CASH MANAGEMENT PRACTICES AND FINANCIAL SUSTAINABILITY OF PRIVATE UNIVERSITIES IN KENYA

BY

IBEGBU EMMANUEL CHINONYE

REG NO: 1048845

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DECLARATION

I declare that this research project is my own work and has not been presented to any other university for the award of any degree

Name: Ibegbu Emmanuel Chinonye

Registration Number: 1048845



Signature .....

Date: 01/10/2025

SUPERVISORS

This project has been submitted for examination with our approval as university supervisors

First supervisor:

Dr. Osoro Cliff

Signature.....

Date: 01/10/2025

Second supervisor:

Dr. Henry Mburu

Signature.....

Date: 2/10/2025

ABSTRACT

Universities play a critical role in sustaining human development by instilling knowledge, skills, and promotion of talents, which contribute significantly to economic development. Nevertheless, financial challenges have been one of the major problems among the universities, making them unable to meet their financial obligations when they fall due. Private universities in Kenya have adopted cash management strategies such as tracking cash receipts and payment and meeting the cash disbursement, cash collection, and cash holding to overcome their financial distress. Despite the employment of such strategies, private universities in Kenya are still financially unsustainable, as most of them reported deficits in their income statements. Therefore, the purpose of the study was to establish the influence of cash management practices on financial sustainability in private universities in Kenya. The study was guided by four objectives: to establish the influence of cash budgeting practices, cash flow forecasting, cash control measures, and surplus cash management on the financial sustainability of private universities in Kenya. The study was anchored on economic sustainability theory (EST), the Baumol cash management model, agency theory, and modern portfolio theory. Explanatory research design was used in the study. Primary data were collected from 34 private universities in Kenya using the census method. Data was analyzed using inferential statistics, specifically correlation and multiple regression using SPSS version 25. The result of the analysis revealed that the cash management practices examined have a positive correlation with financial sustainability except for the cash budgeting practice, which exhibited a negative correlation. Meanwhile, the regression result indicated that the overall model is statistically significant, meaning that the independent variables put together explained the change in financial sustainability. However, cash budgeting practices revealed a statistically significant negative effect, while cash control measures display a low and statistically insignificant beta value. These findings underscored the imperative for private universities in Kenya to examine the implementation of cash budgeting practices in relation to financial sustainability. Furthermore, administrators of private universities in Kenya should prioritize strengthening cash budgeting practices, cash flow forecasting, cash control measures, and surplus cash management, given their correlated relationship with financial sustainability. By doing so, private universities in Kenya can possibly enhance their financial sustainability.

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ABBREVIATIONS AND ACRONYMS

CAUBO:	Canadian Association of University Business Officers
CBP:	Cash budgeting practices
CCM:	Cash control measures
CEO:	Chief Executive Officer
CFF:	Cash flow forecasting
DT-SACCO:	Deposit-Taking Savings and Credit Cooperative Organizations
EST:	Economic Sustainability Theory
FS:	Financial sustainability
HEI:	Higher Education Institutions
KAPU:	Kenya Association of Private Universities
LIA:	Letter of Interim Authority
MEB:	Malaysia Education Blueprint
MFI:	Microfinance Institutions
MMR:	Mixed Methods Research
MPT:	Modern Portfolio Theory
MR:	Multiple Regression
NACOSTI:	National Commission for Science, Technology, and Innovation

NCES:	National Center for Education Statistics
NUC:	National Universities Commission
NBER:	The National Bureau of Economic Research
NGO:	Non-Governmental Organization
SMEs:	Small and Medium-sized Enterprises
SPSS:	Statistical Package for the Social Sciences
SCM:	Surplus cash management
TMP:	Treasury Management Practices

OPERATIONAL DEFINITION OF TERMS

Budgeting Practices: Financial tools used to estimate cash flow

Cash Holdings: The amount of cash a firm keeps for day-day expenses and eventualities

Cash Internal Control: Activities, procedures put in place to regulate the outflow of cash

Cash Management Practice: Any strategy employed to optimize the use of cash.

Financial Sustainability: The ability of a firm or business to generate revenue that covers its present financial obligations and foreseeable future financial obligations

Private University: A university that is owned and managed by a person or a group of people without the government financial support

Solvency: Solvency refers to the private university's ability to meet its long-term financial obligations and continue operating in the foreseeable future.

Sustainable Growth: Sustainable growth is the rate at which a private university can expand its operations and revenue without running into financial difficulties or exhausting its resources

Revenue Diversification: Revenue diversification refers to the strategy of generating income from multiple sources rather than relying on a single or limited revenue stream.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Over time, cash has been a focus and interest of every business. The focus and interest stem from the fact that all business decisions and activities revolve around cash (Udoh, 2022). In addition, cash plays a central role in enabling transactions across all businesses, serving as an indispensable resource that is crucial for sustaining business activities. Furthermore, the essential necessity of cash extends to profit-oriented enterprises and non-profit organizations alike, underscoring its significance as a store of value and a vital component of financial management in diverse business contexts (Chodorow-Reich, Gopinath, Mishra & Narayanan, 2020). Notwithstanding the position of cash in businesses, it remains a scarce financial resource in relation to the extensive goals organizations aspire to achieve (DeAngelo, Gonçalves & Stulz, 2022). Therefore, effective cash management practices are essential for businesses to maintain their financial sustainability (Rompotis, 2024).

Cash management, a vital aspect of financial management (Rompotis, 2024), is crucial for organizations globally, including in Africa, to ensure sustainability and growth. Effective cash management aids businesses in surviving financially (Rompotis, 2024) and is a spur for business growth (Essien & Umo, 2023). Cash management has evolved in response to dynamic economic landscapes, often catalyzed by problems such as the global financial crisis and the recent COVID-19 pandemic (World Bank, 2020). According to Mwangi (2019), in such times, organizations, including universities, prioritize effective cash management practices for survival. According to Rompotis (2024), effective management of funds aids businesses in surviving financially.

Similarly, Osazefua-Imhanzenobe (2020) and Olugbenga (2023) posit that cash management practices directly affect an organization's solvency, investment, and capability to navigate financial uncertainties, making it crucial for financial sustainability. This principle also applies to educational institutions, where proper financial management prevents financial mismanagement, facilitates meeting set goals, and achieves sustainability (Machado, Matos, & de Mesquita, 2022).

Globally, universities are facing financial challenges. Australian universities, for instance, reported significant deficits due to declining government funding, increasing regulatory costs, and changing student demographics (Australian Universities Accord, 2020). In Canada, universities are experiencing financial pressures due to declining government funding and increasing operating expenses, with many institutions reporting deficits (CAUBO, 2020). In the United States, private non-profit universities experienced a decline in their financial strength, indicating that they must implement robust cash management strategies (NCES, 2020). Private universities in the US face increasing financial pressures due to rising operational expenses, declining enrollment, and reduced funding (Ahmad, Ismail & Siraj, 2019). The decline in financial strength of private non-profit universities in the USA demonstrates the value of effective financial management practices (NCES, 2020). Furthermore, rising operational costs, including personnel and facilities expenses, have significantly contributed to financial pressures on private universities (Kim & Ma, 2020). Declining enrollment and reduced funding have also led to financial instability in many private institutions (Hussar & Bailey, 2019). Effective cash management practices can help mitigate these financial challenges and ensure long-term sustainability (Kezar & Maxey, 2020).

In the UK, the education sector grapples with financial sustainability challenges, with 71% of universities concerned about their financial sustainability and 40% forecasting deficits due to

reduced funding and increased competition (Universities UK, 2022; UUK & PwC, 2020). UK universities are subsidizing undergraduate teaching by £2,500 per student annually, with this amount expected to double by 2029/30 (Universities UK, 2022). The significant contribution of the education sector to the UK's GDP (£71 billion) and the large number of students (2.9 million) and providers (285) indicate the value of addressing these financial sustainability challenges (UUK & PwC, 2020). Effective cash management practices are crucial for universities worldwide to navigate these financial challenges and ensure sustainability.

In the African context, effective cash management practices are vital for organizations, including universities, to navigate unique financial challenges, such as limited access to international financial institutions and liquidity crises (African Development Bank, 2022). Private universities in Africa face significant financial sustainability challenges, with approximately 60% of private higher education institutions in Sub-Saharan Africa struggling to stay afloat (World Bank, 2020). In Nigeria, for instance, private universities face unique financial challenges, including limited government funding, high inflation rates, and currency fluctuations (Evans & Acosta, 2021). The National Universities Commission (NUC) noted that private universities in Nigeria struggle with financial sustainability due to inadequate funding and poor financial management (NUC, 2019). About 65% of private universities in Nigeria face financial sustainability challenges, with many institutions relying heavily on tuition fees (NUC, 2022).

Similarly, in Kenya, about 60% of private universities experience financial difficulties, with many operating at a deficit (CUE, 2021). The Commission for University Education (CUE) noted that inadequate finances, poor financial management, and limited government support exacerbate the problems. Private universities in Kenya face financial challenges due to increasing competition,

rising operational costs, and limited government support (Muthoni, 2023). Effective cash management practices, such as cash budgeting, cash flow forecasting, prudent financial planning, cash reserves management, and strategic investments, are essential for financial sustainability (Adegoke, 2020; Owuor, 2020). By adopting these practices, private universities in Africa can ensure financial sustainability and achieve their goals. Private universities in Kenya need to improve their financial management practices to ensure long-term sustainability (CUE, 2020).

1.1.1 Financial Sustainability

Financial sustainability is a rapidly growing concept among organizations in the world, defined as the ability of an organization to manage its financial obligations through self-generated cash flow, expand its own capital, and consistently serve its target customers (Tehulu, 2022). In educational institutions it is about maintaining long-term financial health, ensuring the continued fulfillment of teaching and research objectives while avoiding excessive debt (Ahmad, Ismail, & Siraj, 2019). Specifically, for universities, financial sustainability involves securing sufficient income to support ongoing investment in future academic and research initiatives, which is achievable through income diversification depending on the operational conditions and contextual factors that influence the university's environment. Nalwoga (2021). Financial sustainability of universities becomes imperative since there is a worldwide decline in financial aid, as noted by the World Bank (2019). Meanwhile, organizations with financial sustainability effectively meet their expenses independently over time (Kakati & Roy, 2021). Additionally, the continuation of the organization’s operation, mission accomplishment, and long-term success depend on its financial sustainability (Lee, Han & Lee, 2023). However, the financial sustainability of organizations around the world,

especially the private ones that get no support from anywhere other than their generated income, has been a concern for the owners (Nalwoga, 2021).

1.1.2 Financial Sustainability of Private Universities in Kenya

Kenya's education sector is regarded as a leader in East Africa, characterized by high standards and quality education that attracts students globally. The Commission for University Education (CUE) reports a steady influx of international students in Kenyan universities. According to UNESCO (2022), Kenya's education system ranked 95th globally and 7th in Africa, with approximately 17.58% of the national budget allocated to education. Despite this, Kenyan universities face financial challenges, with CUE noting in 2020 that these institutions experience financial deficits and require new sustainability strategies to overcome current hurdles and ensure long-term viability (CUE, 2020). The financial decline in universities has been attributed to various factors, including decline in student enrollment, inadequate government support, poor financial management strategies, reduced credit ratings, and liquidity crises (Kariuki, 2018; Lee, Han, & Lee, 2023).

Financial sustainability in universities involves generating sufficient revenue, allocating resources effectively, and balancing income and expenses while meeting institutional objectives (Maina, Kiai, & Kyalo, 2020) and maintaining teaching and research goals without accumulating debt (Shahani, Karamat, Omer, & Patoli, 2022). However, private universities in Kenya struggle to balance cash inflows and outflows, resulting in persistent deficits in their financial statements (CUE, 2021). A surplus/deficit analysis of private universities over eight years (2013-2020) provides evidence of this challenge.

Table I: Kenyan Private Universities Budget Surplus/Deficit Analysis from 2013 to 2020

	2013 - 2016	2016/2017	2017/2018	2018/2019	2019/2020
Ksh	**Billions**	**Millions**	**Billions**	**Billions**	**Millions**
Income	57,793.38	66,295.22	34.5	39.5	50,294
Expenditure	60,397.83	73,418.00	16.2	43.3	60,367
Deficit/surplus	(2,604.45)	(7,122.78)	18.4	(3.8)	(10.073)

Source: https://www.cue.or.ke

The financial sustainability of private universities in Kenya is a pressing concern, as evident from the budget surplus/deficit analysis from 2013 to 2020. The data reveals significant deficits in most years, with notable losses in 2013 (Ksh 2.604 billion) and 2016 (Ksh 7.123 billion). The deficit continued in 2019/2020, with a shortfall of Ksh 10.073 billion. This trend suggests that private universities in Kenya face substantial financial challenges that have been attributed to inadequate funding, poor financial management, limited resource mobilization capabilities, and over-reliance on tuition fees that accounted for approximately 77% of their total budget.

They become vulnerable to fluctuations in student enrollment due to their heavy reliance on a single revenue stream (Denis & Theuri, 2019). Furthermore, the contribution of donations and research grants to the total budget is relatively small, underscoring the necessity of diversifying revenue streams (CUE, 2021). The financial sustainability challenges can be mitigated by adopting strategic financial management practices through the development of robust strategic plans, revenue stream diversification, implementation of appropriate financial management practices, and enhanced resource mobilization as supported by empirical evidence from private universities in other parts of the world (Udoh, 2022).

