government policy, staff capacity, top management commitment, staff resistance and Technological Infrastructure

4.4.1.1. Normality Test

In statistics, it is conventional to assume that the observations are normal. The entire statistical framework is grounded on this assumption and if this assumption is violated the inference breaks down. For this reason, it is essential to check or test this assumption before any statistical analysis of

data. The normality test was examined using the graphical method approach as shown in figure 4.1 below. The results in the figure indicated that the residuals are normally distributed.

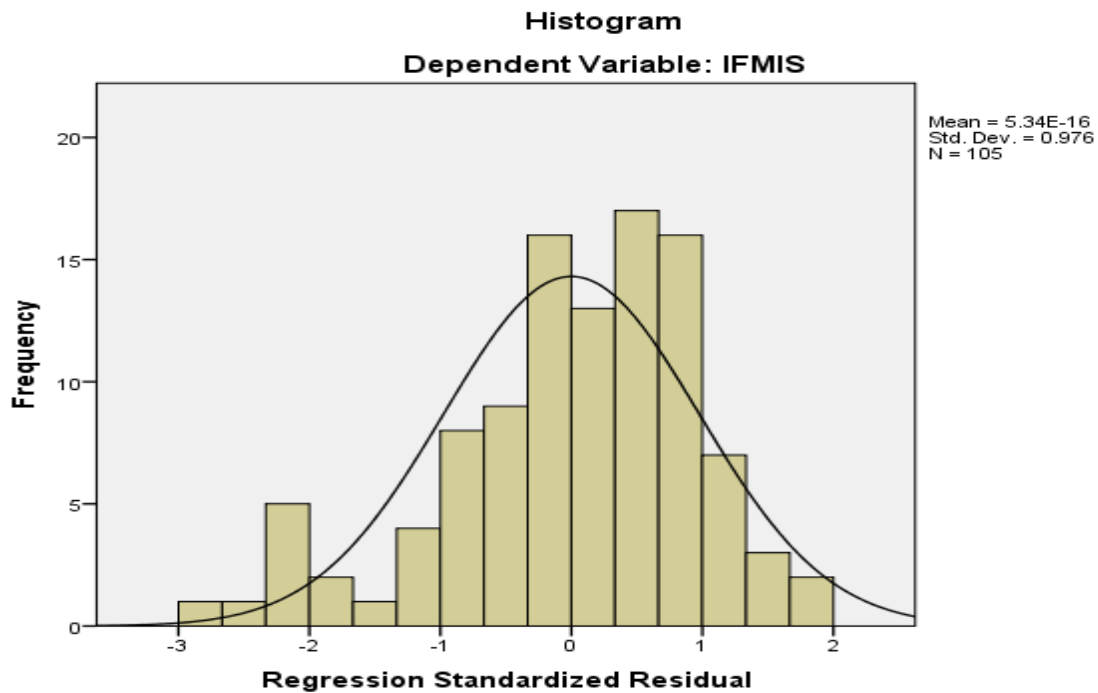


Figure 4.1: Normality Test Results

4.4.2.2. Linearity Test

Linearity refers to the degree to which the change in the dependent variable is related to the change in the independent variables. The study conducted a linearity test to determine whether the relationship between ICT infrastructure, Top management empowerment, Staff resistance, Government policy, and Staff capacity dimensions (independent variables) and integrated financial management information system (IFMIS) (dependent variable) is linear or not. As shown in figure 4.2 below, the scatter plot of residuals showed no large difference in the spread of the residuals. The result indicated that the relationship is linear.

