

Investigating the Effect of Integrated Financial Management Information System (IFMIS) on the performance of Higher Education institutions: A Case study of Addis Ababa University.

**A Thesis submitted in partial fulfillment of the requirements for the degree of
Master of Arts in Public Management and Policy**

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Abstract

This study investigates the impact of the Integrated Financial Management Information System (IFMIS) on the performance of higher education institutions, specifically Addis Ababa University (AAU). The research examines the effectiveness of IFMIS in enhancing financial management practices, improving transparency, and ensuring efficient resource allocation. It employs a mixed-methods approach, incorporating both qualitative and quantitative data, to evaluate the system's influence on various financial and administrative aspects of the university. Key findings indicate that IFMIS significantly contributes to better financial reporting, effective expenditure management, and improved transparency in the management of public funds. These improvements are linked to the overall performance of AAU, showcasing the importance of integrated financial systems in educational institutions. The study provides valuable insights for policymakers and educational administrators aiming to enhance financial management practices through the adoption of advanced information systems.

Contents

1. INTRODUCTION	1
1.1. Background of the study	1
1.2. Statement of the Problem	3
1.3. Research Question	4
1.4.1. General objective	4
1.4.2. Specific objective	4
1.5. Significance of the study	5
1.6. Scope of the study	5
1.7. Organization of the study	5
CHAPTER TWO	6
2. REVIEW OF RELATED LITERATURE	6
2.1. Introduction	6
2.2. Theoretical Literature	6
2.2.1. Conceptual Review	6
2.2.2. Theorizing the nexus between IFMIS and Organization performance measure	7
2.3. Theoretical Frame work	9
2.4. Review of empirical studies	9
2.5. Analytical framework	11
CHAPTER TREE	14
RESEARCH METHODOLOGY	14
3.1. INTRODUCTION	14
3.2. Research Approach	14
3.3 Research Design	14
3.3. Data Types and Sources	15
3.4. Sample Size and Sampling Procedure	15
3.4.1. Target Population	15
3.4.2. Sampling and Sample Size Determination	15
3.5. Data Collection Techniques	16
3.6. Reliability and Validity	16
3.7. Data Analysis Techniques	18

3.8 Ethical Considerations	19
CHAPTER FOUR.....	20
DATA ANALYSES AND PRESENTATION	20
4.1 Introduction.....	20
4.2 Background of the Respondents	20
4.3 Effectiveness of IFMIS Implementation at AAU	21
4.3.1 IFMIS contribution on the Transparency in the Management of Public Funds.....	21
4.3.2 IFMIS contribution on the Effectiveness of Expenditure Management	24
4.3.3 IFMIS Capability in the Allocation of Internal Financial Resources.....	25
4.3.4 IFMIS Effectiveness in the Generation of Accounting and Financial Reports.....	26
4.3.5 Teaching-Learning, Community Engagement, and Research Service.....	28
4.3.6 Institutional Effectiveness at AAU	30
4.6 Regression Analyses	34
4.6.1 Test of Regression Assumptions.....	34
4.6.2 Results of Regression Analysis.....	37
CHAPTER FIVE	39
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	39
5.1 Introduction.....	39
5.2 Summary	39
5.3 Conclusions.....	43
5.3 Recommendations.....	43
REFERENCE.....	45
Appendixes A.....	49

List of tables

Table 4.1 Respondents Characteristics.....	21
Table 4.2: Assessment of IFMIS in the Management of Public Funds.....	23
Table 4.3: Assessment on the Effectiveness of Expenditure management using IFMIS.....	25
Table 4.4: Assessment of Internal Financial Resource Allocation using IFMIS.....	26
Table 4.5: Assessment of IFMIS in Generating Accounting and Financial Reports.....	28
Table 4.6: Assessment of IFMIS contribution Teaching-Learning, Community Engagement, and Research services.....	30

Table 4.7: Assessment of the contribution of IFMIS in AAU’s Organizational Performance...	31
Table 4.8: Correlation Analyses	33
Table 4.9: Tests of Normality.....	37
Table 4.10: Regression Model Summary.....	38
Table 4.11: Regression ANOVA.....	38
Table 4.12: Regression Coefficients.....	39

List of Figures

Figure 4.1: Scatter plot of standardized and predicted values and residuals.....	36
Figure4.2 :Residual Normal Curve	36

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the study

In public sector government has usually focused on its role in redistributing income and wealth, or on the kinds of services governments provide to the community at large. Among the kinds of services a government provide are public services in Higher Education Institutions (Kasradze, 2019). Higher education comprises all post-secondary education, training and research guidance at education institutions such as universities that are authorized as institutions of higher education by state authorities (Kasradze, 2019).

The ideal of public service in public Universities was best captured by Draper, A. S. in a 1907 commencement address: 'Public University will carry the benefits of scientific research to the doors of the multitude. It will make healthier houses and streets, richer farms and safer railways, happier towns and thriftier cities, through the application of fundamental principles to all the activities of all the people' (Patricia, 1983).

Due to this fact, a strong commitment by states to their public colleges and universities made possible a substantial expansion of educational opportunity in the period following World War II (Adams, Robichaux, & Guarino, 2010). For instance, according to Finney & Kelley (2004), the last two decades of the twentieth century also were marked by rising state appropriations. State support per student for public institutions increased 24% in real (inflation-adjusted) dollars from \$6,467 in 1980 to \$8,044 in 2000 (OECD, 2017).

On the other hand, the environmental conditions under which higher education institutions operate have changed dramatically in the last two decades (Talla, FarajAllah, Abu-Naser, & Shobaki, 2018). For instance, recently HEI sector, worldwide, is facing a dynamic and turbulent environment driven by the economic crisis and the decline in public funding and global competition (Buddy, 1999).

Searcy (2014) and Bowman (2011) Higher Education is shifting now from a public service to a market-drive one as a result of the pressure to improve financial capacity (resilience) and financial sustainability (Bunsis, 2010).

It is time to be concerned with HEI value-based performance that gives pay attention to money value (de Azevedo Aguiar, 2017). From a very broad perspective, indicators of HEI performance fall into one of two categories: academic performance or financial performance (Montanaro, 2013). For the consumption of this paper, the study will focus on financial performance. So, HEI is expected to apply a performance-based funding system to be effective and efficient with its internal financial resource allocation. Performance-based budgeting or funding uses performance indicators to allocate funds.

On the other hand, pieces of literature remarked that financial management is an essential element in the effective running of a performance-based public funding system (Nguyena, Viet, & Loan, 2021). Further, Padilla et al. (2012) added that effective financial management practice is essential in enhancing transparency, efficiency, accuracy, and accountability which enables an organization to achieve its objectives (Abayneh, 2018). Even Granlund and Malmi, (2002) suggested that to realize these for the past few decades the use of computerized accounting and financial management systems in HEI has accelerated (Hanover Research, 2014). Literature mentioned this system so many times as of Integrated Financial Management Information System (IFMIS).

The IFMIS system is an automated system of information which connects budgeting, planning, accounting, expenditure, reporting and audit as well as management and control (Ayoo, 2020). IFMIS also refers to the computerization of public financial management processes, from budget preparation and implementation to accounting and reporting, with the help of an integrated system for financial management purposes (Emuigai, 2012). So, at this juncture, identifying the nexus between IFMIS and the performance of HEI is the key. So, this study is aimed to investigate the effect of IFMIS on performance in Higher Education Institutions.

1.2. Statement of the Problem

The importance of IFMIS to the achievement of public sectors in providing public services becomes apparent and critical. In this regard for the past few decades, literature has not silent; even though they were with scant regard for HEI. For instance, Ayim (2014) established the relationship between IFMIS and the performance of government ministries. Kasumba (2009) also investigated the adoption and implementation of integrated financial management systems (IFMS) in local governments in Uganda. Further, Lamba (2018) determined the effects of Integrated Financial Management Information Systems (IFMIS) adoption on the performance of public financial management. In addition, Chado (2015) analyzed the effectiveness of cash management and budgeting systems; financial reporting systems in IFMIS; internal control systems in IFMIS; and the effectiveness of organizational accountability systems in IFMIS on financial management in the public sector in Kenya (Chado, 2015).

Meanwhile, this day value-based performance is core to HEI which is shifting now from a public service to a market-drive-one as a result of the pressure to improve financial capacity (resilience) and financial sustainability (Bunsis, 2010). So, the foregoing studies that focused on the nexus between IFMIS and the achievement of public sectors in providing public services failed to address the incremental process of IFMIS and its influence on HEI value-based performance on an ongoing basis.

Hence implementers need to understand the concept of value-based performance which is measured through HEI financial performance measurement- what HEI financial performance measurement is, how HEI financial performance measurement operates, and most importantly, how the incremental process of IFMIS is displayed by the efficiency and effectiveness of the internal financial resource allocation (de Azevedo Aguiar, 2017).

This means it is time to go beyond the contemporary definitions of IFMIS and public finance to secure the public interest in public administration through reforms guided by public choice theory (Martin, 1989). And it is necessary to unveil specific sector performance options that are exhibited in the process of IFMIS. So, this study aims to investigate the effect of IFMIS on performance in Higher Education Institution, in the case of Addis Ababa University.

1.3. Research Question

To address the research gap in understanding how IFMIS impacts the performance of HEI (in the case of AAU), this study explored the following research questions:

1. How has the efficiency and effectiveness of internal financial resource allocation at Addis Ababa University achieved through the implementation of IFMIS?
2. How has IFMIS implementation at AAU ensured Transparency in the Management of Public Funds?
3. By using IFMIS, how does the Effectiveness of Expenditure Management achieved at AAU?
4. How does IFMIS use at AAU ensure the generation and communication of quality Accounting and Financial Reports?
5. How does IFMIS effectiveness in financial resource allocation, transparent public fund management, expenditure management, and financial reports are related to the performance of the university?
6. How have financial resource allocation, public fund management, expenditure management, and financial reports using IFMIS, affected the performance of the university?

1.4.1. General objective

The primary objective of this research is to understand the impact of integrated financial management information system (IFMIS) implementation to the performance of Addis Ababa University.

1.4.2. Specific objective

1. To understand the efficiency and effectiveness of internal financial resource allocation at Addis Ababa University achieved through the implementation of IFMIS,
2. To reveal the achieved Transparency in the Management of Public Funds due to IFMIS implementation at AAU ensured.
3. To examine the Effectiveness of IFMIS's Expenditure Management at AAU.
4. To understand generation and communication of quality Accounting and Financial Reports using IFMIS at AAU.
5. To analyse the relationship AAU;s performance has with IFMIS;s financial resource allocation, transparency of public fund management, expenditure management, and financial reporting.
6. To analyse the effects of financial resource allocation, public fund management, expenditure management, and financial reports using IFMIS, affected the performance of AAU.

1.5. Significance of the study

It is believed that this research paper contribute to the body of existing knowledge and also make up for the paucity of scholarly papers on the nexus between IFMIS and HEI performance. For instance, it provides important insight for the University to take appropriate measures in designing strategies for harnessing IFMIS to the best. It point out also the major areas where the regarded bodies have to give due emphasis. In addition, this study will serve as an empirical source to the researchers in the future.

