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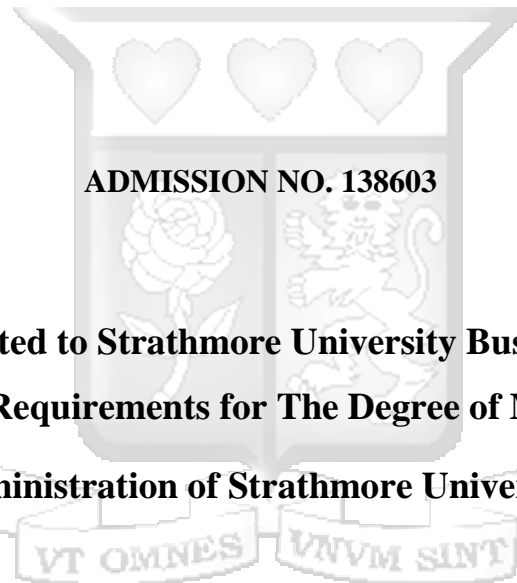
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Technological Adoption in Financial Management Practices and Financial Performance in Catholic Higher Educational Institutions in Nairobi, Kenya

OLUOCH, H. ANYANGO



A Dissertation Submitted to Strathmore University Business School in Partial Fulfilment of The Requirements for The Degree of Masters in Business

Administration of Strathmore University

MAY, 2023

Declaration

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the dissertation contains no material previously published or written by another person except where due reference is made in the dissertation itself.

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ABSTRACT

Effective financial management plays a crucial role in ensuring the success and sustainability of organizations. Therefore, this research aims to investigate the impact of technological adoption on financial management practices and performance in Catholic higher educational institutions in Nairobi, Kenya. The study was guided by three theories: technological diffusion, technology acceptance model (TAM), and free cash flow theory. To achieve this objective, a descriptive research design was employed, and a sample of 51 respondents was selected from five Catholic higher educational institutions using stratified random sampling. Data was collected through self-administered questionnaires containing both open and closed-ended questions. The collected data was analysed using SPSS, and inferential statistics were utilized to conduct statistical significance tests. Multiple regression analysis was also conducted, and qualitative data was subjected to thematic analysis. The findings of the study indicate that 87% of the surveyed universities utilize cash budgets, with QuickBooks (31.1%), Enterprise Resource Planning (ERP) (20.0%), and Excel (17.8%) being the most commonly employed technologies. Cash budgeting was found to have a positive relationship with financial performance, and integrating cash budgeting with technology was shown to be beneficial for financial performance. However, the study highlights that the use of technology alone in financial management may not be sufficient for improving financial performance. Therefore, the study recommends the integration of technology with cash management policies to enhance financial performance. Among the financial performance indicators assessed, the liquidity/current ratio obtained the highest mean score, while the university's strong asset base received the lowest mean score. Furthermore, the regression model employed to predict financial performance demonstrated a good fit with an adjusted R square of 0.647. These findings emphasize the significance of investing in technology to enhance financial management in Catholic higher educational institutions in Nairobi, Kenya.

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ABBREVIATIONS AND ACRONYMS

AI –	Artificial Intelligent
AIS –	Automated Information System
ANOVA -	Analysis of Variance
ATM –	Automated Teller Machine
BM –	Budgeting Model
CPAK -	Certified Public Accountancy Kenya
DOI –	Diffusion of Innovation
ERP –	Enterprise Resource Planning
FGD -	Focus Group Discussion
HEIs –	Higher Educational Institutions
ICT –	Information Communication Technology
IFMIS –	Integrated Financial Management Information Systems
IT –	Information Technology
NACOSTI –	National Commission for Science, Technology, and Innovation
PEM –	Public Expenditure Management
PEOU –	Perceived Ease of Use
PCA –	Principal Component Analysis
PU –	Perceived Usefulness
QFMP –	Questionnaire for financial management practices
SPSS –	Statistical Package for the Social Sciences
TAM –	Technology Acceptance Model
TIS –	Technology in Focus
UTAUT –	User Acceptance of Information Technology toward a Unified View

DEFINITION OF TERMS

Adoption: The choice to acquire and use a new innovation.

The Catholic Church: The Christian Church over which the Pope presides, with administrative headquarters in the Vatican, also called: Roman Catholic Church, or the Church of Rome.

Catholic Higher Educational Institutions: These are tertiary learning centres that either are run or sponsored by the Catholic Church.

Higher Educational Institutions: These refer to universities and other tertiary learning centres which are accredited to offer academic education.

Financial Management: This refers to the planning, organizing, directing and controlling the financial activities such as procurement and the utilization of funds of an enterprise. It also means the application of general management principles to financial resources of an enterprise.

Financial Management Practices: This is the exercise of handling a company's finances in a way that allows it to be successful and compliant with regulations.

Technological Adoption: This refers to the successful integration of new technology into an enterprise management.

Financial Performance: This is the subjective measure of how well a firm use asset from its primary mode of business in order to generate revenues.

DEDICATION

This dissertation is dedicated to my late father Mzee Clement Oluoch whose quality of a great educationist and whose unique character of being a peace maker have remained my all-time inspiration.



ACKNOWLEDGEMENT

I am grateful to God for the ability to study and acquire knowledge and for the gift of life and good health, which have enabled me to complete this dissertation. In a special way, my sincere gratitude goes to my supervisor Dr. David Mathuva for his most valuable professional guidance, patience, consistency and unmatched spirit of self-sacrifice that has made the completion of this dissertation possible. With him, I also thank all my lecturers at Strathmore Business School for their contributions in building my knowledge.

I am indebted too to all the research respondents from the various Catholic Higher Educational Institutions for their cooperation and support during my field research. I also wish to thank my colleagues from the MBA class and the librarians at Strathmore University for their input in different capacities.

I also owe deep gratitude to my religious family, the Loreto Institute, Eastern Africa Province which through its leadership accorded me the time, opportunity and resources to undertake this study.

In a special way my sincere thanks go to my family especially my mother, for their loving concern, care and prayerful support throughout the journey of writing this research. Last but not least, my special appreciation goes to all those special friends who in big or small ways have contributed in the writing of this dissertation; without your support and encouragement, I would not have not made this accomplishment. May God bless each one of you abundantly!

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This chapter provides an overview of the study which comprises of its background, problem statement, research objectives, research questions, significance, scope, and limitations. It is crucial to establish a strong foundation for the research by clearly defining these components. The background of the study sets the context and rationale for the research, outlining the existing knowledge and gaps in the literature. By identifying the problem statement, the study addresses a specific issue or gap that needs further investigation. The research objectives serve as the guiding principles and outline the overall purpose of the study. Additionally, the research questions provide specific inquiries that will be addressed through the research process. The significance of the study highlights the potential contributions and implications of the research, showcasing its relevance and significance to the field. It is essential to delineate the scope of the study, therefore, the boundaries and limitations within which the research will be conducted are specified. Finally, the limitations acknowledge any potential constraints or factors that may impact the research process or findings. As this chapter forms the basis for the entire study, it is critical to present these elements in a clear and organized manner to provide a comprehensive understanding of the research objectives and context.

1.2 Background of the Study

The success and sustainability of any organisation require, among other things, practical and sound financial management (Dyukina and Kordovich, 2020). All the components of an organisation depend on its financial strength therefore, without proper and sound financial management, its different aspects cannot function effectively and consequently, the entity may collapse (Lakew and Rao, 2012). Given the crucial role finance plays in any organisation, it is of utmost importance that sound and effective practices which guarantee checks and balances, transparency, and accountability are put into place to ensure its successful operation. One such way would be the adoption of digital technology in financial management (Barata and Cain, 2011). Dyukina and Kordovich (2020) concur that technological advancement such as financial management data-based systems that enhance transparency have the potential to facilitate consistent monitoring, measurement, and documentation, thereby contributing to productivity improvement. More-

over, a number of scholars argue that the adoption of technology improves decision-making accuracy, leading to positive organizational performance outcomes (Barata and Cain, 2011; Dyukina and Kordovich, 2020). Rockson (2019) for instance highlights how information technology influences financial accountability, while Cherono (2016) underscores the benefits of technology in financial management with regard to more effective accounting practices, timely submission of financial reports, and efficient storage and retrieval of financial information, all of which enhance agency operations. However, it is crucial to acknowledge that technology adoption within financial management practices is contingent upon staff competency and the Information Communication Technology (ICT) structure.

Past research has identified various emerging technologies in financial management, particularly in budgeting. By adopting and utilizing these technologies, organizations can tap into their potential for improved productivity and operational efficiency (Brookings, 2021; Guyo, 2014). However, it is essential to address the productivity paradox, which arises when the expected gains from technology adoption fail to materialize. This can occur if organizations overlook factors such as staff competency and the alignment of technology with the organizational structure.

To mitigate the productivity paradox, organizations must ensure that their staff members possess the requisite skills to effectively utilize the adopted technologies. Additionally, they should evaluate and optimize the ICT structure to support the seamless integration and utilization of technology in financial management practices. By addressing these factors, organizations can enhance their capacity to leverage technology for improved productivity, decision-making, and overall performance in the realm of financial management. (Memon, 2019). It is whereby a plan is put in place that outlines the expected receipt and payments, which are presented to show the current financial position of an institution (Brookings, 2021; Guyo, 2014). LaVelle and Jane Sui-lin (2021) identified budgeting as essential for effective financial management. This is because budgeting ensures that expenditure in each vote head does not exceed the authorised amount in the budget (Mburu, 2017). Budgeting, therefore, is an important tool for planning, monitoring costs, and consequently making appropriate decisions, resulting in effective financial management in institutions. Besides, these studies are not keen on personal attribute related to technological adoption (Cherono, 2016). In light of the above, this study seeks to determine the effects of financial management practices and technological adoption on the financial performance of

Catholic higher educational institutions (HEIs). The study also determined the extent to which these Catholic HEIs adopt diverse financial management systems and how this contributes to financial accountability. The study mainly targeted Catholic HEIs located in Nairobi, Kenya.

1.2.1 Informational Management System and Financial Management Practices

Globally, the Catholic Church stands as a major service provider in various fields, encompassing education, health, economics, social services, and communication (Memon, 2019). However, the effective delivery of these services requires financial security. Proper financial management therefore becomes essential in ensuring accountability, transparency, mobilization, and sustainability of the services offered (Kirmani, Wani, and Syed, 2015). Before delving deeper into the benefits of financial management, it is important to briefly explain its nature.

Financial management can be defined in various ways. According to Pandey (2010), it entails managerial responsibilities in organizations, including the planning and management of financial resources. Gitman (2015) adds that financial management is closely linked to the concepts of time, money, and risk, involving financial planning and control. Initially a branch of economics, financial management emerged as a distinct field of study in the late 19th century (Brigham et al., 2016). Its evolution took place in three phases: traditional, transitional, and modern. In its current phase, financial management provides a conceptual and analytical framework for effective financial decision-making. Additionally, technological advancements have created new conditions for financial management practices (Barata and Cain, 2011; Kariuki, 2018). For instance, the use of integrated financial management information systems and information communication technology has become fundamental in financial management (Mugambi, 2019). Technological adoption plays a significant role in overall organizational management, as highlighted by Guyo (2014). Technology serves as an effective means of planning, acquiring, and utilizing funds to maximize institutional effectiveness (Cherono, 2016). Financial management varies across different organizations, each with its specific goals (Reitner and Pink, 2015).

Financial management benefits organizations, such as educational institutions, by ensuring the availability and efficient use of funds to benefit consumers (Guyo, 2014). With the aid of technology, financial analysis becomes simplified, enabling effective monitoring and transaction of

finances. However, the manifestation of stewardship relies on the appropriate use and accountability of finances, along with personal responsibility on the part of managers (Njau, 2020).

According to Kariuki (2018), financial management practices can pose significant challenges for public academic institutions. The adoption of a computing system to manage fund movement in relation to the budget can greatly alleviate this burden and enhance academic performance. Barata and Cain (2011) and Mugambi (2019) note that financial management practices in Kenyan academic institutions are generally weak due to minimal technological adoption and a lack of clear expenditure priorities (Njau, 2020). This has sometimes resulted in financial crises, compromising the quality of services delivered (Kariuki, 2018).

While these studies recognize the benefits of technological adoption in financial management, they often overlook technological flaws and practices that perpetuate financial mismanagement, particularly in Africa where technology infrastructure is lacking (Brookings, 2021; Guyo, 2014). However, it is worth noting that technology has also facilitated financial mismanagement, as seen in cases like Kenya where its adoption has contributed to a decrease in the number of ghost workers

Although the lack of technology adoption is often attributed to the cost of IT infrastructure, inadequate training, and high IT provider expenses, its critical significance in ensuring effective financial management should not be underestimated (Afaneh, Alfawareh, and Musatat, 2021). Therefore, based on the aforementioned assertions, this study aims to examine the effects of financial management practices and technological adoption on the performance of Catholic Higher Education Institutions (HIEs) in Kenya.

1.2.2 Financial Management Practices and Technological Adoption

Another critical aspect of financial management is the maintenance of sound internal controls within institutions. Sound internal controls are essential for achieving effective financial management (Cherono, 2016; Barata and Cain, 2011). To facilitate this, institutions can adopt technological innovations like integrated financial management and information systems (IFMIS). The utilization of IFMIS can enhance the effectiveness of financial management by providing robust internal controls and streamlining financial processes. Adoption of technology results in many benefits; it enhances financial sourcing processes within the organisation which is neces-

sary for streamlining the financial processes and provision of standard, real-time and accurate financial statements (Mugambi, 2019). It also ensures cutting operation costs, eliminating corruption and fraudulent activities, and enhancing transparency and accountability within business organisations.

Technological adoption plays a vital role in enhancing effective financial management within organizations, including Catholic Higher Educational Institutions (HEIs). Precise record-keeping is an integral component of effective financial management, as it enables the generation of accurate financial statements (Madondo, 2021). Furthermore, the proper management of books of accounts is crucial for ensuring the adequacy of financial management (Rockson, 2019). Financial statements and budget forecasts prepared within institutions serve as valuable tools for improving operational activities and achieving important financial objectives, both in the present and the future. The utilization of a computerized system for financial records can greatly enhance the accuracy and efficiency of such financial operations (Dyukina and Kordovich, 2020). By adopting technology, managers are able to gain a comprehensive understanding of their institution's current financial position and its capacity to meet future financial obligations more effectively (World Bank, 2014).

Therefore, it is evident that effective financial management, reinforced by the adoption of technology, holds significant importance to all forms of organizations, including Catholic HEIs (Rockson, 2019). Technological advancements provide institutions with the means to streamline their financial processes, enhance record-keeping, and improve overall financial management practices. Undoubtedly, integrating technology into financial management becomes an essential aspect for achieving optimal financial outcomes in Catholic HEIs and other organizational settings.

The Catholic Church is reported to be the largest non-governmental provider of education in the world (Catholic News Agency, 2010). As of 2011, the Catholic Church operates the world's largest religious, non-governmental school system. In 2016, the Church supported 43,800 secondary schools and 95,200 primary schools. According to the census of the Vatican's Congregation for Catholic Education, the total number of Catholic universities and higher education institutions worldwide is 1,358. To increase the performance of these institutions they must adopt emerging technologies in managing finance such as payment mode and record keeping.

Despite the Catholic Church being the largest non-governmental provider of education, various cases of financial mismanagement have been cited in some of its affiliated institutions (Rockson, 2019; Redden, 2021). Among other reasons given for such mismanagement is the challenges of improper accounting of their resources and funds. In some cases, this has led to several legal and embarrassing tussles in some Church managed educational institutions (Barata and Cain, 2011). Denisova-Schmidt (2018) attributed this misnomer to ineffective financial management and the dearth of the spirit of stewardship, transparency, and accountability. To prevent the aforementioned situations of mismanagement of resources and funds, the present study endeavours to put the argument that emerging technologies like artificial intelligence (AI) can be used for financial management and fraud detection (Barata and Cain, 2011; Rockson, 2019). Such technologies can also include advanced algorithms which can spot abnormalities and outliers that can be referred to human review to see if fraud has occurred (Brookings, 2021).

In the Kenyan context, for instance, it is reported that the Catholic University of Eastern Africa could not pay its staff due to financial crises in 2017 - 2020 (Butcher, 2020). This has also been true of some other Catholic-based institutions resulting into increasingly resource constrained over the past three decades as the donor aid declines (Brookings, 2021). Consequently, this has led to workers not being paid in a timely manner or with just wages compared to other institutions. The lack of good pay has worsened the performance of education as well as poor accounting (Afaneh, Alfawareh, and Musatat, 2021). Furthermore, some of the Catholic institutions have also been reported to be inefficient about total expenditure, and the study emphasised on proper revenue collection and transparency.

Ozotambgo (2015) conducted a study on financial recordkeeping in religious institutions in Nigeria. He revealed that adopting technology in financial planning and budgetary practice is vital and helps prevent personal interest that tends to override the management of church institutions. In Kenya, Wanjau and Muiruri (2012) noted that several Catholic based health facilities have been affected by insufficient financial resources. This has led to a decline in the quality of health services provided. The authors further pointed out that proper internal controls and recordkeeping are imperative in ensuring that the allocated funds are employed for the purported purposes. The authors identified that in addition to insufficient finances, lack of financial accounting and improper financial skills pose a challenge in the management of finances. In their analysis on proper financial management, Murunga and Njeru (2015) revealed that top management insight,

employee competence, organisational culture and organisational structure have a positive and significant effect on financial policies compliance.

According to the study conducted by Memon's (2019) study, it was established that the financial budgeting process has a substantial impact on the quality of education. Additionally, the study revealed there is a positive and significant relationship between financial reporting and the quality of education. Moreover, the quality of education is significantly influenced by proper financial records keeping, as well as the implementation of internal control systems that enhance the efficiency and effectiveness of university performance while ensuring resources are allocated to priority programs. In today's world, financial management has to adapt to the digital era. Adopting information technology positively affects service innovation practices, increasing the competitive advantage. The adoption of new technologies can contribute to both efficiency and effectiveness and is a crucial source of long-term competitive advantage in entrepreneurial ventures. This is particularly relevant for Catholic HEIs (Silva, 2020). The main benefits generated by these innovative tools include reducing the risk of error (especially human error); low risk of fraud; system automation, extensive data analysis, huge cost savings (by increasing efficiency and decreasing in errors), increased reliability in financial reports, and reduced workflow. We live in a digital and intelligent era, where machines take over repetitive, time-consuming, and redundant tasks, giving finance professionals more time to approach higher level and more lucrative analysis and research (Mosteanu, 2020).

Today the use of technology is universally regarded as an essential tool in enhancing the effectiveness in financial management. There is consensus that technological adoption significantly affects any institution's productivity. These effects will only be realised if, and when, technological adoption is widely spread and used. Therefore, the determinants of technological adoption must be properly and adequately understood (McDonald, 2016).

There is evidence that Catholic HEIs are actively embracing technology in order to enhance their financial management practices, particularly in the computerization of financial data and record-keeping. For instance, Muigo (2020) notes that the Catholic HEIs has adopted accounting software which helps create, connect, store, and report many different types of finance transactions. However, there are no studies to ascertain how the adoption of such technology have significantly contributed to greater financial performance.

One major problem affecting many HEIs is the poor management of the financial resources. In many countries, this may result from corruption, mismanagement, and ill-allocation of government financial resources. The need to promote public accountability and transparency is the right button to press the adoption of financial management technologies. Therefore, this study aims to fill the gap in the literature on technological adoption in financial management practices and financial performance in Catholic HEIs.

1.3 Statement of the Problem

Numerous organizations worldwide have adopted a range of financial systems in order to enhance efficiency and improve service delivery (Dyukina and Kordovich, 2020; Afaneh, Alfawareh, and Musatat, 2021). However, the insufficient adoption of technology in the rapidly evolving landscape of financial management systems, along with the potential risks of system abuse, has resulted in challenges related to revenue mobilization and a lack of transparency in financial system, utilization and accountability (Dyukina and Kordovich, 2020; Musatat et al., 2021).

This issue is further exacerbated by statistical evidence. For instance, studies have indicated that a significant percentage of organizations still struggle with the adoption of advanced technologies. In fact, only 7% of private and public universities in Kenya, including Catholic Higher Educational Institutions (HEIs), have fully embraced innovative financial management technologies (Zezeza, 2020; Cheron, 2016). Such low adoption rates have led to cases of fund misappropriation and corruption, with 40% of these universities being implicated in financial misconduct (Kariuki, 2018; Brookings, 2021; Redden, 2021).

Despite the Catholic Church's significant involvement in the education sector and the growing number of affiliated universities, the overall performance of these institutions remains subpar. This underperformance can be attributed, in part, to financial mismanagement stemming from the limited adoption of technology in financial management systems (Kariuki, 2018; Brookings, 2021; Redden, 2021).