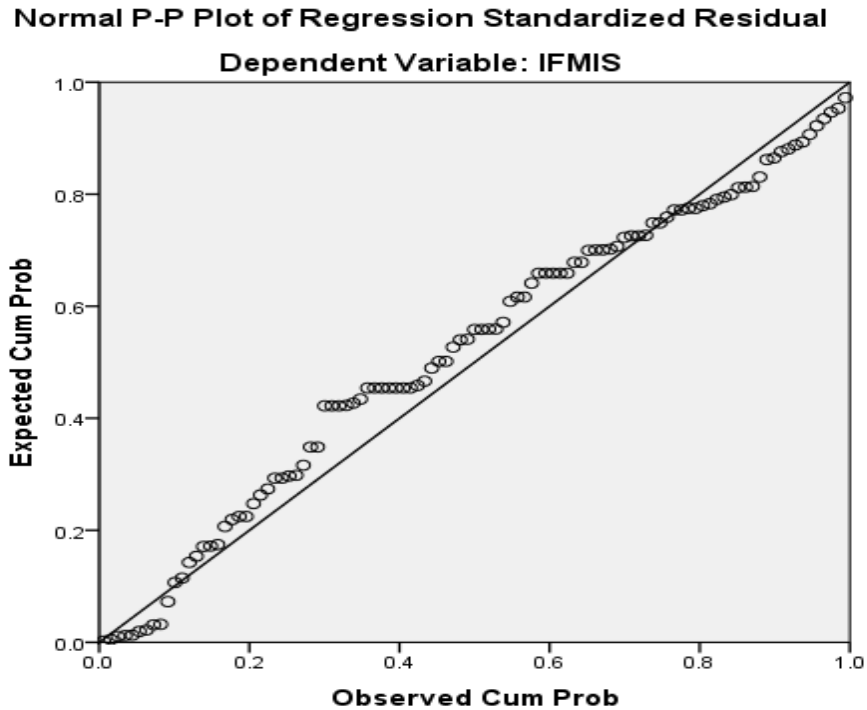


Figure 4.2: Linearity Test Results

Source: Field survey, 2022

The scatter plot of residuals shows no more variation in the spread of the residuals as you can see from left to right on figure 4.2 above. This result suggests the relationship the researcher trying to predict is linear. As a result, the above figure shows the normal distribution of residuals around its mean of zero. Hence the normality assumption is fulfilled as required based on the above figure, it is possible to conclude that the inferences that the researchers would made about the population parameter from the sample were valid

4.4.2.3. Test for Heteroscedasticity

The classical linear regression model assumes the variance of the error term is constant, this is known as homoscedasticity. If the variance of the error term is not the same, they are said to be heteroscedastic. To check the violation of classical linear assumption the research used a scatter plot diagram. The result plots the standardized residual, against the standardized predicted value. If the plots have a pattern it implies the presence of heteroscedasticity's. Conversely if the plots depict a pattern there is no evidence for the presence of heteroscedasticity.

The possible existence of heteroscedasticity is a major concern in the applications of regression analysis, including the analysis of variance, because the presence of heteroscedasticity can invalidate statistical tests of significance that assume that the modeling errors are uncorrelated and normally distributed and that their variances do not vary with the effects being modeled (Gujarati, 2004).

The standard suggestion for examining the assumption of heteroscedasticity in regression analysis is to plot the predicted variable values against the residual values. Heteroscedasticity is indicated when these values spread or fan out from left to right or right to left. Thus, the scatter plot shows that the majority of the points are concentrated around 0 which shows no violation of homoscedasticity.

As illustrated in figure, 4.3 below the graph looks like a random array of dots or the plots have no pattern. So, the homoscedasticity assumption is not violated.