1.6. Scope of the study

IFMIS and HEI performance are broad concepts, which consist of numerous interactions but the scope of this study is restricted to the particular topical and spatial areas. The topical approach of the study is limited to IFMIS, financing public services in HEI, budgeting and internal controls. Having the objective of investigating the effect of IFMIS on performance in Higher Education Institutions., the study was limited to Addis Ababa University. Because Addis Ababa University is Ethiopia's oldest university and are the countries pioneering higher education institution carrying out outstanding research, higher education, and social service projects with complex nature any study conducted at Addis Ababa University will apply to other universities in the country; is the main reason for the selection.

1.7. Organization of the study

The organization of this study paper consists five chapters. Chapter one is dedicated for introduction. Under this chapter, background of the study, statement of the problem, objective of the study, scope of the study & limitation of the study are discussed. Chapter two reviews related literature. This chapter embarks on reviewing theoretical and empirical literatures as well as presents the conceptual framework of the study. Under conceptual review the study reviewed the conceptual definition of IFMIS. Under theoretical review the study reviewed on issue such as theorizing the nexus between IFMIS and organization performance measure. Then the study developed theoretical frame work. In addition, the study has also reviewed empirical literatures. After reviewing empirical literatures. The research design techniques present in chapter 3. Chapter four summarize data presentation, analysis and interpretation, finally the fifth chapter focused on summary, conclusion and recommendation of the study. Reference and questioners are followed at the end,

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1. Introduction

This chapter embarks on reviewing theoretical and empirical literatures as well as presents the conceptual framework of the study. Under conceptual review, the study reviewed the conceptual definition of IFMIS. Under theoretical review, the study reviewed issues such as theorizing the nexus between IFMIS and organization performance measures. Then the study developed a theoretical framework. In addition, the study has also reviewed empirical literatures. After reviewing the empirical literatures at the end, the study presents an analytical framework.

2.2. Theoretical Literature

2.2.1. Conceptual Review

2.2.1.1. IFMIS

Dorotinsky, (2003) and Rozner, (2008) defined IFMS as an information system that tracks financial events and summarizes financial information (Addis, 2018). An integrated financial management information system (IFMIS) is a centralized registry of public sector revenues and expenditures that support the management of public sector budgetary, financial, and accounting operations (IDB, 2015). An IFMIS is a fiscal tool for the 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 government entities on how to plan budget requests, spending their budgets, managing and reporting on their financial activities, and delivering services to the public more efficiently, effectively and economically (Chado, 2015).

Rodin-Brown (Rodin-Brown, 2008) also drew a summary of IFMIS as an information system which tracks events relating to financial expenditure and financial information summary (Ayoo, 2020). IFMIS supports adequate management reporting, policy decisions, fiduciary responsibilities and the preparation of auditable financial statements (Opiyo, 2017). Generally, it refers to the use of information and communications technology in financial operations to support management and budget decisions, fiduciary responsibilities, and the preparation of financial reports and statements(Opiyo, 2017). Today IFMIS is a common system across government institutions, including in the more ambitious schemes for federal, state and local governments (Marie , 2009).

2.2.2. Theorizing the nexus between IFMIS and Organization performance measure

In this study the following theories i.e., performance evaluation theory: sustainability, Market-based model, accounting based model, Resource Based Theory, Diffusion of Innovation (DOI), The Instrumental Theory and Unified Theory of Acceptance and Use of Technology (UTAUT) performance are reviewed to better understand the nexus between IFMIS and Organization performance. Organization performance is a broad and complex concept. In the management control context, the performance goes beyond a mere comparison between forecasts and realizations, because achieving budgeting results or objectives could not be a symptom of good performance, and more important, does not permit to assess the efficiency and effectiveness of the internal resource allocation (Ayoo , 2020).

According to Gomes and Yasin (2013) a well-designed Performance Measurement System (PMS) is vital for ensuring that an organization is able to deliver cost-effective and high-quality services which are capable of meeting and exceeding the evolving needs and wants of customers” (Ayim, 2014). In this regard Manmade and Gomes (2014) coined performance evaluation theory: sustainability (Kasumba, 2009). This theory takes into account three main conceptual dimensions into performance measurement. First, the organizations should only be concerned with the value creation by focusing on economic sustainability and shareholder satisfaction (Ndzovu & Ng’ang’a, 2019).

Next, organizations should integrate the impacts of their activities according to critical global issues affecting ecological and social systems. Thirdly, the managers should believe that they should promote their operations within a framework that meets stakeholder expectations.

In HEI context from a very broad perspective, indicators of performance fell into one of two categories: academic performance or financial performance (Montanaro, 2013). For the consumption of this paper the study focused on financial performance. Financial performance is assessed by using the following alternative models. The first one is Market-based model. It was coined by Merchant (2006) for assessing financial performance. It is based on changes in the market value of the entity being managed or, if dividends are also considered, returns to shareholders (Njonde & Kimanzi , 2014).

The next one is accounting based model. According to Merchant (2006) accounting-based performance measures are indicators that can be compiled from the companies accounting systems or financial reports (Emuigai , 2012). It is categorized in to residuals and ratio or accounting return measures. Residual embraces net income; earnings before interest and taxes (EBIT); earnings before interests, taxes, depreciation, and amortization (EBITDA) and residual income. However, ratio or accounting return measures are constituents of return on investment (ROI), return on equity (ROE), return on assets (ROA) and risk-adjusted return on capital (RAROC) (Chado, 2015).

The third one is combined measures model. It involves the use of a combination of distinct types of measures. Identified two main types i.e.; the combination of market-based and accounting-based measures (de Azevedo Aguiar, 2017).

The foregoing model also reflects any financial performance improvement made by the organization endeavor on accounting and financial management systems. And various theorists theorized the nexus between the innovation (IFMIS) and performance. For instance, Resource Based Theory was developed Barney (1991). The theory prescribes that organizations position themselves strategically based on their resources and capabilities rather than their products and services.

It exemplifies the idea that an organization's internal resources can become a direct source of sustained competitive advantage for the organization. Therefore, managers should look inside the organization to find the sources of competitive advantage through the use of internal resources (Ndzovu & Ng'ang'a, 2019).

On the other hand, Diffusion of Innovation (DOI) Theory was presented for adoption by Rodgers who published it in 1962. Rodgers argued that innovations and products with greater compatibility and simplicity have high chance of adoption, easy implementation and usage (Njonde & Kimanzi , 2014).

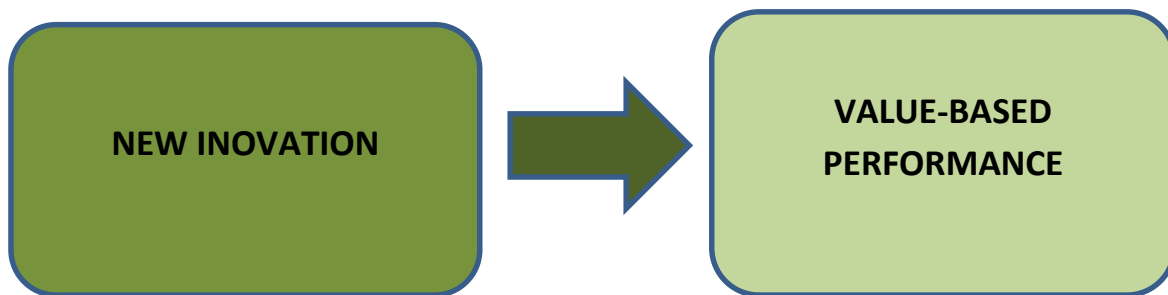
Further, The Instrumental Theory was developed by Bailey (1968) and focused on how well the public sector can use other budgeting systems in resource allocation to the overall budget execution (Opiyo, 2017). In addition, among sub theories of Unified Theory of Acceptance and Use of Technology (UTAUT) performance expectancy theory states that an individual believes

new innovation can improve one's overall performance (Ndzovu & Ng'ang'a, 2019). Moreover, the other sub theory of UTAUT named by effort expectancy theory measures extent at-which an individual believes that the innovation can be used easily (Ndzovu & Ng'ang'a, 2019).

2.3. Theoretical Frame work

A theoretical framework of this thesis comprises of the aforementioned issues expressed by theorists Manmade and Gomes (2014), Merchant (2006), Barney (1991), Rodgers (1962) & Bailey (1968) in the field into which this study plan to research, which the study draws upon to provide a theoretical coat hanger for its data analysis and interpretation of results. And the theoretical frame work is graphically presented below.

Figure2.1: Theoretical framework



Source: Own Synthesis from Literature Review

2.4. Review of empirical studies

Ayim (2014) established the relationship between IFMIS and the performance in government ministries. The study was hinged on the systems theory, Technology acceptance model theory and DeLone and McLean's Model. Descriptive research design was used in the study; this is because it captures the current state of affairs (Ayim, 2014).

The findings indicated that the independent variables which were system quality, information quality and service quality had a significant influence on government performance (Ayim, 2014). The study revealed service quality and system quality had the highest performance therefore their role in government performance is very important and should be given more attention. The study also found out that information quality plays a key role in performance of ministries in the government (Ayim, 2014).

Furhter, Kasumba (2009) investigated the adoption and implementation of the integrated financial management systems (IFMS) in local governments in Uganda. The evidence from this case study revealed that the implementation of IFMS in Kampala district was influenced by socioeconomic factors that included: power struggles; inappropriate and unsustainable designs of information technologies; insufficient information technology skills and knowledge; and negative users' attitudes (Kasumba, 2009).

Chado (2015) also analyzed the effectiveness of cash management and budgeting systems; financial reporting systems in IFMIS; internal control systems in IFMIS; and the effectiveness of organizational accountability systems in IFMIS on financial management in public sector in Kenya (Chado, 2015).

The study adopted a descriptive research in this study with a targeted population of 18 National Government Ministries in Kenya. The primary data was collected using questionnaire that relates to specific objectives of the study (Chado, 2015). Secondary data involved past reports such as annual budget data, progress reports and internal audits reports since the system implementation started and had key information that will be helpful to the research study.

The study also used both quantitative and qualitative method of data analysis (Chado, 2015). Finally, the study found that organizational accountability systems, cash management and budgeting systems, internal control systems and financial reporting systems positively and significantly influenced the financial management in the public sector (Chado, 2015).

In addition, Njonde & Kimanzi (2014) analysed the effectiveness of Integrated Financial Management Information System (IFMIS) on performance of public sector in Kenya.

The study used descriptive research design to collect data. To analyze the effectiveness of identified factors on the use of the system, descriptive and inferential statistics were used (Njonde & Kimanzi , 2014).

The study also used quantitative and qualitative method of data analysis using descriptive statistics on quantitative data and inferential statistics on qualitative data. Data results and findings were presented in tables and figures. (Njonde & Kimanzi , 2014).