1.2 Statement of the Problem

The financial sustainability of private universities in Kenya is a pressing concern, with many institutions struggling to balance their cash inflows and outflows, resulting in consistent deficits in their financial statements (CUE, 2019; CUE, 2020). The Kenya Association of Private Universities (KAPU) and Commission for University Education (CUE) have recently highlighted the rate of financial strain among private universities in Kenya, which is adversely affecting their operational efficacy and long-term sustainability (Kinyanjui, 2025). Notably, private universities in Kenya operated with significant deficits from 2013 to 2020, with total deficits amounting to Ksh 2.604 billion in 2013, Ksh 7.123 billion in 2016, Ksh 3.8 billion in 2018–2019, and Ksh 10.073 billion in 2019/2020 (CUE, 2021). These deficits are alarming, considering that private universities in Kenya heavily rely on tuition fees, which account for nearly 77% of their total budget (CUE, 2021).

Furthermore, Kenyan universities are grappling with meeting essential operational expenditures, including remuneration of staff, utility payments, and statutory remittances such as income tax and pension contributions (Munene, 2019). The financial strain and revenue decline have been attributed to several factors, including the accumulation of unpaid government sponsorship funds for students approximating Sh50 billion (Kinyanjui, 2025), inadequate financial management practices (CUE, 2019), declining student enrollment, overreliance on tuition fees, and increasing competition among universities for the limited pool of students and resources (Ruth et al., 2020). To ensure the long-term viability of private universities in Kenya, these challenges highlight the need for effective financial management practices.

While prior studies have written on cash management practices, they concentrated on financial performance in universities (Denis & Theuri, 2019; Kithinji et al., 2023). The cash management

practices studied were different from the practices the current study considered (cash budgeting practices, cash flow forecasting, cash control measures, and surplus cash management). Therefore, there remains a notable gap in understanding the specific relationship between cash management practices and financial sustainability in private universities in Kenya. This study aims to fill this gap by investigating the influence of cash management practices on the financial sustainability of private universities in Kenya.

1.3 Research Objectives

1.3.1 General Objective

The main objective of this research was to ascertain how cash management practices influence the financial sustainability of private universities in Kenya.

1.3.2 Specific Objectives

The specific objectives for the study were:

(1) To establish the influence of cash budgeting practices on the financial sustainability of private universities in Kenya.

(2) To establish the influence of cash flow forecasting on financial sustainability of private universities in Kenya.

(3) To establish the influence of cash control measures on the financial sustainability of private universities in Kenya.

(4) To establish the influence of surplus cash management on financial sustainability of private universities in Kenya.

1.4 Research Hypothesis

(1) $H0_1$: Cash budgeting practices have no significant influence on the financial sustainability of private universities in Kenya.

(2) $H0_2$: Cash flow forecasting has no significant influence on the financial sustainability of private universities in Kenya.

(3) $H0_3$: Cash control measures have no significant influence on the financial sustainability of private universities in Kenya.

(4) $H0_4$: Surplus cash management has no significant influence on the financial sustainability of private universities in Kenya.

1.5 Significance of the Study

The study holds significance for the management of private universities and their stakeholders at both local and global levels, aiming to establish the influence of cash management practices on financial sustainability. Anticipated outcomes include providing valuable insights for decision-making processes concerning effective cash management practices among private universities, offering competitive advantages, and optimizing university operations. Furthermore, this research project will contribute to the existing body of knowledge in the field of cash management practices for private universities and financial sustainability, serving as a valuable academic resource and enriching intellectual discourse. The anticipated findings will also provide foundational knowledge for future scholars to conduct further research in this area. Additionally, the research process will serve as a teaching tool, enabling the researcher to deepen understanding of cash management strategies and financial sustainability concepts

1.6 Scope and Delimitation of the Study

This study focused on a specific population of 34 private universities in Kenya that were registered and licensed up to the 2022/2023 academic year (Appendix A) and not the public universities. The research scope was limited to examining the relationship between cash management practices (comprising cash budgeting, cash forecasting, cash control measures, and surplus cash management) and financial sustainability. The rationale for selecting cash management practices as a variable stems from the financial constraints inherent to private universities, which necessitate effective financial resource management practices.

Private universities were selected for this study due to their self-financing nature, which aligns with the concept of financial sustainability. According to Ahmad et al. (2019), financial sustainability entails financing current and future financial obligations using internally generated resources while minimizing debt accumulation. Furthermore, the study's temporal scope spanned five years, a period deemed suitable due to the availability and reliability of data, as well as the study's reliance on primary data collection and not secondary data for the study.

1.7 Limitations of the Study

The study's geographical focus on Kenya may limit the generalizability of the findings to universities in other parts of the world. Accessing chief finance officers of universities proved challenging, but the researcher ensured data collection from their representatives when necessary. Some universities were hesitant to release financial information, but the researcher addressed these limitations by assuring them of confidentiality and privacy.

1.8 Conceptual Framework

The conceptual framework adapted and modified from Denis & Theuri (2019) helped the researcher to put together all the research variables for the study connecting the relationship between cash management practices (cash budgeting practices, cash flow forecasting, cash control measures, and surplus cash management) and financial sustainability (solvency and sustainable growth) of private universities in Kenya.

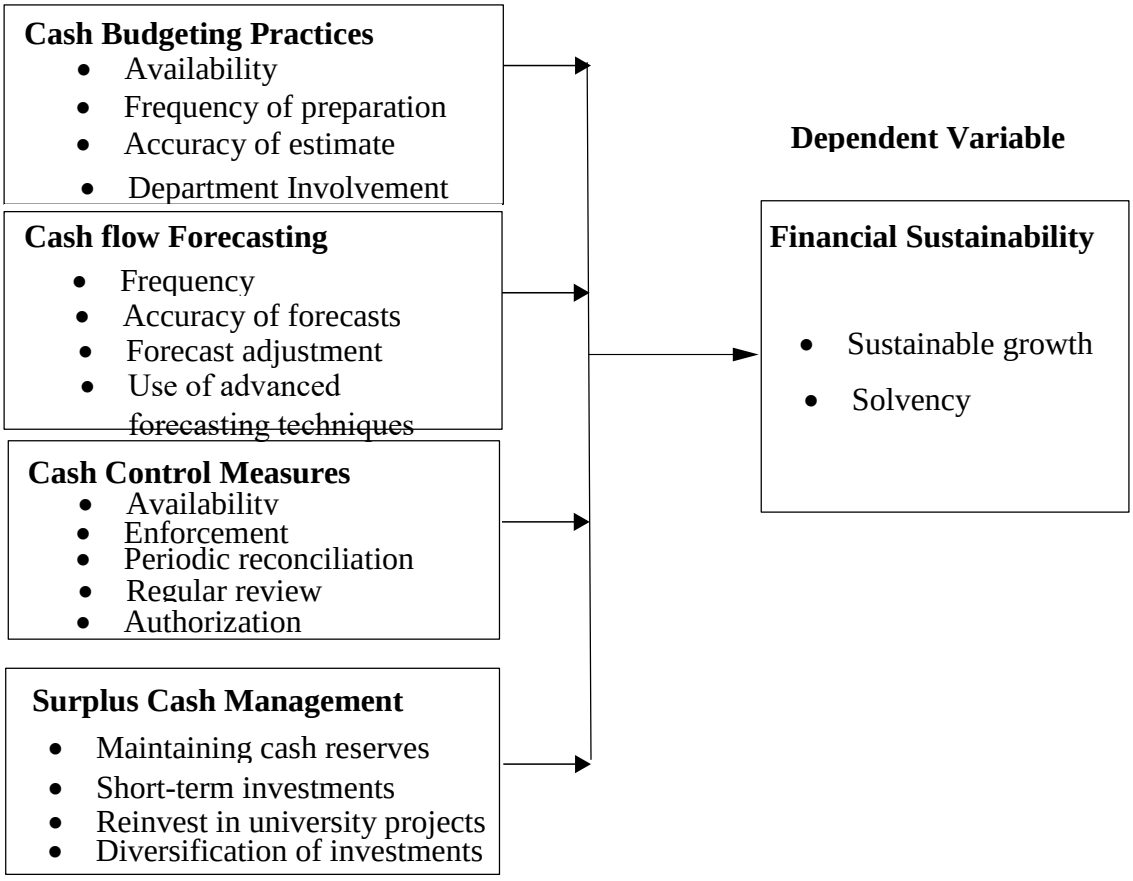

Figure 1 correlation of cash management practices and financial sustainability

The conceptual framework was based on economic sustainability theory by Herman Daly in 1987. The study considered cash management practices (budgeting practices, cash flow forecasting, cash control measures, and surplus cash management) and financial sustainability (sustainable growth and solvency) as independent and dependent variables, respectively. Cash budgeting practices were measured through survey questions on the university's ability to create and adhere to a cash budget, prioritize cash expenditures, and manage cash flows. Again, cash flow forecasting was weighted through survey questions that assessed the university's ability to forecast cash inflows and outflows, identify potential cash flow problems, and develop strategies to mitigate them. Meanwhile, cash

control measures were measured through survey questions that evaluated the university's ability to implement cash control measures, such as cash handling procedures, cash monitoring, and cash reporting. Surplus cash management was measured through survey questions that evaluated the university's ability to manage surplus cash, invest excess funds, and generate returns on investments.

Under sustainable growth the following factors were loaded: student enrollment growth and the existence of a strategic plan prioritizing sustainable growth. Meanwhile, solvency variables like ability to meet short-term financial obligations, sufficiency of liquidity to handle unexpected expenses, level of borrowing to fund operations, debt-to-equity ratio of the private universities, consistency of surplus over time, and soundness of cash position were loaded.

1.9 Operationalization of Study Variables

On the independent variable, effective cash management practices were perceived to be essential for an entity's survival and mission accomplishment (Mohamad & Murugesu, 2020; Mamat Nik & Mohd). The independent variable consisted of cash budgeting practices, cash flow forecasting, cash control measures, and surplus cash management. According to Denis & Theuri (2019), practices like frequent budget preparation, accurate estimation, and involvement of stakeholders in budgeting play a role in the financial performance of organizations. Furthermore, by measuring the availability, accuracy, and influence of revenue forecasting, expense projection, and forecast adjustments, this study demonstrates the significance of cash flow forecasting in planning, resource allocation, decision-making, risk management, and financial stability. Meanwhile, the availability of control measures, their enforcement, periodic review and reconciliation, and authorization of cash before expenditure equip the firm for survival and continuity. Olugbenga, 2023). Yet again,

effective cash control measures are vital for ensuring that organizations manage their cash resources efficiently. Essien & Umo (2023). By evaluating the presence, effects, and contributions of cash control measures, this study highlights their role in maintaining financial stability. Finally, surplus cash management is critical for ensuring that organizations maximize their financial resources. Kiamba (2018). By exploring how surplus funds are managed, this study provides insights into the impact of surplus cash management on the university's financial position.

On the dependent variable (financial sustainability), solvency is a critical aspect of financial sustainability, as it ensures that the organization meets its long-term financial obligations. Mamat, Ahmad & Said (2021). By evaluating whether private universities diversify revenue sources and maintain solvency, this study demonstrated the importance of solvency in achieving financial sustainability in private universities in Kenya. Again, sustainable growth is essential for ensuring that organizations maintain their financial stability over time (Dono, Buttinelli & Cortignani, 2021). By examining whether private universities in Kenya achieve sustainable growth, this study highlighted the significance of sustainable growth in achieving financial sustainability.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section contains theoretical and empirical reviews. The theoretical review considers four theories relevant to the study's objectives. The empirical review focuses solely on literature relevant to cash management practices and financial sustainability. However, private universities function as both non-governmental organizations (NGOs) and small media enterprises (SMEs). Therefore, the study will incorporate relevant literature from studies on NGOs and SMEs. Through literature relevant to the study's aims, the review will identify research gaps for the current study to address.

2.2 Theoretical Framework

This study was grounded in four key theories: Economic Sustainability Theory (EST), Baumol's cash management model, Agency Theory, and Modern Portfolio Theory.

Economic Sustainability Theory (EST), founded by Herman Daly in 1987, prioritizes long-term resource sustainability over short-term growth, emphasizing holistic well-being considerations (World Bank, 2019). Economic Sustainability Theory (EST) provided the foundation for examining the influence of cash budget practices on the financial sustainability of private universities in Kenya.

Baumol's cash management model was employed to understand the influence of cash flow forecasting on the financial sustainability of private universities in Kenya. The Baumol model, proposed by William Baumol in 1952, centers on cash reserves management, giving the firm prospects for investment during market tightness, safeguarding against financial distress,

minimizing costs linked with asset liquidation, and sustaining firm profitability and performance (Orlova & Sun, 2018).

Agency theory was used to explore the influence of cash control measures on financial sustainability. Agency Theory, as formulated by Jensen and Meckling in 1976, addresses conflicts in the principal-agent relationship, emphasizing the necessity of monitoring and controlling mechanisms to enhance organizational sustainability (Ogunmakin, 2020; Adebayo et al., 2023). In the context of private universities, the theory recognizes the vital role of cash control measures in mitigating agency problems and reducing related expenses. It enhances the effectiveness of the principal-agent relationship and fosters sustainability in the institutions. Robust internal control systems also exert a positive influence on the sustainability of a firm (Adebayo et al., 2023).

Modern Portfolio Theory was applied to evaluate the influence of surplus cash management on the financial sustainability of Kenya's private universities. Modern Portfolio Theory (MPT), introduced by Harry Markowitz in 1952, forms the theoretical foundation for managing surplus cash. The theory builds on the concept of diversification, risk, and return, suggesting that investors can optimize portfolios by diversifying across assets to balance risk and return. Applied to surplus cash investment, MPT principles aid in managing liquidity, minimizing risk, and maximizing returns on idle funds (Githaiga, 2022).