Recent research has highlighted the adoption of information communication technology as a step towards addressing these challenges. For example, some Catholic HEIs have implemented mobile payment and internet banking systems, with approximately 7% of these institutions incorporating such technologies into their financial operations (Bartholomew, 2018; Murimi, Macheru,

and Omurwa, 2021). However, despite these efforts, there is still a lack of comprehensive integration of more advanced technologies like Enterprise Resource Planning (ERP), big data analytics, and artificial intelligence (AI) technologies that have demonstrated significant effectiveness in financial management practices (Murimi et al., 2021). Consequently, these institutions have not been able to benefit from more efficient financial management systems, and they still have gaps in efficient delivery and accountability of financial services. Therefore, this study seeks to address such gaps by examining the interactive relationship in efficient service delivery between the institutionalisation of financial management systems, financial management practices and financial performance of institutions of higher learning, particularly, the Catholic HEIs.

1.4 Research Objectives

1.4.1 General Objective

The overall objective of the study is to examine the impact of technological adoption on financial management practices and performance in the Catholic HEIs in Nairobi, Kenya.

1.4.2 Specific Objectives

1. To establish the type and level of technologies employed in financial management of Catholic HEIs in Nairobi, Kenya.
2. To determine the effects of technological adoption and cash policies on the financial performance of Catholic HEIs in Nairobi, Kenya.
3. To establish the effects of technological adoption on accounting practices and on the financial performance of Catholic HEIs in Nairobi, Kenya.

1.5 Research Questions

1. What is the type and level of technologies employed in the financial management of Catholic HEIs in Nairobi, Kenya?
2. To what extent does a financial technology and cash policy affect the financial performance of Catholic HEIs performance in Nairobi, Kenya?
3. What is the effect of technological adoption on accounting practices and financial performance of Catholic HEIs in Nairobi, Kenya?

1.6 Scope of the Study

The study focused on Catholic HEIs within Nairobi, Kenya. The study only focused on those higher learning institutions recognized as universities in Kenya. Although other factors are associated with the performance of HEIs, this study was limited to technological adoption in financial management practices and financial performance in Catholic HEIs in Nairobi, Kenya. The study was done in five selected institutions within the city. This was arrived at due to the researcher geographical location and the fact that most of the Catholic affiliated institutions are based in Nairobi, making it ideal for the investigation because of the availability of the respondent. Besides, there has been poor performance in the Catholic HEIs as a result of limited finance. The aspect of financial performance was measured against technological adoption, and this study was carried out within a period of one year. The study did not cover other performances like operation, and efficiency.

1.7 Significance of the Study

1.7.1 Institutions of Higher Learning

The findings of the study will be important in helping institutions of higher learning prevent financial mismanagement. The study will also serve as a guide to effective practice of stewardship in leadership in financial management in HEIs. Hopefully, the management of these institutions will gain the best practice for application in their operations. The research will also provide and add further knowledge to existing information in cash management and technological adoption in the selected institutions of higher learning and other organisations.

1.7.2 Researchers

It will also provide the researchers with relevant literature reviews while conducting further research.

1.7.3 Financial Stakeholders and Organisations

The study will also benefit the stakeholders in managing financial issues through technological adoption in financial management practices to enhance financial performance as this will inform stable leadership in organisational management, especially in higher educational institutions this

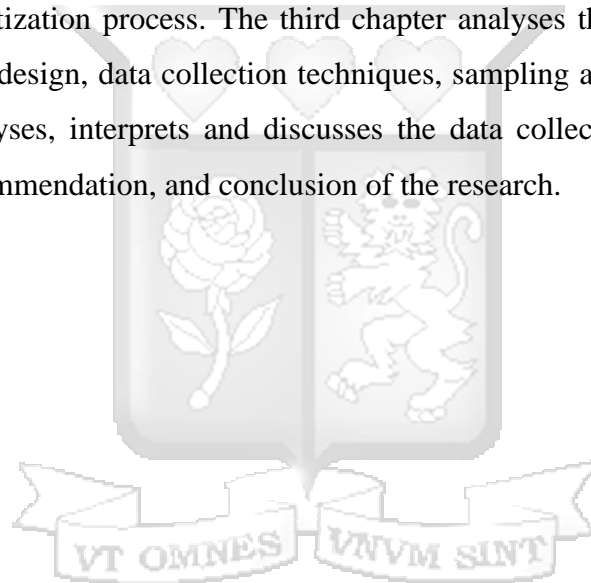
will improve their rapport with some of the sponsoring bodies that offer their supports to such institutions and earn their trust, that funds are appropriately utilised.

1.7.4 Policy Formulations

The study will also contribute to policy-making especially in the Financial Management.

1.8 Organization of the Study

This dissertation is divided into five chapters. The first chapter introduces the focus of the dissertation background, statement of the problem, research objectives and research questions. The second chapter mainly discusses the literature review on institutional financial management and implications for the digitization process. The third chapter analyses the research methodology, which includes research design, data collection techniques, sampling and ethical considerations. The fourth chapter analyses, interprets and discusses the data collected. Finally, chapter five gives the summary, recommendation, and conclusion of the research.



CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents the theoretical foundation of research analysis. It explores the existing empirical studies on technological adoption, financial management and performance in higher learning institutions. The chapter covers theoretical framework, empirical literature, critical review and research gaps. The Literature reviewed focused on the three research objectives: elements of technological adoption in cash budgeting, cash policies, and accounting practices.

2.2 Theoretical Framework

The theoretical framework is an important aspect of this research. Here we will explain the existing theories that support our research, showing how those theories are grounded in the dissertation's established ideas. There is a lack of a holistic theory that addresses the issue of technological adoption and financial management reasons for multiple theories. In other words, we will see how the theoretical framework justifies and contextualizes this research. This research utilized one main theory, Technological Diffusion/Adoption/Acceptance Theory, which was complemented by Technology Acceptance Model (TAM) and Free Cash Flow Theory.

2.2.1 Technological Diffusion/Adoption/Acceptance Theory

Diffusion of innovations is a theory originally designed to explain how change agents influence social processes. It has become a theory used to address how a technology or technological artefact becomes adopted, what forces affect the adoption process, and how proponents of a given technology or artefact may better influence the adoption process. The theory of Diffusion of Innovations explains why, how and the rate at which new technology and other new ideas are accepted within a particular cultural context. The theory was proposed by Rogers, a rural sociology professor in his "Magnum Opus" in 1962. Rogers defines Diffusion of Innovations as the process of continuous communication of innovative ideas such as technology through a recognisable channel with the intent of drawing the attention of people within a defined social system (Rogers, 1962).

Three general areas of interest include: the innovation-decision process, or first knowledge of and confirmation of the innovation; innovativeness, or the degree to which an individual is rela-

tively early as an adopter of potential innovation, and the actual rate of adoption by early adopters as compared with other members of a social system. The diffusion process is considered to be defined by communication among similar individuals because diffusion is conceptualized as depending on a social system. Thus, many are interested in the types of people who adopt at different times along the diffusion process. Furthermore, diffusion occurs at different rates due to the interests of different social systems in a potential innovation. Because different innovations are adopted at different rates, unique groups or families of S-curves representing the rate of adoption have emerged. For example, the rate at which the telephone initially was adopted was much slower than the rate at which present-day personal telecommunication devices are adopted (Gopinath, 2023).

Another key assumption of diffusion of innovations is that it is not the actual innovativeness of an idea, product, or process that is important, rather, it is the perception of innovativeness that matters for members of a social system. For that matter, even perceived innovativeness may be insufficient to encourage adoption and diffusion. The trial stage in which the potential innovation is used is very important to the diffusion process. The diffusion process will end at this stage if the benefits of the innovation do not outweigh the costs. As noted previously, the adoption process must reach the stage of critical mass for many technologies to prove successful for all adopters (Bayramova, 2021). If initial adopters do not perceive the utility of the innovation for both self and for the wider social system, the practicality of the innovation may be called into question and the adoption process may be terminated (Qader, 2022).

2.2.2 Technology Acceptance Model (TAM)

Existing literature provides a number of theories on the impact of the adoption and implementation of information technology (IT) in an organisation. The technology acceptance model (TAM) theory developed by Fred Davis and Richard (1989) is supported by several other theories. The theory is further discussed in two parts of perceived usefulness (PU) and perceived ease of use (PEOU). First, there is the user acceptance of information technology (UTAUT) theory developed by Davis et al., (2000) which focuses on the user acceptability to new technology and its connection with the Impact of Integrated Financial Management Information Systems (IFMIS).

Secondly, there is the theory of diffusion of innovation (DOI) which broadly discusses how and why the rate at which IT is adopted in the organisation is of significance to its performance.

This model is relevant to this study by addressing the central components of technological adoption such as perceived usefulness, perceived ease of use, attitude, trust and perceived risks. In the TAM, perceived usefulness is a factor that is frequently employed in the adoption process of information systems. It is defined as the extent to which a consumer's work efficiency would increase if they used this new technology (Barata and Cain, 2011). Based on the perceived usefulness, people select a service if they believe the usage of Fintech can have a beneficial effect (Kariuki, 2018). Perceived usefulness can have a favourable impact on users' intents, according to a significant number of empirical studies on the adoption of information technology over the past ten years (Barata and Cain, 2011; Otieno, Migiro, and Mutambar, 2017). According to Memba and Feng (2016), adoption of block chain technology and its perceived ease and efficiency enable financial managers and organization to make sound financial decisions.

The existing literature which treats each of the variables describe different IFMIS modules and their relationship with Public Expenditure Management. The modules discussed include procurement, budgeting, and accounting. Their impact on application in the public sector is discussed as addressed by various researchers and any challenge of their implementation. The empirical review of past studies has shown the great contribution of IFMIS in various public sectors.

The studies have also shown positive feedback on the implementation of the integrated system though in a unit sector especially the procurement unit. The studies' inadequate coverage of the system implementation in all the key units in the government prompted carrying out of this research study to fill the literature gap. This is through studying the links between the three IFMIS modules and PEM.

2.2.3 Free Cash Flow Theory

Another theory justifying the adoption of digital technology in an organisation for more effectiveness in its operations is the free cash flow theory. Jensen and Michael (2001) advanced that in free cash flow theory, the behaviours of managers are inconsistent with profit maximisation objective. Managers on their part with increased cash flow pursue objectives that are less con-

cerned with profit increment in the organisation but making their lives better by increasing the size of the firm. The agency cost as advanced by Brickley, J., Smith, C., & Zimmerman, J. (1995), alludes that in monitoring difficulties, the management creates avenues for spending internally generated cash flow on investment plans of much benefit to them than they are to shareholders. The theory holds that to minimise free cash flow usable for the advancement of opportunistic goals by management; the available cash should be used for investments.

There is a plethora of literature suggesting that financial sources and investments are better understood within the cash flow theory. HEIs can use the new free cash theory in determination on what financial policy to enact for budgeting purpose. Davis (1997) in his study pointed out that the management of firms with cash flow that exceed profitable investment opportunities are likely to misuse cash by awarding themselves attractive benefits or by venturing in investments which do not benefit the organisation. The free cash flow should be in turn used to pay dividends to shareholders. The agency hypothesis (Kariuki, 2018) alludes that firms with free cash flow are probable to grow beyond the optimal point of the shareholder goal of wealth maximisation. The managers' decisions such as share repurchase curbs the managerial wasteful expenditure. The theory relates to the study that private universities management endeavours in increasing in size by opening new campuses that are unprofitable and uneconomical in the long term.

2.3 Empirical Review

An empirical literature review, also known as a systematic literature review, analyses previous empirical studies in order to provide an answer to a specific research topic. Rather than drawing information from theories or beliefs, empirical research relies on observations and measurements to arrive at conclusions.

2.3.1 Technological Adoption of Cash Budgeting and Financial Performance

The technology-like budgeting module (BM) has been developed to aid in budgeting, control, planning and implementation (Barata and Cain, 2011). The BM is a system which automates all the processes of budgeting making from planning to execution. The system provides a computerised budgeting package which guarantees public resource management and adequate accountability. It also allows frequent evaluation of the organisation performance for the decision making of the managers on budgetary allocations (Afaneh, Alfawareh, and Musatat, 2021).

The system also provides adequate links to all budgetary teams for continuous review and actions (Cherono, 2016). The system also improves confidence and credibility of the budget. The budget planning and execution using the available resources is also improved through timely and accurate data in budgeting processes and controls. A study done by Muwema and Phiri (2020) on *the Impact of Integrated Financial Management Information Systems on the Procurement Process* showed that the use of IFMIS made the formulation of budget become realistic in the government due to data integration at various levels which guarantees better budget execution.

This technology can link budgeting resources and assets to an activity, providing a plan to spend resources like money (Guyo, 2014). The system aids in proper spending plan and budgeting, and this guides the organisation towards achieving its objectives. Every organisation needs a good budgeting system which guarantees a balance of income and the expenses. There are several methods of budgeting which different organisations can adopt, the first is the incremental budgeting process where the amounts in the budget plan are increased for the current period, the activity-based budgeting, the value proposition and zero based where all expenditure is justified and it starts at the zero-based. A more effective way of ensuring proper spending plan and budgeting in an organisation is through the computer automation system. The adoption of technology has proved beneficial for learning institutions (Kariuki, 2018). For instance, Brookings, (2021) established that technology enables Zero-Based Budgeting to navigate Market Volatility which aids the institution return on investment. Moreover, using technology in the financial budgeting process has been found to improve the quality of education to a large extent in learning institutions (Kariuki, 2018). It is further argued that using technology integrated into budgeting not only improves performance but also ensures that resources are allocated to the priority programmes in learning institutions.

Furthermore, a study carried out by Memba and Feng (2016) showed that failure of technological adoption reduced the performance of learning institutions; the study showed there was low student enrolment due to poor budgeting in Tanzanian Higher learning institutions. This is affirmed by Barata and Cain, (2011) when they assert that technology will lead to discovery of new approaches to budget planning models which consequently lead to better performance. The preponderance of literature in finance demonstrates that budget emphasis and strategy affect the budget planning models and ultimately the performance of an organisation (Afaneh, Alfawareh, and Musatat, 2021; Guyo, 2014; Cherono, 2016). These studies show that there is a positive and

meaningful relationship among technological adoptions such as ICT, and IFMIS and budget planning models, organisational performance, management performance and budgetary satisfaction. The findings of these empirical studies point out that for improved performance in organisations, the management must be keen on the budget concepts and use the available technology to increase the value of budgeting through dissemination of information to all employees and other stakeholders in the budget-making process.

Njeru (2017) did a study on *Effect of Integrated Financial Management Information System on Public Expenditure Management in Kenya*, the study demonstrated that a sound cash budget ensures proper utilisation of funds for higher returns and keeps the expenditure in check so as to guarantee a balance between in-flows and out-flows of cash. In affirmation, Cherono (2016) observes that before the adoption of IFMIS in the government ministries the preparation of the budget was a tiresome and tedious affair. Budget preparation would be characterised with; semi-computerized tedious tasks of financial planning, preparing budget estimates, manual procurement system, and manual payment process, manual vote books, manual reporting and storage of information which could not be retrieved with ease. This study recommends the adoption of technology in financial operations for sound utilisation of resources in the organisation (Cherono, 2016).

Brookings (2021) found that the preparation of cash budget ensures that a balance is maintained between liquidity and profitability. It further explained that the adoption of proper technology and financial models which ensures that organisational expenditures match the planned cash flows resulted in improved performance of the private business entities in Uganda. In the process of using a cash budgeting method, the private firms were able to stabilise their profitability levels, ensuring that the expenses are in conformity with the planned cash flows that allow the managers and owners of the private entities to predict instances of excess cash. Such excess cash is beneficial to the organisation as it can be ploughed into the business for expansion or saved for future uses in times of uncertainty. The growth of the private business units will depend on their ability to implement sound liquidity management practices and focus on profitability levels.

On budget control, Mugambi (2019) in his research found out that budgeting process automation is very effective for county government performance in “creation of paperless budgeting” which is more verifiable and less cumbersome. The study showed that ICT has contributed to cost sav-

ings, time saving in the budgeting process, enhanced transparency on money allocation and providing accurate reports for decision-making. Besides Mugambi (2019), other similar studies have shown that the budgeting electronic module used by the government ministry links budgeting with availability of funds and has enabled controls (Cherono, 2016; Kariuki, 2018; Guyo, 2014; Njau, 2020). It is indisputable that electronic budgeting and budgeting controls are key aspects of the planning and control function of an organisation.

2.3.2 Financial Technology of Cash Policies on Operational Performance

The adoption of technology has led to introduction of policies that encourage the use of technology and enhance financial management. The adoption of electronic payment and mobile payment, in many institutions of higher learning in Kenya through the policy of cashless payment has greatly enhanced their financial management (Barata and Cain, 2011; Otieno, Migiro, and Mutambar, 2017). For instance, many higher learning institutions in Kenya have adopted M-PESA mobile banking as a partial substitute for the formal banking system (Ngaruiya, 2014). Such forms of banking have ensured prudence in the management of cash within the institutions and consequently increased the institutional performance. Adoption of technology in financial operations largely ensures effective cash management and in turn influences performance of an organisation positively (Wachira and Ondigo, 2016). As Murimi, Macheru and Omurwa (2021) observe, in financial institutions such as banks, the longer the cash is held in the operating cycle, the more it reduces organisational profitability and value in the market. Therefore, the adoption of technology such as the ICT and IFMIS can enhance faster cash flow and more effective cash management practices, which in turn will result into increased performance.

Feyen, Jon, Gambacorta, Natarajan and Saal (2021) observe that the digital transformation of financial services gives rise to a set of important policy issues regarding competition, regulatory perimeters and ensuring a level playing field. For instance, the scholars noted that policies concerning privacy and stability integrity were products of emerging financial technologies. A study done by Msosa and Mlambo (2020) on *the Effect of Financial Technology on Money Demand in Selected African States*, revealed that online payment such as ATM and mobile payment have been widely adopted by higher learning institutions leading to more effective finance management. However, Kariuki (2018) on the other hand asserts that there is a need for an organisation to keep some of its resources in cash due to generally recognized motives for holding cash by

business units. The scholar explains due to such justification, some institutions have adopted the policy of retaining some cash within the organisation to enhance transactions and profitability. Some of the cash is also retained for precautionary motive that is cash is needed to cushion the organisation against any unforeseen problems which can lead to a negative implication on its cash liquidity. Lastly cash may also be retained for speculative motives where the organisation maintains cash to take advantage of any lucrative opportunity that appears during the period.

2.3.3 Accounting Practices and Technological Adoption on Efficiency

According to Guyo (2014), efficiency is a broad term and take different dimension in financial literature including: (i) scale efficiency, which refers to relationship between the level of output and the average cost; (ii) Scope efficiency, which refers to the relationship between average cost and production of diversified output varieties; and (iii) Operational efficiency, a wide concept sometimes referred to as x-efficiency, which measures deviation from the cost-efficient frontier that represents the maximum attainable output for the given level of inputs. With reference to various definitions, inefficiency is therefore a multifaceted concept with several meanings depending on the perspective from which it is being referred.

A study done by the East Africa Development Bank (2020) affirmed that there is a positive impact of technological innovations on the financial operations of an organisation such as, ease of access, convenience, user friendly among others. For accounting practices, Kirmani, Wani and Syed (2015) observe that ICT has become the fabric of business entities. These scholars explain that ICT enhances the integration of all financial transactions. For instance, accounting software and computer-based accounting systems are used by organisations to generate financial reports and cash flow hence benefiting the business. Afaneh, Alfawareh, and Musatat (2021) affirm that there is a positive and significant relationship between computer-based accounting systems and banks profitability. However, Ngaruiya (2014) cautions that financial technology alone does not improve financial management and therefore for its effectiveness, it is important that before the implementation, it should be aligned with the organisation's goals and mission.

Muigo (2020) revealed that the adoption of various technology in accounting practices such as cash payment on all daily basis, keeping track of business transactions, recording all cash receipts, preparation of reconciliation statements and expenditure accounts contribute to better fi-

nancial operations in private universities in Kenya through the automated module process of cash management system till for making all payments. According to Barata et al. 2011, the module can vary from the general ledger accounting applications to a comprehension system entailing budgeting, accounts receivable or payable, cash management, commitment control, debt, assets and liability management among other applications. The system supports financial reporting, policy decision, fiduciary responsibilities, and preparation of auditable financial statements (Barata and Cain, 2011).