Finally, the study found that IFMIS has been effective in financial reporting, budgeting and internal controls as well as implementation of government projects, although there were challenges faced in internal controls (Njonde & Kimanzi , 2014). The study also revealed that there was a positive relationship between the effectiveness of IFMIS on public financial management and the independent variables; financial reporting, budgeting, internal controls and projects as was revealed in the regression analysis (Njonde & Kimanzi , 2014).

Moreover, Lamba, (2018) determine the effects of Integrated Financial Management Information Systems (IFMIS) adoption in the performance of public financial management. For this study, a descriptive approach was used in carrying out the research, in which a structured questionnaire with both open ended and closed ended questions was used to obtain views from the respondents on the impact of IFMIS in public financial management.

On risk management practices, the study's findings established that IFMIS is important in enabling management teams to identify risks associated with an entity especially in public institutions (Lamba, 2018). On financial tracking system, the study found out that IFMIS has made financial monitoring practices easier than before it was adopted in public institutions (Lamba, 2018).

On real time reporting, it was revealed that a well working IFMIS platform has the ability to monitor transactions on real time basis, a fact that is advantageous to the government in overall (Lamba, 2018).

2.5. Analytical framework

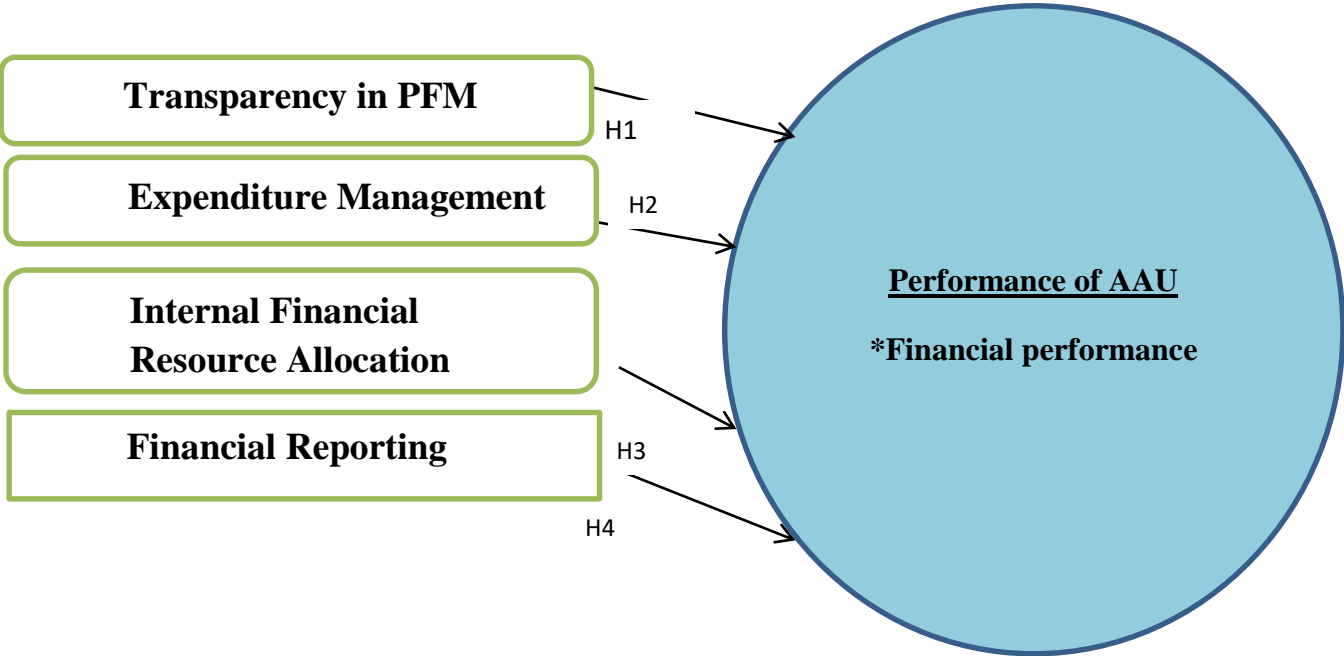
The IFMIS system is an automated system of information which connects budgeting, planning, accounting, expenditure, reporting and audit as well as management and control (Ayoo , 2020). Additionally, IFMIS utilizes standard classification of data for financial events recording, processing of transaction and tracking and reporting financial events as well as summarizing on the financial information (Ayim, 2014). Funding or budgeting modes form a central package of measures related to public management reforms, particularly in the field of higher education (Herbst, 2007). Funding or budgeting modes not only serve to allocate resources for given ends; they are also increasingly being used as governance or management tools in situations where institutions operate at the fringes, or outside of markets (Frølich , 2006).

Public finance, transparency, financial reporting, expenditure management, and internal financial resource allocation are components of IFMIS effectiveness (independent variables) institutional effectiveness are the results expected from IFMIS implementation; and make up the dependent variable (institutional performance).

Figure 2.2: Analytical framework

Independent Variables

Dependent Variable



Source: Own Synthesis from Empirical Literature Review

From the literature review and the conceptual framework, the following research hypotheses are made:

H1: Transparency in PFM is directly related and has significant positive effect to institutional performance at AAU.

H2: Expenditure Management is directly related and has significant positive effect to institutional performance at AAU.

H3: Financial Resource Allocation is directly related and has significant positive effect to institutional performance at AAU.

H4: Financial Reporting is directly related and has significant positive effect to institutional performance at AAU.

CHAPTER TREE RESEARCH METHODOLOGY

3.1. INTRODUCTION

This chapter presents the research methodology that was used during the study. The chapter describes the research design, the target population, sample size and sampling procedure, research instruments, data collection procedures data analysis techniques.

3.2. Research Approach

Decisions regarding what, where, when, how much, by what means concerning an inquiry or a research study constitute a research design (Kothari, 1990). The purpose of this study is to investigate the Effect of Integrated Financial Management Information System (IFMIS) on the performance of Higher Education institutions on selected employees of Addis Ababa University also, it tries to identify and evaluate the sector-specific performance outcomes resulting from the adoption of IFMIS within Addis Ababa University, including improvements in teaching and research and community engagement. The study applied quantitative and qualitative approach. The quantitative approach is to investigate the Effect of Integrated Financial Management Information System (IFMIS) on the performance of Higher Education institutions, in the case of AAU. Qualitative research approach is employed to identify and evaluate the sector-specific performance outcomes resulting from the adoption of IFMIS within Addis Ababa University, including improvements in teaching, research and community engagement. Thus; qualitative data were collected through semi-structured questions from purposively selected employees of Addis Ababa University for key informants due to their awareness/position in organization, knowledge, skill, interaction with issues, and/or rich information they have on the topic of the research.

3.3 Research Design

The objective of this study is to assess the effect of IFMIS on the performance of AAU. That is, the study is mainly to explore why certain factor/independent variables (PFM, Expenditure Management, Financial Resource Allocation, and Financial Reporting) are related and affected the dependent variable (AAU's Institutional Performance). Accordingly, this study employed explanatory research design. Explanatory research design is an empirical inquiry that investigates a contemporary phenomenon and examines the cause-and-effect relationships between dependent and independent variables (Kothari, 2004).

3.3. Data Types and Sources

In this study, both primary and secondary source of data were used. Primary data were collected from the sample population through questionnaires distributed to Addis Ababa University employees. Also, relevant information was gathered from key informants because of their position and rich information they have on the impact of the adoption of IFMIS within Addis Ababa University, including improvements in teaching, research and community engagement. Secondary data were collected from published documents, article journals, books, internets, organizational publications, and related materials that have relevance to this study.

3.4. Sample Size and Sampling Procedure

3.4.1. Target Population

The study population refers to the total population from which the samples were selected. According to Kothari (2004), the study population refers to all cases of people and organizations or institutions which possess certain characteristics that reflect the purpose of the study. For this study, the study population consisted employees of AAU that have frequent daily engagement in using IFMIS to handle their jobs. These employees are primarily working under the Budget and Finance Directorate Office across all the campuses/colleges of the University and three of executive management members (vice president for administration & student service, Academic vice president and vice president for research & technology transfer).

3.4.2. Sampling and Sample Size Determination

3.4.2.1. Sampling Methods

The study applied the non-probability sampling (purposive sampling) method and select representatives based on the information and data obtained from Addis Ababa University human resource development directorate. The key informants are selected due to their awareness/position in organization, knowledge, skill, interaction with IFMIS, and/or the responsibilities they have in relation to the topic of the research. The researcher, with the help of the Human Resource Development Director Office, identified 217 employees eligible to participate in this research study.

3.4.2.2. Sample Size Determination

Sample size refers to the number of items to be selected from the universe to constitute a sample Kothari, (1990). The sample is the smaller portion of the study population or subgroup of the population from whom a researcher draws out information about the total population. The researcher is informed from Addis Ababa University human resource development directorate that there are 217 individuals (all Addis Ababa University budget and finance experts and three of executive management members) in the area that provides appropriate information concerning IFMIS. The sample size of the study was 98 individuals who were purposively selected which constitute 45% of the population in order to enhance the validity and reliability of the finding of the study.

3.5. Data Collection Techniques

Data collection techniques are a process of collecting information from all the relevant sources to find a solution to the research problem and evaluate the outcomes. Two data collection instruments/questionnaires and semi-structured interviews were used in this study for data collection.

Accordingly; Questionnaires are chosen as a research instrument in this study because relative to other tools is economical in terms of time and cost, it facilitates easy and quick response questions and gives freedom to respondents of any category to express their views or opinion. And allow greater uniformity in the way questions are asked by ensuring greater comparability in the response. A Likert scale was used for the closed-ended questions. And semi-structured interview was applied to collect qualitative data from key informants selected by using a purposive judgmental sampling procedure.

3.6. Reliability and Validity

Validity

Validity refers to how well the research's data gathering and data analysis reflects the observed facts. In other words, the researcher must achieve the validity of the reactions of those people who are under test by matching their reactions with such facts that in fact it is accurate.(Kothari, 2004).Validity is the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure (Kothari, 2004). One of the methods to test validity,

content validity, refers to whether or not the content of the manifest variables (questionnaire) is right to measure the latent concept that the researcher trying to measure (Muijs, 2010).

In this study the researcher tried to develop a content-valid constructs by extensive search of literature to select carefully all variables of the study and their measurements. Additionally, the measurements are validated by the research advisor and ensured that the statements represent the entire range of possible items to be measured in the study.

Reliability

Reliability shows that the operation of a study can be repeated with the same result, such as data collection procedures. The aim is to ensure that, if a later researcher has followed exactly the same procedures as those mentioned in the earlier research and has carried out the same case study repeatedly, the later researcher would arrive at the same point.(Kothari, 2004). The reliability of a measure refers to its consistency.

The reliability of a measure refers to its consistency. One of the types of reliability, internal reliability is very important in connection with multi-scale items that determine whether each scale is measuring a single idea, and hence whether the items that make up the scale are internally consistent. (Bryman & Cramer,1999). Coefficient alpha measures internal consistency, this measure expected to be over 0.7 before concluding the test is internally consistent (Muijs, 2010).