2.3 Theoretical Review

This section discusses the relevant theories for the study. The application of the theories and the findings in different fields was assessed to understand the dynamics of the theories.

2.3.1. Economic Sustainability Theory

Economic sustainability theory, conceptualized by Herman Daly in 1987, forms the foundation of economics, advocating for a "steady-state economy" to address resource management, wealth distribution, social welfare, and stable growth. Core practices such as budget forecasting, allocation, control, and analysis are vital for achieving resource sustainability, a key tenet of economic sustainability theory. Hence, this theory will help the researcher to establish the influence of cash budgeting practices on the resource (finance) sustainability of private universities in Kenya.

Applied across various disciplines, including social science, management, and education, economic sustainability theory informs studies examining diverse contexts. For instance, research on Sharia Banks in Indonesia highlights their stability as crucial for nurturing a sustainable, inclusive economy, fostering growth while considering stakeholder welfare and environmental impact (Oktaviana & Miranti, 2024). Similarly, the theory stresses the significance of generating sustainable revenue, prudent expense management, and strategic financial decision-making for the long-term viability and financial sustainability of football clubs, addressing economic challenges in sports, and improving the industry's overall health and well-being (Atghia & Nazarian, 2024). Again, in the Pakistan electric company, the application of economic sustainability theory revealed potential interconnections among technological innovation, energy consumption, and economic (finance) sustainability (Ali, Xiaoying & Khan, 2024).

While Daly's theory gives helpful information about economic sustainability, some critics argue that the steady-state economics framework may be limited by its neoclassical economic roots, which could undermine its effectiveness in addressing environmental concerns (Czech, 2013).

Additionally, the theory's emphasis on reducing growth and consumption may be challenging to implement in practice, particularly in economies heavily reliant on growth (Kerschner, 2010).

The economic sustainability theory can inform research on the influence of cash budgeting practices on resource sustainability in private universities in Kenya. By applying Daly's framework, the researcher examines how effective cash management practices (cash budgeting) contribute to financial sustainability and long-term viability of private universities in Kenya.

2.3.2 Baumol Cash Management Model

Cash flow forecasting is an indispensable component of financial management that provides a strategic roadmap for organizations, including private universities, to ensure financial sustainability (Kithinji et al., 2023). The Baumol cash flow model offers a systematic approach for establishing the optimal cash balance, thereby guiding cash flow forecasting efforts. This model allows institutions to manage cash by balancing the opportunity costs of holding it against the transaction costs of liquidating marketable securities (Rompotis, 2024; Udoh, 2022). In practice, efficient cash flow management involves more than just maintaining optimal cash levels; it also entails forecasting and planning to handle unpredictability (Salas-Molina et al., 2023). Forecasting cash flows enables firms to anticipate future cash requirements, thereby facilitating decision-making processes that align with long-term financial sustainability goals.

To enhance financial resilience, firms must regularly forecast cash flows while acknowledging the inherent uncertainties (Salas-Molina et al., 2023). The forecast becomes a tool in the strategic management arsenal, allowing for preparedness against fluctuations in the business cycle and ensuring the availability of funds for growth and investment opportunities. Cash flow forecasting

anchored in models like Baumol's provides a foundation for informed decision-making. By addressing the model's limitations and incorporating cash flow forecasts into the broader cash management strategy, firms can strengthen their financial sustainability.

In the context of private universities, efficient management of funds is paramount, and cash flow forecasts play a critical role in governance, as they must be verified and audited by internal and external parties. The Baumol model's principles can serve as a reference for financial management in private universities, aiding the preparation and analysis of financial reports (Ahmad et al., 2019). However, the Baumol model comes with limitations. It presumes a predictable and consistent rate of cash utilization, which may not accurately reflect the more dynamic and fluctuating financial environment of private universities. (Kithinji et al., 2023; Salas-Molina et al., 2023; Álvarez & Argente, 2021) Furthermore, the model overlooks cash inflows in its prescribed period and disregards the need for a cash buffer to defend against unexpected expenditures.

Despite these limitations, the application of cash flow forecasting aligns with the strategic management of resources, contributing to the long-term financial sustainability of private universities. Integrated with the forecasting process, the Baumol model can lead to better management decisions. The Baumol model informs cash flow forecasting, facilitating the appropriate distribution of financial resources and bolstering the financial stability of private educational institutions. It prompts private universities to stay resilient and financially sustainable by making well-informed decisions that encompass strategic planning and regular scrutiny of cash flow projections (Kithinji et al., 2023).

The Baumol cash flow model provides a systematic approach to determining optimal cash balances, and guides cash flow forecasting efforts in organizations, including private universities. However,

critics argue that the model has several limitations. Firstly, the model presumes a predictable and consistent rate of cash utilization, which may not accurately reflect the dynamic financial environment of private universities (Kithinji et al., 2023; Salas-Molina et al., 2023; Álvarez & Argente, 2021). Secondly, the model disregards cash inflows in its prescribed period, which can lead to inaccurate cash flow forecasting (The Investors Book). Thirdly, the model neglects the need for a cash buffer to defend against unexpected expenditures, which can expose organizations to financial risks (The Investors Book).

Despite these limitations, the Baumol model can still serve as a reference for financial management in private universities, aiding in the preparation and analysis of financial reports (Ahmad et al., 2019). Cash flow forecasting, informed by the Baumol model, can support proper allocation of financial resources and underpin financial stability.

2.3.3 Agency Theory

Agency theory, formulated by Jensen and Meckling in 1976, comprises four key components: the principal-agent relationship, agency costs, incentive alignment, and information asymmetry. In this theoretical framework, the principal delegates decision-making authority to the agent, potentially resulting in an "agency problem" due to conflicting interests between the two parties. To mitigate this problem, the principal incurs monitoring, bonding, and residual costs. Central to the theory is the alignment of interests between the principal and agent. Additionally, agency theory posits that information asymmetry may arise, with the agent possessing more information than the principal, leading to conflicts of interest. Following the principles of agency theory, this study anticipates that cash control measures act as monitoring tools, mitigating agency costs and thereby enhancing the financial sustainability of organizations (Nawawi & Salin, 2018; Kabuye, Kato, Akugizibwe &

Bugambiro, 2019; Adebayo, Ayeni-Agbaje, Taiwo, & Fakiyesi, 2023), such as private universities in Kenya. Concurrently, in line with agency theory, internal audit is regarded as an essential internal monitoring mechanism within an organization's corporate governance framework (Johl, Johl, Subramaniam & Cooper, 2013).

Scholars across various fields have applied agency theory. Lee et al. (2023) used agency theory as a framework to understand the financial sustainability of Malaysian state-owned enterprises. Again, it helped Ahmad, Ting, Tebourbi, and Kweh (2022) to explore the relationship between family control and financial sustainability in Malaysian publicly listed firms. Agyemang and Modisane (2023) used agency theory to examine the attributes of internal auditors in the Ghanaian public sector and their influence on financial sustainability. Also, Adebayo et al. (2023) studied internal control measures in Nigerian SMEs and their relation to sustainability using agency theory. Ramakrishnan, Raza, Hassan Gillani, and Ahmad (2020) conducted a literature review on financial sustainability, stock prices, shareholders' wealth, firm value, and corporate sustainability, stating the broad application of the agency theory. Moreover, people view agency theory as crucial in elucidating the existence and daily tasks of internal auditors. Furthermore, it serves as a valuable framework for structuring further research in the field (Ismael & Roberts, 2018).

These studies demonstrate the importance of agency theory in the sustainability of organizations. The studies established varied findings regarding the relationship between certain factors and the sustainability of organizations. For instance, audit committee meetings, the independence of internal auditors, and the size of the internal audit function influence the financial sustainability of organizations (Agyemang & Modisane, 2023). In contrast, the competence of internal auditors did not exhibit such an influence, but control environment, risk assessment, and monitoring positively

affected the sustainability of small-scale enterprises (Adebayo et al., 2023). However, control activities, information, and communication have minimal effects, but a non-linear U-shaped relationship exists between family control and the financial sustainability of the firms (Ahmad et al., 2022).

Agency theory prioritizes the interests of shareholders and managers, overlooking other stakeholders, such as employees, suppliers, and the community, which can lead to conflicts of interest and negatively impact corporate governance (Akugizibwe & Bugambiro, 2019). The theory assumes that agents have more information than principals, but this can also work both ways, and principals may have access to information that agents do not (Adebayo et al. 2023). According to Adebayo et al. 2023, the assumption that agents maximize their utility is difficult to measure and prove. Agency theory's focus on aligning executive compensation with shareholder value can lead to prioritizing short-term profits over long-term sustainability (Ismael & Roberts, 2018). The theory may not be effective in all contexts, particularly in family-owned businesses or emerging markets where governance structures and relationships differ significantly (Yusof, 2016).

2.3.4 Modern Portfolio Theory

Surplus cash management of nonprofit organizations like private universities in Kenya deals with investment in diversified assets. Meanwhile, it was noted that the concept of revenue diversification (RD) stems from Markowitz's modern portfolio theory, which suggests that firms can enhance financial sustainability and reduce earnings volatility by diversifying their income streams (Githaiga, 2022). Surplus cash investment and sustainability represent critical considerations for organizations aiming to optimize their financial resources and ensure long-term viability. Modern

portfolio theory, founded by Markowitz, provides an important framework for guiding investment decisions and risk consciousness (Subathra & Mohideen, 2017).

Modern portfolio theory (MPT) hedges on three concepts—diversification, risk and return, and surplus cash management—and shares a common principle: diversification. Surplus cash management can benefit from diversifying cash deployment, just as MPT advocates for diversifying across asset classes to achieve an optimal risk-return balance. This approach enhances liquidity, mitigates risk, and maximizes returns by spreading cash across various investment opportunities, short-term instruments, debt repayments, or strategic acquisitions. Furthermore, a vital aspect of surplus cash investment involves balancing liquidity requirements with the objective of generating sustainable returns. By incorporating principles from the modern portfolio theory, organizations can construct portfolios aimed at preserving capital and achieving growth over time (Subathra & Mohideen, 2017). This strategy aligns with sustainability, facilitating the efficient allocation of resources to support both the current and future needs of an organization.

In the context of surplus cash investment, the continual monitoring and adjustment of portfolio allocations are crucial to adapt to changing market conditions and organizational priorities. Modern portfolio theory provides a dynamic framework that empowers decision-makers to optimize their investment strategies in line with evolving sustainability goals and financial constraints (Subathra & Mohideen, 2017). Key MPT components relevant to surplus cash investment include the risk-return trade-off, diversification, the efficient frontier, and asset allocation. Organizations must balance generating higher returns with managing risks. Diversifying surplus cash investments across asset classes reduces portfolio risk and enhances liquidity. The efficient frontier guides MFIs in identifying the optimal portfolio allocation for maximizing returns within their risk tolerance.

Strategic asset allocation allows MFIs to allocate surplus cash to a mix of low-risk and higher-yield investments. By applying MPT principles, organizations can enhance financial sustainability, optimize returns on idle funds, and mitigate liquidity risks, aligning with the goal of achieving long-term financial stability (Githaiga, 2022).

MPT assumes investors are rational and risk-averse, which may not always be the case (Kahneman & Tversky, 1979). Behavioral finance suggests investors are often driven by emotions and biases. Again, MPT uses historical data to estimate expected returns and risk, which may not accurately predict future outcomes (Fama & French, 2004). MPT assumes normal distribution of returns, which doesn't account for extreme events or "black swans" that can significantly impact portfolios (Taleb, 2007). MPT focuses on quantitative metrics, overlooking qualitative factors like geopolitical events, management quality, or industry trends (Amenc & Le Sourd, 2003). MPT emphasizes diversification, but correlations between assets can increase during market stress, reducing diversification benefits (Longin & Solnik, 2001).

Despite these limitations, MPT can still inform strategies for managing surplus cash in private universities. By applying MPT principles, organizations can spread cash across various investment opportunities, short-term instruments, debt repayments, or strategic acquisitions to enhance liquidity and mitigate risk (Subathra & Mohideen, 2017). Furthermore, organizations can balance liquidity requirements with the objective of generating sustainable returns, aligning with long-term financial sustainability goals (Githaiga, 2022). Organizations can continually monitor and adjust portfolio allocations to adapt to changing market conditions and organizational priorities (Markowitz, 1952).

2.4 Empirical Review

2.3.1 Financial Sustainability

Studies have interpreted financial sustainability in diverse ways. For instance, Maina, Kiai, and Kyalo (2020) viewed it as the organization's ability to maintain operations, cover expenses, and achieve objectives over time. It involves upholding continuity, financial health, and viability, ensuring prolonged existence and goal fulfillment. The financial sustainability of a firm is the capacity of the firm to maintain resources both in the present and for future endeavors (Ahmad et al. 2022). Additionally, it deals with effective resource management, long-term financial planning, and the ability to adapt to market dynamics (Lee et al., 2023; Hamid, Hashim & Nassir, 2023).