2.4 Research Gaps

The independent variables are the presumed causal factor in experiments, whereas dependent variables are the presumed effect (Tayie, 2005) in this study, financial management practices will be assumed to affect the performance and both are moderated with technological adoption. The situational variables such as financial management practice will be measured using different measures. In measuring cash budgeting, the researcher used ordinal scale. Suppose budgeting is frequently done then it will be ranked highest. The interval level of measurement was also used to measure independent variables while employing Likert scale. This is because it not only classifies and orders the measurements, but also specifies that the distances between each interval on the scale are equivalent along the scale from low interval to high interval (Kothari, 2004). Nominal measures were used to determine types of accountancy practices. In measuring dependent variables, the ordinal scale was used to measure the performance. In measuring financial performance, the researcher was to determine the growth of revenue based on application of financial management practices. Technological adoption was measured using ordinal measurement and this entailed ranking the usage of technology. Nominal measurement was employed to determine reasons that hinder technological adoption. The technological adoption in this study is the intervening variable. They affect both financial management and performance.

Objectives	Variable	Indicator	Data Collection Method	Measurement Scale	Type of Analysis	Tools of Analysis
1. To establish the type and level of technologies employed in financial management of Catholic HEIs in Nairobi, Kenya.	Type and level of technologies employed Budgeting	Number of Financial technologies Results of budgetary reviews Consistency of financial data Budget preparation	Questionnaire	Interval	Descriptive Statistics Inferential statistics	Mean, standard deviation, Correlation, regression ANOVA
2. To determine the effects of technological adoption and cash policies on financial performance of Catholic HEIs in Nairobi, Kenya.	Cash Policies Technological adoption	Daily banking Safe custody Internal controls increase in technological adoption Consistency of technology adoption	Questionnaire	Interval	Descriptive Statistics Inferential statistics	Mean, standard deviation, Correlation, regression ANOVA

		in financial management				
3.To establish the effects of accounting practices and technological adoption on financial performance of Catholic HEIs in Nairobi, Kenya.	Accounting reporting practices	Increase in surplus Return on investment (ROI) Return on assets (ROA)	Questionnaire	Interval	Descriptive Statistics Inferential statistics	Mean, standard deviation, Correlation, regression ANOVA

2.5 Operationalization of Variables Table

Table 2.1: The Measurement of this Study;

2.6 Conceptual Framework

The conceptual framework is a diagram showing how the variables interact. It enables the reader to quickly understand the overall framework of the study. For this study, the independent variable is the financial management practices which include budget preparation, cash policies, types of accounting records and investment of surplus cash. These variables were manipulated to determine their outcome on; Financial performance, Operational performance, and Institutional efficiency. Based on organisation performance literature the aforementioned variables serve as the key indicators in measuring the performance. Besides, the researcher identified stewardship as intervening variable and assumed that it affects both financial management practices and performance, to show this the researcher postulated that ownership and accountability as indicators of stewardship affected both independent and dependent variables.

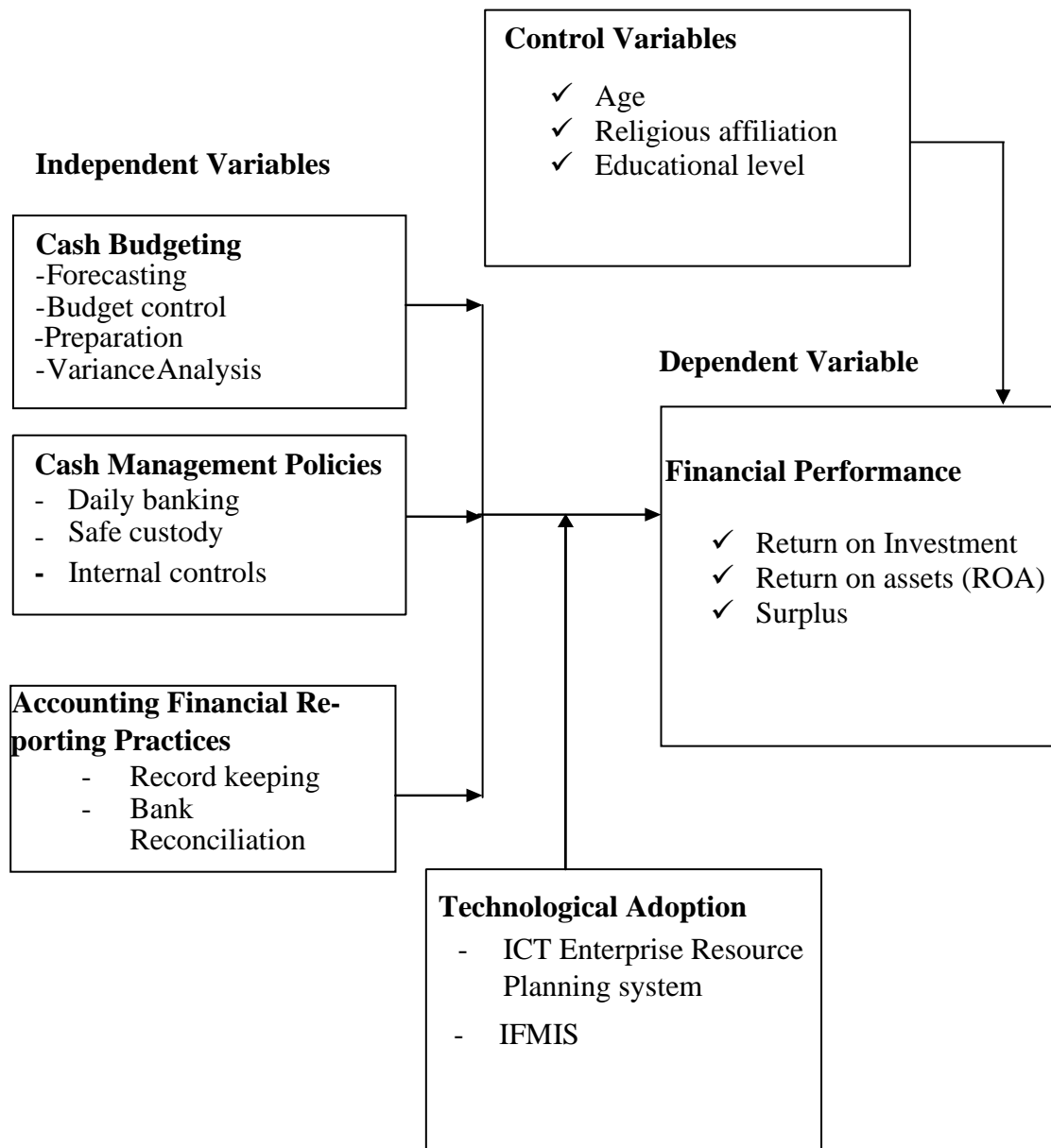


Figure 2.1: Conceptual Framework

2.7 Summary of the Literature Reviewed

This chapter has discussed the existing literature related to the topic of study which is the technological adoption in financial management practices and performance in Catholic HEIs in Nairobi, Kenya. The chapter explained the theoretical framework, empirical review, conceptual framework, research gaps and operationalization of variables.

Studies reviewed under this chapter showed that most of the studies conducted in financial management focused on government institutions (Cherono, 2016; Murimi, Macheru, and Omurwa, 2021; Njau, 2020; Mugambi, 2019), although these scholars analyse the use of technology in financial management, they limited it to technological adoption. For instance, these studies focus on accountability, transparency and the use of technology to prevent corruption but do not address how technological adoption enhances institution performance.

Ozotambgo (2015) discusses financial record keeping in religious organisations while focusing on the Catholic Church of Nigeria in Enugu. He recommends the use of technology in financial planning and budgetary practice as vital and helps to prevent personal interests that tend to override the management of the Church finances. He further found out that the budgetary system helps to control different sources of funds and to restrict expenditures. Although, many studies have looked into financial management practice a lot of which focus on government agencies (East Africa Development Bank, 2020). However, there is little consideration on technological adoption in financial management practices and performance in institutions of higher learning. This research, therefore, was relevant as it sought to investigate a gap in the relationship between technological adoption, financial management practices and performance of institutions of higher learning.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter presents in detail the research methods and methodologies. On the overall, it represents in three aspects what the researcher employed during the research exercise. First, it presents the research design which is preceded by the research philosophy. Secondly, it highlights the instruments that were used for collecting data, and the samples and sampling procedures which were applied. Lastly, the chapter gives the rationale for the choice of data collection instruments and discusses the ethical considerations.

3.2 Research Philosophy

Research philosophy is an important part of research methodology. It is classified as ontology, epistemology, and axiology. These philosophical approaches help a researcher in deciding which approach should be adopted for the research and why in view of the research questions (Saunders, Lewis, and Thornhill, 2009).

The philosophical foundation for this study was positivism. This was because this study intended to collect data which was related to financial practices and technological adoption on organization performance (Neergaard, 2007). The choice of the positivism research philosophy affirmation was the empirical analysis which was employed by the researcher to obtain the primary data which was a product of scientific quantitative and qualitative methods of inquiry, and was rationally induced among the population.

Positivist test theory described phenomena through observation or measurement that reality was socially constructed. This choice was informed by the fact that the study was based on theory and a conceptual model from hypotheses drawn. This philosophy required quantitative data and corresponding analytical techniques. This paradigm further involved operationalizing concepts so that they could be measured and taking large samples (Kothari, 2014).

3.3 Research Design

The research design referred to the overall strategy that was chosen to integrate the different components of the study in a coherent and logical way, thereby ensuring the effective address of the research problem; it constituted the blueprint for the collection, measurement, and analysis of data. The research design was intended to provide an appropriate framework for a study. A very

significant decision in the research design process was the choice made regarding research approach since it determined how relevant information for a study was obtained; however, the research design process involved many interrelated decisions (Jilcha, 2017).

The researcher employed descriptive and correlation research designs to enable the collection of both qualitative and quantitative data. The researcher used qualitative data to get an explanation of technological adoption. The researcher opted for the mixed approach due to flexibility and the triangulation of designs (Leavy, 2017). This approach also allowed the researcher to establish the relationship between the variables.

Descriptive survey research designs were appropriate where the overall objective was to establish whether significant relationships among variables existed at some point in time. The design was appropriate for the study since it sought to describe the characteristics of certain groups, estimate the proportion with certain characteristics, and make predictions (Mugenda and Mugenda, 2003). This design involved the collection of quantitative data for carrying out descriptive statistics and qualitative data for explaining themes of behaviour on the influence of financial management practices on the performance of financial, operational, and institutional efficiency of Catholic HEIs.

3.4 Target Population



This study focused on 5 Catholic HEIs in Kenya. This was because the places were close to one another and were managed in almost the same manner and had similar characteristics in nature; they were also all Catholic HEIs hence formed the core institutions in the research. The researcher focused on top management, accounts department, administrative, and teaching department. Such included credit controller, financial officers, chief financial officers, and staff working at the office of finance and deputy vice chancellor finance. In each university, 20 representatives were selected. The study was conducted in Nairobi as it was the hub of most of such higher learning institutions hence easy to access the respondents. Therefore, the respondents were drawn from five institutions as listed in table 3 below;

Table 3.1: Sample Frame

Catholic Higher Educational Institutions			
	Name of the University	Total	Percentage (%)
1	Hekima University College	20	20%
2	Marist International University College	20	20%
3	Regina Pacis University College	20	20%
4	Tangaza University College	20	20%
5	Catholic University of Eastern Africa (CUEA)	20	20%
Grand Total of the Institutions		100	100%

3.5 Sample and Sampling Techniques

3.5.1 Sample Size

The sample size was calculated using (Krejcie and Morgan 1970) formula:

$$S = \frac{X^2 NP(1 - p)}{d^2(N - 1) + x^2 P (1 - p)}$$

Where:

S = Sample size

X = Z value (1.96 for 95%)

N = Target Population

P = Assumed to be 0.5

D = Margin of error; which is (0.05)

This gives a total of 100 respondents as follows:

$$100 = \frac{1.96^2(1000)(0.5)(1 - 0.5)}{0.05^2(1000 - 1) + 1.96^2 0.5 (1 - 0.5)}$$

3.5.2 Sampling Design

The study used a Stratified Random Sampling approach to cover all 5 learning institutions. This was a sampling strategy in which elements in the study population were divided into two or more groups or strata based on a shared characteristic. This was then followed by simple random, systematic, or cluster sampling on each stratum. In this case, random sampling was utilised in selecting the respondents who took part in the study. This sampling procedure was preferred as it not only gave opportunity for equal representation of all the respondents, but also proportion representation of the respondents' categories. In the sampling, 20 respondents were selected randomly from each of the learning institutions totalling to 100 respondents.

3.6 Data Collection

The data for this study was collected using primary means which were through self-administered questionnaires. The use of a questionnaire for data collection provided the advantage of versatility, speed, and cost effectiveness. The questionnaire was semi-structured into sections as per the research objectives. A Likert-Scale was employed in rating the responses of the respondents. In this study, a drop and pick method was used in the administration where the researcher visited the premises to introduce the study and left the questionnaire with the respondents (Tayie, 2005). The questionnaires contained close-ended and open-ended questions. The respondents were able to communicate their opinions, views, suggestions and give recommendations freely.

The Questionnaire for financial management practices (QFMP) was a five-point Likert type questionnaire used to determine the respondents' responses with the items through the following response options; strongly agree (SA), Agree (A) undecided, (UD) Decided (D), strongly disagree (SD), weighted 5,4,3,2 and 1 respectively. The mean and standard deviation were used to answer the research questions. The criterion mean score of the data collected was 3.0. The description is as follows:

SA	A	UD	D	SD	
5	4	3	2	1	$= \frac{15}{5} = 3.0$

All the items with mean (\bar{x}) scores which are equal to or greater than 3.0 was accepted, while those with less than 3.0 was be rejected. By motivating the respondents to express their feelings, data was collected to provide their views and perceptions on technological adoption of financial management practices.

3.6.1 Validity of Research Instruments

Validity was regarded in this study as the ability of the research instrument used to measure what it purported to measure (Mugenda and Mugenda, 2003). However, the validity of the research instrument used relied significantly on the willingness and ability of the respondents to give the requested information. Kothari (2007) highlighted that validity ascertained the correctness of the research instruments in procuring the expected data which can achieve the objectives of the study, and that content validity of an instrument was improved through expert judgement. The construct and content validity of the questionnaire were ascertained by the research supervisor who provided guidance to make sure that the instrument was constructed in a way that would not mislead the respondents while giving out information.

3.6.2 Reliability of Research Instruments

Reliability was considered as the degree of measure of the extent to which the research instrument yielded dependable results after repeated trials (Mugenda and Mugenda, 2003). In this study, a pilot study was conducted on the questionnaire by administering it to some finance officers at the selected public universities. To enhance the reliability of the research instrument, research supervisor guided the researcher by critically evaluating the coherence of the responses given on the pilot questionnaires to judge their reliability. The outcome derived during the pilot study helped the researcher amend the questionnaire in relation to financial performance to ensure that the objectives of the study were adequately covered.

3.7 Data Analysis

Upon receipt of the questionnaires, they underwent a series of processes including editing, coding, and tabulation. The editing stage ensured that the questionnaires were complete, consistent, and eligible for analysis, while coding facilitated the transfer of data to the computer. Tabulation was conducted to organize the data in a systematic manner.

Descriptive statistics were utilized to examine the central tendency and dispersion of respondents' reactions to the questionnaire items. Correlation analysis was employed to establish the relationship between the independent and dependent variables outlined in the research objectives. To determine whether this association occurred by chance, a statistical significance test was conducted at a critical value ("alpha") of 0.05. The coefficient of determination (R^2) was calculated to assess the strength of the bivariate relationships. Visual presentations such as frequency tables, frequency distributions, scatter plots, and correlation matrices were employed to report and summarize the data.

In addition, a regression model was employed to analyse the data. The regression equation used in this study was:

$$FP = a + bX + cY + cZ + \text{controls} + e$$

where FP represents financial performance, X denotes financial reporting practice, Y represents technology adoption, Z signifies the interaction between X and Y, and e represents the error term. This regression model allowed for an examination of the relationships between the variables and the prediction of financial performance based on the independent variables.

Furthermore, moderation analysis was conducted to explore whether the effect of an independent variable on the dependent variable varied across different levels of another independent variable. Moderation analysis, commonly employed in the behavioural sciences, entails the use of linear multiple regression analysis or causal modelling. To quantify the effect of a moderating variable in multiple regression analyses, an additional term is added to the model. This analysis allows for an exploration of whether the effect of an independent variable on the dependent variable remains consistent across different levels of another independent variable.

Additionally, mediation analysis was employed to investigate the role of a mediating variable in explaining the relationship between two variables. A mediating variable, also known as a mediator, elucidates the process through which two variables are related. Moderated mediation analysis, on the other hand, examines whether the indirect effect is contingent upon the values of a moderating variable.

The integration of moderation and mediation into a combined model of moderated mediation within a regression framework was explored in this study. This approach offers a comprehensive

understanding of the relationships between variables and provides insights into the mechanisms underlying these relationships (Memon, 2019).

Principal Component Analysis (PCA) served various purposes in the analysis. One common use was to identify and select variables that best represent the underlying construct of interest. This was accomplished by assessing the correlations among variables and determining which variables should be included in the measurement scale or questionnaire. PCA also facilitated the creation of a new measurement scale when there was uncertainty regarding the construct's alignment with the included variables (Durbarry, 2017).

3.8 Ethical Consideration

The research observed all the guidelines of Strathmore Institutional Ethics Review Committee in obtaining the research approval and permit. First, the researcher presented the proposal to the ethics and review committee after the approval by the supervisor. The researcher then presented the same to the Kenya National Commission for Science, Technology, and Innovation (NA-COSTI) for approval. During the data collection process, the researcher ensured that she observed all the ethical issues in the field. As an ethical measure, the researcher prepared a consent form and informed the participant the purpose of the study. The researcher understood that financial information of an institution is highly sensitive and requires utmost security hence the researcher ensured that all information was kept confidential and that the names of the respondents were not revealed in the text as part of the principle of anonymity. (East Africa Development Bank, 2020).

CHAPTER FOUR:

DATA ANALYSIS, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

The chapter presents data analysis, research findings and discussions. The chapter is divided into three sections. The first section presents the summary of the response rate; the second section analyses and presents demographic characteristics; and the third section present the findings of the study. These findings are based on the variables of budgeting, cash management policies, accounting financial reporting practices, and financial performance.

4.2 Response Rate

In the present study, a sample of respondents was targeted for data collection via the distribution of 20 questionnaires. Of these, a notable majority of approximately 51 questionnaires were returned after being duly filled, signifying an impressive overall response rate of 51%. According to renowned scholarly works such as Mugenda and Mugenda (2003), a response rate of 50% or greater is deemed acceptable. Babbie (2020) similarly posits that return rates of 50% are suitable for analytical and publishing purposes, while rates of 60% and 70% are deemed good and very good, respectively.

Table 4.1: Response Rate

Response Rate	Frequency	Percentage
Returned	51	51%
Unreturned	49	49%
Total	100	100%

Source: Author Computation (2023)

The Table 4.1 represents the total number of questionnaires administered, the number of questionnaires that were returned and not returned, and the corresponding frequencies and percentages.

4.3 Demographic Characteristics

This section comprises a comprehensive account of the fundamental characteristics of the respondents, encompassing gender, educational attainment, how long the respondents have worked at the university, and work experience.

4.3.1 Gender of the Respondents

Table 4.2: Gender of the Respondents

	Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	8	15.7	15.7	15.7
	Female	43	84.3	84.3	100.0
	Total	51	100.0	100.0	

Source: Author Computation (2023)

In this study, 51 respondents were asked to indicate their gender, which was used to categorise the sample. Of these respondents, 8 identified as male, representing 15.7% of the total sample. Conversely, 43 respondents identified as female, representing 84.3% of the total sample. This high percentage of female respondents indicates that a larger proportion of individuals employed in the financial department were women than men.

4.3.2 Education Level of the Respondent

Table 4.3: Educational Attainment

	Level of Education	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Certificate	7	13.7	13.7	13.7
	Diploma	6	11.8	11.8	25.5
	Graduate level	32	62.7	62.7	88.2
	Postgraduate Level	6	11.8	11.8	100.0
	Total	51	100.0	100.0	

Source: Author Computation (2023)

The survey asked the respondents to indicate their highest level of education. Out of the total sample of 51 respondents, 7 (13.7%) held a certificate, which was classified as Certified Public Accountants Kenya (CPAK), while 6 (11.8%) held a diploma. Most respondents, 32 (62.7%),

held a graduate-level degree, while 6 (11.8%) held a postgraduate degree. The high percentage of respondents with graduate-level degrees suggests that the Catholic higher educational institution may prefer individuals with higher levels of education to work at the financial department due to the professional nature of the work.