The following table (Table 3.1) presented the reliability analyses on the survey constructs.

Question Items	Cronbach's Alpha	N of Items
Transparency in the Management of Public Funds	.942	8
Effectiveness of IFMIS Expenditure management	.729	4
Internal Financial Resource Allocation	.784	6
Accounting and Financial Reporting	.939	8
Effectiveness in Community Engagement, Teaching/Learning and Research service	.836	5
Overall Institutional Effectiveness	.844	6

As can be seen in the table, the cronbache’s alpha statistic values are above the threshold value (>0.7). Thus, the survey instrument is found reliable to proceed the data analysis.

3.7. Data Analysis Techniques

The Statistical Package for Social Sciences (SPSS) version 24 were used to encode the survey data and analyze the data different techniques. In order to examine respondents’ opinion descriptive statistics such as frequency count and percentages are used to summarize respondents’ background information. One-sample t-tests are used to examine the effectiveness of IFMIS (respective to PFM transparency, Expenditure Management, Financial Resources Allocation, and Financial Reporting), and to understand the performance of AAU; with their respective mean (M) and standard deviation (S). Inferential statistical analyses using Pearson Moment Linear Correlation analyses are also used to assess the relationship between the independent variables and the dependent variables. Moreover, linear regression analysis is used to evaluate the impact of the IFMIS implementation on AAUS’s institutional performance.

The results of the data analyses are presented in tabular format followed by the interpretation of the test results using 5% (0.05) level of significance.

Content analyses were employed for qualitative date collected using semi-structured interviews from key informant individuals.

The Model Specification for the regression analysis is:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Where, Y denotes the dependent variable AAU’s institutional performance. (*Inst_Perf*)

X_1 = Transparency in PFM (*T_PFM*)

X_2 = Effective Expenditure Management (*E_EM*)

X_3 = Internal Financial Resource Allocation (*I_FRA*)

X_4 = Effective Financial Reporting (*E_FR*)

$\beta_1 \beta_2 \beta_3 \beta_4$, respectively, are the coefficients of $X_1 X_2 X_3 X_4$ (independent variables)

α is the intercept term which gives the mean or average effect on Y of all the variables excluded from the equation, although its interpretation is the average value of Y when the stated independent variables are set equal to zero,

e = is the error term/sampling error.

3.8 Ethical Considerations

All the participants of the questionnaires and interviews are informed about the aim of the research conducted, confidentiality of the information they give and their right to withdraw whenever they like to do so.

CHAPTER FOUR DATA ANALYSES AND PRESENTATION

4.1 Introduction

This chapter presents the data for the research and analyses results in the way it addressed the research objectives. The chapter presented the background information of respondents, the perception of the respondents towards the effect of IFMIS implementation on the performance of AAU. Accordingly, the analyses incorporated the effectiveness of IFMIS in terms of the transparency in the management of public funds, effectiveness of IFMIS Expenditure management, allocation of internal financial resources, and effectiveness in accounting/finance reports. It then assessed the relationships of these IFMIS related variables with organization performance, which was assessed using the service of Teaching-Learning, community engagement and research, and an evaluation of overall institutional effectiveness.

The data analyses were performed using frequency distributions, one-sample t-tests, correlation analyses, and regression analyses along with test of multiple linear regression assumptions. The data for these analyses were obtained from 98 respondents, who are employees of finance offices in different colleges.

4.2 Background of the Respondents

Table 4.1: Respondents Characteristics

Respondent Characteristics		Frequency	Percent
sex of respondents	male	49	50.0
	female	49	50.0
age of respondents	<20	2	2.0
	21-30	16	16.3
	31-40	63	64.3
	>41	17	17.3
qualification of respondents	Diploma	8	8.2
	First Degree	70	71.4
	MA/MSc and Above	20	20.4
service year of respondents	<10	2	2.0
	11-20	54	55.1
	21-30	36	36.7
	>30	6	6.1
Total		98	100.0

Source: Own Survey (2024)

The sample of the study was composed of 98 employees, where each male and female respondents represent 49(50%) of the sample. That is, each gender group was equally represented in the sample. Table 4/1 also depicted age category of respondents. Where the relative majority 63 (64.3%) were in the middle age group, which is in the age range of 31-40 years. Relatively younger respondents in the age group 21-30 constituted 16(16.3%) of the sample. There were only 2% respondents under 20 years of age. The elder age group above 40 years, 46-50 constituted 17 (17.3) of the total respondents. The sample composition is expected to accommodate the views and opinions of respondents from different age groups.

In terms of service years, the majority of the respondents 54 (55.1 %) have 11-20 years of service. Those respondents with 21-30 years of experiences were 36 (36.7%). Respondents with more than 30 years of service comprise 6.1%,; while respondents with less than 10 years of service were only 2%. The researcher believed that respondents have quite sufficient experience to provide their informed opinion on the research topic.

Regarding respondents education level nearly 70 (71.4%) of the respondents were 1st degree holders; while 20.4% and 8.2% were Masters and diploma holders, respectively. It is evident that their education level has great contribution to understand the research area and provide valuable insights to the study.

4.3 Effectiveness of IFMIS Implementation at AAU

4.3.1 IFMIS contribution on the Transparency in the Management of Public Funds

As presented in table 4.2, one-sample t-tests were performed to assess the transparency in the management of public funds at AAU; which was expected through the implementation of IFMIS. Eight statements were used to assess the effectiveness of managing funds; and respondents had rated their agreements to the statements in a scale of five-point likert scale, where the moderate value=3 was used as test-value for each t-test.. The mean scores, M, the standard deviations, S, and the 95% confidence interval (CI) along with the t-values and the p-values were used to evaluate the level of agreements.

Table 4.2: Assessment of IFMIS in the Management of Public Funds

No.	Statement	One-Sample Statistics			Test Value = 3					
		N	Mean	Std. Deviation	t-value	df	p-value	Mean Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Q2_1	IFMIS has led to the improvement of the university's services	98	4.28	1.03	12.22	97	.000	1.28	1.07	1.48
Q2_2	IFMIS enhances efficiency of the financial processes.	98	4.34	0.73	18.09	97	.000	1.34	1.19	1.48
Q2_3	IFMIS has enhanced easy access to financial information whenever required.	98	4.06	1.06	9.88	97	.000	1.06	.85	1.27
Q2_4	IFMIS has strengthened the university's financial controls.	98	4.36	0.65	20.79	97	.000	1.36	1.23	1.49
Q2_5	IFMIS has led to the effective management of the university's Funds.	98	4.04	0.96	10.71	97	.000	1.04	.85	1.23
Q2_6	IFMIS has improved accountability of public finances.	98	4.23	0.99	12.31	97	.000	1.23	1.04	1.43
Q2_7	IFMIS enhances transparency within the financial system.	98	3.95	1.00	9.41	97	.000	0.95	.75	1.15
Q2_8	IFMIS has improved service delivery to the Public.	98	4.39	0.78	17.58	97	.000	1.39	1.23	1.54
MgtPublicFund		98	4.21	0.77	15.51	97	.000	1.21	1.05	1.36

Source: Own Survey (2024)

Statement #1 was agreed with average rating of $M=4.28$, with standard deviation, $S=1.03$, which indicated considerable variation of respondents in the rating to the statement.. The test result with $t\text{-value}=12.22$ and $p\text{-value}=0.000 < 0.05$ indicated that the average rating was significantly higher than the test-value, that was also observed in the 95% CI of the mean Difference, MD, ranging $1.07=1.48$ that was above zero. This is equivalent to say that, the statement was significantly agreed by the respondents with the 95% CI rating in the range of 4.07-4.48. Therefore, IFMIS fund management was used to the improvement of services rendered by the university, That is, the management of funds used in the delivery of university services has improved through IFMIS.

The use of IFMIS at AAU has also enhanced the efficiency of financial processes (Statement #2); which was agreed with average rating of $M=4.34$, with standard deviation, $S=0.73$, which

indicated certain variation of respondents in the rating to the statement.. The test result with t-value=18.09 and p-value=0.000<0.05 indicated that the average agreement to the statement was significantly higher than the test-value, that was also observed in the 95% CI of the mean Difference, MD, ranging 1.19=1.48 that was above zero. This is equivalent to say that, the statement was significantly agreed by the respondents with the 95% CI rating in the range of 4.19-4.48. Therefore, IFMIS fund management was used to enhance processing of financial transactions. Hence, the financial processes in the utilization of funds has been enhanced as a result of IFMIS implementation in the university.

IFMIS has also enhanced easy access to financial information (Statement #3) which was significantly agreed by the respondents (t-value=9.88, p-value=0.000<0.05). Although there is considerable difference in the respondents opinion, S=1.06, the average rating to the statement was significantly high, M=4.06 ranging in the 95% CI of 3.85-4.27). Respondents were also significantly agreed to statement #4 that witnessed that IFMIS has strengthened the university's financial controls. the statement was rated with the 95% CI of 4.23-4.49. The average rating, M=4.36, therefore indicated that transparency of fund management was assured trough IFNIS's financial control feature.

IFMIS enabled effective management of funds in the university (#5); which was significantly agreed (t-value=10.71, p-value=0.000<0.05) by the respondents with average rating of M=4.04 and in the 95% CI range of 3.85-4.23. IFMIS was also assessed for its capability in ensuring accountability of public funds. This statement (#6) was rated with M=4.23, which is significantly above the moderate level (t-value=10.71, p-value=0.000<0.05). The use of IFMIS has also enhanced transparency in the financial system (#7), and has also improved service delivery to the public (#8). These statements were, respectively, ratted with M=3.95 and M=4.39.

Overall, transparency of the management of funds was computed by aggregating the eight statements above. The t-test result with M=4.21 and S=0.77 was found significant (t-value=15.51 and p-value=0.000<0.05). The 95% CI of the rating was in the range (4.05-4.36), which shows positive opinion of the respondents that there is high level transparency in the management of university's funds that was possible by the use of IFMIS.

4.3.2 IFMIS contribution on the Effectiveness of Expenditure Management

Table 4.3: Assessment on the Effectiveness of Expenditure management using IFMIS

No.	Statement	One-Sample Statistics			Test Value = 3						
		N	Mean	Std. Deviation	t-value	df	p-value	Mean Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
Q3_1	IFMIS provides clear and transparent information about its budget allocations and expenditures	98	4.23	0.95	12.86	97	.000	1.23	1.04	1.43	
Q3_2	IFMIS enhances effectiveness of the organization's cost control measures in managing expenditures	98	4.03	0.92	11.04	97	.000	1.03	.85	1.22	
Q3_3	IFMIS has enhanced employees in the organization to be well informed about the policies and guidelines related to expenditure management	98	3.90	1.01	8.80	97	.000	0.90	.70	1.10	
Q3_4	IFMIS enhances employees involvement in the decision-making process related to expenditure management within the organization	98	3.83	1.02	8.06	97	.000	0.83	.62	1.03	
Expenditure Mgt		98	4.00	0.72	13.63	97	.000	1.00	0.85	1.14	

The effectiveness of IFMIS in the management of expenditures was assessed using one-sample t-test, and the results were depicted in table 4.3 above,

Rating statement #1, respondents average agreement was $M=4.23$ that was in the 96% CI beyond the moderate level; which indicated significantly high level agreement ($t\text{-value} = 12.85$ and $p\text{-value} = 0.000 < 0.05$). the result assured that, information about allocated and available budget; as well as the amounts of expenditures made were clearly documented in IFMIS which allowed to effectively manage expenses. Moreover, respondents have high level agreement ($M=4.03$) to statement #2. Hence, IFMIS was acknowledged for its cost control mechanisms which don't allow expenses more than the available budget.