Furthermore, an organization needs certain internal components to achieve financial sustainability. The components include cost reduction, revenue diversification, and risk management (Ahmad et al., 2019), and robust financial controls and reporting mechanisms (Dono, Buttinelli & Cortignani, 2021). These components enable organizations to monitor their financial health, identify areas for improvement, and make informed decisions. Similarly, liquidity and solvency (Lee et al., 2023), effective financial management, adoption of sustainable business practices, risk mitigation, and a focus on long-term viability (Hamid et al., 2023) play a significant role in ensuring financial sustainability in an organization. Equally, key financial indicators such as net profit, cash flow, revenue growth, and the ability to cover expenses are measures to reach financial sustainability in general (Caccialanza, 2024). However, achieving financial sustainability in an entity like a university involves maintaining consistent profitability, sustaining growth, and managing financial risks (Osazefua-Imhanzenobe, 2020).

2.3.2 Financial Sustainability and University Institutions

Lately, university institutions worldwide, like other nonprofit organizations, have been compelled to internally generate funds to finance their operations, thereby reducing dependence on external financing (financial sustainability). For instance, Malaysian universities felt forced to make significant changes and pursue financial sustainability in 2015, despite the government introducing the corporatization of universities as early as 1998. This shift towards financial sustainability was driven by substantial budget cuts and the introduction of the Malaysia Education Blueprint (MEB) (Mamat et al., 2021). Similarly, in the Philippines, private universities were found to struggle with financial stability, viability, and sustainability.According to Alvarez (2023), challenges including high operational costs, scarce financial resources, regulatory compliance requirements, poor budgeting and planning processes, ineffective debt management, limited access to credit and funding options, economic uncertainties, poor cash flow forecasting and monitoring, poor cash management practices awareness, and inexpert revenue collection and management have negatively impacted cash flow and liquidity management, resulting in sustainability issues in private HEIs in District IV of Laguna in the Philippines. In a practical situation in Australian public universities, financial sustainability is measured by administration intensity. The situation revealed that financial sustainability tends to increase when the administration of the universities is not intensified, implying a significantly negative association (Tran, Dollery & Fellows, 2024).

In the context of Uganda, private universities experienced high deficits over expenditure, implying that resources are lost to operation, an action that can lead the institutions to bankruptcy with time (Nalwoga, 2021). Ugandan universities are predominantly reliant on tuition fees, a dependency that poses substantial risks during challenging periods, such as the COVID-19 pandemic. This is when

the inability to conduct classes resulted in a lack of fee income. A situation thereby impeding the universities' capacity to fulfill their financial obligations.

In the Kenyan higher education institutions, particularly universities, financial sustainability is a significant concern. According to a World Bank (2019) report, the Kenyan government aims to ensure the financial sustainability of the higher education system while simultaneously improving equity within the sector. The report suggests that adopting a targeted free tuition (TFT) scheme, similar to those in Chile and South Africa, where the poorest students who make the grade for higher education would not pay tuition, would support the financial sustainability of Kenyan universities. Meanwhile, Kenyan public universities' financial sustainability was tied to the financial accountability of their outpost campuses. Additionally, the financial accountability of these campuses contributes more to the financial sustainability of public universities in Kenya when there is effective leadership and management (Musiega, Rading & Oruko, 2021).

2.3.3 Cash Budgeting Practices and Financial Sustainability

Cash budgeting practices are integral components of financial management. They facilitate the prediction of an organization's cash inflows and outflows. These practices play a crucial role in maintaining sufficient liquidity, enabling organizations to capitalize on investment opportunities and fulfill financial obligations (Udoh, 2022). Specifically, cash budgeting practices involve designed procedures aimed at estimating anticipated cash receipts and disbursements, effectively managing a business's cash flow operations (Mungai & Mungai, 2020).

A detailed cash budgeting process, comprising draft formulation, approval, execution, and oversight stages, enhances resource adequacy. Cash budgeting integrates working capital

management objectives, including efficiency, profitability, liquidity, and sustainability (Udoh, 2022). Effective cash budgeting practices enhance financial performance and sustainability across sectors (Mamat et al., 2021; Munene, 2019). Indeed, cash budgeting practices ensure educational institutions' mission and their viability (Osazefua-Imhanzenobe, 2020).

Across industries, researchers have explored the association between numerous concepts related to cash budgeting and financial sustainability. Research has identified correlations between financial sustainability and credit management practices (Maina et al., 2020) and treasury management practices (Olugbenga, 2023). Additionally, studies have examined the impact of managers' financial practices, including cost control, energy cost management, asset acquisition and maintenance, and employee training and motivation, on financial sustainability (Osazefua-Imhanzenobe, 2020). Furthermore, investigations have addressed the relationship between financial sustainability and administrative costs (Park & Matkin, 2020) and risk management practices (Mutamimah et al., 2022). Other studies have explored connections between financial sustainability and variables such as share price (Ramakrishnan et al., 2020), capital structure decisions (Mohamad & Murugesu, 2020), and budget transparency (Cuadrado-Ballesteros & Bisogno, 2022). These studies jointly highlight the link between financial sustainability and various firm financial management practices.

The available literature indicates that financial sustainability demonstrates diverse relationships with various organizational factors across industries. Implicitly, factors influencing financial sustainability vary across industries. In financial institutions like deposit-taking savings and credit cooperative organizations (DT-SACCOs), financial sustainability hinges on factors such as effective credit management practices, staff competence, SACCO size, and financial self-sufficiency (Maina et al., 2020). Conversely, within the banking sector, financial sustainability is

associated with sound practices encompassing capital structure, risk management, financial literacy, product diversification, fund utilization, corporate governance, economic diversification, and debt structure (Kiptum, 2023). These findings emphasize the subtle nature of financial sustainability and the need for tailored approaches in various industries.

Effective cash budgeting practices empower organizations to make informed financial decisions, prioritize expenditures, and allocate resources efficiently, contributing to financial sustainability (Mohamad & Murugesu, 2020). For instance, in South Africa, effective cash budgeting enabled SMEs to strategically allocate and preserve financial resources (Matsoso, Nyathi & Nakpodia, 2021). Additionally, cash budgeting enhanced operational efficiency in universities in Malaysia and Nigeria (Mamat et al., 2021). Budgeting ensured profitability, financial stability, and ongoing performance (Aleksandrov, Bourmistrov & Grossi, 2020), essential for achieving sustainability in Russian municipalities. Subsequent insights will explore the link between financial sustainability and practices in cash budgeting and related concepts.

Cash budgeting practices, including preparation, forecasting, budget control, and variance analysis, are essential tools for organizations striving for financial performance and sustainability (Glover & Levačić, 2020). Budgeting preparation aligns financial resources with organizational goals, sustains financial control, and aids decision-making processes in government and microfinance institutions (Bartocci, Grossi, Mauro & Ebdon, 2023; Tehulu, 2022). Similarly, in housing construction firms, cash budgeting optimizes resource allocation, enhances operational efficiency, and fosters sustainable growth and competitive advantage (Sureka, Kumar, Mukherjee & Theodoraki, 2023).

Participatory budgeting, a practice involving stakeholder engagement in decision-making regarding fund allocation, seeks to influence resource distribution (Bartocci et al., 2023). Participatory

budgeting has emerged as a promising approach to promote sustainable governance by involving stakeholders in decision-making processes related to fund allocation. Participatory budgeting is gaining global prevalence, with two primary approaches: the radical democratic approach and the liberal governance approach, emphasizing grassroots participation and institutional reform, respectively (Pereira & Figueira, 2022). Participatory budgeting fosters transparency, accountability, and citizen engagement within budgetary processes, stressing its potential to enhance governance efficiency and sustainability (United Nations, 2022).

Budgetary control plays a significant role in promoting sustainability within organizations by aligning financial objectives, managing risks, ensuring cash flow stability, optimizing resource allocation, measuring performance, and integrating with Enterprise Risk Management (ERM) practices (Jermias & Chen, 2022). This integrated approach to budgetary control and sustainability is essential for enhancing financial resilience and achieving long-term financial success in today's dynamic business environment. Additionally, budgetary control systems play a vital role in promoting sustainability among SMEs by facilitating effective planning, monitoring, and performance evaluation. By leveraging budgetary controls tailored to their business needs, SMEs can optimize resource allocation, minimize financial risks, and enhance their overall financial health and longevity (Matsoso et al., 2021).

2.3.4 Cash Flow Forecasting and Financial Sustainability

Cash flow forecasting is a process that predicts an entity's future cash inflows and outflows over a specified period. It offers insights into liquidity, financial health, and the ability to meet financial obligations for the entity (Papadaki & Pavlopoulou-Lelaki, 2022). Studying the effect cash flow forecasts can have on performance, Pan & Xu (2020) found that cash flow forecasts have an

association with an increase in stock recommendations and the profitability of a firm. The association is more significant for firms with low earnings quality. Additionally, cash flow forecasting helps organizations to achieve financial analysis, risk mitigation, informed investment decisions, and, thereof, organizational sustainability (Papadaki & Pavlopoulou-Lelaki, 2022).

Cash flow forecasting is crucial for the growth and sustainability of both profit and nonprofit organizations across various countries and industries. In the context of non-profit institutions like higher education (HEs), research has demonstrated that cash flow forecasting supports liquidity, growth, and sustainability. Alvarez (2023) found that accurate cash flow forecasting positively correlates with the liquidity of private higher educational institutions in the Philippines. This finding suggests that accurate cash flow forecasting can enhance the liquidity and sustainability of these institutions. Therefore, private HEIs that prioritize effective cash management practices, such as cash forecasting, may improve their financial performance and ensure long-term sustainability, as evidenced by the institutions in District IV of Laguna in the Philippines. Furthermore, accurate cash flow predictions can facilitate proper resource allocation, effective liquidity management, risk mitigation, informed investment decisions, and the anticipation of cash shortages. These elements are essential for the sustained operations and operational continuity of higher educational institutions (HEIs), contributing to their overall sustainability (Alvarez, 2023). However, the sustainability of an organization in the context of Brazilian higher educational institutions was informed by the proper management of innovations like technological capabilities (Machado, Matos, and de Mesquita, 2022).

Studies in European countries like Spain, Italy, and England focusing on small enterprises facing liquidity challenges have shown weekly cash flow planning (cash flow forecasting) with frequent

feedback as the most critical financial management activity (Kakati & Roy, 2021). These findings are consistent with research emphasizing the significance of ongoing liquidity planning for organizations (Mwenda, Israel & Mahuwi, 2023). Continuous liquidity planning, which involves regular assessments of cash flow projections against realized results, enables organizations to identify discrepancies and take corrective actions. This practice offers various benefits, including a deeper understanding of revenue and expenditure patterns, improved operational effectiveness, increased employee engagement, streamlined liquidity oversight, reduced inventory levels, and enhanced revenue generation, ultimately contributing to sustainability (Kakati & Roy, 2021).

Similarly, across various other organizations, cash flow forecasting plays a crucial role in their value, growth, and sustainability. For instance, in Korea, cash flow forecasts positively contributed to firm value. Providing cash flow forecasts reduces information asymmetry and enhances the quality of earnings, thereby increasing the firm's value and sustainability. Additionally, the accuracy of cash flow forecasting positively affects firm value; the higher the quality of the cash flow forecast, the greater the resulting firm value and sustainability (Oh, Park & Kpim, 2020).

Research in South African construction industries showed that cash flow forecasting facilitates effective planning for borrowing, stakeholder attraction, enhanced surplus funds management, and forecasts for companies' growth and sustainability (Omopariola, Windapo, Edwards & Thwala, 2020). Likewise, among SMEs in Kenya, effective cash flow forecasting fosters stakeholder confidence, financial stability, and long-term growth (Turgut, Cheruiyot & Sang, 2021). However, SME operators struggled to predict the timing and amount of cash inflows and outflows of their organizations (Turgut et al., 2021). Furthermore, within the private universities in Kenya, where cash budgeting practices are prevalent, cash flow forecasting, coupled with variance analysis, is

integral. Correlation analysis revealed a strong positive relationship between cash budgeting and financial performance, underscoring the essential role of accurate cash flow forecasting in driving financial performance and sustainability within higher education institutions. Additionally, accurate cash flow analyses drive financial stability and effective cash management practices (Denis et al., 2019).

Cash flow forecasts have been influenced by various factors, including macroeconomic conditions, industry trends, financial policies, and technology. Addressing these factors is imperative for organizations aiming to establish robust cash flow forecasting practices conducive to organizational long-term sustainability (Cangoz & Secunho, 2021). Accordingly, the adoption of best practices and emerging technologies like advanced analytics, machine learning, and artificial intelligence (AI) refine the accuracy and reliability of cash flow projections (Kureljusic & Karger, 2024). By leveraging these emerging technologies in cash flow forecasting, HEIs can adapt swiftly to evolving financial conditions and make well-informed decisions to promote long-term sustainability and operational excellence in their institutions (Alvarez, 2023). These advanced tools help cash managers to search for historical cash flow patterns, discern trends and correlations, and make well-founded decisions regarding liquidity management and cash allocation, which enables them to better anticipate cash requirements, mitigate financial risks, and optimize financing strategies, thereby enhancing efficiency and fostering growth and sustainable business (Salas-Molina et al., 2023). Similarly, AI enhances cash flow predictions, offering insights into liquidity and payment timelines in accounting (Kureljusic & Karger, 2024).

2.3.5 Internal Cash Control Measures and Financial Sustainability

The internal control system is a framework of measures and procedures instituted by organizations to safeguard resources, uphold the precision of financial and operational data, enforce adherence to organizational policies and external regulations, and evaluate the performance of diverse organizational units (Kabuye et al., 2019). The internal control system is essential for both profit and nonprofit organizations (Kamaruddin, Auzair & Zainon, 2022), enhancing organizational sustainability through control environment, risk assessment, and monitoring. On the one hand, effective risk assessment identifies and mitigates hazards, reducing losses and enhancing sustainability. On the other hand, information sharing and communication within internal control systems positively affect sustainability by facilitating decision-making. Meanwhile, monitoring ensures long-term viability by evaluating control performance and implementing corrective measures promptly (Adebayo et al., 2023).