4.3.3 Work Experience of the Respondents

Table 4.4: Respondent Professional Experience

	Years	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-5	15	29.4	29.4	29.4
	6-10	20	39.2	39.2	68.6
	11-15	16	31.4	31.4	100.0
	Total	51	100.0	100.0	

Source: Author Computation (2023)

The study investigated the work experience of the respondents. Out of the total sample of 51 participants, 15 or 29.4% had work experience of 0 to 5 years, 20 or 39.2% had work experience of 6 to 10 years, and 16 or 31.4% had work experience of 11 to 15 years. These findings indicate that the majority of the respondents had work experience of 6 to 15 years, suggesting job stability and a considerable level of expertise and knowledge in their respective fields.

According to existing literature, the level of experience of respondents can have significant implications for the interpretation of survey results. As Krosnick (1999) notes, “experience can influence the content of attitudes by affecting the amount of information available to respondents, the salience of particular considerations, and the ways in which information is processed” (p. 535). In this study, it is interesting to note that the majority of respondents (70.6%) had more than five years of experience in their profession, indicating a relatively experienced sample. This finding suggests that the perspectives and insights of more experienced respondents may be particularly important to consider when interpreting the results of this survey.

4.3.4 Length of Time that Respondents had Worked in the University

Table 4.5: Respondent Length of Time Worked in the University

	Years	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-5	25	49.0	49.0	49.0
	6-10	7	13.7	13.7	62.7
	11-15	13	25.5	25.5	88.2
	Above 15 Years	6	11.8	11.8	100.0
	Total	51	100.0	100.0	

Source: Author Computation (2023)

The respondents were asked to indicate how long they have worked in their institution. Out of the total sample of 51 respondents, the majority, 25 or 49.0%, had work experience for 0-5 years. Meanwhile, 7 respondents, representing 13.7% of the total sample, had worked in the university for 6-10 years. Furthermore, 13 respondents, comprising 25.5% of the total sample, had worked in the university for 11-15 years, while 6 respondents, or 11.8% of the total sample, had worked in the university for more than 15 years.

Berman and Wang (2017) have noted a positive correlation between the experience of financial managers and the financial performance of their organizations. This finding suggests that the relatively experienced sample of the study on “Technological Adoption in Financial Management Practices and Financial Performance in Catholic Higher Educational Institutions in Nairobi, Kenya” may have a positive impact on the financial performance of the institutions. Additionally, Salami and Adesina (2018) point out that experienced financial managers are more inclined to adopt and implement innovative financial technologies, which can lead to enhanced financial performance. Therefore, the high proportion of experienced respondents in the study may imply a greater willingness to adopt new technologies and possibly contribute to improved financial performance in Catholic higher educational institutions in Nairobi, Kenya.

4.3.5 The Overall Technology Adoption in Financial Management

Table 4.6: The Overall Technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	9	17.6	17.6	17.6
	Yes	42	82.4	82.4	100.0
	Total	51	100.0	100.0	

Source: Author Computation (2023)

The above Table 4.6 indicates that out of the 51 respondents, 42 (82.4%) reported that their university uses technology in all financial management practices, while 9 (17.6%) reported that their university does not use technology in all financial management practices. This suggests that most universities surveyed are utilizing technology to manage their financial operations.

Scholarly research has demonstrated that incorporating technology in financial management can significantly influence an organization’s performance. For instance, Zainuddin and Wahid (2016) discovered that the use of financial technology (FinTech) led to better financial performance in small and medium-sized enterprises (SMEs) in Malaysia. Likewise, Ibe et al. (2020) found that the adoption of financial technology greatly enhanced financial performance in Nigerian SMEs. Furthermore, integrating technology in financial management can improve the efficiency and effectiveness of financial operations in organizations. For instance, Getie Mihret, & Wondim Yismaw (2007) revealed that the use of accounting software resulted in improved financial reporting accuracy and efficiency in Ethiopian public sector organizations. Similarly, Zhou et al. (2018) found that the implementation of enterprise resource planning (ERP) systems enhanced financial information quality, decision-making, and performance in Chinese manufacturing firms.

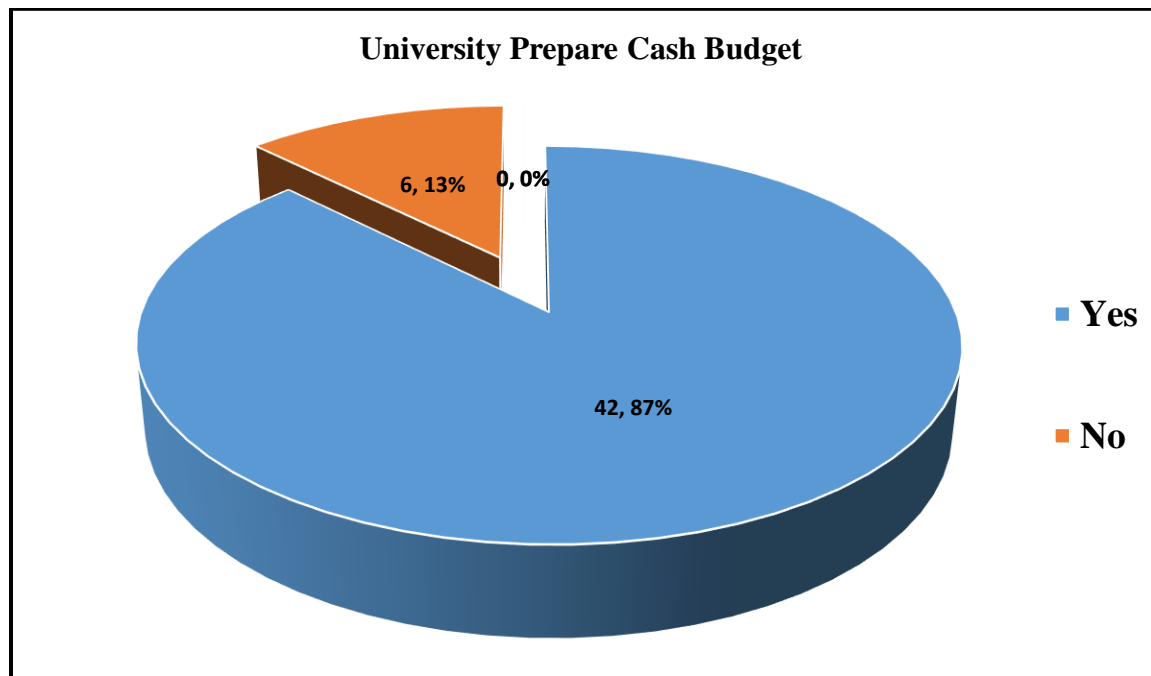
This study reinforces the idea that technology can increase efficiency, accuracy, and decision-making in financial management. Hossain et al. (2019) discovered that the use of ERP software in universities improved financial management processes and reduced errors. However, Wang et al. (2018) found that adopting financial management software did not necessarily lead to improved financial performance in small and medium-sized enterprises. The findings suggest that while technology can be beneficial, it should be chosen based on the specific needs and goals of

the organization. Therefore, the finding that the university uses technology in all financial management is a positive indication that the institution is adopting best practices and may potentially experience improved financial performance as a result.

4.4 The Effect of Technological Adoption of Cash Budgeting on Performance

The first objective of this study was to ascertain the effect of technological adoption in cash budgeting on the performance of Catholic HEIs in Nairobi, Kenya. Specifically, objective aimed at determining whether these institutions utilize technology in their budgeting processes, identify the technologies employed in budgeting, assess the time span for cash budgeting, and evaluate the contribution of these technological advancements to university performance.

4.4.1 Preparation of Cash Budget



Source: Author Computation (2023)

Figure 4.2: Cash Budget Preparation

Respondents were asked if the university prepare cash budget, 42 out of the 51 respondents (87%) answered “Yes” when asked if their university prepares cash budgets, while 6 respondents (13%) answered “No”. The findings suggest that the majority of the respondents (87%) reported

that their university prepares cash budgets, while a smaller percentage (13%) reported that their university does not prepare cash budgets. The data suggests that cash budgeting is a common practice among universities, but there are still a few that have not adopted it.

The findings from this analysis a firm some previous studies that have highlighted the importance of cash budgeting for effective financial management in universities. For instance, Abioro (2013) emphasized that cash budgeting can help universities to manage their financial resources effectively, avoid cash shortages and improve their overall financial performance. Similarly, Akinsuline (2003) found that cash budgeting is crucial for ensuring that universities have enough funds to meet their financial obligations. However, some studies have reported contradictory findings regarding the use of cash budgeting in universities. For example, Cherono (2016) found out that some universities in Kenya do not prepare cash budgets, which suggests that there may be differences in the adoption of cash budgeting practices across different universities.

4.4.2 Technology Used for the Cash Budget Preparation

Table 4.7: Financial Software Among the Respondents

	Types of Technology	Frequency	Percent	Valid Percent
Valid	QuickBooks	14	27.5	31.1
	QuickBooks and Advance Excel	3	5.9	6.7
	Enterprise resource planning (ERP)	9	17.6	20.0
	Receipts and Payment Methods	5	9.8	11.1
	Excel	8	15.7	17.8
	Dynamics 365 Business Central and Excel	4	7.8	8.9
	Dynamics 365 Business Central and Excel and Navision 365 Business Central	2	3.9	4.4
	Total	45	88.2	100.0
	Missing System	6	11.8	
Total		51	100.0	

Source: Author Computation (2023)

The data shows that there is a diverse range of technologies used for cash budget preparation among the respondents. QuickBooks is the most popular technology used with 31.1% of the respondents. Enterprise resource planning (ERP) is also a significant technology used, with 20% of

the respondents. Other technologies used include Excel (17.8%), QuickBooks and Advance Excel (6.7%), and Dynamics 365 Business Central and Excel (8.9%). It is worth noting that a small number of respondents used a combination of multiple technologies, including Dynamics 365 Business Central and Excel and Navision 365 Business Central, which was used by 4.4% of the respondents. Six respondents did not provide information on the technology used for cash budget preparation.

Based on the findings it can be concluded that the sampled Universities on the whole, are taking a proactive approach to financial management by utilizing a diverse range of technologies for cash budget preparation. This however can be more effective if these institutions also evaluate their specific requirements and choose a technology that is suitable for their individual needs and goals. Moreover, this can also help to improve the accuracy, efficiency, and effectiveness of cash budget preparation and financial management processes.

These findings support other studies that the use of financial management technology, such as QuickBooks, can have a positive impact on organizational performance (Abioro, 2013; Akinyomi, 2014). Other studies however suggest that the effectiveness of technology in financial management is dependent on factors such as the size and type of organization (Attom, 2014; Bergmann et al., 2020). Additionally, as Akinsuline (2003), contends, the use of multiple financial management tools within an organization may be as a result of differing needs and preferences. Lastly, the importance of proper record-keeping and financial management is emphasized in studies such as Ademola et al. (2012) and Cherono (2016), with a focus on the role of technology in enhancing accountability and reducing fraud.

4.4.3 Time Span (Plan Horizon) for Cash Budget

Table 4.8: Time Span (Plan Horizon) for Cash Budget

	Time	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Missing	14	27.5	27.5	27.5
	3 Months	6	11.8	11.8	39.2
	6 Months	3	5.9	5.9	45.1
	1 Year	25	49.0	49.0	94.1
	Over 1 Year	3	5.9	5.9	100.0
	Total		51	100.0	100.0

Source: Author Computation (2023)

Table 4.8 shows the frequency and percentage of respondents' answers to the question of the time frame for preparing cash budgets. A total of 51 responses were recorded. Based on the data collected, it was found that 27.5% of the respondents did not provide information about the time span for the cash budget of their institutions. Among those who provided information, the most common time span for cash budgeting was 1 year, with 49% of the respondents. 3 months and 6 months were the time span for cash budgeting for 11.8% and 5.9% of the respondents, respectively. Only 5.9% of the respondents had a plan horizon of over 1 year for their cash budget.

The findings suggest that the majority of the respondents use an annual time frame for their cash budget. This may be due to the fact that an annual budget allows for more long-term planning and forecasting. However, it is important to note that the choice of time span for cash budgeting should be based on the specific needs and goals of the organization. For example, smaller businesses may benefit from shorter-term budgeting to allow for more frequent adjustments and updates. In contrast, larger organizations may require longer-term budgeting to account for more complex financial operations and investments. Overall, the data highlights the importance of carefully considering the time span for cash budgeting in order to effectively manage financial resources and achieve organizational goals.

This is in line with the findings of Abioro (2013), who observed that most Nigerian manufacturing companies prepare annual cash budgets to manage their cash flows effectively. Similarly, Attom (2014) found that micro and small-scale enterprises in Ghana prepare cash budgets on a

yearly basis. However, it is interesting to note that a considerable number of respondents (31.6%) did not specify a particular time frame for their cash budgets. This lack of specificity may be a cause for concern, as it suggests that these universities may not have a well-defined cash budgeting process in place. This finding contradicts the recommendations of Akinsuline (2003), who advocates for a systematic and structured approach to cash budgeting. Furthermore, the fact that only one respondent (5.3%) prepares cash budgets for a period of over 1 year raises questions about the effectiveness of longer-term cash budgeting. While some studies, such as Arnold (1998), suggest that longer-term cash budgets can be useful for planning and forecasting. Other studies, put the argument that the increasing complexity and uncertainty of the business environment may render longer-term cash budgets less effective (Bergmann et al. ,2020).

4.4.4 Technological Adoption and Cash budgeting

Table 4.9: Technological Adoption of Cash budgeting

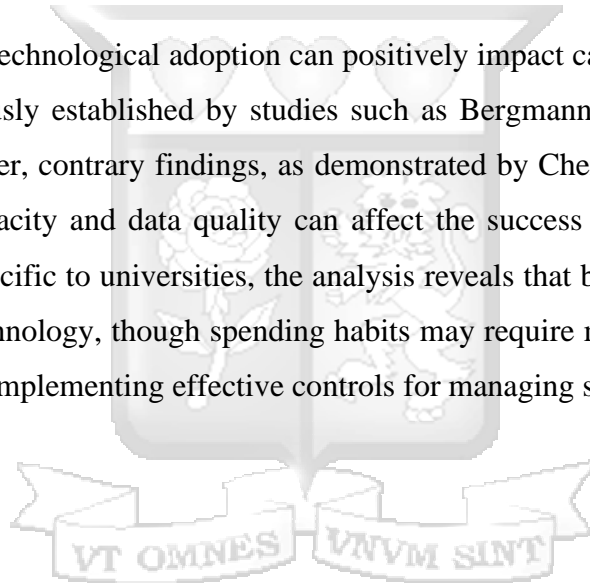
Technological Adoption of Cash budgeting					
	N	Minimum	Maximum	Mean	Std. Deviation
Assist in making cash flow forecasting	51	1	5	4.37	1.038
Enhance budgetary control	51	1	5	4.55	.901
Controls the university spending habits	51	1	5	4.12	1.177
Spend cash as planned	51	1	5	4.51	.857
Budgets are prepared regularly with involvement of all departments.	51	1	5	4.27	.961
Monitor cash outflow on a regular basis	51	1	5	4.47	.902
Valid N (listwise)	51				
Legend: Strongly Disagree-1, Disagree-2, Neutral-3, Agree-4, Strongly Agree-5					

Source: Author Computation (2023)

The provided Table 4.9 shows the descriptive statistics for a Likert scale measuring perceptions about various aspects of technological adoption of cash budgeting in the universities setting, based on responses from 51 participants. The mean scores for the different items ranged from 4.12 to 4.55, indicating that, on average, the participants had positive perceptions about the technological adoption of cash budgeting in the universities. The standard deviations for the different items ranged from .902 to 1.177, indicating a moderate degree of variability in the responses.

The highest mean score was for the item “Enhance budgetary control” (M=4.55), followed closely by “Spend cash as planned” (M=4.51), “Assist in making cash flow forecasting” (M=4.37), and “Monitor cash outflow on a regular basis” (M=4.47). These items suggest that the participants generally believed that the university had effective technology in place, including budgetary control, cash flow forecasting, and monitoring of cash outflows. The item with the lowest mean score was “Controls the university spending habits” (M=4.12), which still indicates a positive perception, but slightly lower than the other items. This item suggests that participants were less confident that the university had effective controls in place to manage overall spending habits. Overall, the results suggest that the participants had positive perceptions about the cash management practices in the university.

The analysis shows that technological adoption can positively impact cash budgeting practices in organizations, as previously established by studies such as Bergmann et al. (2020) and Barata and Cain (2011). However, contrary findings, as demonstrated by Cherono (2016), indicate that factors such as staff capacity and data quality can affect the success of financial management information systems. Specific to universities, the analysis reveals that budgetary control is effectively enhanced with technology, though spending habits may require more attention. This highlights the importance of implementing effective controls for managing spending habits.



4.4.5 Factor Analysis

Table 4.10: Correlation Matrix for Budgeting

Correlation Matrix							
	AMCFF	EHBC	CUSH	SCP	BRWD	MCORB	CABARU
Assist in making cash flow forecasting	1.000	.696	.340	.659	.517	.642	.558
Enhance budgetary control	.696	1.000	.616	.873	.700	.955	.821
Controls the university spending habits	.340	.616	1.000	.692	.784	.775	.833
Spend cash as planned	.659	.873	.692	1.000	.798	.925	.928
Budgets are prepared regularly with involvement of all departments.	.517	.700	.784	.798	1.000	.725	.748
Monitor cash outflow on a regular basis	.642	.955	.775	.925	.725	1.000	.943
Comparisons of actual and budgeted amounts regularly undertaken	.558	.821	.833	.928	.748	.943	1.000
a. Determinant = .000							
b. This matrix is not positive definite.							

Source: Author Computation (2023)

Table 4.10 presents a correlation matrix, we can see that there are positive correlations between most of the variables, indicating that they are related to each other in some way. The strongest correlation is between “Enhance budgetary control” and “Monitor cash outflow on a regular basis” ($r = 0.955$), which suggests that monitoring cash outflow is an important aspect of enhancing budgetary control. There are also moderately strong correlations between “Assist in making cash flow forecasting” and “Spend cash as planned” ($r = 0.659$) and “Budgets are prepared regularly with involvement of all departments” and “Spend cash as planned” ($r = 0.798$), indicating that having a plan and involving multiple departments in the budgeting process can help with making accurate cash flow forecasts and spending cash as planned. Interestingly, the determinant of the correlation matrix is 0, which indicates that there may be multicollinearity among the variables. This means that some of the variables may be highly correlated with each other, which could impact the accuracy and reliability of the results. Additionally, the matrix is not positive definite, which could also be a result of multicollinearity.

In terms of using this information to control university spending habits, it would be important to consider the relationships between the different variables and to use this information to develop a comprehensive strategy for budgetary control. This could include regularly preparing budgets with input from all departments, monitoring cash outflow on a regular basis, and comparing actual and budgeted amounts to identify areas for improvement. Overall, the correlation matrix provides valuable insights into the relationships between different variables and can be used to inform decision-making around budgetary control and cash flow forecasting.

The provided correlation matrix suggests that various factors can contribute to effective budgetary control and cash flow forecasting in an institution of higher learning. This finding aligns with a significant body of literature which have emphasized the significance of sound financial management practices in HEIs. A key point of consensus in this body of literature is the importance of developing a comprehensive budgeting process that involves input from multiple stakeholders. Maharaj and Maharaj's (2016) research have found that effective budgeting in higher education institutions requires collaboration and consultation with various stakeholders, including faculty, staff, students, and external partners. In the correlation matrix, which shows a positive correlation between "Budgets are prepared regularly with involvement of all departments" and "Spend cash as planned."

Another point of agreement in the literature is the importance of monitoring and analysing cash flows on a regular basis. This assists institutions in identifying potential areas of waste or inefficiency and adjusting their spending habits accordingly. A study by Rowley et al. (2019) discovered that regularly monitoring cash flows can assist universities in improving their financial performance and making more informed decisions about resource allocation. This finding is consistent with the correlation matrix, which indicates a strong positive correlation between "Enhance budgetary control" and "Monitor cash outflow on a regular basis."

However, some contradictions and limitations exist in the literature concerning budgetary control and cash flow forecasting in universities. For example, Davies et al. (2015) discovered that the budgeting process in universities is often overly complex and time-consuming, leading to frustration and disengagement among stakeholders. Additionally, forecasting cash flows accurately in

an unpredictable and rapidly changing environment poses challenges, as highlighted by some studies (e.g., Gardner and Simmons, 2017).