Statement #3 was rated with $M=3.90$ average agreement in the 95% CI range of 3.70-4.10. The test result indicated significantly high level agreement by the respondents ($t\text{-value}=8.80$ and $p\text{-value}=0.000 < 0.05$) The policies and guidelines related to the university's expenditure management were found to have been well enforced in IFMIS, which were continually adhered by IFMIS users..

In addition, IFMIS was assessed for its contribution that enhanced employees involvement in the decision-making process related to expenditure management within the organization. the rest result with t-value =8.06 and p-value=0.000<0.05 showed that respondents have significantly high level agreement to statement #4; with M=3.83 average rating. Thus, expenditure management was participatory as employees are involved in making decisions while using IFMIS.

Overall, the effectiveness of expenditure management through IFMIS was highly rated by the respondents (M=4.00), which was significantly beyond the moderate agreement level in the 95% CI range of 3.62-4.03. hence, IFMIS was highly effective in the management of expenditures,

4.3.3 IFMIS Capability in the Allocation of Internal Financial Resources

Table 4.4: Assessment of Internal Financial Resource Allocation using IFMIS

No.	Statement	Test Value = 3								
		One-Sample Statistics			t-value	df	p-value	Mean Difference	95% Confidence Interval of the Difference	
		N	Mean	Std. Deviation					Lower	Upper
Q4_1	The implementation of IFMIS has positively influenced the transparency of internal financial resource allocation.	98	4.06	0.84	12.58	97	.000	1.06	.89	1.23
Q4_2	IFMIS has improved the efficiency of the resource allocation process within the university.	98	4.08	0.94	11.42	97	.000	1.08	.89	1.27
Q4_3	The budgeting system allows for flexibility and adjustments to accommodate changing needs within college/department or unit.	98	3.98	0.84	11.59	97	.000	0.98	.81	1.15
Q4_4	Requesting adjustments to allocated budget is a straightforward process.	98	3.89	1.07	8.19	97	.000	0.89	.67	1.10
Q4_5	IFMIS has led to effective mechanisms in place to monitor and evaluate how allocated financial resources are used within college/ department or unit.	98	4.28	0.77	16.39	97	.000	1.28	1.12	1.43
Q4_6	The university should explore new approaches to enhance the effectiveness of resource allocation.	98	3.71	1.16	6.11	97	.000	0.71	.48	.95
FinancialResourceAllocation		98	4.00	0.66	15.09	97	.000	1.00	0.87	1.13

Assessing the efficiency in financial resource allocation using IFMIS was made asking six statements to the respondents, who have positively and significantly high agreement to all statements from the lowest $M=3.71$ to the highest $M=4.28$.

For the statement #1, the average rating $M=4.08$ was significantly above the moderate level rating ($t\text{-value}=12.58$, $p\text{-value}=0.000<0.05$), which fell in the interval, $3.89-4.23$, of 95% confidence. The result indicated that the implementation of IFMIS has positively influenced the transparency of internal financial resource allocation. Similarly, respondents have significantly high level agreement ($M=4.08$, $t\text{-value}=11.42$, $p\text{-value}=0.000<0.05$) that IFMIS has improved the efficiency of the resource allocation process within the university. Regarding this statement #2, the variation of employees; ratings was considerably high, $S=0.94$, resulting in the 95% CI of $3.89-4.27$.

Statements#3 and #4 were agreed with $M=3.98$ and $M=3.89$, respectively. The result indicated that, the budgeting system in IFMIS allows flexibility to accommodate required budget adjustments, which is a straight forward process. In addition, IFMIS was found with effective mechanism to monitor and evaluate how allocated financial resources are used at various budgetary units of the university. This statement #5 was agreed with $M=4.28$ average rating, which was significantly above the moderate rating in the range of $4.12-4.43$ confidence interval.

Overall, the internal financial resource allocation using IFMIS was highly satisfactory to the respondents as indicated by their average rating of $M=4.00$; which is significantly high level agreement in the range $3.87-4.13$ of 95% CI. The result indicated that IFMIS has significantly enhanced the effectiveness of financial resource allocation.

4.3.4 IFMIS Effectiveness in the Generation of Accounting and Financial Reports

Assessing the capability of IFMIS, in generating and communicating accounting and finance reports, was addressed using eight statements that are depicted in table 4.5 along with the t-test results. Looking into the table, all the statements was positively and significantly agreed by the respondents, as the p-values were below 0.05 level of significance and their corresponding 95% CIs were found above the moderate level of agreement.

Using IFMIS it is possible to generate timely reports (M=4.27); and it is capable to disclose accurate financial positions by generating basic financial statements (M=4.22), which are compliant to financial reporting standards (M=4.20).

.Table 4.5: Assessment of IFMIS in Generating Accounting and Financial Reports

No.	Statement	Test Value = 3								
		One-Sample Statistics			t-value	Df	p-value	Mean Difference	95% Confidence Interval of the Difference	
		N	Mean	Std. Deviation					Lower	Upper
Q5_1	IFMIS has improved the accountability of receipts and payments of Public Funds.	98	4.33	0.82	15.97	97	.000	1.33	1.16	1.49
Q5_2	IFMIS has led to timely financial reporting.	98	4.27	0.90	13.87	97	.000	1.27	1.08	1.45
Q5_3	IFMIS accurately discloses the true financial position through the financial statements presented.	98	4.22	0.91	13.26	97	.000	1.22	1.04	1.41
Q5_4	IFMIS has led to improvement in compliance with Financial Reporting standards.	98	4.20	0.80	14.92	97	.000	1.20	1.04	1.36
Q5_5	IFMIS has improved presentation of data for easy analysis and interpretation.	98	4.10	0.89	12.25	97	.000	1.10	.92	1.28
Q5_6	IFMIS has improved the quality of financial reports.	98	4.20	0.96	12.38	97	.000	1.20	1.01	1.40
Q5_7	IFMIS has improved reconciliation of financial transactions.	98	4.35	0.86	15.45	97	.000	1.35	1.17	1.52
Q5_8	IFMIS has improved the reliability of financial records.	98	4.31	0.60	21.58	97	.000	1.31	1.19	1.43
	AcctFinancialReporting	98	4.25	0.71	17.36	97	.000	1.25	1.10	1.39

The statement, IFMIS has improved the accountability of receipts and payments of Public Funds, was agreed with average rating of M=4.33.

IFMIS has also improved presentation of data for easy analysis and interpretation (M=4.10) that make possible to make financial analyses and computation of financial ratios.

Financial reconciliation that has been done regularly on monthly basis was comfortably handled using IFMIS (M=4.35), In addition to improved financial reconciliation, respondents have also

high level agreement, $M=4.31$, that IFMIS has improved the reliability of financial records. Moreover, IFMIS has made improvement in the accountability of receipts and payments of Public Funds. The improvement in the quality of reports was also ascertained by the respondents with average agreement level of $M=4.20$.

Overall, IFMIS was found to have the capability of producing timely, and accurate reports as and when required. The effectiveness of IFMIS in the generation of Accounting and Financial reports was recognized by the respondent with average aggregated mean of $M=4.25$, which was beyond the moderate level agreement level .of 95% CI in the range 4.10-4.39.

4.3.5 Teaching-Learning, Community Engagement, and Research Service

Assessment of the effect of IFMIS on teaching-learning, community engagement and research service was examined by t-tests using five statements as presented in table 4.6.

In statement #1, respondents had $M=3.61$ average agreement that IFMIS has positively contributed to the overall teaching-learning effectiveness at AAU. The t-test result (t -value= 6.54 , p -value= $0.000 < 0.05$) and the associated 95% CI (3.43 - 3.80) indicated that respondents paid significantly above moderate level agreement. Moreover, in statement #2, it was highly and significantly agreed that faculty members find it easy to access financial information and resources that enhance their teaching activities through IFMIS ($M=3.81$, t -value= 8.32 , p -value= $0.000 < 0.05$).

Table 4.6: Assessment of IFMIS contribution Teaching-Learning, Community Engagement, and Research services

No.	Statement	Test Value = 3								
		One-Sample Statistics			t-value	df	p-value	Mean Difference	95% Confidence Interval of the Difference	
		N	Mean	Std. Deviation					Lower	Upper
Q6_1	The Integrated Financial Information System (IFMIS) has positively contributed to the overall effectiveness of teaching at Addis Ababa University	98	3.61	0.93	6.54	97	.000	0.61	.43	.80
Q6_2	Faculty members find it easy to access financial information and resources that enhance their teaching activities through IFMIS	98	3.81	0.96	8.32	97	.000	0.81	.61	1.00
Q6_3	IFMIS has streamlined administrative processes, allowing faculty members to focus more on improving teaching service.	98	3.89	0.85	10.36	97	.000	0.89	.72	1.06
Q6_4	The use of IFMIS has facilitated better financial management, positively impacting the quality of research conducted at Addis Ababa University.	98	4.14	0.63	18.08	97	.000	1.14	1.02	1.27
Q6_5	Faculty members find it convenient to access financial data and allocate resources for research activities through IFMIS.	98	3.92	0.73	12.50	97	.000	0.92	.77	1.06
QualityTLR		98	3.87	0.64	13.46	97	.000	0.87	0.74	1.00

The teaching service has also got improvement as IFMIS has streamlined administrative processes, allowing faculty members to focus more on improving teaching service. This statement #3 was agreed to M=3.82 level with 3.72-4.06 CI, which was significantly high above the moderate level agreement ($p\text{-value}=0.000 < 0.05$). Thus, the performance of teaching was found to have improved as a result of IFMIS implementation.

IFMIS implementation has resulted in positive contribution to research activities. Regarding statement #4 that , the use of IFMIS has facilitated better financial management to have positively impacting the research conducted at Addis Ababa University, respondents have

significantly high agreement level (M=4.14) with the 95% CI range of 4.02-4.27. it was also highly agreed (M=3.92) that faculty members find it convenient to access financial data and allocate resources for research activities through IFMIS. The results, thus, implied that the performance of research activities at AAU was found to have improved as a result of IFMIS implementation.