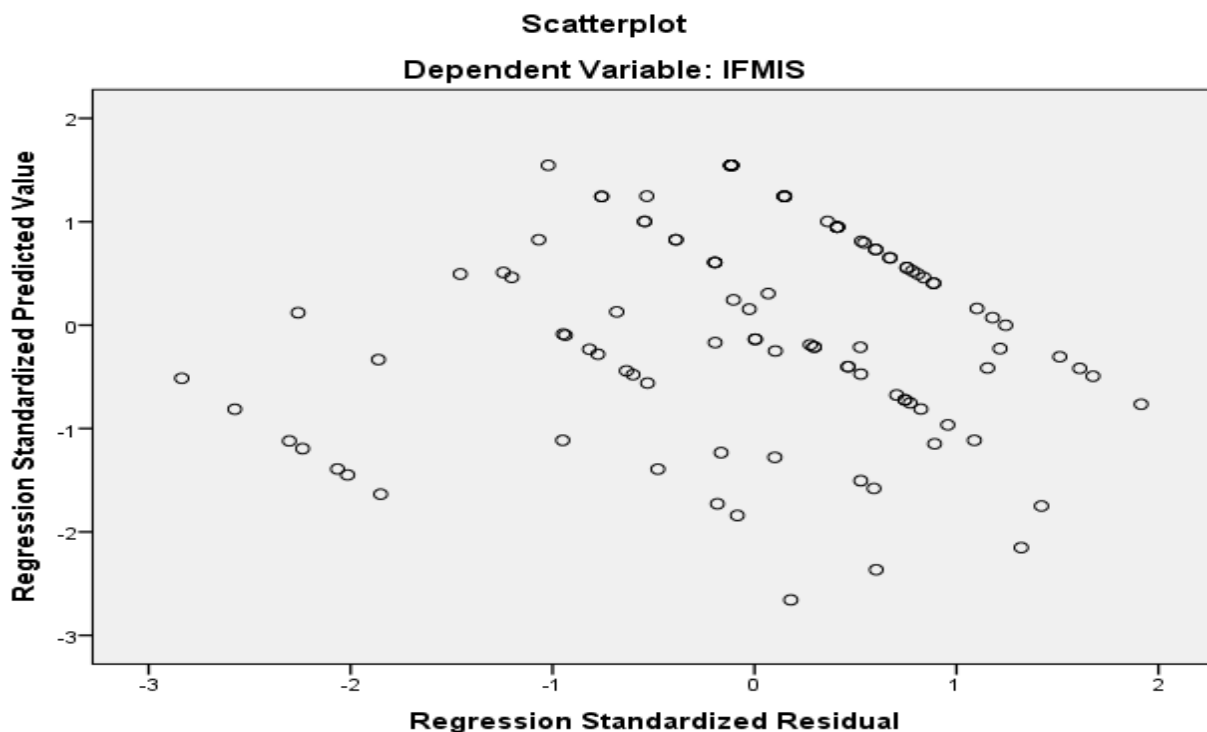


Figure 4.3: Heteroscedasticity

Source: Field survey, 2022

4.4.2.4. Multicollinearity Test

Multicollinearity is a statistical phenomenon in which two or more predictor variables in multiple regression models are highly correlated, the undesirable situation where the correlations among the independent variables are strong. Statistics used to measure multicollinearity include tolerance and variance inflation factors. From the findings, all variables had tolerance values greater than 0.2 and VIF values less than 10 as shown in table 4.14 below. Indicating that, there is no multicollinearity among the independent variables (ICT infrastructure, Top management commitment, Staff resistance, Government policy, and Staff capacity).

Table 4.14. Multi collinearity Assumption Test

| Coefficients | | | |
|------------------------------|--------------------|-------------------------|-------|
| Model | | Collinearity Statistics | |
| | | Tolerance | VIF |
| 1 | Government policy | .820 | 1.219 |
| | Staff capacity | .795 | 1.258 |
| | Top management | .752 | 1.329 |
| | Staff resistance | .863 | 1.159 |
| | ICT infrastructure | .814 | 1.228 |
| a. Dependent Variable: IFMIS | | | |

Source: Own Survey, 2022

As revealed from table 4.14 above the multicollinearity tests by computing tolerance values and Variance Inflation Factor (VIF) for each independent variable. In this case, all the tolerance values of ICT infrastructure, Top management empowerment, Staff resistance, Government policy, and Staff capacity are greater than 0.10 and VIF is less than 10. Hence, the researcher assumed the multicollinearity assumption is fulfilled in this study.

4.4.3. Regression Analysis

The researcher further sought to establish the effect of each of the independent variables; (ICT infrastructure, Top management commitment, Staff resistance, Government policy, and Staff capacity,) to the dependent variable of integrated financial management information system (IFMIS) in Ethiopian public sector Jimma district. The regression model below was used to determine the extent to which the predictors have an effect to the dependent variable.

4.4.3.1. Model Summary

The following table presents the results of multiple regressions analysis. Here the squared multiple correlation coefficients (R^2) which tells the level of variance in the dependent variable (Effective implementations of integrated financial management information system (IFMIS) that is explained by the model.

Table 4.15 Testing for Model Fit

| Model Summary | | | | |
|--|-----------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .669 a | .448 | .420 | .88304 |
| a. Predictors: (Constant), ICT infrastructure, Top management empowerment, Staff resistance, Government policy, and Staff capacity | | | | |
| b. Dependent Variable: IFMIS | | | | |

Source: Own Survey, 2022

The results of multiple regressions, as presented in table 4.15, above, the adjusted R^2 of 0.420 indicates 42.0% of the variation in Successful implementations of IFMIS can be explained (predicted) by ICT, Top management, Staff capacity, Staff resistance, and Government policy and the remaining 58 % of the variation of Effective implementations of IFMIS that can be explained by other variables.