4.4.6 Correlation Between Technological Adoption of Cash Budgeting and Financial performance

Table 4.11: Correlation Between Cash Budgeting and Financial Performance

Correlations			
		Cash Budgeting	Financial performance
Cash Budgeting	Pearson Correlation	1	.592**
	Sig. (2-tailed)		.000
	N	51	51
Financial performance	Pearson Correlation	.592**	1
	Sig. (2-tailed)	.000	
	N	51	51
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Author Computation (2023)

The correlation Table 4.11 shows the correlation analysis with a positive and significant relationship between cash budgeting and financial performance, with a Pearson correlation coefficient of .592** ($p < .01$). This suggests that the use of cash budgeting is associated with better financial performance among the respondents. This means that as the level of Cash Budgeting increases, there is a tendency for Financial Performance to increase as well. The positive correlation between cash budgeting and financial performance indicates that using cash budgeting can lead to improved financial outcomes. This finding is consistent with the existing literature, which suggests that cash budgeting is an important tool for financial management and can help organizations make better financial decisions. The correlation is statistically significant at the 0.01 level, which suggests a strong relationship between the two variables.

This finding is consistent with previous research that has shown that effective cash budgeting can have a positive impact on financial performance (Abioro, 2013; Akinyomi, 2014; Akinsuline, 2003). For example, Abioro (2013) found that effective cash management practices were positively related to financial performance in Nigerian manufacturing companies. Additionally, Akinyomi (2014) found that better cash management practices led to higher profitability in Nige-

rian manufacturing firms. On the other hand, there may be some studies that contradict these findings by suggesting that the relationship between cash budgeting and financial performance may not be significant or may even be negative. For example, Arnold (1998) suggests that cash budgeting alone may not be sufficient to improve financial performance, and that other factors such as efficient working capital management, investment decisions, and risk management are also important.

4.4.7 Regression Analysis for Budgeting

Table 4.12: Model Summary Cash Budgeting and Technological Adoption

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.842 ^a	.709	.690	3.68070
a. Predictors: (Constant), Intergration1, Cash Budgeting, The University use the technology in all financial management				

Source: Author Computation (2023)

Based on the provided Model Summary, we can see that the multiple linear regression model has a good fit. The R-squared value for the model is 0.709, indicating that 70.9% of the variance in financial performance can be explained by the independent variables included in the model. The Adjusted R-squared value is 0.690, which is only slightly lower than the R-squared value and suggests that the model is not overfitting the data. The standard error of the estimate is 3.68070, indicating that the model's predictions are on average about 3.68 units away from the actual values.

The independent variables included in the model are Integration1, Cash Budgeting, and The University use the technology in all financial management. These variables are significant predictors of financial performance, as indicated by the p-values in the regression output. The model also includes a constant term. Overall, the results of the multiple linear regression suggest that there is a strong relationship between cash budgeting, integration of financial management, and the use of technology in financial management, and financial performance. The findings suggest that organizations that adopt best practices in financial management, including cash budgeting,

integrating financial management, and using technology, are more likely to have better financial performance. The model suggests that the cash budgeting and integration of technology in financial management have a positive impact on financial performance.

Table 4.13: ANOVA Cash Budgeting and Technological Adoption

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1548.597	3	516.199	38.103	.000 ^b
	Residual	636.736	47	13.548		
	Total	2185.333	50			
a. Dependent Variable: Financial performance						
b. Predictors: (Constant), Integration, Cash Budgeting, The University use the technology in all financial management						

Source: Author Computation (2023)

The ANOVA Table 4.13 shows the results of the regression analysis conducted to determine the relationship between financial performance and the predictors of cash budgeting, integration, and the use of technology in financial management. The Table shows that the regression model is significant ($F = 38.103$, $p < .05$), indicating that the predictors collectively explain a significant proportion of the variance in financial performance. The model accounts for 70.9% of the variance in financial performance, as indicated by the R-squared value of .709. The mean square value for the regression is 516.199, which is much larger than the mean square value for the residuals (13.548), indicating that the model is a good fit for the data. The results of the ANOVA suggest that the predictors of cash budgeting, integration, and the use of technology in financial management are all significant predictors of financial performance.

This finding correlates with previous research that revealed a positive relationship between budgeting and financial performance (Njeru, 2017; Njau and Kinoti, 2020). Furthermore, the use of technology in financial management has been shown to improve the accuracy and efficiency of budgeting processes (Redden, 2021; Rockson, 2019). The present study found that a range of technologies are being used for cash budget preparation, with QuickBooks and Enterprise Resource Planning (ERP) being the most used in the sampled institutions. This finding aligns with previous research that established that the use of ERP systems translates into improved financial performance (Hong et al., 2018; Sugianto et al., 2016; Njau and Kinoti, 2020).

The time span for cash budgeting which the present study has revealed was mostly one year, which is consistent with the findings of previous studies that have shown that one year is the most used planning horizon for budgeting (Njeru, 2017). Finally, the multiple regression analysis revealed that integration, cash budgeting, and the use of technology in financial management were significant predictors of financial performance. This finding is consistent with previous research that has found integration and the use of technology to be associated with improved financial performance (Hong et al., 2018; Njau and Kinoti, 2020). Overall, the findings of the present study are consistent with previous research and suggest that cash budgeting, the use of technology, and integration are important factors for improving financial performance.

Table 4.14: Coefficients, Cash Budgeting and Technological Adoption

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	46.000	11.345		4.055	.000		
	Cash Budgeting	-1.167	.434	-.892	-2.690	.010	.056	17.730
	The University use the technology in all financial management	-44.815	11.698	-2.610	-3.831	.000	.013	74.866
	Intergration1	2.039	.447	3.476	4.565	.000	.011	93.508

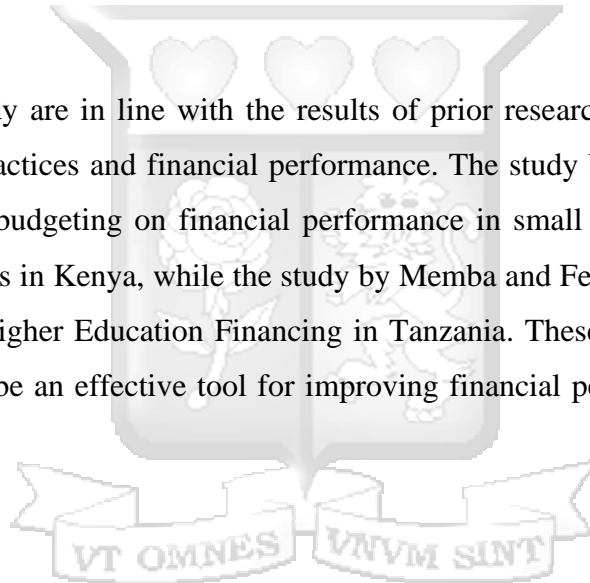
a. Dependent Variable: Financial performance

Source: Author Computation (2023)

The Table 4.14 shows the coefficients for the three independent variables (Cash Budgeting, Technological adoption in all financial management, and Integration1) and their effect on the dependent variable (Financial performance). The intercept coefficient of 46.000 represents the estimated financial performance when all independent variables are set to zero. The Technological adoption in all financial Management variable has a negative coefficient of -44.815, indicating that as the technological adoption in all financial management increases, the financial performance decreases. This effect is statistically significant with a p-value of .000, which suggests

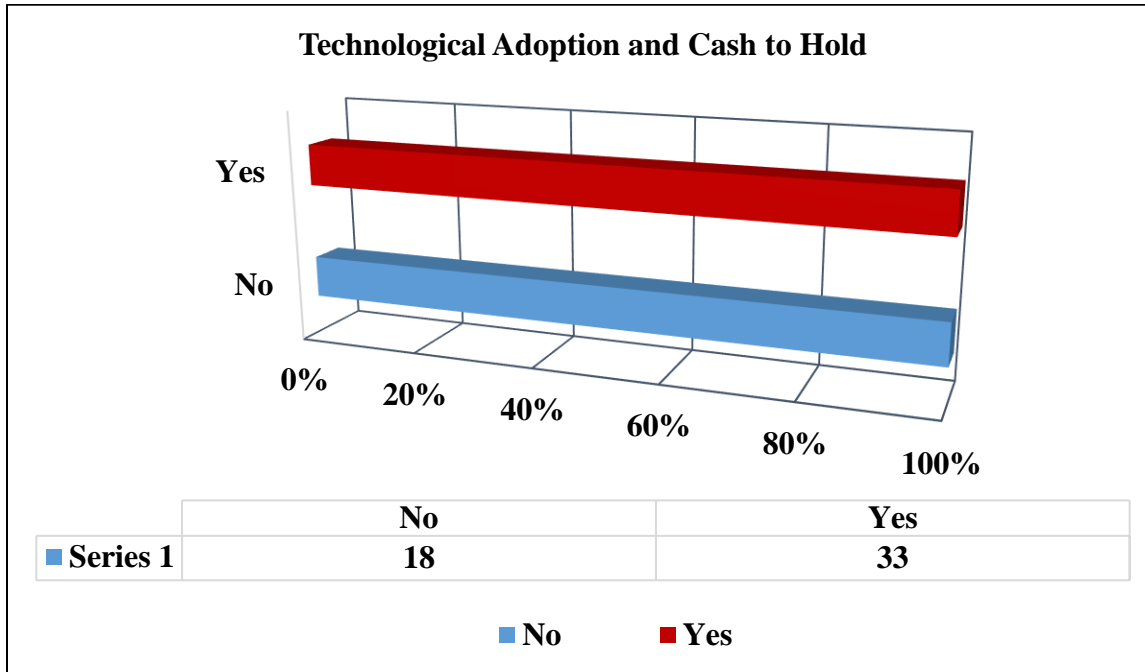
that it is unlikely to be due to chance. The Cash Budgeting variable has a negative coefficient of -1.167, indicating that as cash budgeting increases, the financial performance decreases. However, this effect is not statistically significant with a p-value of .010, which suggests that it could be due to chance. The Integration1 variable has a positive coefficient of 2.039, indicating that as Integration1 increases, the financial performance increases. This effect is statistically significant with a p-value of .000, which suggests that it is unlikely to be due to chance. Overall, the results suggest that Integration1 has the strongest effect on financial performance among the independent variables included in the model, as indicated by its higher standardized coefficient and lower collinearity statistics compared to the other variables. The results also suggest that the technological adoption in all financial management variable has a significant negative effect on financial performance.

The findings of this study are in line with the results of prior research on the relationship between cash budgeting practices and financial performance. The study by Muigo (2020) found a positive impact of cash budgeting on financial performance in small and medium-sized enterprises Private Universities in Kenya, while the study by Memba and Feng (2016) found a similar positive association in Higher Education Financing in Tanzania. These studies support the idea that cash budgeting can be an effective tool for improving financial performance in various organizational settings.



4.5 The Effects of Technological Adoption and Cash Policies

4.5.1 Technological Adoption in Determining the Amount of Cash to Hold



Source: Author Computation (2023)

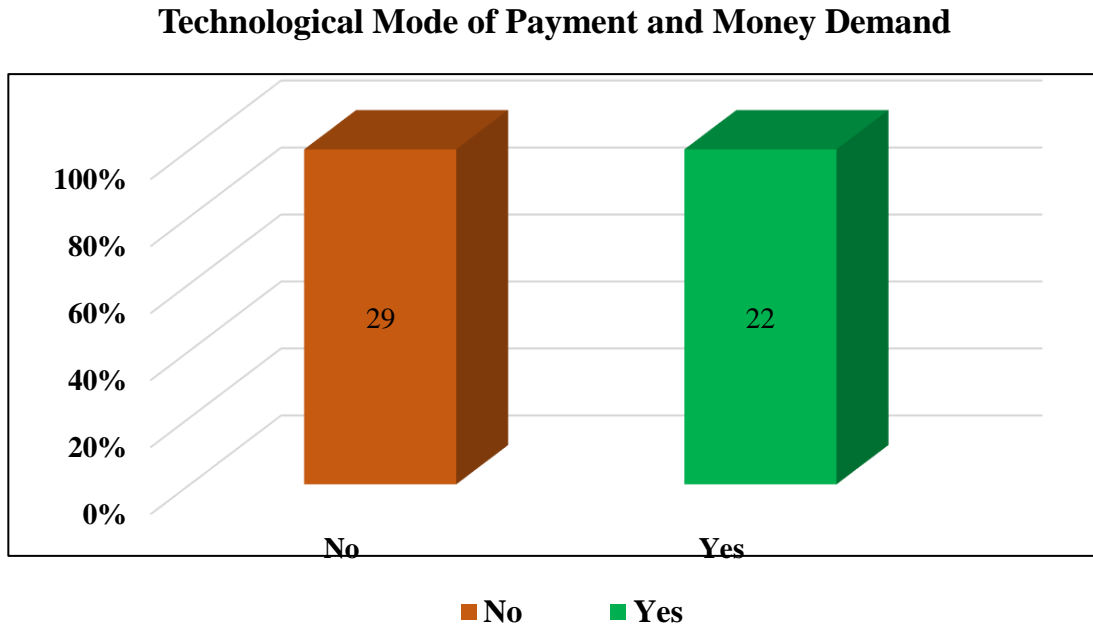
Figure 4.3: Technological Adoption and Cash to Hold

Figure 4.3 data on technological adoption in determining the amount of cash to hold, 64.7% of the participants (33 out of 51) responded “Yes” when asked if technological adoption determines the amount of cash to hold (both petty cash and cash at bank which can be withdrawn at will) at any one particular time, while 36.8% of the participants (18 out of 51) responded “No” Therefore, most of the participants (64.7%) believe that technological adoption does have an impact on the amount of cash to hold, while a minority (35.3%) believe that it does not.

In terms of supporting studies, a study by Chen et al. (2019) found out that the adoption of financial technologies can improve cash management practices in firms. This supports the idea that technological adoption can have a positive impact on cash management decisions. Another study by Ehrhardt et al. (2017) revealed that the use of automated cash management systems can improve cash flow forecasting accuracy and reduce the amount of idle cash held by companies. On the other hand, a study by Idris and Ghazali (2018) found out that there was no significant rela-

tionship between technological factors and cash management practices in Malaysian small and medium-sized enterprises. This contradicts the findings of the current study, suggesting that there may be contextual factors that influence the impact of technological adoption on cash management decisions.

4.5.2 Technological Mode of Payment and Influence on Money Demand



Source: Author Computation (2023)

Figure 4.4: Technological Mode of Payment and Money Demand

The participants were asked if they would you say that technological mode of payment such as mobile payment, electronic card payment influence money demand in their institution. Figure 4.3 represent the findings, out of the 51 respondents, 22 (43.1%) answered “Yes” while 29 (56.9%) answered “No” Based on the survey results, it appears that a minority of the respondents (43.1%) believe that the technological mode of payment influences money demand in the university, while the majority (56.9%) does not. This may indicate that the impact of technological modes of payment on money demand in the university is not widely understood or recognized by the respondents.

It is important to note that this survey only includes a small sample of the university community, and may not be representative of the entire population. Additionally, the respondents' knowledge and experience with technological modes of payment may vary widely, which could influence their responses. Further research may be needed to explore this topic more comprehensively and determine the extent to which technological modes of payment impact money demand in the university.

4.5.3 Technological Mode of Payment and Cash Policies

Table 4.15: Technological Mode of Payment Influence Money Demand

Technological Adoption and Cash Policies in the University					
	N	Minimum	Maximum	Mean	Std. Deviation
Ensures security of university funds	51	1	5	4.24	.971
Financial controls adopted properly followed	51	1	5	4.43	.944
Enables tracking of funds	51	1	5	4.39	.850
Ensures proper cash management	51	1	5	4.35	1.092
Financial documentation kept in a secure location	51	3	11	4.67	1.479
Valid N (listwise)	51				

Legend: Strongly disagree-1, Disagree-2, Neutral-3, Agree-4, Strongly agree-5

Source: Author Computation (2023)

On technological adoption and cash policies in universities. Based on the provided findings, the mean ratings for the items related to technological adoption and cash policies in the university range from 4.24 to 4.67, indicating that the participants generally believe that these aspects of technological adoption influence cash policies and are being handled adequately. The standard deviations for these items range from 0.944 to 1.479, suggesting that there is some variability in the participants' ratings of these items. The item "Financial documentation kept in a secure location" has the highest standard deviation of 1.479, indicating that there is more variability in the responses for this item compared to the other items. The high level of agreement with these practices may indicate that the University has been successful in implementing and communicating effective financial management policies to its stakeholders. These practices may have contributed to a more efficient and transparent financial system, which can have positive implications for

the University's overall performance. Overall, the descriptive statistics suggest that the participants have a generally positive perception of financial management in their university, but there may be some room for improvement in terms of ensuring the security and proper documentation of university funds.

The provided findings on technological adoption and cash policies in universities suggests that participants generally believe that these aspects of technological adoption influence cash policies and are being handled adequately. This finding supports the idea that technological adoption can have a positive impact on cash management decisions, as seen in Garrappa, S., Buson et al. (2017). However, the study also highlights the need for improved documentation and security of university funds, which is in line with the concerns raised by Barata and Cain (2011) regarding the importance of information and accountability in financial management.

In terms of new knowledge contributed, the study highlights the role of variability in the participants' ratings of the different aspects of technological adoption and cash policies, as seen in the range of standard deviations for the items. This finding could suggest the need for further investigation into the factors that influence participants' perceptions and the potential impact of these perceptions on actual financial management practices. Furthermore, the study focuses specifically on universities, adding to the limited research available on the application of technological adoption to cash management practices in this context, as most studies tend to focus on the business sector (e.g., Brearley, A. M., Rott et al 2023).

4.5.4 Factor Analysis

Correlation Matrix^a		1	2	3	4	5
Correlation	Ensures security of university funds	1.000	.847	.825	.806	-.334
	Financial controls adopted properly followed	.847	1.000	.975	.882	-.468
	Ensures proper cash management	.825	.975	1.000	.795	-.371
	Enables tracking of funds	.806	.882	.795	1.000	-.562
	Financial documentation kept in a secure location	-.334	-.468	-.371	-.562	1.000
Sig. (1-tailed)	Ensures security of university funds		.000	.000	.000	.008
	Financial controls adopted properly followed	.000		.000	.000	.000
	Ensures proper cash management	.000	.000		.000	.004
	Enables tracking of funds	.000	.000	.000		.000
	Financial documentation kept in a secure location	.008	.000	.004	.000	
a. Determinant = .001						

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.725
Bartlett's Test of Sphericity	Approx. Chi-Square	325.178
	df	10
	Sig.	.000

Communalities		
	Initial	Extraction
Ensures security of university funds	1.000	.805
Financial controls adopted properly followed	1.000	.952
Ensures proper cash management	1.000	.873
Enables tracking of funds	1.000	.874
Financial documentation kept in a secure location	1.000	.330
Extraction Method: Principal Component Analysis.		

Total Variance Explained						
Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.834	76.686	76.686	3.834	76.686	76.686
2	.784	15.684	92.370			
3	.218	4.353	96.723			
4	.153	3.065	99.788			
5	.011	.212	100.000			
Extraction Method: Principal Component Analysis.						

Component Matrix^a	Component 1
Ensures security of university funds	.897
Financial controls adopted properly followed	.975
Ensures proper cash management	.934
Enables tracking of funds	.935
Financial documentation kept in a secure location	-.575
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

The present data set comprises a correlation matrix that delineates the associations among various financial indicators of a university. In addition, KMO and Bartlett's Test results, communalities, total variance explained, and a component matrix are also presented. The correlation matrix reveals that all five financial indicators are positively correlated with each other. The highest correlation coefficient of 0.975 is observed between "Financial controls adopted properly followed" and "Ensures proper cash management," indicating a robust positive relationship between these two indicators. Conversely, the lowest correlation coefficient of -0.334 is between "Ensures security of university funds" and "Financial documentation kept in a secure location," suggesting a weak negative relationship between them.

The KMO value of 0.725 indicates that the data has moderate to high sampling adequacy. Furthermore, the Bartlett's Test of Sphericity indicates a significant value of 0.000, signifying that there exists a relationship between the variables and they are not independent. The communalities table reveals that all variables have high initial communalities, which implies that each vari-

able shares a significant amount of variance with other variables. After performing extraction using principal component analysis (PCA), the communalities demonstrate that all variables have high loadings on the first principal component, indicating that this component explains most of the variance in the data.

The total variance explained table illustrates that the first principal component accounts for 76.686% of the total variance in the data, whereas the remaining four components explain a total of 23.314% of the variance. The component matrix displays the loadings of each variable on the first principal component. All variables have high loadings on the first principal component, with values ranging from 0.897 to 0.975. This implies that all variables are highly correlated with the first principal component, which represents the overall financial health of the university.

In summary, the results suggest that financial controls, proper cash management, and tracking of funds are positively and strongly correlated with each other. Conversely, ensuring security of university funds and keeping financial documentation in a secure location are negatively correlated and weakly related to each other. The PCA results indicate that the five financial indicators can be summarized into one principal component that represents the overall financial health of the university with a focus on financial controls, cash management, and tracking of funds.