Internal cash control measures, as part of the internal control system, encompass policies, procedures, and practices implemented within organizations to safeguard cash assets, prevent fraud, ensure accuracy in financial transactions, and enhance accountability (Olaoye, 2021). These measures include segregating duties, implementing authorization procedures, regularly reconciling cash balances and bank statements, implementing physical safeguards, documentation and record-keeping, employing information technology controls, dual control, regular monitoring and reviewing of internal controls, and conducting internal audits (Nawawi & Salin, 2018; Kabuye et al., 2019; Adebayo et al., 2023). These practices are vital for ensuring effective handling and management of cash, reducing the risk of financial loss, minimizing fraud or errors, improving accountability and the security of cash assets, and promoting the long-term stability of the

organization (Kiptum, 2023). They are specifically designed to control the handling, disbursement, and recording of cash.

Internal cash control measures serve as critical components of organizational governance, directly influencing financial stability by safeguarding cash assets, preventing misappropriation, and ensuring accurate financial reporting (Nawawi & Salin, 2018). These systems are designed to mitigate risks, maintain the integrity and completeness of financial information, uphold regulatory compliance, and safeguard organizational assets (Adebayo et al., 2023).Meanwhile, weaknesses in internal cash control systems can expose organizations to various risks, including fund misappropriation, financial reporting errors, and potential losses, thereby creating opportunities for fraudulent activities and undermining financial stability and reputation (Nawawi & Salin, 2018). The adverse outcomes of deficient internal cash controls, such as revenue decline, heightened audit expenses, financial losses, fraudulent activities, inaccurate financial reporting, operational inefficiencies, and erosion of stakeholder trust, pose significant threats to firm financial stability, operational success, and stakeholder confidence (Lobo, Wang, Yu & Zhao, 2020).

The relationship between financial sustainability and various internal cash control concepts has been explored across different industries. Studies have delved into factors such as the attributes of internal auditors (Agyemang & Modisane, 2023), modern offense typologies and strategies to mitigate money laundering risks (Patel, Bank, Company, Kasztelnik & Zelihic, 2023), family control dynamics (Ahmad et al., 2022), and administrative costs (Park & Matkin, 2020). The findings of the studies revealed that the financial sustainability of organizations is contingent upon a multitude of factors that vary across industries. For instance, within the banking sector in the USA, financial sustainability is achieved through a combination of factors, including the

identification of crime typologies, adoption of risk-based approaches, implementation of compliance practices, deployment of mitigation strategies, and strategic adaptations aimed at mitigating the risks of money laundering and bolstering financial stability and sustainability (Patel et al., 2023). Similarly, in the context of family-controlled firms operating in emerging markets like Malaysia, studies have highlighted the significance of family control structures, chief executive officer (CEO) tenure, and educational backgrounds as critical factors influencing firm financial sustainability. The interplay between family control structures, chief executive officer (CEO) tenure, and educational backgrounds has profound implications for the long-term viability and success of organizations, underlining the importance of understanding and managing internal cash control dynamics in fostering financial sustainability (Ahmad et al., 2022).

The National Bureau of Economic Research (NBER) suggests that organizations with robust internal control measures tend to demonstrate better financial stability and resilience against financial risks and challenges (Hamid et al., 2023). A study focusing on the public sector industry in Ghana revealed that financial sustainability was closely linked to the effectiveness of governance structures, including factors such as the frequency of audit committee meetings and the attributes of internal auditors, such as their independence, size, and qualifications (Agyemang & Modisane, 2023). Similarly, microfinance institutions (MFIs) in Bamenda, Cameroon, experienced the importance of capital structure in determining their financial sustainability, noting that debt and grants exhibited a negative association with financial sustainability, whereas retained earnings and equity showed a positive correlation (Fonchamnyo, Anyangw, Chantal & Dinga, 2023). Furthermore, alumni engagement emerged as a potential factor contributing to the long-term financial sustainability of higher educational institutions (Nisar et al., 2023). In the agricultural sector, financial sustainability was influenced by various financial control measures, including cash

flow analysis, econometric analysis, budgeting, financial reporting, variance analysis, internal controls, and policy support and calibration (Dono et al., 2021).

Moreover, available literature suggests that the audit system that utilizes digital technology significantly enhances the effectiveness of internal controls and contributes to the financial sustainability of tertiary institutions (Madu, Onodugo & Isichei, 2022). For example, technologies such as electronic payment systems, automated cash management tools, real-time financial monitoring systems, and cash flow analysis software provide firms with efficient mechanisms for implementing and upholding robust internal controls, thereby enhancing sustainability (Abdullahi & Othman, 2021). Furthermore, the implementation of effective internal cash control measures aids organizations in managing their financial resources, curbing fraud, ensuring transparency, and fortifying financial stability (Olaoye, 2021). Measures such as segregation of duties, effective approval processes for cash transactions, and the establishment of clear guidelines for expenses, disbursements, and cash management reinforce internal control frameworks, enhance operational efficiency, and foster the long-term financial health of organizations (Kureljusic & Karger, 2024). Conversely, the absence of a robust organizational structure and segregation of duties heightens vulnerability to fraud and weakens the efficiency of internal controls, thereby impacting financial sustainability (Adebayo et al., 2023).

2.3.6 Surplus Cash Management and Financial Sustainability

Surplus cash, described as the excess of liquid assets over immediate operational needs, retained by businesses, institutions, or organizations, provides financial flexibility and acts as a safeguard against unforeseen expenditures or opportunities. Consequently, it empowers organizations to meet short-term obligations independently, alleviating dependence on external funding sources and

fostering uninterrupted daily operations (Alvarez, 2023). As clarified by Nguyen & Soobaroyen (2019), surplus cash means either the generation of cash surpassing operational necessities or the excess of total income over total expenses. Surplus cash sources include cash flow operations (Granzotto, Alves Lamberti & Bernardi Sonza, 2020).

Surplus cash management is crucial for organizational growth and sustainability, as it plays a fundamental role in determining overall performance and financial stability. According to Nguyen & Soobaroyen (2019), surplus cash can be utilized to strengthen reserves, thereby enhancing an organization's financial stability and its ability to effectively fulfill its mission. Moreover, surplus cash serves as a valuable resource for financing activities and investments, particularly in situations where alternative financing sources are unavailable or deemed excessively costly (Granzotto, Alves Lamberti & Bernardi Sonza, 2020). In the context of nonprofit private firms, effective surplus cash management is especially critical, exerting major influence on their financial well-being and long-term viability (Udoh, 2020). Surplus cash management goes beyond mere retention of excess funds; it involves making strategic decisions to invest or utilize the surplus cash in a manner that generates long-term benefits for the organization (Kithinji et al., 2023). Hence, surplus cash management practices are needed for financial stability and sustainability in the long run.

Surplus cash management holds significant implications for the sustainability of organizations, (Mwenda et al. 2023; Sepetis, 2020). By investing in environmentally sustainable projects, organizations can increase their reputation and contribute to the overall sustainability of the business. Moreover, effective surplus cash management enables organizations to enhance their financial performance, withstand economic downturns, and foster innovation and long-term

growth. Again, the relationship between surplus cash management and sustainability extends to corporate governance and stakeholder management (Salas-Molina et al., 2023).

Acknowledging the importance of surplus cash management for organizational stability, it is crucial to consider potential drawbacks and limitations associated with this approach. Cangoz & Secunho (2021) caution against the risk of excessive surplus cash, which may lead to complacency and a reduction in organizational efficiency. Additionally, the allocation of surplus cash to sustainable projects may not always yield the expected returns. Scholars further argue that an overemphasis on surplus cash management and sustainability could potentially undermine other critical aspects of financial management. Abdullahi & Othman (2021) highlight that excessive focus on surplus cash may detract attention from key areas such as risk management, cost control, and strategic investments in core business activities. Therefore, achieving a balance between surplus cash management and other financial priorities is essential. In navigating the complexities of surplus cash management, organizations must carefully weigh the trade-offs and challenges involved. Striking this balance is crucial for aligning financial objectives with sustainability goals while ensuring overall organizational stability and resilience.

Surplus cash assumes different roles across organizations, particularly within the nonprofit sector. In the context of UK charity organizations, its presence holds significant implications for financial stability and sustainability. Firstly, surplus cash serves as a tangible indicator of financial stability, instilling confidence among stakeholders regarding the organization's capacity to effectively fulfill its mission. Additionally, it signifies operational efficiency, reflecting prudent resource management and financial discipline (Nguyen & Soobaroyen, 2019). Furthermore, surplus cash can be strategically deployed in investments to generate additional returns, thereby enhancing the

overall sustainability of the organization (Alvarez, 2023). This underscores the position of surplus cash not only as a buffer against financial uncertainties but also as a means to optimize financial resources and ensure the long-term viability of an organization.

Efficient surplus cash management is crucial for financial sustainability, particularly in banking, as it can significantly enhance performance and long-term viability. Treasury management practices (TMPs) guide organizations in handling surplus cash and making strategic investments, allowing proper surplus cash management to unlock funds for growth and investments. Moreover, robust TMPs enable banks to monitor cash flows, assess liquidity needs, and allocate surplus cash to profitable investments while managing risks (Olugbenga, 2023). Additionally, nonprofits can effectively utilize surplus cash to strengthen their financial position and support long-term sustainability by carefully evaluating investment opportunities and aligning them with the organization's financial objectives (Park & Matkin, 2020).

2.4 Research Gap

Many available studies emphasized the importance of financial sustainability, cash flow forecasting, cash budgeting, internal cash control measures, and surplus cash management for organizational sustainability. However, these studies often focus on specific elements in isolation, neglecting the interconnected nature of these factors and their collective impact on long-term organizational viability and financial sustainability, which is the primary aim of the current study. Moreover, many of the existing studies concentrate on the overall sustainability of organizations, and those that address financial sustainability often do so without considering cash forecasting, cash budgeting practices, cash control measures, and surplus cash management.

Furthermore, although the literature underscores the importance of these financial practices across diverse sectors, including higher education institutions, nonprofit organizations, and private firms, there is a need for sector-specific studies that delve deeper into the unique challenges and dynamics that shape financial sustainability within each industry, like private universities in Kenya. A one-size-fits-all approach may not be effective, and tailored strategies that consider the distinct operational and regulatory landscapes of private universities in Kenya are needed.

Additionally, the literature points out the role of governance structures, stakeholder engagement, and corporate social responsibility in achieving financial sustainability. However, the interplay between these factors and specific financial practices like cash flow forecasting, cash budgeting, internal cash control measures, and surplus cash management needs further exploration.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The chapter explained the research methodology that was used to conduct the study. The chapter contains research design, target population, sample size, sampling techniques, data collection instruments, data collection procedure, data analysis techniques, and ethical considerations.

3.1 Research Design

This study employed an explanatory research design to collect quantitative primary data. The design allowed the researcher to gather primary data to answer questions about what and how it was associated with the research problem and objectives.

3.2 Target Population

In this study, the target population was all 34 private universities in Kenya, both chartered and universities with a letter of interim authority (LIA). According to the Commission for University Education (CUE), Kenya has 34 private universities as of December 2023 (Appendix A). The choice of private universities is informed by the fact that they generate and finance their activities, and this is in line with the concept of financial sustainability, the dependent variable of the study.

3. 3 Sample and Sampling Procedures

The process of selecting representatives of the population for analysis and drawing a verdict or conclusion about the study population is known as sampling. It is a method of learning about an entire population by studying a subset of it (Pandey & Pandey, 2021). Sampling is only necessary

when it is impossible to survey the entire population due to time, budgetary constraints, or an unreasonably large population size. However, this study employed the census method to examine all 34 private universities in Kenya. The choice of census technique was because the total population is small and manageable.

3.4 Description of Research Instruments

The study employed questionnaires for primary data collection. A questionnaire is a data-collecting instrument consisting of questions that are designed to produce the data necessary for addressing research questions or testing hypotheses (Pandey & Pandey, 2021). The choice of questionnaires was made because they offer a rapid, efficient, and cost-effective way of data collection and are especially useful for monitoring the behavior, preferences, intentions, attitudes, and views of respondents. The questionnaire was structured into six sections (Appendix B).

3.4.1 Pilot Test of the Instruments

A pilot-test study was undertaken in three university colleges: BOMET University College (public university), Hekima University College (private university college), and Marist International University College (private university college). The choice of these institutions was informed by their similarities to private universities, except for their difference in accreditation status. The pilot test helped the researcher to establish the reliability and validity of the research instruments. To assess reliability, the researcher used SPSS software to calculate the internal consistency of the research instruments using Cronbach’s alpha. Cronbach's alpha was employed to determine whether the research instrument’s internal consistency was at or above the criterion of 0.7. Cronbach's alpha for variable CBP was 0.971, CFF was 0.933, CCM was 0.980, SCM was 0.947, and FS was 0.903.

The result showed that internal consistency of the instruments was above 0.7, indicating that the questionnaires for the study were reliable.Hence, the instruments were considered reliable since the Cronbach's alpha value for each variable fell within the range of $0.70 \leq \alpha < 0.80$. Table 3.1 showed the result.