Overall, the contribution of IFMIS to the teaching and research activities at AAU was rated with high level aggregated mean, M=3.87, which was found significantly high (t-value=13.46, p-value=0.000<0.05) within the 95% CI range of 3.74-4.00. Thus, AAU is considered to have considerably high level performance with regard to its teaching and research activities

4.3.6 Institutional Effectiveness at AAU

Table 4.7: Assessment of the contribution of IFMIS in AAU's Organizational Performance

No.	Statement	Test Value = 3								
		One-Sample Statistics			t-value	df	p-value	Mean Difference	95% Confidence Interval of the Difference	
		N	Mean	Std. Deviation					Lower	Upper
q7_1	I am satisfied with the overall impact of IFMIS on the institutional effectiveness of Addis Ababa University	98	4.17	0.85	13.67	97	.000	1.17	1.00	1.34
q7_2	The integration of financial information through IFMIS has positively influenced the overall efficiency and effectiveness of the university	98	4.12	0.78	14.30	97	.000	1.12	.97	1.28
q7_3	IFMIS has played a role in enhancing the university's strategic planning and decision-making processes.	98	4.31	0.74	17.52	97	.000	1.31	1.16	1.45
q7_4	The integration of financial data through IFMIS aligns with the strategic priorities of Addis Ababa University.	98	4.12	0.78	14.30	97	.000	1.12	.97	1.28
q7_5	The use of IFMIS has positively influenced the satisfaction levels of various university stakeholders	98	4.24	0.92	13.39	97	.000	1.24	1.06	1.43
q7_6	Overall, IFMIS has contributed to efficiency gains in administrative and financial operations.	98	4.29	0.84	15.20	97	.000	1.29	1.12	1.45
Institutional Effectiveness		98	4.21	0.61	19.51	97	.000	1.21	1.09	1.33
Organ Performance		98	4.04	0.56	18.25	97	.000	1.04	0.93	1.15

The institutional performance at AAU was also assessed using six statements as in table 4.7. The average agreement rating to these statements was above four-point in the likert scale, hence significantly above the test-value ($p\text{-values} < 0.05$). the corresponding 95% CIs were also high enough to indicate the high level institutional performance achieved through implementation.

Specifically, respondents have agreed with $M=4.17$ that, they are satisfied with the overall impact of IFMIS on the institutional effectiveness of Addis Ababa University. They also paid high level agreement ($M=4.12$) that, IFMIS has positively influenced the overall efficiency and effectiveness of the university.

Moreover, respondents have high level confidence ($M=4.12$) that the integration of financial data through IFMIS was aligned with the strategic priorities of Addis Ababa University; and also acknowledged the role of IFMIS in enhancing the university's strategic planning and decision-making processes ($M=4.31$), and

It is also significantly believed that, the use of IFMIS has positively influenced the satisfaction levels of various university stakeholders; which was agreed with $M=4.24$ average agreement level. IFMIS has also contributed to efficiency gains in the overall administrative and financial operations; that has been agreed with $M=4.29$ agreement level in the 95% CI range 4.12-4.45,

Overall, institutional effectiveness achieved at AAU was rated with $M=4.21$ aggregate average level that fell in the 95% CI of 4.09-4.33. hence, the university is believed to have high level effectiveness through IFMIS.

By aggregating the two performance indicators in the above sections, the overall organizational performance at AAU was computed with an aggregated average level of $M=4.04$ that fell significantly above the moderate level with the 95% CI of 3.93-4.15. Hence, the university is believed to have achieved high level performance through its efficient and effective management of financial resources by using the Integrated Financial Information System.

4.5 Correlation Analyses

Table 4.8: Correlation Analyses

		MgtPublicFund	ExpenditureMgt	FinancialResourceAllocation	AcctFinancialReporting	QualityTLR	InstitutionalEffectiveness	OrganPerformance
MgtPublicFund	Pearson Correlation	1	.694**	.676**	.840**	.653**	.812**	.812**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	98	98	98	98	98	98	98
ExpenditureMgt	Pearson Correlation	.694**	1	.789**	.722**	.678**	.744**	.790**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	98	98	98	98	98	98	98
FinancialResourceAllocation	Pearson Correlation	.676**	.789**	1	.794**	.666**	.798**	.813**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	98	98	98	98	98	98	98
AcctFinancialReporting	Pearson Correlation	.840**	.722**	.794**	1	.571**	.858**	.791**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	98	98	98	98	98	98	98
QualityTLR	Pearson Correlation	.653**	.678**	.666**	.571**	1	.618**	.904**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	98	98	98	98	98	98	98
InstitutionalEffectiveness	Pearson Correlation	.812**	.744**	.798**	.858**	.618**	1	.895**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	98	98	98	98	98	98	98
OrganPerformance	Pearson Correlation	.812**	.790**	.813**	.791**	.904**	.895**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	98	98	98	98	98	98	98

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

Source: own survey (2024)

The correlation analysis results in table 4.8 indicated that all IFMIS functionality features were directly and significantly related with the university performance, both in the quality of T/L, community engagement and research outputs as well as institutional effectiveness in delivering services.

Financial resource allocation using IFMIS was directly and significantly related with organizational performance ($r=0.813$, $p\text{-value}=0.000<0.05$). That has also direct relationship with the quality of teaching/learning, community engagement, and research ($r=0.798$, $p\text{-value}=0.000<0.05$) and the institutional overall effectiveness ($r=0.666$, $p\text{-value}=0.000<0.05$). The result implied that, financial resource allocation could have affected 66.1% ($=0.8132$) of the university performance provided that other factors were kept unchanged.

The effectiveness in the management of funds was also highly, directly and significantly correlated with organization performance ($r=0.812$, $p\text{-value}=0.000<0.05$). That is, the higher the effectiveness of IFMIS in the management of funds, the higher the performance of the university; which affected 65.9% (0.8122) of institutional performance. Specific to the service of teaching-learning, community engagement, and research outputs, effective public fund management; effective fund management has also contributed to 42.6% ($=0.6532$)

Effective expenditure management ($r=0.790$, $p\text{-value}=0.000<0.05$), and accounting and financial reporting ($r=0.791$, $p\text{-value}=0.000<0.05$) were directly and significantly related to the performance of the university. Respectively, they have affected 62.4% and 62.6% of the university performance provided that other potential factors are kept constant.

Effective expenditure management was directly and significantly related with service of Teaching-learning and research outputs ($r=0.678$), and institutional effectiveness ($r=0.744$). IFMIS generation of accounting reports and financial statements was also have direct relationship with service of Teaching-learning and research outputs ($r=0.571$), and institutional effectiveness ($r=0.858$).

The results presented above indicated that the improvement in institutional performance was positively related with IFMIS implementation at AAU; and believed to have high level contribution to the performance of the university.

Table 4.8 also indicated correlation analyses among independent variables (the IFMIS functional capabilities). Each of the four IFMIS variables was directly and significantly related to each other.

4.6 Regression Analyses

4.6.1 Test of Regression Assumptions

No Multicollinearity

The problem of multicollinearity usually arises when certain independent variables are highly correlated. That is, significantly high correlations among the independent variables could be an indication to multicollinearity problem. To assess the multicollinearity in the regression, a variance inflation factor analysis was conducted. Variance Inflation Factors (VIFs) are a method of measuring the level of collinearity between the independent variables in regression model. VIFs show how much of the variance of a coefficient estimate of an independent variable has been inflated due to collinearity with the other regressors. There is no formal VIF value for determining presence of multicollinearity. Values of VIF that exceed 10 are often regarded as indicating multicollinearity. The Tolerance statistic also assesses the presence of multicollinearity. Some suggest that a tolerance value less than 0.1 should be investigated further.

Looking into the regression analysis results in following sections (table 4.12), the VIF and tolerance values were found to have satisfied the above VIF and Tolerance criteria. Hence, the assumption of no multicollinearity has been satisfied.

No Autocorrelation

Autocorrelation is one of the basic assumptions in linear regression model (LRM) is that the random error components or disturbances are identically and independently distributed. The Durbin-Watson statistic is a test for first-order serial correlation. If the error term is serially correlated, the estimated OLS standard errors are invalid and the estimated coefficients will be biased and inconsistent due to the presence of a lagged dependent variable.

More formally, the DW statistic measures the linear association between adjacent residuals from a regression model. The DW statistic ranges from zero to 4. If there is no autocorrelation, the DW statistic will be around 2. A rule of thumb is that test statistic values in the range of 1.5 to 2.5 are relatively acceptable. Field (2009) suggests that values under 1 or more than 3 are a definite cause for concern. In the regression model in the following sections (table 4.10), the resulting DW statistic was 1.744, which is very close to the value 2. Hence the regression analysis was free from autocorrelation problem.

No Heteroscedasticity

Heteroskedasticity refers to situations where the variance of the residuals is unequal over a range of measured values. When running a regression analysis, heteroskedasticity results in an unequal scatter of the residuals (also known as the error term). If there was no this problem, the scatter plot look like an oval shaped where no pattern is detected. The following scatter plot used to visually inspect any possibility of heteroscedasticity problem.

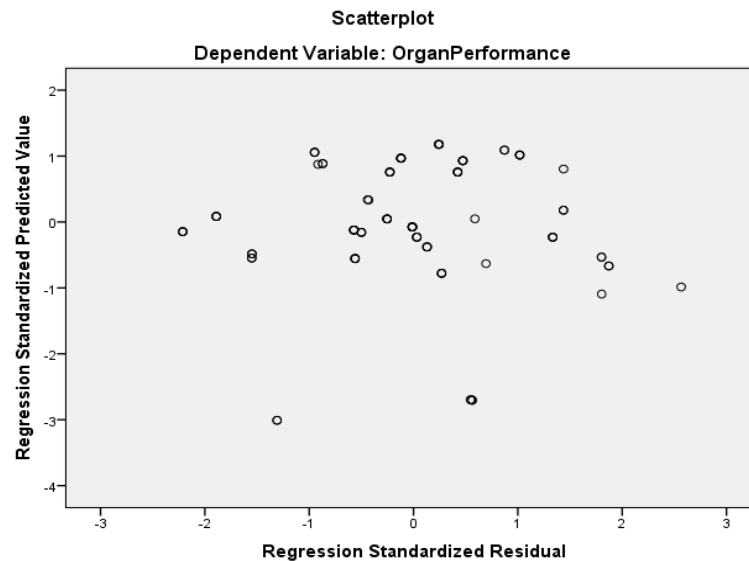


Figure 4.1: Scatter plot of standardized and predicted values and residuals

From the diagram above, it is difficult to find clear linear relationship between the residual and the predicted values. A correlation of the standardized predicted values and standardized residuals was also compute, and found not significant ($r=0.000$, $p\text{-value}=1.00 > 0.05$). Hence, it is certain to conclude absence of heteroscedasticity problem.