4.4.3.2. The Analysis Of Variance (Model fitness)

Model fit has been seen among the various components of successful implementations of IFMIS, for the purpose of this survey, only five variables were selected. The effect of these five independent variables; ICT infrastructure, Top management empowerment, Staff resistance, Government policy, and Staff capacity was examined on the dependent variable i.e. Effective implementation of financial management information system using multiple regressions.

Table 4.16: The Analysis of Variance

| ANOVA ^a | | | | | | |
|---|------------|----------------|-----|-------------|--------|-------------------|
| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
| 1 | Regression | 62.574 | 5 | 12.515 | 16.050 | .000 ^b |
| | Residual | 77.195 | 99 | .780 | | |
| | Total | 139.769 | 104 | | | |
| a. Dependent Variable: IFMIS | | | | | | |
| b. Predictors: (Constant), ICT, Top management, Staff resistance, Government policy, Staff capacity | | | | | | |

Source: Own Survey, 2022

According to (Field, 2013) the ANOVA (analysis of variance) tells us whether the model, overall results in a significantly better degree of prediction of the outcome variable. Similarly, ANOVA indicates the overall fit of the model. Hence, as we seen from table 4.16 the value of F which is 16.050 with a p-value of 0.000 less than (<) the implication value of 0.005 from this one can conclude that the overall model has a better fit.

4.4.3.3. Beta Coefficient

The coefficient explains the average amount of change in the dependent variable that is caused by a unit of change in the independent variable. Accordingly, the unstandardized beta coefficient (β) tells us the unique contribution of each factor to the model. A high beta value (β) and a small P-value (<0.05) indicate the predictor variable has made a statistical significance contribution to the model. On the other hand, a small beta value (β) and a high P-value ($p > 0.05$) indicate the predictor variable has little or no significant contribution to the model (George and Mallery, 2003).

Table 4.17: Regression Coefficients analysis

| Coefficients | | | | | | |
|------------------------------|--------------------|-----------------------------|------------|---------------------------|-------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .236 | .434 | | .544 | .588 |
| | Government policy | .116 | .082 | .117 | 1.417 | .160 |
| | Staff capacity | .182 | .071 | .214 | 2.558 | .012 |
| | Top management | .175 | .069 | .218 | 2.529 | .013 |
| | Staff resistance | .290 | .081 | .289 | 3.592 | .001 |
| | ICT infrastructure | .211 | .078 | .223 | 2.699 | .008 |
| a. Dependent Variable: IFMIS | | | | | | |

Source: Own Survey, 2022

As shown from the table 4.17 above, the regression coefficients indicate that staff capacity, top management, staff resistance and IT infrastructure have a significant and positive relationship with the implementation of the Integrated Financial Management Information Systems. However, the results indicate that there is a positive but insignificant relationship between government policies with IFMIS implementation.

There is a positive and statistically significant relationship between staff capacity and implementation of the Integrated Financial Management Information Systems ($\beta = .214$, $t = 2.558$ and $p = 0.012 < 0.05$). The coefficient .214 shows that the one unit increase of staff capacity will also causes 21.4% increase in the effectiveness of implementation of IFMIS.

There is a positive and statistically significant relationship between top management commitment and implementation of the Integrated Financial Management Information Systems ($\beta = .218$, $t = 2.529$ and $p = 0.013 < 0.05$). The coefficient .218 shows that the one unit increase of top management commitment will also causes 21.8% increase in the effectiveness of implementation of IFMIS.

There is a positive and statistically significant relationship between staff resistance and implementation of the Integrated Financial Management Information Systems ($\beta = .289$, $t = 3.592$ and $p = 0.001 < 0.05$). The coefficient .289 shows that the one unit increase of staff resistance will also causes 28.9% increase in the effectiveness of implementation of IFMIS.

There is a positive and statistically significant relationship between staff resistance and implementation of the Integrated Financial Management Information Systems ($\beta = .289$, $t = 3.592$ and $p = 0.001 < 0.05$).