Table 2: Reliability Test for Each Variable

S/N	VARIABLES	NO OF ITEMS	CRONBACH ALPHA
1	CASH BUDGETING PRACTICES	12	0.971
2	CASH FLOW FORECASTING	12	0.933
3	CASH CONTROL MEASURES	7	0.980
4	SURPLUS CASH MANAGEMENT	9	0.947
5	FINANCIAL SUSTAINABILITY	9	0.903

Meanwhile, the questionnaires were considered valid after the researcher checked the content validity by designing the research tools and consulting the supervisors for editions and corrections, which helped the researcher, come up with the research instruments used.

Furthermore, the questionnaires for the study were adapted and modified from Prasad (2017), Turgut et al. (2021), and Alvarez (2023). The reason for adapting these questionnaires was to ensure greater validity and reliability, as the researchers of the studies have tested the questions. Accordingly, the participants in the pilot test (the university colleges) were not included among the private universities used for the main study (Pandey & Pandey, 2021).

3.5 Data collection procedures

Data collection permission was obtained from the Catholic University of Eastern Africa (CUEA), Ethical Review Committee (ERC), and National Commission for Science, Technology, and Innovation (NACOSTI). Upon visiting any of the universities for the study (Appendix A), the researcher obtained permission from the relevant authorities to collect data at the university. The researcher administered the questionnaires by themself and collected the data from finance departments of the universities through CFOs. One questionnaire was given to each private university and collected back by the researcher when it was completed. However, some universities collected the questionnaires, filled them, scanned them, and sent them back to the researcher through email.

3.6 Data Analysis and Processes

Data analysis is the summarizing of collected data in a manageable and consumable manner through data handling, data manipulation, data processing, and interpretation (Husband, 2020). The collected data were sorted and coded into the statistical package for social sciences (SPSS) version 25. Descriptive and inferential statistics were employed to address the research objectives and hypothesis. Descriptive statistics, including mean, standard deviation, and factor analysis, were used to describe and summarize the data. Inferential statistics, specifically correlation and multiple regression, were used to establish the influence of cash budgeting practices, cash flow forecasting, cash control measures, and surplus cash management on the financial sustainability of the universities and hence addressed the hypothesis. Meanwhile, normality, collinearity, and multicollinearity diagnostic tests were conducted to determine the normality of data distribution and detect and address issues of high correlation among the independent variables.

The choice of correlation analysis helped the researcher to establish if there is a relationship between the independent variables and dependent variable and measure the strength and direction of the relationship. Thus, it helped the researcher assess how changes in one variable were associated with changes in another variable. It dealt with a single variable in relation to another.

The choice of multiple regression analysis was based on the need to further examine the collective influence of multiple independent variables on the dependent variable, financial sustainability. Multiple regression analysis allowed for the evaluation of how well the model (comprising the four predictor variables) explains the total variance in financial sustainability. Additionally, it provided the relative contribution of each predictor variable (cash budgeting practices, cash flow forecasting, cash control measures, and surplus cash management) to the model. Furthermore, multiple regression enabled the researcher to establish that the model was statistically significant through analysis of variance (ANOVA). The empirical models that showed the independent variables against the dependent variable, financial sustainability, that was used are as follows.

Regression Model and Model Specification

- $FS = \beta 0+\beta_1 CBP+\beta_2 CFF+\beta_3 CCM+ \beta_4 SCM+ e$

Where;

- FS = Financial sustainability (Dependent variable)
- CBP= Cash budgeting practices
- CFF = Cash flow forecasting,
- CCM = Cash control measures

- SCM = Surplus cash management
- β_0 = Constant, β_1 to β_4 = Coefficient for the main effects of the independent variables.
- e = the error term assumed to be normally distributed with mean zero and constant variance.

3.7 Ethical issues and considerations

Ethical guidelines ensure that a study is conducted with integrity, respect, and responsibility towards all stakeholders involved (Shamoo & Khin-Maung-Gyi, 2021). This study applied ethical guidelines. The study participants' data confidentiality and anonymity were observed. The consent of the respondents and fair treatment were applied. The researcher acknowledged and properly referenced in APA style, 7th Edition, all academic articles used in the research.

CHAPTER FOUR

PRESENTATION, DISCUSSION AND INTERPRETATION OF FINDINGS

4.0 Introduction

This chapter presents a summary of the research findings, derived from data collected through questionnaires from the finance offices of 34 private universities in Kenya. The study examined the influence of cash management practices on financial sustainability in these institutions, focusing on cash budgeting, cash flow forecasting, cash control measures, and surplus cash management. Inferential statistics were employed to analyze the data. The chapter outlines the response rate of the distributed research instruments, the demographic characteristics of the participants, and the findings related to the research questions and hypothesis of the study.

4.2 Questionnaire Return Rate

A total of 34 private universities in Kenya comprised the sample size for this study. A questionnaire was given to the chief finance officer or someone second to them at each private university, resulting in a total of 34 questionnaires administered between August and November, 2024. However, not all questionnaires were returned as anticipated. According to table 4.0, a total of 21 copies of questionnaires (61.8%) out of the 34 distributed were successfully retrieved and used for analysis.

Table 3: Response Rate

Copies Distributed		Copies not Retrieved		Copies Retrieved	
Copies	%	Copies	%	Copies	%
34	100	13	38.2	21	61.8

4.3 Demographic Characteristics of Respondents

The demographic analysis confirmed that the participants who provided information on the universities under study possessed the requisite expertise and experience in finance, rendering them suitable informants for the study on cash management practices and financial sustainability in private universities in Kenya. This was clearly shown in table 4.1, where the majority of participants (76.2%) have 1-10 years of work experience, indicating that they have some level of experience in the finances of these institutions. Additionally, 61.9% hold a master's degree, and 33.3% hold a doctorate degree, suggesting a high level of educational attainment. Meanwhile, 42.9% hold an MBA in Finance and 47.6% hold a CFA certification, suggesting that they have specialized knowledge in finance and are capable of providing reliable information on cash management practices and financial sustainability in private universities in Kenya.

Table 4: Respondents' Demographic Characteristics

Information	Group	Frequency	Percentage
Age of participant	20-30	1	4.8%
	31-40	10	47.6%
	41-50	8	38.1%
	51- and above	2	9.5%
	Total	**21**	**100.0%**
Year of Work Experience	1-10	16	76.2%
	11-20	5	23.8%
	Total	**21**	**100.0%**
Participant level of Education	Bachelor	1	4.8%
	Masters	13	61.9%
	Doctorate	7	33.3%
	Total	**21**	**100.0%**
	MBA Finance	9	42.9%
	CFA Finance	10	47.6%
	Finance	2	9.5%
	Total	**21**	**100.0%**

4.4 Descriptive Findings in Respect to Research Objectives

The collected data were analyzed and presented in accordance with the research objectives, and the findings were presented in the following sequence: descriptive and inferential analysis for the influence of cash budgeting practices on financial sustainability, the influence of cash flow forecasting on financial sustainability, cash control measures on financial sustainability, and surplus cash management on financial sustainability in private universities in Kenya.

Table 5: Cash Budgeting Practices

STATEMENTS	N	Minimum	Maximum	Mean	Standard Deviation
1. Departments are involved in our budget preparation process.	21	2	5	4.05	.590
2. Our budget preparation is aligned with financial sustainability objective.	21	2	5	3.71	.845
3. Our budget preparation process is timely.	21	1	5	3.90	.889
4. We regularly monitor our budget to ensure spending is within the budget.	21	2	5	3.52	.981
5. Our budget control mechanisms are effective in preventing overspending.	21	1	5	3.48	1.123
6. Timely adjustments as regards actual financial performance are made.	21	2	4	3.48	.750
7. Our budget control practices contribute to financial sustainability.	21	2	5	2.95	1.024
8. A positive variance always exists between cash budgeted and actual.	21	1	4	2.52	.873
9. Corrective actions are taken on the results of budget variance analysis.	21	2	5	3.14	.964
10. Budget variance analysis helps us to identify areas of inefficiency.	21	2	5	3.10	1.044
11. Cash budgeting helps our university allocation resources adequately.	21	2	5	3.81	.873
12. Cash budgeting practices are important for the financial sustainability of our university.	21	1	5	3.52	1.250

The descriptive statistics in Table 5 revealed participants agreed with the involvement of departments in the budget preparation process (mean = 4.05) and acknowledged the alignment of

budgeting with financial sustainability objectives (mean = 3.71). Other aspects such as the timeliness of budget preparation (mean = 3.90), regular monitoring of expenditures (mean = 3.52), and the role of budgeting in resource allocation (mean = 3.81) also received high mean scores, indicating moderately favorable perceptions of budgeting practices. These findings suggest that foundational cash budgeting processes were in place and effective across private universities in Kenya.

However, some areas exhibited weaker consensus and lower mean scores, signaling potential challenges. Notably, respondents were less confident about the effectiveness of budget control mechanisms (mean = 3.48), the positive variance between budgeted and actual cash flows (mean = 2.52), and the contribution of budgeting practices to financial sustainability (mean = 2.95). Higher standard deviations, especially for key items like financial sustainability (standard deviation = 1.250), point to varying experiences and inconsistent application of budgeting practices across institutions. The result implies that while cash budgeting is recognized as important, there remains room for strengthening its implementation and impact.

Table 6: Cash Flow Forecasting

STATEMENTS	N	Minimum	Maximum	Mean	Standard. Deviation
1. Our university can project when revenue would be received and spent.	21	1	5	3.86	.854
2. Over five years, the university's revenue projections have been steadily accurate.	21	1	5	3.10	1.221
3. Revenue projections are used for strategic financial decisions in our school.	21	1	5	3.33	1.155
4. Accurate revenue projections have surely influenced our financial stability.	21	1	5	2.81	1.078
5. Our cash flow helps to mitigate risks.	21	2	5	3.24	.995
6. Our forecast is always adjusted based on actual performance.	21	1	5	3.33	1.197
7. In the past 5 years our university has experienced stable cash inflows because of cash flow forecasting.	21	1	5	2.86	1.108
8. Cash flow forecasting leads to adequate resource allocation in our university.	21	1	5	2.90	1.261
9. Our university's expense forecast is effective in cost control.	21	2	5	3.33	1.155
10. Accurate expense forecasts have contributed to the financial sustainability of our university.	21	2	5	3.24	1.091
11. Our financial forecast is timely adjusted in response to changing conditions.	21	2	5	3.19	1.030
12. Adjustments made to financial forecasts have improved the university's financial stability.	21	1	5	3.19	1.123

The analysis of descriptive statistics concerning cash flow forecasting revealed a general consensus among respondents that their university can predict the timing of revenue inflows and expenditures (mean = 3.86), indicating a solid foundation for forecasting. Other moderately favorable views include the application of revenue forecasts in strategic decision-making (mean = 3.33), routine adjustments based on actual performance (mean = 3.33), and the efficacy of expense forecasts in managing costs (mean = 3.33). Additionally, perceptions regarding risk management (mean = 3.24) and the role of precise expense forecasts in promoting financial sustainability (mean = 3.24) also show a degree of confidence in the significance of forecasting in the firm’s financial management.

Conversely, certain aspects exhibit lower levels of agreement, such as the perception that accurate revenue forecasts have positively impacted financial stability (mean = 2.81) and that forecasting has resulted in consistent cash inflows over the last five years (mean = 2.86). Furthermore, views on the role of forecasting in resource allocation (mean = 2.90) and its contribution to long-term financial stability (mean = 3.19) remain modest. The notable standard deviations across most items, especially for assertions regarding the accuracy of long-term forecasts (standard deviation = 1.221) and the influence of forecasting on resource allocation (standard deviation = 1.261), suggest diverse experiences and potential discrepancies in the effectiveness or perception of forecasting practices. The result indicates that while forecasting is regarded as a vital instrument, its application and results may vary among respondents or departments.

Table 7: Cash Control Measures

STATEMENTS	N	Minimum	Maximum	Mean	Standard. Deviation
1. Segregation of duties in cash handling improved the risk of financial mismanagement in our university.	21	2	5	3.52	.981
2. Segregation of duties help improve financial health of our university.	21	2	5	3.52	.928
3. Our internal audits are effective in identifying financial discrepancies that threaten our financial stability.	21	1	5	3.24	1.179
4. The findings from our internal audits lead to effective corrective actions that support financial stability of our university.	21	1	5	2.95	1.161
5. Periodic reconciliation processes contribute to better financial outcome of our university.	21	1	5	2.90	1.179
6. Consistent reconciliation practices improved our financial sustainability.	21	1	5	3.05	1.161

The analysis of descriptive statistics regarding cash control measures indicates that participants regard the segregation of duties as a significant asset in fostering financial integrity within their

universities, as evidenced by the highest mean scores for both relevant statements (mean = 3.52). Additionally, respondents conveyed a favorable perspective on the role of internal audits in detecting financial discrepancies (mean = 3.24), reflecting a degree of trust in oversight mechanisms. Nevertheless, this trust seems to wane when assessing whether audit findings lead to effective corrective actions (mean = 2.95), revealing a disconnect between the identification of issues and the execution of solutions.

Diverse perceptions exist regarding reconciliation practices and their impact on financial outcomes. While consistent reconciliation is acknowledged to a moderate extent (mean = 3.05), its effectiveness in enhancing financial outcomes (mean = 2.90) and sustainability remains ambiguous. Importantly, the item with the lowest rating indicates skepticism about the university's capacity to fulfill financial obligations due to current control measures (mean = 2.81, standard deviation = 1.250), underscoring a perceived deficiency in the overall effectiveness of cash control. The relatively high standard deviations across several items also suggest a range of experiences among respondents, indicating that the consistency and impact of control measures may differ across contexts.