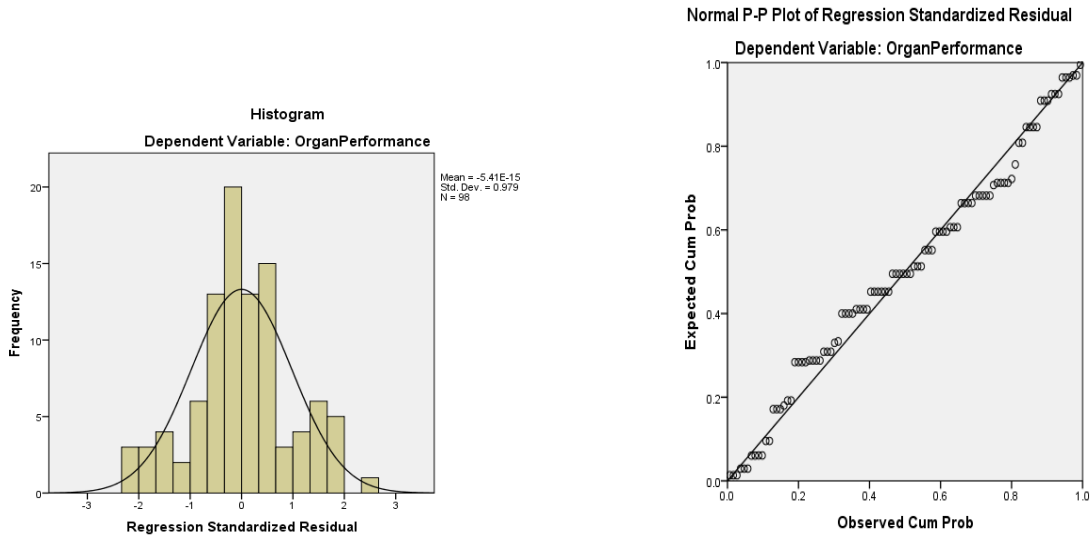
Normality of the Residual

The other regression analysis assumptions are the normality distribution of error terms. A histogram of residuals can be used to check whether the variance is normally distributed or the variance is a constant. A symmetric bell shaped histogram of residual which is distributed around zero indicates that the normality assumption is likely to be true.

From the figure 4.2 (left), the distribution looked symmetric around zero but the peak of the histogram seems beyond the normal curve. Moreover, the values of the residuals, represented by

the dots, in the figure 4.2(Right) somehow deviated from the normality diagonal line. Hence, the assumption of normality may not be ascertained confidently.

Figure 4.2: Residual Normal Curve



Further checking of the normality assumption was made using statistical test. The test results are presented in table 4.9. These tests assume the residuals are normally distributed. But according to Kolmogorov-Smirnov test, the p-value-0.026<0.05 contradict the assumption. In contrary, the test result by Shapiro-Wilk identified not-significant p-value (0.158 >0.05), and found the distribution of the residuals was not significantly deviated from normally distributed. So, the assumption of normally distributed residuals is accepted.

Table 4.9: Tests of Normality

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual	.096	98	.026	.981	98	.158

a. Lilliefors Significance Correction

4.6.2 Results of Regression Analysis

To assess the significance of the effects of the IFMIS implementation on institutional performance of AAU, multiple regression analysis was performed.

Table 4.10: Regression Model Summary

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Change Statistics	Durbin-Watson
				R Square Change	
1	.896 ^a	.803	.794	.803	1.744
a. Predictors: (Constant), AcctFinancialReporting, ExpenditureMgt, MgtPublicFund, FinancialResourceAllocation					
b. Dependent Variable: OrganPerformance					

Table 4.10 depicted multiple correlation, $R=0.896$, between the IFMIS variables and institutional performance. This results in a coefficient of determination, $R^2=0.794$, which indicated the amount of variation in organization performance that was explained by IFMIS. This indicated that 79.4% of institutional performance at AAU was affected as a result of IFMIS implementation. The result indicated that IFMIS has high level impact on the university performance.

Table 4.11: Regression ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F-value	p-value.
1	Regression	24.844	4	6.211	94.587	.000 ^b
	Residual	6.107	93	.066		
	Total	30.951	97			
a. Dependent Variable: OrganPerformance						
b. Predictors: (Constant), AcctFinancialReporting, ExpenditureMgt, MgtPublicFund, FinancialResourceAllocation						

The ANOVA table tests the significance of the regression model. The test is to ensure that not all the coefficients in the regression model are insignificant. The F-value =94.59 and p-value=0.000<0.05 indicated that the regression model was significant and acceptable.

The resulting regression model using the coefficients in table 4.12 was:

$$\begin{aligned} \text{Organization Performance} = & 0.0.840 + 0.314* (\text{Effective Management of Public Fund}) \\ & + 0.168 (\text{Expenditure Management}) \\ & + 0.313* (\text{Financial Resource Allocation}) \\ & - 0.010* (\text{Accounting and Finance Reporting}). \end{aligned}$$

Table 4.12: Regression Coefficients

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t-value	[-value	Collinearity Statistics	
		B	Std. Error				Beta	Tolerance
1	(Constant)	.840	.170		4.953	.000		
	MgtPublicFund	.314	.064	.427	4.870	.000	.276	3.628
	ExpenditureMgt	.168	.063	.215	2.683	.009	.330	3.032
	FinancialResourceAllocation	.313	.076	.364	4.099	.000	.269	3.715
	AcctFinancialReporting	-.010	.082	-.013	-.122	.903	.200	4.992

a. Dependent Variable: OrganPerformance

Table 4.12 tests the significance of each regression coefficients. The result showed that only the coefficient of IFMIS Reporting was insignificant (b=-.010, p-value=0.903>0.05). The coefficient b=0.314 indicated that improving the effectiveness of public fund management will raise the university overall performance by 0.314 level. Similarly, the IFMIS capability in financial resources allocation will raise institutional performance by the level b=0.313. Improving expenditure management will also have direct impact to raise the university’s performance by b=0.168.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of findings, the conclusions and recommendations made based on the results of the data analyses in the previous chapter.

5.2 Summary

The data obtained from survey respondents presented the background information of the research participants, their perception of the effectiveness of IFMIS implementation at AAU, and the impact it has to the overall organizational performance at AAU.

The gender composition of respondents was even (49 or 50%) each. The large majority of respondents, 64.3%, fall under the age group 31-40. Where 70 (71.4%) of the respondents were first degree holders. About 55% of the respondents had served for 11-20years, while 36.7% have 21-30 years of years.

- ❖ IFMIS Effectiveness to the Transparency in the Management of Public Funds was assessed with aggregated mean, $M=4.21$ and $S=0.77$ and was in the 95% CI range of (4.05-4.36). It was agreed that:
 - IFMIS fund management was used to the improvement of services rendered by the university, $M=4.28$
 - IFMIS at AAU has also enhanced the efficiency of financial processes, $M=4.34$
 - IFMIS has also enhanced easy access to financial information, $M=4.06$
 - IFMIS was also assessed for its capability in ensuring accountability of public funds, $M=4.23$
 - The use of IFMIS has also enhanced transparency in the financial system, $M=3.95$
 - IFMIS also improved service delivery to the public, $M=4.39$
- ❖ The effectiveness of expenditure management through IFMIS was highly rated by the respondents ($M=4.00$), in the 95% CI range of 3.62-4.03 Further, it was positively recognized that:
 - Information about allocated and available budget; as well as the amounts of expenditures made were clearly documented in IFMIS which allowed to effectively manage expenses ($M=4.03$).

- the policies and guidelines related to the university's expenditure management were found to have been well enforced in IFMIS, which were continually adhered by IFMIS users.
 - IFMIS has contributed that enhanced employees involvement in the decision-making process related to expenditure management within the organization. M=3.83. The expenditure management was participatory as employees are involved in making decisions while using IFMIS.
- ❖ Overall, the internal financial resource allocation using IFMIS was highly satisfactory to the respondents as indicated by their average rating of M=4.00; which is the range 3.87-4.13 of 95% CI. The result indicated that IFMIS has significantly enhanced the effectiveness of financial resource allocation.
- IFMIS has positively influenced the transparency of internal financial resource allocation, M=4.08,
 - IFMIS has improved the efficiency of the resource allocation process within the university M=4.
 - The budgeting system in IFMIS allows flexibility to accommodate required budget adjustments, which is a straight forward process. M=3.89 to M=3.98.
 - IFMIS was found with effective mechanism to monitor and evaluate how allocated financial resources are used at various budgetary units of the university. M=4.28
- ❖ Overall, IFMIS was found to have the capability of producing timely and accurate reports as and when required. The effectiveness of IFMIS in the generation of Accounting and Financial reports was recognized high level agreement M=4.25 with 95% CI in the range 4.10-4.39. Specifically, respondents have high level agreement to the following:
- Using IFMIS it is possible to generate timely reports (M=4.27);
 - IFIS is capable to disclose accurate financial positions by generating basic financial statements (M=4.22), which are compliant to financial reporting standards (M=4.20).
 - IFMIS has improved the accountability of receipts and payments of Public Funds, M=4.33.
 - IFMIS has also improved presentation of data for easy analysis and interpretation (M=4.10)

- Financial reconciliation that has been done regularly on monthly basis was comfortably handled using IFMIS (M=4.35),
 - Rating of M=4.31 that, IFMIS has improved the reliability of financial records. Moreover,
 - The improvement in the quality of reports was also ascertained by the respondents with average agreement level of M=4.20.
- ❖ Institutional performance of AAU assessed with high level agreement, with aggregated mean M=4.04 :
- Improvement in the service of Teaching-learning, community engagement, and research outputs, M=3.87. The specific achievements were:
 - Assessment of the effect of IFMIS on teaching-learning, community engagement and research service was examined by t-tests using five statements as presented in table 4.6.
 - That IFMIS has positively contributed to the overall teaching-learning effectiveness at AAU. M=3.61
 - that faculty members find it easy to access financial information and resources that enhance their teaching activities through IFMIS (M=3.81)
 - The teaching service has also got improvement as IFMIS has streamlined administrative processes, allowing faculty members to focus more on improving teaching service M=3.82.
 - IFMIS implementation has resulted in positive contribution to research activities. (M=4.14)
 - faculty members find it convenient to access financial data and allocate resources for research activities through IFMIS. (M=3.92)
 - overall Institutional effectiveness, M=4.21, was the aggregated result of the following:
 - Respondents are satisfied with the overall impact of IFMIS on the institutional effectiveness of Addis Ababa University M=4.17.
 - They also paid high level agreed (M=4.12) that, IFMIS has positively influenced the overall efficiency and effectiveness of the university.
 - Rating of (M=4.12) that the integration of financial data through IFMIS was aligned with the strategic priorities of Addis Ababa University;

- Respondents acknowledged the role of IFMIS in enhancing the university's strategic planning and decision-making processes (M=4.31),
 - the use of IFMIS has positively influenced the satisfaction levels of various university stakeholders; which was agreed with M=4.24
 - IFMIS contributed to efficiency gains in the overall administrative and financial operations; that has been agreed with M=4.29
- ❖ There were high correlation between organization performance identified as follows:
- Financial resource allocation using IFMIS was directly and significantly related with organizational performance ($r=0.813$, $p\text{-value}=0.000<0.05$).
 - That has also direct relationship with the service of teaching/learning, community engagement, and research ($r=0.798$, $p\text{-value}=0.000<0.05$) and t
 - he institutional overall effectiveness ($r=0.666$, $p\text{-value}=0.000<0.05$).
 - The effectiveness in the management of funds was also highly, directly and significantly correlated with organization performance ($r=0.812$, $p\text{-value}=0.000<0.05$).
 - Effective expenditure management ($r=0.790$, $p\text{-value}=0.000<0.05$), and accounting and financial reporting ($r=0.791$, $p\text{-value}=0.000<0.05$) were both directly and significantly related to the performance of the university.
 - Effective expenditure management was directly and significantly related with service of Teaching-learning and research outputs ($r=0.678$), and institutional effectiveness ($r=0.744$).
 - IFMIS generation of accounting reports and financial statements was also have direct relationship with service of Teaching-learning and research outputs ($r=0.571$), and institutional effectiveness ($r=0.858$).
- ❖ Regression analyses depicted multiple correlation, $R=0.896$, between the IFMIS variables and organizational performance. This results in a coefficient of determination, $R^2=0.794$. This indicated that 79.4% of institutional performance at AAU was affected as a result of IFMIS implementation.
- ❖ Regression coefficients indicated that Effective Management of Public Fund accounted for 0.314 (31.4%), Expenditure Management with 16.8%, and Financial Resource Allocation with 31.3% accounted to the organizational performance. The coefficient value, -0.010. of Accounting and Finance Reporting was not significant. .