There is a positive and statistically significant relationship between ICT infrastructure and implementation of the Integrated Financial Management Information Systems ($\beta = .223$, $t = 2.699$ and $p = 0.008 < 0.05$). All the Integrated Financial Management Information Systems factors have been included in the formation of the function and detail expression as follows:

Regression equation

$$Y = \beta_0 + \beta_1X_1 + \beta_2x_2 + \beta_3X_3 + \beta_4X_4 + \beta_4X_4 + \Sigma_0 + e$$

$$Y = \beta_0 + \beta_1(Gp) + \beta_2(Sc) + \beta_3(Tm) + \beta_4(Sr) + \beta_4(ICT) + e$$

$$Y = 0.236 + 0.117(Gp) + 0.214(Sc) + 0.218(Tm) + 0.289(Sr) + 0.223(ICT) + e$$

Where;

Y= the dependent variable (successful implementation of integrated financial management information system (IFMIS))

Gp= the first independent variable (Government policy)

Sc= the second independent variable (Staff capacity)

Tm= the third independent variable (Top management commitment)

Sr= the fourth independent variable (Staff resistance)

ICT= the fifth independent variable (ICT infrastructure)

β_0 =intercept of the equation e = error term

4.5. Hypothesis Testing

Hypothesis testing was based on standardized coefficients beta and P-value to test whether the hypotheses are accepted or fail to accept.

Table 4:18 Analysis of Hypothesis

| Hypothesis | Beta Coefficient | Significant (P<0.05) | Decision |
|--|------------------|----------------------|------------------|
| H1: There is a significant relationship between government policy and IFMIS | .117 | 0.160 | Failed to Accept |
| H2: There is a significant relationship between staff capacity and IFMIS | .214 | 0.012 | Accepted |
| H3: There is a significant relationship between top management commitment and IFMIS | .218 | 0.013 | Accepted |
| H4: There is a significant relationship between staff resistance and IFMIS | .289 | 0.001 | Accepted |
| H5: There is a significant relationship between ICT infrastructure and IFMIS | .223 | 0.008 | Accepted |

Source: Field survey, 2022

CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

This final chapter of the paper deals with the summary of the major findings of the study. Drawn from these major findings of the study, conclusions are presented, and recommendations which the investigator assumes to be operational are also forwarded.

5.1. Summary

The aim of this study was to assess the determinants of successful implementation of integrated financial management systems in Ethiopia public sector Jimma district. The independent variables of this study included government policy, staff resistance, top management commitment IT infrastructure, and staff capacity while the dependent variables was the effectiveness of IFMIS implementation.

The study targeted the 110 respondents but managed to obtain complete data from 105 respondents. This made up a response rate of 95.45%, which was considered adequate to carry out the study.

The reliability statistics established that all the Cronbach alpha coefficient are more than the recommended value of 0.7 hence the questionnaire was reliable.

Among 105 participants 65(61.9% were males whereas 40(38.1%) were females.

Regarding age distribution among 105 respondents, the majority were in the age group between 31-40 (46.7%) and 20-30 (18.1%) years. The remaining age groups i.e. 41-50 years and 50 and above accounted for 26.7% and 8.6.

Concerning educational qualification among the total 105 respondents, the majority of the respondents 65(61.9%) had a bachelor's degree. In addition, 31 (29.5%) of the respondents had a master's degree while 9(8.6%) of them have a diploma.

Regarding years of service in public sector of Jimma district the majority the majority of the respondents working with the targeted institutions have 3-10 years of experience (44.8%), 33.3% have less than 2 years of experience and it is followed by those with 11-15 of experience at (16.2%) and over 16 years of experience at (5.7%).

Based on the findings, most of the employees agreed with government policy categorical summative was a mean value of (M =3.91, and SD=1.17), ICT infrastructure was a mean value of (M =3.88, and SD=1.23), staff capacity was a mean value of (M =3.75, and SD=1.36), staff resistance was a mean value of (M=3.74 and SD=1.16), and Top management was a mean value of (M = 3.61, and SD=1.44) respectively. On the other hand, the descriptive analysis result of the overall mean and standard deviation of effectiveness of integrated financial management information system was 3.90 and 1.16 respectively.

The overall correlation between effective implementation of integrated financial management system (IFIMS) and ICT infrastructure, Top management commitment, Staff resistance, Government policy, and Staff capacity results showed that there is a significant positive relationship between all variables with implementation of integrated financial management system (IFIMS).

The model summary of multiple regressions analysis revealed that the adjusted R² of 0.420 indicates 42.0% of the variation in successful implementations of IFMIS can be explained (predicted) by ICT, Top management, Staff capacity, Staff resistance, and Government policy and the remaining 58 % of the variation of Effective implementations of IFMIS that can be explained by other variables.

The results of ANOVA established that the regression model is significant and a good predictor of the relationship between the research variables as indicated by P value of 16.050<0.05.