Table 8: Surplus Cash Management

STATEMENTS	N	Minimum	Maximum	Mean	Standard. Deviation
1. Our university has maintained cash reserves to cover unexpected expenses.	21	1	5	2.57	1.076
2. Maintaining cash reserves reduces the financial risks faced by our university.	21	1	5	2.62	1.117
3. Surplus cash contribute to our university's financial stability.	21	1	4	2.57	.978
4. Our university reinvests its surplus into its strategic projects.	21	1	5	2.86	1.195
5. Reinvesting in university's projects improves our long-term financial health.	21	1	5	2.38	1.203
6. Our university invests surplus cash in short-term investments for more income.	21	1	5	2.71	1.146
7. Short-term investments have provided our school with liquidity.	21	1	5	2.76	1.179
8. Our university uses surplus cash for university expansion.	21	1	5	2.48	1.030
9. Our university invests surplus cash in long-term growth opportunities.	21	1	5	2.38	1.203

The examination of surplus cash management practices indicates a low level of confidence among participants regarding the strategic allocation of excess funds within the university. Although the reinvestment of surplus into strategic initiatives achieved the highest mean score (mean = 2.86, standard deviation = 1.195), it remains below the midpoint of the scale, reflecting only moderate consensus. Other practices, such as utilizing short-term investments for income generation (mean = 2.71, standard deviation = 1.146) and improving liquidity (mean = 2.76, standard deviation = 1.179), also demonstrated limited support, implying that while mechanisms for surplus utilization are present, they may not be applied effectively.

Notably, the lowest mean scores were linked to long-term financial strategies, including reinvestment for growth (mean = 2.38, standard deviation = 1.203) and enhancing financial health through surplus allocation (mean = 2.38, standard deviation = 1.203). This trend reveals a potential deficiency in proactive financial planning and suggests that surplus management is not being fully utilized as a means for institutional sustainability. The relatively high standard deviations across most items further indicate variability in respondents' experiences or awareness, highlighting the

necessity for more cohesive policies and transparent execution of surplus management strategies in the university.

Table 9: Financial Sustainability

STATEMENTS	N	Minimum	Maximum	Mean	Standard. Deviation
1. Our university's student enrollment has steadily grown over the past five years	21	1	4	2.14	1.195
2. Our university has a strategic plan that prioritizes sustainable growth	21	1	5	2.38	1.284
3. Our university is able to meet its short-term obligations	21	1	5	2.48	1.289
4. Our university has sufficient liquidity to handle unexpected expenses	21	1	5	2.43	1.207
5. Our university has not had to borrow overly to fund its operations in the last five years	21	1	5	2.43	1.326
6. Our university has other sources of revenue besides school fees	21	1	5	2.48	1.123
7. Our university maintains a healthy debt-to-equity ratio over five years	21	1	5	2.67	1.197
8. For over 5 years now, our university has experienced surplus consistently	21	1	4	2.57	1.028
9. Our university has maintained sound cash position for some time.	21	1	4	2.24	1.044

The analysis of financial sustainability indicators reveals an unfavorable perspective regarding the university's long-term fiscal viability. Most of the participants demonstrated minimal agreement with critical assertions, especially in relation to sustained growth in student enrolment (mean = 2.14, standard deviation = 1.195) and the preservation of a healthy cash position (mean = 2.24, standard deviation = 1.044), both of which were significantly below the midpoint of the evaluation scale. These findings highlight apprehensions about the university's capacity to generate revenue and maintain a reliable financial reserve. Moreover, the comparatively low average score

concerning the existence of a strategic sustainability plan (mean = 2.38, standard deviation = 1.284) indicates deficiencies in long-term strategic planning.

Additionally, the university's capability to effectively manage operational liquidity and limit excessive borrowing appears to be only modestly adequate. Responses to questions regarding short-term financial commitments (mean = 2.48, standard deviation = 1.289), liquidity for unforeseen expenses (mean = 2.43, standard deviation = 1.207), and dependence on borrowing (mean = 2.43, standard deviation = 1.326) imply that, while some strategies are implemented, they may lack robustness and consistent efficacy. Although the presence of alternative revenue streams (mean = 2.48, standard deviation = 1.123) and a sustainable debt-to-equity ratio (mean = 2.67, standard deviation = 1.197) suggest initiatives aimed at diversification and fiscal equilibrium, the overall descriptive statistics indicate that the university's financial sustainability is under considerable pressure and requires more systematic and strategic enhancement.

Table 10: Descriptive statistics

	N	Minimum	Maximum	Mean	Standard Deviation
Cash Budgeting Practices	21	2.58	4.83	3.4091	.56280
Cash Flow Forecasting	21	2.25	4.92	3.1970	.65845
Cash Control Measure	21	2.43	5.00	3.1429	.67871
Surplus Cash Management	21	1.56	4.56	2.5960	.78459
Financial Sustainability	21	1.00	4.33	2.4293	.88245

The descriptive statistics reveal that among the four cash management practices assessed, cash budgeting practices recorded the highest mean score (3.41), followed by cash flow forecasting

(3.20) and cash control measures (3.14). However, surplus cash management had a lower mean (2.60), and financial sustainability had the lowest average score (2.43), suggesting weaker performance and greater variability in how Kenyan private universities manage excess funds and sustain their finances.

4.5 Inferential Statistics

Inferential statistics were conducted to determine the existence of relationships between the variables. This was done using Pearson's correlation coefficient. Meanwhile, diagnostic tests for collinearity, normality and multicollinearity were conducted. The findings are presented in the tables below.

4.5.1 Diagnostic Tests

The study considered normality, collinearity and multicollinearity diagnostic tests important and hence, they were conducted to rule out any bias.

Table 11: Normality Test

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Financial	.157	21	.192	.910	21	.064
a. Lilliefors Significance Correction						

Table 11 shows results of normality tests (Kolmogorov-Smirnov with Lilliefors correction and Shapiro-Wilk) of the study. Shapiro-Wilk has a statistic of 0.910, a df of 21, and a Sig of 0.064.

The p-value (.064) is greater than 0.05, suggesting no strong evidence against normality. Meanwhile, Kolmogorov-Smirnov has a Sig of 0.192, which is also greater than 0.05, also suggesting no strong evidence against normality. Hence, the data were assumed to be normally distributed.

Table 12: Collinearity Diagnostic

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				Constant	CASH BUDGETING PRACTICE	CASHFLOW FORECASTING	CASH CONTROL MEASURES	SURPLUS CASH MANAGEMENT
1	1	4.914	1.000	.00	.00	.00	.00	.00
	2	.046	10.352	.15	.01	.00	.00	.57
	3	.019	16.165	.51	.00	.26	.09	.28
	4	.016	17.655	.01	.07	.12	.86	.09
	5	.006	19.783	.32	.07	.06	.04	.05

a. Dependent Variable: FINANCIALSUSTAINABLITY

Table 12 showed collinearity diagnostics for a regression model with financial sustainability as the dependent variable. The highest value for the condition index is 19.783 (in dimension 5), which isn't extremely high (thresholds like >30 suggest concern). Meanwhile, in dimension 4, cash control measures have a high variance proportion (.86). No dimension shows extremely high proportions for multiple variables together, indicating severe multicollinearity. Hence, based on table 12, multicollinearity doesn't seem to be a major issue among these variables given condition indices and variance proportions.

Table 13: Correlation Matrix

Table 13 showed that all four cash management practices examined cash budgeting, cash

		Cash Budgeting Practices	Cash Flow Forecasting	Cash Control Measure	Surplus Cash Management	Financial Sustainability
Cash Budgeting Practices	Pearson Correlation	1				
	Sig. (2-tailed)					
Cash Flow Forecasting	Pearson Correlation	.774**	1			
	Sig. (2-tailed)	.000				
Cash Control Measure	Pearson Correlation	.586**	.657**	1		
	Sig. (2-tailed)	.004	.001			
Surplus Cash Management	Pearson Correlation	.582**	.574**	.666**	1	
	Sig. (2-tailed)	.004	.005	.001		
Financial Sustainability	Pearson Correlation	.476*	.704**	.695**	.822**	1
	Sig. (2-tailed)	.025	.000	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

forecasting, cash control measures, and surplus cash management exhibited positive associations with financial sustainability, although to varying degrees. Specifically, cash budgeting practices demonstrated a moderate correlation with financial sustainability (r = 0.476), suggesting a noticeable yet not overwhelmingly strong connection between the two variables. This observation aligns with existing literature, which has documented similar trends in diverse contexts, including South African (Matsoso et al., 2021), Malaysian and Nigerian (Mamat et al., 2021), and Russian municipal (Aleksandrov et al., 2020).

In contrast, cash flow forecasting (r = 0.704) and cash control measures (r = 0.695) exhibited strong positive relationships with financial sustainability. These findings corroborate existing literature,

such as Alvarez (2023), which established a positive correlation between cash flow forecasting and liquidity in private higher educational institutions in the Philippines. Hamid et al. (2023) also posited that organisations with robust internal control measures tend to exhibit financial stability.

Surplus cash management demonstrated the strongest correlation with financial sustainability (r = 0.822), suggesting that institutions that effectively manage surplus funds are more likely to achieve financial sustainability. This result is consistent with the findings of Nguyen & Soobaroyen (2019), which highlighted the importance of surplus cash in enhancing an organisation's financial stability and ability to fulfil its mission. Overall, the findings illustrate the importance of effective cash management practices in promoting financial sustainability in private universities in Kenya. By adopting robust cash management strategies, private universities in Kenya can improve their financial stability, resilience, and ability to achieve their objectives.

4.5.2 Test of Hypothesis

The study centred on hypotheses: cash budgeting practices, cash flow forecasting, cash control measures, and surplus cash management have no significant influence on the financial sustainability of private universities in Kenya. Regression analysis was used to either reject or accept these hypotheses since regression explains the extent one variable is related to the other.

Table 14: Multiple Linear Regression Analysis

Variable	Coefficient (β)	t-value	p-value
Constant	-0.124	-0.210	0.836
Cash Budgeting Practices	-0.448	-2.581	0.020
Cash Flow Forecasting	0.587	3.273	0.005
Cash Control Measure	0.137	0.894	0.385
Surplus Cash Management	0.661	4.539	0.000
N	21		
Multiple R	0.912		
R^2	0.832		
Adjusted R-squared	0.790		
F-statistic (p-value)	19.858 (0.000)		

The regression analysis assessed the influence of cash budgeting practices, cash flow forecasting, cash control measures, and surplus cash management on financial sustainability in private universities across Kenya. The model demonstrates strong explanatory power, with an adjusted R-squared of 0.790, indicating that approximately 79% of the variation in financial sustainability is accounted for by the combined predictors. The overall model is statistically significant ($F = 19.858$, $p < 0.001$), confirming that the set of independent variables collectively explains the changes observed in financial sustainability. Analysing the standardised coefficients revealed that surplus cash management ($\beta = 0.661$, $p < 0.001$) and cash flow forecasting ($\beta = 0.587$, $p = 0.005$) have strong and statistically significant positive effects on financial sustainability, meaning improvements in these areas are associated with stronger financial outcomes. In contrast, cash budgeting practices present a statistically significant negative effect ($\beta = -0.448$, $p = 0.020$), suggesting that existing budgeting practices may be restrictive, inefficient, or poorly executed, ultimately undermining sustainability. Cash control measures show minimal influence on financial sustainability, with a low and statistically insignificant beta value ($\beta = 0.137$, $p = 0.385$).

4.6 Discussion of Findings

The result from correlational analysis showed that cash budgeting practices, cash flow forecasting, cash control measures and surplus management have a positive correlation with the financial sustainability of private universities in Kenya. Meanwhile, the multiple regression analysis result was used to either accept or reject the hypothesis of the study. The first hypothesis stated that cash budgeting practices have no significant influence on financial sustainability. However, the findings revealed a standardised coefficient (β) of -0.448, a t-value of -2.581, and a p-value of 0.020, which is below the threshold of 0.05. The result suggests that cash budgeting practices have a statistically significant influence on financial sustainability. Therefore, the null hypothesis was rejected. This result is in line with the work of Okoye & Arimonu (2019); they found out that there is a significant relationship between budgeting practice and financial sustainability in educational institutions. However, the negative effect in this research suggests that rigid budgeting practices are limiting the financial sustainability of private universities in Kenya.

The second hypothesis stated that cash flow forecasting has no significant influence on financial sustainability. The regression output shows a β coefficient of 0.587, a t-value of 3.273, and a p-value of 0.005, indicating a statistically significant positive effect. This supports the rejection of the null hypothesis. The result is in line with the findings of Johnson et al. (2021) and Harris & Zhang (2021), which affirm that effective cash flow forecasting enhances financial sustainability by allowing institutions to forestall cash shortages and plan for surpluses.

The third hypothesis indicated that cash control measures have no significant influence on financial sustainability. The regression result reveals a β of 0.137, a t-value of 0.894, and a p-value of 0.385, which is greater than 0.05. The result indicates that the relationship is statistically insignificant,

leading to a failure to reject the null hypothesis. This finding suggests that in private universities in Kenya, internal control mechanisms related to cash handling may not be playing a strong role in shaping financial outcomes. These findings may be due to ineffective implementation of controls, lack of enforcement, or their minimal contribution compared to more strategic practices like forecasting and surplus management. It aligns with Teo (2020) that limited effects of internal controls when not supported by broader financial strategies may lead to financial instability.