5.3 Conclusions

The study was about the effect of IFMIS implementation at AAU on the organizational performance. The respondents agreed that the university had high level performance in all measures. Hence, the aggregated organization performance at AAU was adequately high. The result, therefore, addressed the objective that, IFMIS users' perception on the improvement in AAU's performance was positive.

The independent variable of the study was IFMIS use in the university, which was evaluated with four constructs. The results of the t-test analyses indicated that implementation of IFMIS at AAU was highly effective in its, expenditure management, internal financial resource allocation, and in the generation of Accounting and Financial reports. Hence, the research output responded to the research questions that, high level transparency in financial management, effective expenditure management, efficient financial resource allocation, and financial reporting were achieved as a result of IFMIS use in the university,. Thereby, the overall effectiveness of IFMIS use at AAU was ascertained by the respondents.

The results of the correlation analyses identified that, all four independent variables (IFMIS dimensions) were directly and significantly correlated to the organizational performance at AAU. That is, it is highly likely that performance of AAU was directly affected by IFMIS use. Overall, the effect of these IFMIS dimensions had accounted for 79.4% of the changes in performance that was achieved through the IFMIS usage in the university. Therefore it is concluded that each of the IFMIS functionalities (i.e. public fund management, expenditure management, financial resource allocation, and financial reporting) is directly and significantly related to the organizational performance with its considerably high level impact. Overall the research finding suggested that the financial management practice has improved through the use of IFMIS which has positively affected the university performance.

5.3 Recommendations

The finding of the research encourages similar universities to adequately use the system to enhance their financial and organizational performances. Thus, other public institution benefits from IFMIS Implementation through transparent public fund management, effective expenditure

management, efficient resource allocation, and report generation capability to ensure accountability of the public institutions, and make informed decisions.

The management can benefit by handling project funds through IFMIS that would help effectively manage its financial resources in achieving objectives of the university and pursuing its mission. In this regard, the commitment and intervention of the management is essential.

The university becoming an autonomous university, and may not be directly accountable to MoF, through the integrated financial system. Hence, the need for keeping IFMIS in the future has to be thoroughly discussed with concerned stakeholders. Specifically, the implication of university autonomy on IFMIS needs to be clarified.

This research is not without its own limitations. The research had assessed IFMIS implementation with only the four dimensions, however, other aspects of IFMIS such as availability of trading and support, complexity of the system, integration of the system with other functionalities, reduction in paper use would have been important to have full-fledged understanding of the IFMIS implementation at AAU. Moreover, the study only focused on financial management of funds from government treasuries; while the financial management of other funds such as projects, had been dealt to address the entire scope with all types of financial resources. The research participants were limited to finance and budget directorate employees; whereas the opinion of users from property administration and purchasing/procurement offices was a plus. Moreover, financial management practice at AAU is supposed to work on its financial plan that is expected to align with the university strategic plan. That is, the inclusion of the financial planning aspect in using IFMIS at AAU would have been important.

Apart from these limitations, the finding can be used as a reference to researchers conducting similar undertakings. Future researchers may address this limitation in their research undertakings.

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Appendix A
Addis Ababa University
College of Business and Economics
Department of Public Administration Development Management
Master Program in Public Management and Policy

Research title: Investigating the Effect of Integrated Financial Management Information System (IFMIS) on the performance of Higher Education institutions: A Case study of Addis Ababa University

Questionnaire Distributed to respondents to collect data from the employees of Addis Ababa University

Introduction

Thank you for your willingness to participate in this study as a respondent. This Questionnaire is used to collect data for the Master Program in Public Management and Policy research title “Investigating the Effects of Integrated Financial Management Information System (IFMIS) on the performance of Higher Education institutions: A Case study of Addis Ababa University” your experience will be significantly added value as an input for this paper. I assure you that the information you provide will be used only for academic research purposes and the anonymity of the respondent will be maintained throughout the research process. Thank you for your cooperation. If you have any questions about this study, please contact the investigator, Biniyam Eshetu (biniyam.eshetu@aau.edu.et) or +251913323348.

Section I. General information

1.1 Sex Male Female

1.2 Age

- (1) Below 20 years
- (2) 21-30 years
- (3) 31-40 years
- (4) 41 and above

1.3 Qualification

- (1) Certificate
- (2) Diploma
- (3) First Degree
- (4) MA/MSc and above

1.4 Service Year

- (1) Below 10 years
- (2) 11-20 years
- (3) 21-30 years
- (4) 30 years & above

Section II. Issues related to IFMIS on Transparency in the Management of Public Funds

Direction: Please rate the following questions on this questionnaire by putting the "√" mark in the space provided. Accordingly rate as follow 1.Strongly Disagree 2.Disagree 3.Undecided 4. Agree 5.Strongly Agree.

No	Items	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
		1	2	3	4	5
2.1	IFMIS has led to the improvement of government services					
2.2	IFMIS enhances efficiency of the financial processes.					

2.3	IFMIS has enhanced easy access to financial information whenever required.					
2.4	IFMIS has strengthened government financial controls.					
2.5	IFMIS has led to the effective management of Public Funds.					
2.6	IFMIS has improved accountability of public finances.					
2.7	IFMIS enhances transparency within the financial system.					
2.8	IFMIS has improved service delivery to the Public.					

Section III. Issues of Effectiveness of IFMIS Expenditure Management

Direction: Please rate the following questions on this questionnaire by putting the "√" mark in the space provided. Accordingly rate as follow 1.Strongly Disagree 2.Disagree 3.Undecided 4. Agree 5.Strongly Agree.

No	Items	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
		1	2	3	4	5
3.1	IFMIS provides clear and transparent information about its budget allocations and expenditures					
3.2	IFMIS enhances effectiveness of the organization's cost control measures in managing					

	expenditures					
3.3	IFMIS has enhanced employees in the organization to be well informed about the policies and guidelines related to expenditure management					
3.4	IFMIS enhances employees involvement in the decision-making process related to expenditure management within the organization					

Section IV. Issues related to IFMIS Internal Financial Resource Allocation

Direction: Please rate the following questions on this questionnaire by putting the” √” mark in the space provided. Accordingly rate as follow 1.Strongly Disagree 2.Disagree 3.Undecided 4. Agree 5.Strongly Agree.

No	Items	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
		1	2	3	4	5
4.1	The implementation of IFMIS has positively influenced the transparency of internal financial resource allocation.					
4.2	IFMIS has improved the efficiency of the resource allocation process within the university.					
4.3	The budgeting system allows for flexibility and adjustments to accommodate changing needs within my department or unit.					

4.4	Requesting adjustments to our allocated budget is a straightforward process.					
4.5	IFMIS has led to effective mechanisms in place to monitor and evaluate how allocated financial resources are used within my department or unit.					
4.6	The university should explore new approaches to enhance the effectiveness of resource allocation.					

Section V. Issues of Effectiveness of IFMIS in Accounting and Financial Reporting

Direction: Please rate the following questions on this questionnaire by putting the "√" mark in the space provided. Accordingly rate as follow 1.Strongly Disagree 2.Disgree 3.Undecided 4. Agree 5.Strongly Agree.

No	Items	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
		1	2	3	4	5
5.1	IFMIS has improved the accountability of receipts and payments of Public Funds.					
5.2	IFMIS has led to timely financial reporting.					
5.3	IFMIS accurately discloses the true financial position through the financial statements presented.					
5.4	IFMIS has led to improvement in					

	compliance with Financial Reporting standards.					
5.5	IFMIS has improved presentation of data for easy analysis and interpretation.					
5.6	IFMIS has improved the quality of financial reports.					
5.7	IFMIS has improved reconciliation of financial transactions.					
5.8	IFMIS has improved the reliability of financial records.					

Section VI. Issues of Effectiveness of IFMIS in Teaching, community engagement and Research Service

Direction: Please rate the following questions on this questionnaire by putting the” √” mark in the space provided. Accordingly rate as follow 1.Strongly Disagree 2.Disgree 3.Undecided 4. Agree 5.Strongly Agree.

No	Items	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
		1	2	3	4	5
6.1	The Integrated Financial Information System (IFMIS) has positively contributed to the overall effectiveness of teaching at Addis Ababa University..					
6.2	Faculty members find it easy to access financial information and					

	resources that enhance their teaching activities through IFMIS.					
6.3	IFMIS has streamlined administrative processes, allowing faculty members to focus more on improving teaching service.					
6.4	The use of IFMIS has facilitated better financial management, positively impacting the service of research conducted at Addis Ababa University.					
6.5	Faculty members find it convenient to access financial data and allocate resources for research activities through IFMIS.					

Section VII. IFMIS for Overall Institutional Effectiveness

Direction: Please rate the following questions on this questionnaire by putting the "√" mark in the space provided. Accordingly rate as follow 1.Strongly Disagree 2.Disagree 3.Undecided 4. Agree 5.Strongly Agree.

No	Items	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
		1	2	3	4	5
7.1	I am satisfied with the overall impact of IFMIS on the institutional effectiveness of Addis Ababa University.					
7.2	The integration of financial information through IFMIS has					

	positively influenced the overall efficiency and effectiveness of the university.					
7.3	IFMIS has played a role in enhancing the university's strategic planning and decision-making processes.					
7.4	The integration of financial data through IFMIS aligns with the strategic priorities of Addis Ababa University.					
7.5	The use of IFMIS has positively influenced the satisfaction levels of various university stakeholders.					
7.6	Overall, IFMIS has contributed to efficiency gains in administrative and financial operations.					

Appendix B

Interview

1. How do you perceive the role of the Integrated Financial Management System (IFMIS) in supporting teaching and learning activities within the institution?
2. Can you describe any specific ways in which IFMIS has contributed to improving the service of educational services offered to students?
3. How has the Integrated Financial Management System (IFMIS) influenced research activities and initiatives within the institution?
4. From your perspective, what overall impact has the Integrated Financial Management System (IFMIS) had on the service of teaching learning, research and community engagement within the institution?