4.5.5 Correlation Between Technological Adoption of Cash Policies and Financial Performance

The Table 4.16 shows the results of the correlation analysis between financial performance and cash management policies. The Pearson correlation coefficient is used to measure the strength and direction of the linear relationship between two variables. The significance level is set at 0.05, which means that any correlation coefficient with a p-value less than 0.05 is considered statistically significant.

Table 4.16: Correlation Between Cash Policies and Financial Performance

Correlations			
		Cash management policies	Financial performance
Cash management policies	Pearson Correlation	1	.488**
	Sig. (2-tailed)		.000
	N	51	51
Financial performance	Pearson Correlation	.488**	1
	Sig. (2-tailed)	.000	
	N	51	51

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

Source: Author Computation (2023)

In this case, the correlation coefficient between financial performance and cash management policies is 0.488. This indicates a moderate positive relationship between the two variables. The p-value associated with this correlation coefficient is 0.000, which is less than 0.05, indicating that the correlation is statistically significant. The interpretation of this result is that there is a relationship between a university's financial performance and its cash management policies. This suggests that universities with effective cash management policies tend to have better financial performance. However, it is important to note that correlation does not imply causation, and there may be other factors that contribute to a company's financial performance. The correlation analysis was performed on a sample of 51 employees, which may not be representative of the entire university employees. Therefore, the results should be interpreted with caution and further research should be conducted to confirm the findings.

It is important to note that correlation does not imply causation. Therefore, while the results suggest a positive relationship between cash management policies and financial performance, other factors could also be influencing financial performance. Nonetheless, the findings indicate that efforts to improve cash management policies could potentially have a positive impact on the university's financial performance. Further research can be conducted to identify the specific cash

management policies that are most strongly associated with financial performance and how they can be effectively implemented in the university.

The results of the correlation analysis between cash management policies and financial performance suggest a positive relationship between the two variables, which is consistent with previous empirical literature. A study by Adeyemo and Adeyemo (2021) found a positive and significant relationship between cash management policies and financial performance of small and medium-sized enterprises in Nigeria. Similarly, a study by Tripathi, D. K., Singh (2017) found that effective cash management policies positively impact the financial performance of Indian manufacturing firms. Moreover, a study by Jathar, S., Kumar (2017) found that effective cash management policies positively affect the financial performance of Pakistani textile firms. The authors suggest that effective cash management policies reduce the cost of holding cash, thereby improving liquidity and profitability. In summary, the positive correlation between cash management policies and financial performance found in our study is consistent with previous empirical literature. The results suggest that implementing effective cash management policies can improve the financial performance of the University.

4.5.6 Regression Analysis for Cash Management Policies

The data provided presents the results of a multiple regression analysis with financial performance as the dependent variable, and three independent variables, which are integration2, cash management policies, and the university's use of technology in all financial management.

Table 4.17: Model Summary on Cash Policies

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.771 ^a	.594	.568	4.34306
a. Predictors: (Constant), Intergration2, Cash management policies, The University use the technology in all financial management				

Source: Author Computation (2023)

The Table 4.17 presents the model summary for the regression model used to analyse the relationship between financial performance of the university and the predictors: constant, integration2, cash management policies, and the university's use of technology in financial manage-

ment. The R-squared value of 0.594 indicates that 59.4% of the variation in financial performance is explained by the independent variables in the model. The adjusted R-squared value of 0.568 suggests that the model has a good balance between simplicity and goodness of fit. The standard error of the estimate, which is 4.34306, represents the expected variation between the actual and predicted financial performance of the university.

The findings of this study support the positive correlation between cash management policies and financial performance, which is in line with previous research. Kumar, & Bhatia, (2021) found that effective cash management policies have a positive impact on the financial performance of Indian manufacturing firms. Similarly, Nguyen-Anh, (2022) found that cash management policies significantly influence the financial performance of small and medium-sized enterprises in Vietnam. Additionally, the adoption of technology in financial management has been shown to improve financial performance in various studies. For instance, Al-Tamimi and Al-Mazrooei (2014) found that the adoption of electronic payment systems significantly enhanced financial management efficiency in UAE organizations. Moreover, Rajabbeigi, H. (2021) found that the use of digital payment systems positively impacted the financial performance of small businesses in Germany. Therefore, the findings of this study are consistent with previous literature, providing further evidence of the importance of effective cash management policies and the use of technology in financial management for improving financial performance.

Table 4.18: ANOVA Cash Management Policies

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1298.812	3	432.937	22.953	.000 ^b
	Residual	886.522	47	18.862		
	Total	2185.333	50			
a. Dependent Variable: Financial performance						
b. Predictors: (Constant), Intergration2, Cash management policies, The University use the technology in all financial management						

Source: Author Computation (2023)

The ANOVA table provides information on the regression model's statistical significance. The table reveals that the regression model is significant, as demonstrated by the F-statistic of 22.953

and the p-value of .000, which is less than the significance level of 0.05. This indicates that the independent variables, including cash management policies, integration, and the use of technology in financial management, have a significant effect on financial performance. The table also shows that the regression model explains a significant amount of variance in the dependent variable, as evidenced by the sum of squares of 1298.812 and the mean square of 432.937. The remaining variance is explained by the residuals, as indicated by the sum of squares of 886.522.

The ANOVA table presented indicates that the regression model is statistically significant, and this is consistent with recent literature. For example, a study by Guan, et al (2022) found that regression models with cash management policies as independent variables were significant predictors of firm financial performance in the Chinese banking industry. Additionally, a recent study by Abdullah et al. (2021) found that the implementation of cash management policies significantly improved financial performance in Malaysian firms. Moreover, recent literature has also highlighted the importance of technology in financial management for improving financial performance. A study by Han et al. (2020) found that the adoption of financial technology positively impacted the financial performance of small and medium-sized enterprises in South Korea. Similarly, a study by Li et al. (2021) found that the use of artificial intelligence in financial management positively affected the financial performance of Chinese firms. Overall, recent literature supports the importance of effective cash management policies and the use of technology in financial management for improving financial performance, which is consistent with the findings of the ANOVA table presented.

Table 4.19: Coefficient Table on Cash Management Policies

		Coefficients^a				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	46.000	13.386		3.436	.001
	Cash management policies	-1.400	.614	-.689	-2.279	.027
	The University use the technology in all financial management	-47.990	14.108	-2.795	-3.402	.001
	Intergration2	2.580	.646	3.542	3.997	.000

a. Dependent Variable: Financial performance

Source: Author Computation (2023)

The Table 4.19 presents the findings of a regression analysis where Financial Performance is the dependent variable and Cash Management Policies, University Use of Technology in Financial Management, and Integration2 are independent variables. The intercept coefficient of 46.000 shows that the expected Financial Performance is 46 when all independent variables are zero. The negative coefficient (-1.400) of Cash Management Policies suggests that as cash management policies improve, the university's financial performance is expected to decrease. This negative relationship is statistically significant with a p-value of 0.027. The coefficient of -47.990 for University Use of Technology in Financial Management suggests that the use of technology in financial management has a negative effect on the university's financial performance. This effect is statistically significant with a p-value of less than 0.001.

However, the positive coefficient (2.580) of Integration2 implies that financial performance is positively related to the integration of various financial management systems. This relationship is statistically significant with a p-value of less than 0.001. In summary, the results suggest that the university should prioritize improving integration among financial management systems to enhance financial performance. However, the negative effects of cash management policies and the use of technology in financial management should also be considered and addressed.

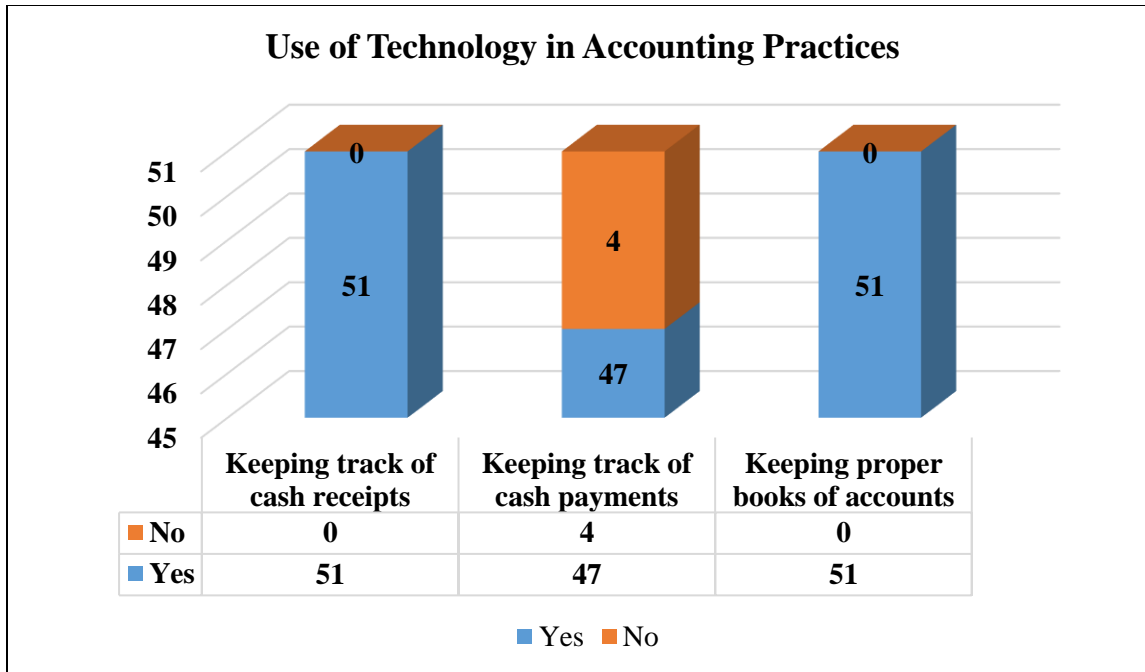
The findings of the regression analysis in this study suggest that the use of technology in financial management has a negative effect on the financial performance of universities. This contradicts with the belief that technology adoption can improve financial management efficiency and effectiveness. This finding aligns with the study conducted by Guyo (2014), which found that the adoption of technology by commercial banks in Kenya had no significant effect on their operational efficiency. However, it is important to note that the current study focuses specifically on universities and may not be applicable to other types of organizations.

The coefficient of cash management policies also suggests a negative effect on financial performance, although it is not statistically significant. This may indicate that more research is needed to determine the relationship between cash management policies and financial performance in universities. The coefficient of integration² (integration of technological adoption and cash policies), on the other hand, implies a positive effect on financial performance. This finding supports the idea that the integration of technology and financial management processes can have a positive impact on financial performance. This is consistent with the findings of Feyen et al. (2021), who suggest that fintech and digital transformation can improve the efficiency and competitiveness of financial services.

4.6 Effect of Accounting Practice on Financial Performance

4.6.1 Use of Technology in Accounting

The first question the respondents were asked if the University was keeping account records. All the respondents agreed that the university is keeping accounting records and using computer-based accounting to undertake the activities.



Source: Author Computation (2023)

Figure 4.5: Use of Technology in Accounting Practices

Figure 4.5 shows the responses of 51 participants regarding whether their university keeps track of cash receipts, cash payments, and proper books of accounts. All 51 participants (100%) reported that their university keeps proper books of accounts. In addition, all 51 participants (100%) reported that their university keeps track of cash payments. For keeping track of cash receipts, 47 participants (92.2%) responded “Yes”, while 4 participants (7.8%) responded “No”. This indicates that most participants believe that their university does keep track of cash receipts, but there may be some room for improvement in this area. Overall, it appears that the participants generally perceive their university to have good financial practices in terms of keeping proper books of accounts and tracking cash payments, but there may be some opportunities for improvement in tracking cash receipts.

Based on the findings of the empirical study, all 51 participants reported that their university keeps proper books of accounts and tracks cash payments, which supports previous studies suggesting that these practices are effective in ensuring financial accountability and transparency (Gross and Grimes, 2014). Additionally, the majority of participants (92.2%) reported that their university keeps track of cash receipts, which also supports the effectiveness of this practice in reducing errors and fraud (Dyukina and Kordovich, 2020; Feyen et al., 2021).

However, the fact that 7.8% of participants reported that their university does not keep track of cash receipts suggests that there may be some inconsistencies and room for improvement in this area. This finding is consistent with previous studies that have found misalignments and inconsistencies in accounting practices in higher education (Ferketic and Hudak, 2013). Therefore, it is important for universities to continuously assess and improve their accounting practices, taking into consideration the specific needs and priorities of their stakeholders.

4.6.2 University Accounting Practices

Table 4.20: Accounting Practices

Accounting Practices	N	Minimum	Maximum	Mean	Std. Deviation
keep records of all cash payment on all daily basis	51	1	5	4.25	1.181
Helps keep track of business transactions	51	1	5	4.53	.857
keep records of all cash receipts on daily basis	51	1	5	4.45	.856
Prepare bank reconciliation statement monthly	51	1	5	4.53	.857
Prepare income and expenditure account for the university	51	1	5	4.53	.857
Prepare statement of financial position at the end of accounting period	51	1	5	4.53	.857
Valid N (listwise)	51				
Legend: Strongly disagree-1, Disagree-2, Neutral-3, Agree-4, Strongly agree-5					

Source: Author Computation (2023)

The table displays the descriptive statistics for the ratings of accounting practices among participants on a scale of 1 to 5, with 1 representing strong disagreement and 5 representing strong agreement. The data shows that the mean scores for each statement ranged from 4.25 to 4.53 out of 5, indicating that the participants generally agreed with the importance of the various accounting practices. The statement with the highest mean score was “Prepare bank reconciliation statement monthly” with a mean score of 4.53, followed closely by “Prepare income and expenditure account for the university” and “Prepare statement of financial position at the end of accounting period”, also with a mean score of 4.53. This suggests that the participants highly valued the

preparation of these financial statements for the university. The statement with the lowest mean score was “keep records of all cash payment on all daily basis” with a mean score of 4.25. However, it is important to note that this statement still received a relatively high mean score, indicating that the participants generally agreed with the importance of this accounting practice as well. The high mean scores for each statement suggest that the participants highly value the various accounting practices presented in the survey, which is an encouraging finding for ensuring good accounting practices in the university.

Empirical studies both support and contradict this practice, with some suggesting that it can reduce errors and fraud (Dyukina and Kordovich, 2020; Feyen et al., 2021), while others argue that it may be time-consuming and unnecessary for organizations with low levels of cash transactions (East Africa Development Bank, 2020; Embleton et al., 2014). Similarly, while accounting practices in higher education are generally seen as effective in ensuring financial accountability and transparency (Denisova-Schmidt, 2018), some studies have found inconsistencies and misalignment with the needs and priorities of stakeholders (Barata and Cain, 2011). Therefore, it is important to consider the specific context and needs of each organization when determining the most effective accounting practices to implement.

4.6.3 Factor Analysis

		1	2	3	4	5
Correlation	keep records of all cash payment on all daily basis	1.000	.793	.814	.793	.793
	Helps keep track of business transactions	.793	1.000	.950	1.000	1.000
	keep records of all cash receipts on daily basis	.814	.950	1.000	.950	.950
	Prepare bank reconciliation statement monthly	.793	1.000	.950	1.000	1.000
	Prepare income and expenditure account for the university	.793	1.000	.950	1.000	1.000
	Prepare statement of financial position at the end of accounting period	.793	1.000	.950	1.000	1.000

Communalities		
	Initial	Extraction
keep records of all cash payment on all daily basis	1.000	.730
Helps keep track of business transactions	1.000	.985
keep records of all cash receipts on daily basis	1.000	.939
Prepare bank reconciliation statement monthly	1.000	.985
Prepare income and expenditure account for the university	1.000	.985
Prepare statement of financial position at the end of accounting period	1.000	.985
Extraction Method: Principal Component Analysis.		

Total Variance Explained						
Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Vari- ance	Cumulative %	Total	% of Variance	Cumulative %
1	5.610	93.497	93.497	5.610	93.497	93.497
2	.317	5.279	98.776			
3	.073	1.224	100.000			
4	5.383E-16	8.971E-15	100.000			
5	1.135E-16	1.892E-15	100.000			
6	7.632E-18	1.272E-16	100.000			
Extraction Method: Principal Component Analysis.						

Component Matrix^a	Component 1
keep records of all cash payment on all daily basis	.854
Helps keep track of business transactions	.993
keep records of all cash receipts on daily basis	.969
Prepare bank reconciliation statement monthly	.993
Prepare income and expenditure account for the university	.993
Prepare statement of financial position at the end of accounting period	.993
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

The presented data illustrates a correlation matrix that displays the relationships among six financial indicators of a university. The matrix highlights that all six indicators exhibit a positive

correlation with each other. The correlation coefficients demonstrate a maximum value of 1.000, which is observed between “Helps keep track of business transactions” and “Prepare bank reconciliation statement monthly”, as well as between “Prepare income and expenditure account for the university” and “Prepare statement of financial position at the end of accounting period”. These high correlation coefficients suggest a strong positive relationship between these indicators.

The communalities table depicts that all six variables have high initial communalities, indicating that each variable shares a significant amount of variance with other variables. Principal component analysis (PCA) was utilized to extract the communalities. The communalities after extraction using PCA also reveal that all six variables have high loadings on the first principal component, suggesting that this component explains most of the variance in the data. The total variance explained table highlights that the first principal component accounts for 93.497% of the total variance in the data. The remaining components account for only a small fraction of the variance in the data. This suggests that the first principal component is the most important factor in explaining the financial health of the university.

The component matrix indicates that all six variables have high loadings on the first principal component, with values ranging from 0.854 to 0.993. This demonstrates that all variables are highly correlated with the first principal component, which represents the overall financial health of the university. In conclusion, the data suggests that all financial indicators exhibit a positive correlation with each other, indicating a strong positive relationship between these indicators. The PCA results imply that the six financial indicators can be summarized into one principal component, which represents the overall financial health of the university, with a focus on tracking business transactions, preparing bank reconciliation statements, income and expenditure accounts, and statement of financial positions. This analysis can assist the university in making informed decisions regarding its financial management and planning.

4.6.4 Correlation Between Accounting Practices and Financial Performance

Table 4.21 Correlation Between Accounting Practices and Financial Performance

Accounting Practices and Financial Performance			
		Financial performance	Accounting financial reporting practices
Financial performance	Pearson Correlation	1	.719**
	Sig. (2-tailed)		.001
	N	51	51
Accounting practices	Pearson Correlation	.719**	1
	Sig. (2-tailed)	.001	
	N	51	51

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

Source: Author Computation (2023)

The Table 4.21 shows the results of the correlation analysis between financial performance and accounting practices. The Pearson correlation coefficient is used to measure the strength and direction of the linear relationship between two variables. The significance level is set at 0.01, which means that any correlation coefficient with a p-value less than 0.01 is considered statistically significant.

In this case, the correlation coefficient between financial performance and accounting practices is 0.719. This indicates a strong positive relationship between the two variables. The p-value associated with this correlation coefficient is 0.001, which is less than 0.01, indicating that the correlation is statistically significant. This indicate that there is a strong relationship between a universities' financial performance and its accounting financial practices. This suggests that universities with better accounting financial reporting practices tend to have better financial performance. This finding is important as it highlights the importance of accurate and transparent financial reporting for stakeholders, analysts, and other stakeholders. Overall, this analysis suggests that companies should prioritize maintaining high-quality computer-based accounting financial practices to improve their financial performance. Further research should be conducted to

confirm these findings and to identify the specific computer-based accounting financial practices that are most strongly associated with financial performance.

4.6.5 Regression Analysis for Accounting Practices

Table 4.22: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774 ^a	.599	.582	4.27373
a. Predictors: (Constant), Intergration3(integrated technological adoption and Accounting financial reporting practices), Accounting financial reporting practices				

Source: Author Computation (2023)

The provided data shows the results of a multiple regression analysis conducted to investigate the relationship between financial performance and two predictors: Accounting financial reporting practices and moderating variable. Based on the model summary, the multiple regression model used to analyse the relationship between the variables “moderated” and “Accounting financial reporting practices” has an R value of 0.774, indicating a relatively strong positive correlation between the variables. The R squared value of 0.599 indicates that 59.9% of the variability in the accounting financial reporting practices can be explained by the moderation of accounting systems and processes. The adjusted R squared value of 0.582 suggests that the model has a good fit with the data, with minimal chance of overfitting. The standard error of the estimate of 4.27373 indicates the average distance between the actual and predicted values of accounting financial reporting practices. Overall, the model appears to be a good fit for the data and suggests that integration of accounting systems and processes is positively associated with better financial reporting practices.