Regarding the first objective, that is determining the effect of government policy influence IFMIS implementation in Ethiopia's Jimma district. The regression coefficients indicate that government policy had a positive but insignificant relationship with the implementation of the Integrated Financial Management Information Systems with the value of ($\beta = .117$, $t = 1.417$ and $p = 0.160 > 0.005$).

The objective two of the study also aimed at measuring the influence of staff capacity on implementation of IFMIS in Ethiopia Jimma district. Various factors were established to influence IFMIS in terms of staff capacity such as requisite knowledge and expertise, necessary measure, provision of training, and reinforcement. The findings reveal that staff capacity has significant impact on implementation of IFMIS in Ethiopia Jimma district. This idea is in line with the findings of Combaz (2015). He stated that IFMIS require considerable staffing and capacities

entirely hence capacity building of the staff all over the government is therefore a huge aspect for success in implementation of IFMIS, mostly when IT capacities are restricted in the public segment.

The third objective of the research sought to determine the influence of top management commitment on implementation of implementation of IFMIS in Ethiopia specifically in Jimma town. The findings reveal that top management commitment is significantly affect the implementation of IFMIS in Ethiopian public sector, in Jimma district. This result consists with the findings of Njihia and Makori (2015) stated that the effective implementation, operation and management of the IFIMS require top management support and staff with the necessary knowledge and skills.

Regarding, the fifth objective of the study the regression results also found that the relationship between IT infrastructure and IFMIS implementation by Jimma was positive and significant. ($\beta = .223$, $t = 2.699$ and $p = 0.013 < 0.008$). This was due to the following factors; information security risks in IFMIS affected specific information that staffs required to carry out their work, IFMIS computer technologies was able to reconcile transactions data in real time and there were inbuilt analytical tools within IFMIS that enables trend analysis of various elements of fiscal operations at the Public sector. This finding of the study is consist with Wafula and Wanjohi (2009) who postulated that states that governments are undertaking ambitious reforms to further revitalize or transform their public sectors IFMIS projects to have the basic system functionality clearly specified from the onset of the intervention.

5.2. Conclusion

The findings revealed that there was a positive but insignificant relationship between Government policy and IFMIS implementation in Jimma district. Based on this finding the study concludes that there is no significant relationship between Government policy and IFMIS implementation in the study area.

The findings revealed that there was a significant and positive relationship between staff capacity and IFMIS implementation in Jimma town. Based on this finding the study concludes that there is a significant relationship between staff capacity and IFMIS implementation in the study area.

The finding of the study established there was a significant and positive relationship between top management commitment and IFMIS implementation in Jimma. Based on this finding the study concludes that commitment by top management significantly affects the implementations of IFMIS in the study area.

The finding of the study established there was a significant and positive relationship between staff resistance and IFMIS implementation in Ethiopian public sector Jimma district. Based on this finding the study concludes that staff resistance significantly affects the implementations of IFMIS in the study area.

The findings revealed that there was a significant and positive relationship between IT infrastructure and IFMIS implementation in Ethiopian public sector Jimma district. Based on this finding the study concludes that there is significant relationship between IT infrastructure and IFMIS implementation in the study area.

5.3. Recommendation

Based on the analysis of this study the following major recommendation points are generated and it is assumed that the recommendation of this research is advisable for the effective implementation of IFMIS in Ethiopian public sector Jimma district.

- The researcher recommends that the government should prepare policy and implement it to reduce the incidences of change resistance.
- The study recommends that the management of Ethiopian public sector mainly in Jimma district should ensure they have adequate and well-trained staff to ensure effective implementation of the IFMIS system.
- The study recommends that the administrative staff of county governments in Ethiopia as well as Jimma district should support and commit their efforts towards IFMIS implementation.
- The study recommends that the management of county governments should have adequate IT infrastructure since IFMIS implementation and usage is based on information technology.

5.4. Suggestions for Further Research

The researcher analysed five major factors that were believed to have significantly affected IFMIS implementation. Further research could be conducted by incorporating more factors. The Research Population involved the Ethiopian Minister of Revenues Jimma district, the Ethiopian Human Rights commission Jimma Branch, and Gumuruk Commission in Jimma Branch. Further studies could be undertaken on wider Oromia region. The study will be important since implementation of IFMIS at the state level from Federal National government. Additionally, further research should be emphasized on the determinants of IFMIS implementation. This will shed more light on the variables that need to be included in future research when studying performance of IFMIS in public sector.