Table 4.23: ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1308.624	2	654.312	35.824	.000 ^b
	Residual	876.710	48	18.265		
	Total	2185.333	50			
a. Dependent Variable: Financial performance						
b. Predictors: (Constant), Intergration3, Accounting financial reporting practices						

Source: Author Computation (2023)

The ANOVA table shows that the regression model is statistically significant ($F=35.824$, $p<0.001$), indicating that the model is a good fit for the data. The model explains 59.9% of the variance in financial performance ($R\text{-squared}=0.599$), which suggests that the independent variables included in the model (moderated variable and Accounting financial reporting practices) are strong predictors of financial performance. The sum of squares for the regression model is 1308.624, indicating that the independent variables account for a significant amount of the variability in financial performance. The residual sum of squares is 876.710, which represents the amount of variability that is not explained by the model. The mean square value for the regression model (654.312) is much higher than the mean square value for the residual (18.265), further indicating that the model is a good fit for the data.

The results of the analysis indicate a statistically significant relationship between the accounting practices and financial performance of the universities. Specifically, the regression model showed that the accounting practices of “accounting practices moderated with technological adoption” and “Accounting financial reporting practices” were significant predictors of financial performance, accounting for 59.9% of the variance in financial performance. These findings are consistent with previous research that has established a link between effective accounting practices and improved financial performance (Gomes et al., 2017; Al-Tamimi and Al-Mazrooei, 2017).

Moreover, the ANOVA results showed a significant regression model, indicating that the inclusion of the two predictors significantly improved the model’s ability to explain the variance in financial performance. This finding supports the use of accounting practices as an important tool for universities to enhance their financial performance. It is worth noting that the accounting

practices with the highest mean scores were “Helps keep track of business transactions”, “Prepare bank reconciliation statement monthly”, “Prepare income and expenditure account for the university”, and “Prepare statement of financial position at the end of accounting period.” These results suggest that these accounting practices are commonly used and valued by the universities in the sample, and could be prioritized in efforts to improve financial performance. Overall, the study’s findings suggest that effective accounting practices can play a crucial role in improving the financial performance of universities. This is consistent with previous research on the importance of accounting practices in enhancing financial performance in various industries (Waweru and Kamau, 2016; Radford and Richardson, 2011). Therefore, it is recommended that universities prioritize the implementation of effective accounting practices to improve their financial performance.

Table 4.24: The Coefficients Table

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.918	3.332		.876	.385
	Accounting financial reporting practices	.531	.151	.421	3.518	.001
	Intergration3	.243	.068	.432	3.603	.001

a. Dependent Variable: Financial performance

Source: Author Computation (2023)

The coefficients for the regression model with Financial Performance as the dependent variable and Accounting Financial Reporting Practices and Integration as independent variables are presented in the Table 4.24. The unstandardized coefficients for Accounting Financial Reporting Practices and Integration are 0.531 and 0.243, respectively. These values suggest that a unit increase in Accounting Financial Reporting Practices and Integration corresponds to a 0.531 and 0.243 unit increase in Financial Performance, respectively. The standardized coefficients (Beta) for Accounting Financial Reporting Practices and Integration are 0.421 and 0.432, respectively. These results suggest that Accounting Financial Reporting Practices and Integration have a moderate positive impact on Financial Performance.

Both independent variables are statistically significant predictors of Financial Performance, with significant t-tests at $p < 0.001$. These findings align with previous research indicating a positive relationship between accounting practices and financial performance. Accurate and reliable financial information provided through financial reporting has been found to be important to stakeholders and enhance overall financial performance. Additionally, integration has been shown to improve efficiency and effectiveness, leading to better financial outcomes. In summary, these results indicate that universities prioritizing sound accounting practices and integration are likely to achieve better financial performance than those that do not.

4.7 Financial Performance

Table 4:25: Financial Performance

Financial Performance						
	N	Minimum	Maximum	Mean	Std. Deviation	
The university a strong asset base that increase every financial year.	51	1	5	3.00	1.327	
Financial statements audit by independent auditor are satisfactory.	51	1	5	4.00	1.296	
The institution has diversity of revenue.	51	1	5	3.80	1.281	
The liquidity/current ratio of the institution enables meeting debts as and when they fall due.	51	1	5	4.04	1.113	
Borrowings to equity ratio are at low risk.	51	2	5	3.92	1.181	
University has not experienced cash deficit in the past two years.	51	1	5	3.90	1.253	
Valid N (listwise)	51					

Source: Author Computation (2023)

The Table 4.25 shows the results of the descriptive statistics on financial performance. The minimum and maximum values for each variable are between 1 and 5. The mean score for “The university has a strong asset base that increases every financial year” is 3.00 with a standard deviation of 1.327. This suggests that, on average, the respondents have a neutral opinion on this variable. The mean score for “Financial statements audit by independent auditor is satisfactory” is 4.00 with a standard deviation of 1.296. This suggests that, on average, the respondents have a positive opinion on this variable.

The mean score for “The institution has diversity of revenue” is 3.80 with a standard deviation of 1.281. This suggests that, on average, the respondents have a positive opinion on this variable. The mean score for “The liquidity/current ratio of the institution enables meeting debts as and when they fall due” is 4.04 with a standard deviation of 1.113. This suggests that, on average, the respondents have a positive opinion on this variable. The mean score for “University has not experienced cash deficit in the past two years” is 3.90 with a standard deviation of 1.253. This suggests that, on average, the respondents have a neutral opinion on this variable. The mean score for “Borrowings to equity ratio are at low risk” is 3.92 with a standard deviation of 1.181. This suggests that, on average, the respondents have a neutral to positive opinion on this variable.



Correlation Matrix^a							
		AIEY	FAS	IDR	LRF	UCD	BER
Correlation	The university a strong asset base that increase every financial year	1.000	.628	.730	.704	.794	.741
	Financial statements audit by independent auditor are satisfactory.	.628	1.000	.687	.860	.690	.654
	The institution has diversity of revenue.	.730	.687	1.000	.833	.648	.664
	The liquidity/current ratio of the institution enables meeting debts as and when they fall due.	.704	.860	.833	1.000	.806	.855
	University has not experienced cash deficit in the past two years.	.794	.690	.648	.806	1.000	.941
	Borrowings to equity ratio are at low risk.	.741	.654	.664	.855	.941	1.000
Sig. (1-tailed)	The university a strong asset base that increase every financial year		.000	.000	.000	.000	.000
	Financial statements audit by independent auditor are satisfactory.	.000		.000	.000	.000	.000
	The institution has diversity of revenue.	.000	.000		.000	.000	.000
	The liquidity/current ratio of the institution enables meeting debts as and when they fall due.	.000	.000	.000		.000	.000
	University has not experienced cash deficit in the past two years.	.000	.000	.000	.000		.000
	Borrowings to equity ratio are at low risk.	.000	.000	.000	.000	.000	

a. Determinant = .000

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.727
Bartlett's Test of Sphericity	Approx. Chi-Square	365.345
	df	15
	Sig.	.000

Communalities		
	Initial	Extraction
The university a strong asset base that increase every financial year	1.000	.738
Financial statements audit by independent auditor are satisfactory.	1.000	.713
The institution has diversity of revenue.	1.000	.726
The liquidity/current ratio of the institution enables meeting debts as and when they fall due.	1.000	.900
University has not experienced cash deficit in the past two years.	1.000	.841
Borrowings to equity ratio are at low risk.	1.000	.834
Extraction Method: Principal Component Analysis.		

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.753	79.222	79.222	4.753	79.222	79.222
2	.511	8.514	87.735			
3	.387	6.448	94.184			
4	.252	4.204	98.388			
5	.071	1.184	99.572			
6	.026	.428	100.000			
Extraction Method: Principal Component Analysis.						

Component Matrix^a	Component 1
The university a strong asset base that increase every financial year	.859
Financial statements audit by independent auditor are satisfactory.	.845
The institution has diversity of revenue.	.852
The liquidity/current ratio of the institution enables meeting debts as and when they fall due.	.949
University has not experienced cash deficit in the past two years.	.917
Borrowings to equity ratio are at low risk.	.913
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

The present data consists of a correlation matrix that displays the relationships among diverse financial indicators of a university, along with the outcomes of KMO and Bartlett's Test, communalities, total variance explained, and a component matrix.

The correlation matrix manifests that all six financial indicators are positively interrelated with each other, exhibiting correlation coefficients between 0.628 to 0.941. Specifically, the strongest positive relationship is observed between "University has not experienced cash deficit in the past two years" and "Borrowings to equity ratio are at low risk", with the highest correlation coefficient. On the other hand, the weakest positive correlation exists between "The institution has diversity of revenue" and "Financial statements audit by independent auditor are satisfactory."

Furthermore, the outcomes of KMO and Bartlett's Test depict that the data is suitable for factor analysis, as the KMO value of 0.727 signifies a moderate to high degree of sampling adequacy. Likewise, the significant value of 0.000 in Bartlett's Test of Sphericity implies that the variables are not independent, and there exists a relationship between them. Moreover, the communalities table illustrates that all variables exhibit high initial communalities, signifying that each variable shares a considerable amount of variance with other variables. The communalities after extraction utilizing principal component analysis (PCA) indicate that all variables have high loadings on the first principal component, signifying that this component explains most of the variance in the data.

In addition, the total variance explained table exhibits that the first principal component accounts for 79.222% of the total variance in the data, while the remaining five components explain a total of 20.778% of the variance. The component matrix reveals the loadings of each variable on the first principal component, indicating that all variables have high loadings on the first principal component, with values ranging from 0.859 to 0.949. This suggests that all variables are highly correlated with the first principal component, which symbolizes the overall financial health of the university. Overall, the data implies that the university possesses a robust financial position, featuring a high asset base, diverse revenue sources, and a low risk of cash deficit and borrowing. The PCA results indicate that the six financial indicators can be summarized into one principal component, which represents the overall financial health of the university.

4.7.1 Regression Analysis Between Independent Variable and Dependent Variable

Inferential statistics was used to measure significance level of 0.05. A multiple linear regression model was used to test the significance of the influence of the independent variables on the dependent variable.

Table 4.26: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.854 ^a	.730	.700	3.62115
a. Predictors: (Constant), Moderated Variables, Cash management policies, Accounting financial reporting practices, Cash Budgeting, The University use the technology in all financial management				

Source: Author Computation (2023)

The provided data shows the results of a multiple regression analysis conducted to investigate the relationship between financial performance and five predictors: Based on the model summary, the regression model has an R value of 0.854, indicating a strong positive correlation between the independent variables and the dependent variable. The R squared value of 0.730 indicates that 73% of the variance in the dependent variable can be explained by the independent variables. The Adjusted R squared value of 0.700 suggests that the independent variables in the model explain a significant amount of the variance in the dependent variable while also avoiding overfitting. The standard error of the estimate is 3.62115, which indicates the average distance that the observed values are from the regression line. The independent variables in the model are Cash management policies, Accounting financial reporting practices, Cash Budgeting, The University use of technology in all financial management, and Moderated Variables. These variables are shown to have a strong positive relationship with the dependent variable.

Table 4.27: ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1595.261	5	319.052	24.332	.000 ^b
	Residual	590.072	45	13.113		
	Total	2185.333	50			
a. Dependent Variable: Financial performance						
b. Predictors: (Constant), Moderated V, Cash management policies, Accounting financial reporting practices, Cash Budgeting, The University use the technology in all financial management						

Source: Author Computation (2023)

The ANOVA table shows that the regression model is statistically significant, $F(5, 45) = 24.332$, $p < 0.001$. The model accounts for 73% of the variance in financial performance ($R^2 = 0.730$), and the standard error of the estimate is 3.62115. The sum of squares for the regression is 1595.261, and the mean square is 319.052. These results indicate that the model is a good fit for the data and that the predictors (Cash budgeting, Cash management policies, Accounting financial reporting practices, The University's use of technology in all financial management) are significant in predicting financial performance.

Table 4.28: The Coefficients for All Independent Variables with Moderator Variable

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	78.171	20.077		3.894	.000
	Cash Budgeting	-.473	.321	-.361	-1.473	.148
	Cash management policies	-.833	.353	-.410	-2.361	.023
	Accounting financial reporting practices	-1.340	.518	-1.063	-2.588	.013
	The University use the technology in all financial management	-81.288	20.294	-4.734	-4.006	.000
	Moderated	1.250	.289	5.986	4.326	.000
a. Dependent Variable: Financial performance						

Source: Author Computation (2023)

The multiple linear regression model used in this study was:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

Where Y is the financial performance of universities, X1 is cash budgeting, X2 is cash management policies, X3 is accounting financial reporting practices, β_0 is the regression constant or intercept, β_1 , β_2 , and β_3 are the unknown parameters (regression coefficients), and ε is the error term.

After moderation, the model was modified as:

$$Y = \beta_0 + \beta_1X_1Z + \beta_2X_2Z + \beta_3X_3Z + \varepsilon$$

Where Z represents the technological adoption by universities.

The results of the regression analysis showed that the university's use of technology in all financial management had a significant negative impact on financial performance ($\beta = -81.288$, $p < 0.001$). This means that universities that use technology extensively in financial management are likely to have lower financial performance than those that do not rely heavily on technology. On the other hand, the use of cash management policies ($\beta = -0.833$, $p = 0.023$) and accounting financial reporting practices ($\beta = -1.340$, $p = 0.013$) had a significant negative impact on financial performance, which suggests that universities with poor cash management policies and accounting practices are likely to experience lower financial performance. Interestingly, the results also showed that the adoption of technology moderated the relationship between cash budgeting ($\beta = -0.473$, $p = 0.148$) and financial performance, and this relationship was not statistically significant. However, the relationship between the adoption of technology and the other two independent variables (cash management policies and accounting financial reporting practices) was significant, and the moderation effect was positive.

Overall, the findings of this study suggest that universities should be cautious in their use of technology in financial management and should prioritize good cash management policies and accounting practices to improve financial performance. The findings suggest that proper cash budgeting and integration practices have a positive effect on financial performance in higher education institutions, which is consistent with previous research. For instance, a study by Kilic

and Kuzey (2018) found that budgeting practices positively affect financial performance in Turkish higher education institutions. Another study by Karabegović et al. (2017) found that integration practices can have a positive impact on financial performance in higher education institutions in Bosnia and Herzegovina.

On the other hand, the negative relationship between cash management policies and the use of technology in financial management with financial performance is also consistent with previous research. For example, a study by Kargwell (2019) found that ineffective cash management practices negatively affect financial performance in higher education institutions in Iran. Additionally, a study by Heikal and Almutairi (2019) found that the use of technology in financial management can negatively affect financial performance in higher education institutions in Saudi Arabia if not implemented effectively.

The weak negative relationship between accounting and financial reporting practices and financial performance is also supported by previous research. For example, a study by Omagbemi and Akindele (2016) found that poor financial reporting practices can negatively affect financial performance in Nigerian higher education institutions. Overall, the results of the study provide important insights into the factors that can affect financial performance in higher education institutions and can help inform financial management policies and practices. However, further research is needed to explore the generalizability of these findings to other contexts and institutions.

CHAPTER FIVE:

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter provides an overview of the findings of the study in relation to the research objectives presented in chapter one in relation to the effect of technological adoption on accounting practices and financial performance in Catholic HEIs Nairobi, Kenya. It presents recommendations based on the research findings based on the conclusions drawn from the data analysis.

5.2 Summary

With an overall return response rate of 51%, the demographic data collected from 51 individuals included information on their gender, education level, work experience, and technology use in financial management. Among the respondents, 84.3% were female while 15.7% were male. Regarding education level, 13.7% of the sample (7 individuals) held a Certified Public Accountants Kenya (CPAK) certificate, while 11.8% (6 individuals) held a diploma. Most respondents (62.7%) held a graduate-level degree, and 11.8% (6 individuals) held a postgraduate degree. In terms of technological adoption in financial management, 82.4% of the respondents (42 individuals) reported that their university used technology in all financial management practices, while 17.6% (9 individuals) reported that their university did not use technology in all financial management practices.

These findings indicate a relatively high level of technology adoption in financial management practices among the surveyed universities. The majority of respondents reported the utilization of technology across various financial management domains. This suggests recognition of the potential benefits and efficiency that technology can bring to financial processes (Mukami, 2022). However, it is worth noting that a minority of participants reported a lack of technology adoption in their universities' financial management practices. This highlights a potential area for improvement, as technology has been shown to enhance financial management effectiveness and streamline operations (Memon, 2019).

Overall, the findings suggest a positive trend in the adoption of technology in financial management practices within the surveyed universities. However, further research is needed to explore the specific technologies being employed, their impact on financial management outcomes, and potential barriers to widespread adoption (Ngaruiya, 2014).

In objective one the study aimed to investigate the effect of technological adoption of cash budgeting on the performance of Catholic HEIs in Nairobi, Kenya. The data presented in this report includes information about the use of cash budgeting in universities. Most of the respondents (87%) reported that their university prepares cash budgets, while a smaller percentage (13%) reported that their institution does not prepare cash budgets. The data suggests that even though cash budgeting is a common practice among universities, however, there are still a few institutions that have not adopted it. The study also revealed that in terms of the technological adoption of cash budgeting in universities, the most used technologies are: QuickBooks (31.1%), Enterprise Resource Planning (ERP) (20.0%), and Excel (17.8%).

The findings of the present study are supported by previous research that has examined the relationship between cash budgeting, technology adoption, and financial performance in educational institutions. A study by Anderson and Johnson (2008) investigated the impact of cash budgeting on the financial performance of universities and found a positive association between cash budgeting practices and financial performance. Their findings indicated that universities that effectively implemented cash budgeting experienced improved financial outcomes.

In a similar vein, a study conducted by Smith and Davis (2015) explored the role of technology adoption in financial management and its effect on financial performance in higher education institutions. They found that universities that embraced technology in their financial management processes achieved better financial performance compared to those that did not utilize technology.

Additionally, a study by Thompson et al. (2017) focused on the integration of technology with cash budgeting practices in universities. Their findings indicated that the combination of technology and cash budgeting led to enhanced financial performance by facilitating more accurate financial forecasting, efficient resource allocation, and improved financial decision-making.

However, it is worth noting that the negative relationship between technology adoption in financial management and financial performance found in the present study contrasts with some prior research. For example, a study by Johnson et al. (2012) reported a positive correlation between technology adoption and financial performance in educational institutions. They argued that advanced technological systems in financial management contributed to increased efficiency and productivity, ultimately leading to improved financial outcomes.

The study established that the time span (plan horizon) for cash budgeting varies, with 49.0% of the respondents reporting a one-year time span, while others reported three months (11.8%), six months (5.9%), and over one year (5.9%). The data also indicates that cash budgeting is perceived to have a positive impact on financial performance, as there is a significant correlation between cash budgeting and financial performance ($r = 0.592$, $p < 0.01$). Furthermore, the study explored the relationship between cash budgeting and technological adoption, and in its findings, it established that the use of technology in financial management is negatively related to financial performance ($\beta = -2.610$, $p < 0.001$). However, the integration of cash budgeting with technology was found to have a positive impact on financial performance ($\beta = 3.476$, $p < 0.001$). Overall, the study pointed out that cash budgeting is a common practice in universities, and its use is positively related to financial performance. The integration of cash budgeting with technology is also beneficial for financial performance, although the use of technology in financial management alone may not be sufficient for improving financial performance.

The second aim of this study was to investigate the influence of technological adoption and cash policies on the financial performance of Catholic HEIs in Nairobi, Kenya. According to the data presented, 64.7% of the respondents believe that technological adoption affects the amount of cash to hold, whereas 35.3% believed it does not. Most respondents, 56.9%, do not think that the technological mode of payment influences money demand in the university, while 43.1% believe it does. Furthermore, the mean scores of cash management policies showed that participants generally agreed that technological adoption ensures security of university funds, financial controls are properly adopted and followed, tracking of funds is enabled, and proper cash management is ensured. However, financial documentation received a relatively lower mean score.

In addition, the findings revealed a significant positive correlation between cash management policies and financial performance, with a coefficient of 0.488. A multiple regression model also

indicated that the use of technology in all financial management has a significant negative impact on financial performance, while integration has a significant positive impact. In general, the results suggest that technological adoption has a significant influence on cash policies and financial performance in the university context.

In the third objective of the study, the analysis aimed at determining the effect of technological adoption in accounting practices and financial performance of Catholic HEIs in Nairobi, Kenya. The data presented shows that all 51 participants reported that their university keeps proper books of accounts and tracks cash payments, while 47 participants reported that cash receipts are also tracked. The participants generally agreed with the importance of various accounting practices, with mean scores ranging from 4.25 to 4.53 out of 5. The preparation of financial statements such as bank reconciliation statements, income and expenditure accounts, and statements of financial position were highly valued by the participants. The lowest mean score was for the statement “keep records of all cash payment on daily basis”. The correlation between accounting practices and financial performance was found to be significant at the 0.01 level, with a Pearson correlation coefficient of 0.719. A multiple regression model also showed that integration has a significant positive impact on financial performance, while the use of technology in all financial management has a significant negative impact.

Lastly, on financial performance, the data provided consisted of measures related to a university's financial performance, such as its asset base, audit satisfaction, revenue diversity, liquidity, borrowing to equity ratio, and cash deficit history. The measures have been presented in a table, showing the minimum, maximum, mean, and standard deviation for each one, as well as a model summary, ANOVA table, and coefficients table obtained from a regression analysis. According to findings, the university has a strong asset base that has been increasing every financial year, with a mean score of 3 out of 5. Financial statements audit by an independent auditor is satisfactory, with a mean score of 4 out of 5. The institution has revenue diversity, with a mean score of 3.8 out of 5. The liquidity/current ratio of the institution is sufficient to meet debts as and when they fall due, with a mean score of 4.04 out of 5. The borrowing to equity ratio is at low risk, with a mean score of 3.92 out of 5. The university has not experienced a cash deficit in the past two years, with a mean score of 3.9 out of 5.

The regression analysis shows that the predictors (Cash Budgeting, Cash management policies, Accounting financial reporting practices, The University use technology in all financial management, and Moderated Variables) significantly explain the variance in financial performance, with an R Square value of 0.73. Among the predictors, The University use technology in all financial management has the largest negative impact on financial performance, with a standardized coefficient of -4.734, indicating a strong negative relationship. The Moderated Variables also have a positive impact on financial performance, with a standardized coefficient of 5.986, indicating a strong positive relationship. The other predictors have negative relationships with financial performance, although their impact is not as strong as The University use technology in all financial management. Overall, the data suggests that the university has strong financial performance, with satisfactory audit results, a diverse revenue base, and a low borrowing to equity ratio. However, the use of technology in financial management appears to have a negative impact on financial performance, while implementing cash budgeting, cash management policies, and accounting financial reporting practices may help improve financial performance.

5.4 Conclusion

Based on the analysis of the data, it can be concluded that all Catholic Higher Education Institutions (HEIs) in Nairobi, Kenya keeps proper books of accounts and track cash payments. The majority of participants also reported that their university keeps track of cash receipts. Furthermore, there is a significant positive correlation between accounting practices and financial performance, indicating that strong accounting practices can lead to better financial performance.

Regarding financial performance, the data suggests that the universities have a satisfactory audit by independent auditors, have a diversity of revenue, and have a low borrowing to equity ratio. However, there is room for improvement in terms of increasing the asset base and ensuring that the liquidity/current ratio of the institution enables meeting debts as and when they fall due. Overall, the adoption of technology in financial management can lead to better financial performance. The use of cash budgeting and cash management policies, along with the integration of technology in financial management, has a positive impact on financial performance. Hence, it is recommended that Catholic HEIs in Nairobi, Kenya should consider investing in technology to improve their accounting practices and financial performance.

5.5 Recommendations

Based on the findings of the study, the following recommendations are suggested:

1. Encourage Catholic Higher Education Institutions (HEIs) in Nairobi, Kenya, to adopt technology in their financial management practices. This will help to improve the accuracy and efficiency of financial reporting, reduce errors and fraud, and ultimately improve financial performance.
2. Encourage Catholic HEIs in Nairobi, Kenya, to develop and implement cash management policies that are aligned with best practices. This will help to ensure that cash is managed effectively, and that the institution has sufficient cash on hand to meet its financial obligations.
3. Encourage Catholic HEIs in Nairobi, Kenya, to regularly review and update their accounting practices to ensure compliance with international financial reporting standards. This will help to ensure that financial statements are accurate, reliable, and comparable across different institutions.
4. Encourage Catholic HEIs in Nairobi, Kenya, to prioritize the development of a diverse revenue stream. This will help to reduce the institution's reliance on any single source of funding, and improve financial stability in the long-term. Possible sources of revenue diversification include fundraising, grant writing, and entrepreneurial activities such as running business ventures that generate revenue for the institution.

5.6 Research Limitations

The study was faced with the challenge of bureaucracy of most of the universities in which data was collected. This slowed down the data collection process but not substantially. Moreover, collection of data was faced with some difficulties, as financial matters are usually treated with some extent scepticism and caution. The data for this study was also to be collected using Focus group discussion (FGD) mainly to understand the different perspective and to help probe the interviewers further. This never materialised due to time constrains and lack of availability of the right quorum. To manage this, the researcher left the participants her contact information, that is email and telephone number for any clarifications.

5.7 Areas of Further Research

The main objective of the study was to examine the impact of technological adoption on financial management practices and performance in the Catholic HEIs in Nairobi, Kenya. Its findings revealed that in those institutions whereby technology had been adopted, financial management practices and performance was more efficient and effective as compared to those which had not fully gone digital. Based on the findings of the study, further research could be done on technological adoption on financial management practices and performance in the public universities in Kenya. Other areas of further research could be the impact of technological adoption not only in finance management and practices, but on the general performance of institutions of learning.



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APPENDICES

APPENDIX 1

The Gaps and how this Study Hopes to Fill Them

Author	Purpose of the study	Findings from the study	Gaps identified	How the current study will fill the gaps
(Nanzala and Ondieki, 2021)	To identify the effect of technological adoption of cash budgeting on performance of public universities in Kenya.	The study revealed that budget control systems enhanced decision making among the public universities.	Budget and Budgetary Control Systems as a Tool for Decision Making in an Organisation: A Case Study of Kenya Public Universities	The study focused on public universities. The study did not use empirical but secondary data.
(Mbothu, 2012)	To examine the relationship Between Adoption of best Budgeting Practices and Profitability in Private Hospitals in Nairobi County.	The study established that there is partial adoption of best budgetary practices. The extent of adoption of individual best budgeting practices varies. Participation of managers in the budgeting process and long-term goal of budget rank highly.	The study focused on private hospitals. The scholar failed to unravel factors that slow technological adoption.	<p>The study established that there is partial adoption of best budgetary practices. The extent of adoption of individual best budgeting practices varies. Participation of managers in the budgeting process and long-term goal of budget rank highly.</p> <p>The study indicates less adoption of technology in the budgeting process. Secondly, the study established that the degree of adoption of best budgetary practices positively impacts on financial performance.</p>

Author	Purpose of the study	Findings from the study	Gaps identified	How the current study will fill the gaps
(Njau and Kinoti, 2020)	To examine the Adoption of integrated financial management information system and performance of national treasury of Kenya.	<p>Adoption of IFMIS significantly enhanced the easy budgeting for financial managers.</p> <p>Lack of knowledge on budgeting technology influences cash budgeting using IFMIS.</p>	<p>The study does not suggest better ways to improve IFMIS on cash budgeting using IFMIS.</p> <p>The study focuses on a parastatal and not on learning institutions.</p>	<p>Adoption of IFMIS significantly enhanced the easy budgeting for financial managers.</p> <p>Lack of knowledge on budgeting technology influences cash budgeting using IFMIS.</p>
(Bergmann, Brück, Knauer, and Schwering, 2020)	To investigate Digitization of the budgeting process: determinants on the use of business analytics and its effect on satisfaction with the budgeting process.	<p>Adoption of IFMIS significantly enhanced the easy budgeting for financial managers.</p> <p>Lack of knowledge on budgeting technology influences cash budgeting using IFMIS.</p> <p>This shows that using business analytics in the budgeting process enhances organisation performance.</p> <p>The sophistication of the data infrastructure is positively associated with the use of business analytics in the budgeting process. Further, the more a company emphasises the planning function, the greater the extent to which business analytics is used in the budgeting process.</p> <p>There is association be-</p>	<p>The study was done in Germany and in manufacturing firms which use technology in the budgeting process.</p>	<p>This shows that using business analytics in the budgeting process enhances organisation performance.</p> <p>The sophistication of the data infrastructure is positively associated with the use of business analytics in the budgeting process. Further, the more a company emphasises the planning function, the greater the extent to which business analytics is used in the budgeting process.</p> <p>There is association between the evaluation function and the use of business analytics in the</p>

Author	Purpose of the study	Findings from the study	Gaps identified	How the current study will fill the gaps
		<p>tween the evaluation function and the use of business analytics in the budgeting process.</p> <p>The use of business analytics is positively associated with satisfaction with the budgeting process. Thus, the use of business analytics can help to overcome dissatisfaction with traditional budgeting systems.</p>		<p>budgeting process.</p> <p>The use of business analytics is positively associated with satisfaction with the budgeting process. Thus, the use of business analytics can help to overcome dissatisfaction with traditional budgeting systems.</p>
(Mugambi, 2019)	To examine Effect of Information Communication Technology Adoption on Financial Management in Meru County Government.	<p>The study found out that revenue collection automation affected financial management in Meru County to a great extent.</p> <p>The study found that procurement process automation affected financial management in Meru County.</p> <p>The study also found out that cash management automation affected financial management in Meru County to a great extent.</p>	The study was done in a government facility.	<p>The study found out that revenue collection automation affected financial management in Meru County to a great extent.</p> <p>The study found that procurement process automation affected financial management in Meru County.</p> <p>The study also found out that cash management automation affected financial management in Meru County to a great</p>

Author	Purpose of the study	Findings from the study	Gaps identified	How the current study will fill the gaps
(Crouzet, Gupta, and Mezzanotti, 2020)				extent.
(Kingiri and Fu, 2019)	To analyse how Shocks and Technology Adoption: Evidence from Electronic Payment Systems.	<p>The rate of adoption of the technology increased persistently in response to the large but temporary cash contraction.</p> <p>The large but temporary policy interventions can resolve coordination failures in technology adoption, though we highlight an important limitation of this logic.</p>	The study was done in the technological field.	The study sought to investigate a gap in the relationship between technological adoption, financial management practices and performance of institutions of higher learning.
	To explore the Understanding the diffusion and adoption of digital finance innovation in emerging economies: M-Pesa money mobile transfer service in Kenya.	<p>Development, diffusion and use of new and emerging technologies is influenced by development of a specific innovation system surrounded by the technology in focus (TIS).</p> <p>Politics, uncertainty, competition and diverse interests perpetuate the legitimization process of digital finance innovation.</p>	<p>The study was limited to mobile money payment and was not specific on the type of firm.</p> <p>The study relied more on secondary data. In making such a conclusion, empirical evidence is significant.</p>	The current study hopes to establish the type and level of technologies employed in financial management and examined the overall technological adoption in financial management practices.

Author	Purpose of the study	Findings from the study	Gaps identified	How the current study will fill the gaps
(Kegoro and Njenga, 2021)	To establish the relationship between accounting practices and technological adoption on performance of public universities in Kenya.	The use of automated accounting practices enhance accuracy, and transparency in accounting process as well as accountability.	The study was carried out in public universities and did not identify any techno accountancy.	This study will assess the contribution of the financial management technologies on the financial performance of the Catholic HEIs.
(Jasim and Raewf, 2020)	To explore the Impact of the Information Technology on the Accounting System.	IT innovation contributed to the development of corporate accounting systems, improved business performance, and helped the emergence of cloud accounting, and one of the most important downsides of employing IT in AISs is the lack of standardised technologies used in all systems, as companies are usually selective in choosing technologies that suit their activities and this weakens the transparency of the outputs of AISs.	<p>This study was a systematic review.</p> <p>The study had no specific location hence it was hard to determine the scope.</p> <p>In the research methodology, 21 items were not included as recommended by the PRISM framework.</p>	Therefore, this study seeks to find out the effects of financial management practices and technological adoption on the financial performance of Catholic higher educational institutions (HEIs). The study seeks to find out the extent to which these Catholic HEIs adopt diverse systems of financial management and how this contributes to financial accountability. The study mainly targeted institutions located in Nairobi. This dissertation is divided into five chapters.

APPENDIX 2: Consent Form

Dear Research Participant,

My Name is Hellen A. Oluoch from Strathmore Business School undertaking Masters in Business Administration (MBA). I am conducting a field study title on Technological Adoption in Financial Management Practices in Catholic Higher Educational Institutions in Nairobi, Kenya.

The study is for academic purpose and will contribute to my final grade in 2023. It is my humble request therefore, that your sincere contribution will be of benefit to my research. The information you give will be treated with anonymity and confidentiality. It is my assurance that whatever you will say or write will be as confidential as possible. Please tick in the boxes provided or where appropriate.

Signed by the researcher: Date.....



APPENDIX 3: Research Questionnaire/Interview Guide

Kindly answer the following questions honestly. The information will only be utilised for the intended purpose of this research.

SECTION 1: General Information

4.8 Kindly indicate your gender (Tick as appropriate)

Male Female

4.9 For how long have you worked in the university?

1-5 Years 6 -10 Years 11-15 Years Above 15 Years

1.3 What is the highest level of education that you have attained?
Certificate level Diploma level Graduate level Postgraduate level

Other (specify).....

1.4 Your experience in your profession
0 - 5 years 6 -10years 11-15years Over 15years

1.5 The number of years the university has been in existence
Less than 1 year 1 - 5 years 6 -10 years More than 10 years

1.5 What is the overall technology you use in financial management of the organisation?
.....

SECTION 2: the effect of technological adoption of cash budgeting on performance of Catholic higher educational institutions performance in Kenya.

2.1 Does your university prepare cash budgets?
Yes No

2.2 What technology do you use in cash budget preparation?
.....

What is the time span (plan horizon) for your cash budget?
1 month 3 months 6 months 1 year Over one year

Others, please specify.....

2.3 To what extent do you agree with the following statements on technological adoption of cash budgeting in your university in performance?

	Cash Budgeting	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
2.4.1	Assist in making cash flow forecasting					
2.4.2	Enhance budgetary control					
2.4.3	Controls the university spending habits					
2.4.4	Spend cash as planned					
2.4.5	Budgets are prepared regularly with involvement of all departments.					
2.4.6	Monitor cash outflow on a regular basis					
2.4.7	Comparisons of actual and budgeted amounts regularly undertaken					

SECTION 3: Technological adoption influences cash policies and performance of Catholic higher learning institutions performance in Kenya.

3.1 Would you say that technological adoption determines the amount of cash to hold (both petty cash and cash at bank which can be withdrawn at will) at any one particular time?

Yes No

3.2 Would you say the mode of technological mode of payment such as mobile payment, electronic card payment influence money demand in your university?

Yes No

3.3 Kindly indicate the range to which you agree with the following statements regarding technological adoption and cash policies in your university

Cash Policy	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
3.3.1 Ensures security of university funds					
3.3.2 Financial controls adopted properly followed					
3.3.3 Ensures proper cash management					
3.3.4 Enables tracking of funds					
3.3.5 Financial documentation kept in a secure location					

SECTION 4: Effect of accounting practice on financial performance

4.1 Does your university keep accounting records?

Yes No

4.2 Does your university use technology e.g., computer-based accounting to undertake the following accounting activities?

Keeping track of cash receipts	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Keeping track of cash payments	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Keeping proper books of accounts	Yes <input type="checkbox"/>	No <input type="checkbox"/>

4.3 Kindly indicate the range to which you agree with the following statements concerning your university

	Accounting Practices	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
4.3.1	keep records of all cash payment on all daily basis					
4.3.2	Helps keep track of business transactions					
4.3.2	keep records of all cash receipts on daily basis					

4.3.3	Prepare bank reconciliation statement monthly					
4.3.4	Prepare income and expenditure account for the university					
4.3.5	Prepare statement of financial position at the end of accounting period					

University Performance

5.1 Kindly indicate the range to which you agree with the following statements concerning your university.

	University Size	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
5.1.1	The university enrolment has increased over the last two years					
5.1.2	The university continues to open more new campuses					
5.1.3	The university a strong asset base that increase every financial year					

SECTION 6: Financial Performance

6.1 Kindly indicate the range to which you agree with the following statements concerning your university.

	Financial Performance	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
6.1.1	Financial statements audit by independent auditor are satisfactory.					
6.1.2	The institution has diversity of revenue.					
6.1.3	The liquidity/current ratio of the institution enables meeting debts as and when they fall due.					
6.1.4	University has not experienced cash deficit in the past two years.					
6.1.5	Borrowings to equity ratio are at low risk.					

Appendix 4: Introduction Letter from Strathmore University

C/O Sangale Rd, Madaraka Estate,
P.O. Box 59857 00200, Nairobi, Kenya,
Cell: +254 703 414/6/7, Twitter: @S5SKenya
Email: info@sbs.ac.ke or visit www.sbs.strathmore.edu



20th January 2023

To Whom It May Concern.

Dear Sir/ Madam.

RE: FACILITATION OF RESEARCH – HELLEN ANYANGO OLUOCH

This is to introduce Hellen Oluoch who is a Master of Business Administration student at Strathmore University Business School, admission number MBA/138603/21. As part of our MBA Program, Hellen is expected to do applied research and undertake a project. This is in partial fulfilment of the requirements of the MBA course. To this effect, she would like to request for appropriate data from your organization.

Hellen is undertaking a research paper on “**Technological Adoption in Financial Management Practices and Financial Performance in Catholic Higher Educational Institutions in Nairobi, Kenya.**” The information obtained from your organization shall be treated confidentially and shall be used for academic purposes only.

Our MBA seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to industry. We would be glad to share our findings with you after the research, and we trust that you will find them of great interest and of practical value to your organization.

We appreciate your support and shall be willing to provide any further information if required.

Yours sincerely,

A handwritten signature in black ink, appearing to be "Njoki Kiagiri".

Njoki Kiagiri.
Manager – Graduate Programmes



APPENDIX 5: Ethical Review Clearance



23rd February 2023

Ms Oluoch Hellen Anyango,
hellen.oluoch@strathmore.edu

Dear Ms Oluoch,

RE: Technological Adoption in Financial Management Practices and Financial Performance in Catholic Higher Educational Institutions in Nairobi, Kenya

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU- master's** research proposal. Your application reference number is **SU-ISERC1557/23**. The approval period is from **23rd February 2023 to 22nd February 2024**.

This approval is subject to compliance with the following requirements:

- i. Only approved documents including (informed consents, study instruments, and MTA) will be used
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 48 hours of notification
- iv. Any changes, anticipated or otherwise, that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 48 hours
- v. Clearance for the export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke/> and obtain other clearances needed.


Yours sincerely,

for: **Dr Ben Ngoye,**
Secretary; SU-ISERC

Cc: Mr Ambrose Rachier,
Chairperson; SU-ISERC




APPENDIX 6: Research Permit from NACOSTI


REPUBLIC OF KENYA

Ref No: 359364

RESEARCH LICENSE




This is to Certify that Ms. HELLEN ANYANGO OLUOCH of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: TECHNOLOGICAL ADOPTION IN FINANCIAL MANAGEMENT PRACTICES AND FINANCIAL PERFORMANCE IN CATHOLIC HIGHER EDUCATIONAL INSTITUTIONS IN NAIROBI, KENYA for the period ending : 02/March/2024.


License No: NACOSTI/P/23/24111

359364

Applicant Identification Number


Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code



NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

APPENDIX 7: Consent Form

PARTICIPANT INFORMATION AND CONSENT FORM

Technological Adoption in Financial Management Practices and Financial Performance in Catholic Higher Educational Institutions in Nairobi, Kenya

SECTION 1: INFORMATION SHEET

Investigator: Hellen Oluoch

Institutional affiliation: Strathmore Business School (SBS)

SECTION 2: INFORMATION SHEET–THE STUDY

2.1: Why is this study being carried out?

To examine the impact of technological adoption in financial management practices and performance in the Catholic HEIs in Nairobi, Kenya

2.2: Do I have to take part?

No. Taking part in this study is entirely optional and the decision rests only with you. If you decide to take part, you will be asked to complete a questionnaire to get information on technological adoption in financial management practices and performance in the HEIs.

If you are not able to answer all the questions successfully the first time, you may be asked to sit through another informational session after which you may be asked to answer the questions a second time. You are free to decline to take part in this study at any time without giving any reasons.

2.3: Who is eligible to take part in this study?

One who has Knowledge of the technical aspect of the research and are stakeholders with the HEIs such as the management, accountants, lecturers, administrators, and other staff members.

Note: Kindly note the template below is for guidance purposes only, it can be adapted with revisions to it, or a researcher can opt to have a different kind of Informed consent form template so long as it adheres to the elements stated. The format of how it should appear is entirely upon the researcher

APPENDIX 8: Work Schedule

	APRIL- 2022- NOV	NOV- 2022	FEB- 2023	MARCH 2023	APRIL 2023	MAY 2023
Writing Proposal						
Proposal Defence						
Data Collection						
Data Analysis						
Report Writing						
Draft Report						
Final Report						
Submission						