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Part Two

Please indicate to what extent you agree with the following expressions. Please put tick mark (√) on the spaces that specify your choice from the options that range from “strongly agree” to “strongly disagree”.

| A. List of questionnaires’ related to Government Policy focus area | 1 | 2 | 3 | 4 | 5 |
|---|------------|-----------|----------|----------|-----------|
| | SDA | DA | N | A | SA |
| 1. There is no implementation of policy in the country in regard to use of IFMIS in the organization. | | | | | |
| 2. The government is not ensuring that there is compliance/conformity on the usage of IFMIS in the organization. | | | | | |
| 3. The government policy as well as the structure of the organization is comfortable for the implementation process. | | | | | |
| 4. MoFED play a great role for IFMIS implementation using Government finance legislation framework. | | | | | |
| 5. Government financial rule and regulations is not influence performance of IFMIS in the organization. | | | | | |

| B. List of questionnaires’ related to Capacity and Skill of users focus area | 1 | 2 | 3 | 4 | 5 |
|---|------------|-----------|----------|----------|-----------|
| | SDA | DA | N | A | SA |
| 6. Your organizations have personnel with requisite knowledge & expertise for Effective implementation, operation, & maintenance of IFMIS. | | | | | |
| 7. Every employee of the organization have adequate know how about IFMIS. | | | | | |
| 8. Your organization has taken necessary measures to develop requisite skills and capacity of the central IT dept. | | | | | |
| 9. Your organization arranges & provides adequate IFMIS training for the staffs of the organizations. | | | | | |
| 10. Your organization has taken necessary measures to reinforce capacity in IFMIS project team | | | | | |

| C. List of questionnaires' related to Top Management commitment focus Area | 1 | 2 | 3 | 4 | 5 |
|---|------------|-----------|----------|----------|-----------|
| | SDA | DA | N | A | SA |
| 11. Top management takes action when the employee faces challenge during Implementation. | | | | | |
| 12. Top management of the organization tries their best for the critical success factors to the implementation of IFMIS. E.g. making the environment conducive for implementation. | | | | | |
| 13. Top management in your organization has awareness about the benefits of IFMIS. | | | | | |
| 14. Top management of your organization assists & encourages employee in IFMIS adoption. | | | | | |
| 15. Top management in your organization allocates enough financial to IFMIS implementation. | | | | | |
| 16. The management of your organization strongly needs the implementation of IFMIS. | | | | | |

| D. List of questionnaires' related to staff Resistance focus area | 1 | 2 | 3 | 4 | 5 |
|---|------------|-----------|----------|----------|-----------|
| | SDA | DA | N | A | SA |
| 17. Your Organization has capacity to make changes, manage changes and survive while resistance | | | | | |
| 18. Every employee of the organization is happy for the implementation of IFMIS in their organization. | | | | | |
| 19. Some employee resists the implementation of IFMIS without any reason. | | | | | |
| 20. Your organization has devised (think) convenient methods of overcoming change resistance | | | | | |
| 21. The implementation of IFMIS results in any job losses for some employee. | | | | | |

| | 1 | 2 | 3 | 4 | 5 |
|--|------------|-----------|----------|----------|-----------|
| E. List of questionnaires' related to ICT Infrastructure focus area | SDA | DA | N | A | SA |
| 22. There is power inconsistency in the government organization which affects the implementation process. | | | | | |
| 23. The network dependency nature of IMFIS is the major implementation challenge. | | | | | |
| 24. In adequate ICT related equipment in your organization hinder the Implementation of IFMIS. | | | | | |
| 25. There is no reference manual for use of IFMIS & adequate computers for the staff to use for IFMIS in the organization. | | | | | |

Part 3: Interviews

General information in relation to the Internal Audit Functions

1. Do you face any challenges during the implementation of IFMIS in your organization?
2. Does your organization use IFMIS effectively now, if not why?
3. Do the deployment consultants from IBEX/IFMIS Project office come? How much they know the software?
4. How the employees of your organization react when they inform the rollout of IFMIS implementation?
5. Is your organization employee able to implement this financial software effectively?
6. What your organizations get from IFMIS implementation? What about employee?
7. In general, how can MOFEC IBEC/IFMIS project office assist in developing and maintaining the system?
8. What do you say about the factors affecting IFMIS implementation in government organizations?
9. Finally, I start study on the factors affecting IFMIS implementation in the government organization. What do you advise me?