The fourth hypothesis stated that surplus cash management has no significant influence on financial sustainability. This hypothesis is clearly rejected based on the results, which show a strong positive β of 0.661, a t-value of 4.539, and a highly significant p-value of 0.000. This implies that surplus cash management has the most significant positive relationship among the four variables examined. The finding is in line with Miller & Singh (2022), which highlights how the effective reinvestment or allocation of surplus cash can strengthen the financial position of educational institutions by improving liquidity, reducing borrowing, and creating buffers against unforeseen expenses.

However, approximately 79% of variation in financial sustainability is accounted for by the combined predictors (cash budgeting practices, cash flow forecasting, cash control measures and surplus cash management). This was evident with the overall model showing an adjusted R-squared of 0.790. Again, the overall model is statistically significant ($F = 19.858$, $p < 0.001$), confirming that independent variables collectively explain the changes observed in financial sustainability.

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.0 Introduction

This chapter covers the summary, conclusions, recommendations, and areas for further study.

5.1 Summary of Findings

This study examined the effect of four key cash management practices – cash budgeting, cash flow forecasting, cash control measures, and surplus cash management – on the financial sustainability of private universities in Kenya. Data collected from chief finance officers or someone second to them across private universities in Kenya were analyzed using inferential statistics, specifically correlation and regression, and the results aimed at addressing the four specific objectives of the study.

Correlation analysis showed that cash budgeting practices have a moderate positive relationship with the financial sustainability of private universities in Kenya. Furthermore, it was established by the study that a significant negative correlation exists between cash budgeting practices and financial sustainability, implying that an increase in cash budgeting practice tends to lead to a decrease in financial sustainability and vice versa. The finding suggests the need to find out the level of implementation of widely adopted cash budgeting practices among Kenyan private universities. Balance financial discipline with strategic priorities, thereby enhancing financial agility and sustainability.

The result of the study under correlation analysis showed that cash flow forecasting has a strong positive relationship with the financial sustainability of private universities in Kenya. Additionally,

regression analysis yielded a positive coefficient, showing a significant relationship between cash flow forecasting and financial sustainability in private universities in Kenya. The findings on cash flow forecasting underscore its importance in enhancing financial sustainability.

Correlation analysis indicates a strong positive association between cash control measures and financial sustainability (r = 0.695), implying that effective cash control measures contribute to enhanced financial sustainability. However, regression analysis reveals that the influence of cash control measures on financial sustainability is not statistically significant, suggesting that other factors may also influence financial sustainability in private universities in Kenya. While cash control measures exhibited a strong positive correlation with financial sustainability, their impact was not statistically significant in the regression analysis.

Correlation result analysis showed that surplus cash management has the strongest positive relationship with financial sustainability. Regression results also showed that private universities in Kenya which effectively managed and reinvested surplus funds are better positioned to remain financially sustainable. The regression model accounted for about 79% of the variance in financial sustainability, indicating that the combined effect of these cash management practices significantly shapes the financial outcomes of private universities in Kenya.

5.2 Conclusion

The study found that cash budgeting practices have a statistically significant negative effect on financial sustainability, suggesting that rigid budgeting practices may be limiting the financial sustainability of private universities in Kenya. This implies that private universities in Kenya need to review their budgeting practices to ensure they are flexible and aligned with their financial goals.

By adopting more adaptive budgeting approaches, institutions can better respond to changing financial circumstances and make more informed decisions about resource allocation. Furthermore, the negative effect of cash budgeting practices on financial sustainability highlights the need for private universities in Kenya to prioritize financial planning and budgeting processes that are responsive to the institution's strategic objectives.

The results showed that cash flow forecasting has a strong positive effect on financial sustainability, indicating that effective forecasting enables institutions to anticipate and manage their financial resources better. This highlights the importance of cash flow forecasting in enhancing financial stability and sustainability in private universities in Kenya. By accurately forecasting cash flows, institutions can identify potential financial shortfalls and take proactive measures to mitigate them, thereby ensuring a more stable financial future. Moreover, effective cash flow forecasting can help private universities in Kenya make informed decisions about investments, funding, and resource allocation, ultimately contributing to their long-term financial sustainability.

The findings revealed that cash control measures do not have a significant impact on financial sustainability, suggesting that internal control mechanisms related to cash handling may not be playing a strong role in shaping financial outcomes. This implies that private universities in Kenya may need to re-evaluate their cash control measures to ensure they are effective in promoting financial sustainability. It is possible that the lack of significance is due to inadequate implementation or enforcement of cash control measures, or that other factors such as cash flow forecasting and surplus cash management are more critical in determining financial sustainability. Regardless, private universities in Kenya should prioritize strengthening their internal controls and ensuring that they are aligned with the institution's financial goals and objectives.

The study found that surplus cash management has the most significant positive relationship with financial sustainability, highlighting the importance of effective surplus management in enhancing financial stability and sustainability. This suggests that private universities in Kenya should prioritise surplus cash management to improve their financial sustainability. By effectively managing surplus cash, institutions can create financial buffers that can be used to absorb unexpected expenses or revenue shortfalls, thereby reducing financial risk and improving long-term sustainability. Furthermore, surplus cash can be invested in strategic initiatives or used to reduce debt, both of which can contribute to improved financial health and sustainability. Private universities in Kenya should therefore develop clear policies and procedures for managing surplus cash, ensuring that it is used in a way that aligns with the institution's strategic objectives and promotes long-term financial sustainability.

5.3 Recommendations

Based on the study's findings, it is recommended that private universities in Kenya review and revise their cash budgeting practices to ensure they are flexible and responsive to changing financial circumstances. This will enable institutions to better anticipate and manage financial risks and make more informed decisions about resource allocation. By adopting more adaptive and responsive budgeting practices, private universities in Kenya can improve their financial sustainability and better achieve their objectives.

Given the strong positive effect of cash flow forecasting on financial sustainability, it is recommended that private universities in Kenya prioritize cash flow forecasting and management. Effective cash flow forecasting will enable institutions to anticipate potential financial shortfalls and take proactive measures to mitigate them, thereby ensuring a more stable financial future. By

prioritising cash flow forecasting and management, private universities in Kenya can improve their financial stability and sustainability.

Given the lack of significance of cash control measures on financial sustainability, it is recommended that private universities in Kenya re-evaluate their cash control measures to ensure they are effective in promoting financial sustainability. Institutions should strengthen internal controls and ensure they are aligned with financial goals and objectives. By doing so, private universities in Kenya can reduce the risk of financial mismanagement and improve their financial sustainability.

Given the significant positive relationship between excess cash management and financial sustainability, it is recommended that private universities in Kenya prioritize surplus cash management. Effective surplus cash management will enable institutions to create financial buffers that can be used to absorb unexpected expenses or revenue shortfalls, thereby reducing financial risk and improving long-term sustainability. By prioritizing surplus cash management, private universities in Kenya can improve their financial stability and sustainability and better achieve their objectives.

5.4 Areas for Further Research

Based on the findings of this study, several areas for further research emerged. Firstly, the study's findings suggested that cash budgeting practices have a statistically significant negative effect on financial sustainability in private universities in Kenya. Further research could investigate the specific aspects of budgeting practices that contribute to this negative effect and explore strategies for improving budgeting flexibility and adaptability. Secondly, the study's findings indicated that

cash control measures have a minimal and statistically insignificant influence on financial sustainability. Further research could explore the reasons behind this finding, including the effectiveness of internal control mechanisms, the level of enforcement, and the potential for more strategic approaches to cash management. Thirdly, the study's findings highlighted the importance of surplus cash management for financial sustainability in private universities in Kenya. Further research could investigate effective strategies for managing surplus cash, including investment options, risk management approaches, and allocation frameworks.

Fourthly, a comparative analysis of cash management practices in public and private universities in Kenya could provide valuable insights into the differences and similarities between these institutions. This could help identify best practices and areas for improvement in cash management. Fifthly, a longitudinal study of cash management practices in private universities in Kenya could provide valuable insights into the evolution of these practices over time. This could help identify trends, challenges, and opportunities for improvement in cash management. By exploring these areas, future research can build on the findings of this study and contribute to a deeper understanding of cash management practices and financial sustainability in private universities.

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APPENDICES

Appendix A: List of Private universities in Kenya as at 31st December, 2023

S/N	Name	Established	Accredited	Status
1.	Adventist University of Africa	2003	2013	Chartered
2.	Africa International University	1983	2011	Chartered
3.	Africa Nazarene University	1994	2002	Chartered
4.	Aga Khan University	1958	2021	Chartered
5.	Amref International University	2017	2017	LIA
6.	Catholic University of Eastern Africa	1984	1992	Chartered
7.	Daystar University	1989	1994	Chartered
8.	East African University	2010	2022	Chartered
9	Great Lakes University of Kisumu	1998	2012	Chartered
10	Gretsa University	2006	2006	LIA
11	International Leadership University	2014	2014	LIA
12	Kabarak University	2002	2008	Chartered
13	Kenya Assemblies of God University (KAG)	1969	2016	Chartered
14	KCA University	1989	2013	Chartered
15	Kenya Highlands Evangelical University	1989	2011	Chartered
16	Kenya Methodist University	1997	2006	Chartered
17	Kiriri Women's University of Science and T	2002	2022	Chartered
18	Lukenya University	2015	2022	Chartered
19	Management University of Africa	2011	2011	LIA
20	Mount Kenya University	1996	2011	Chartered
21	Pan Africa Christian University (PAC)	1978	2008	Chartered

22	Pioneer International University	2006	2012	LIA
23	Presbyterian University of East Africa	2007	2020	Chartered
24	Raf International University	2000	2016	LIA
25	Riara University	2012	2012	LIA
26	Scott Christian University	1962	1997	Chartered
27	St. Paul's University	2010	2007	Chartered
38	Strathmore University	1961	2008	Chartered
39	Tangaza University College	1986	2024	Chartered
30	United States International University	1869	1999	Chartered
31	Uzima University	2012	2020	LIA
32	University of Eastern Africa, Baraton	1978	1991	Chartered
33	UMMA University	1997	2019	Chartered
34	Zetech University	1999	2022	Chartered

Appendix B: Research Instruments

Dear Sir/Madam,

Re: Request for Your Participation in Research

My name is Ibegbu Emmanuel, a student at the Catholic University of Eastern Africa (CUEA), currently conducting a study on **"Cash Management Practices and Financial Sustainability of Private Universities in Kenya."** I kindly request your assistance in this research by responding to the questionnaires. All the information you provide will be treated with the utmost confidentiality and used solely for the purposes of this study. You are not required to write your name, telephone number, or any other personal detail.

Sincerely,

Ibegbu Emmanuel

Section A: Demographic Information

Kindly respond using (√) and otherwise to answer each question in the box

Indicate your age 20-30 ☐ 31-40 ☐ 41-50 ☐ 51 and above ☐

Your years of work experiences1-10 ☐ 11-20 ☐ 21- 30 ☐ 31 and above ☐

Level of education: Bachelor ☐ Masters ☐ Doctorate ☐

Section B: Cash budgeting Practices and Financial Sustainability of Private Universities

Use (√) to indicate what applies to your university.

Statements	Strongly Disagreed	Disagreed	Undecided	Agreed	Strongly Agreed
Departments are involved in our budget preparation process					

Our budget preparation is aligned with financial sustainability objective					
Our budget preparation process is timely.					
we regularly monitor our budget to ensure spending is within the budget					
Our budget control mechanisms are effective in preventing overspending					
Timely adjustments as regards actual financial performance are made					
Our budget control practices contribute to financial sustainability.					
A positive variance always exists between cash budgeted and actual					
Corrective actions are taken on the results of budget variance analysis					
Budget variance analysis helps us to identify arears of inefficiency					
Cash budgeting helps our university allocation resources adequately					
Cash budgeting practices are important for the financial sustainability of our university					

Section C: Cash flow forecasting and financial sustainability of Private Universities

Use (√) to indicate what applies to your university.

Statements	Strongly Disagreed	Disagreed	Undecided	Agreed	Strongly Agreed
Our university can project when revenue would be received and spent					
Over five years, the university's revenue projections have been steadily accurate					
Revenue projections are used for strategic financial decisions in our school					
Accurate revenue projections have surely influenced our financial stability					
Our cash flow helps us mitigate risks.					
Our forecast is always adjusted based on actual performance.					
In the past 5 years our university has experienced stable cash inflows because of cash flow forecasting					
Cash flow forecasting leads to adequate resource allocation in our university					
Our university's expense forecast is effective in cost control.					
Accurate expense forecasts have contributed to the financial sustainability of our university.					

Our financial forecast is timely adjusted in response to changing conditions					
Adjustments made to financial forecasts have improved the university's financial stability.					

Section D: Cash Control Measure and financial sustainability of Private universities

Use (√) to indicate what applies to your university.

Statements	Strongly Disagreed	Disagreed	undecided	Agreed	Strongly Agreed
Segregation of duties in cash handling improved the risk of financial mismanagement in our university.					
Segregation of duties help improve financial health of our university					
Our internal audits are effective in identifying financial discrepancies that threaten our financial stability.					
The findings from our internal audits lead to effective corrective actions that support financial stability of our university.					
Periodic reconciliation processes contribute to better financial outcome of our university.					

Consistent reconciliation practices improved our financial sustainability.					
Effective cash control measures have contributed to our university's ability to meet its financial obligations.					

Section E: Surplus cash Management and Financial Sustainability of Private Universities

Statements	Strongly Disagreed	Disagreed	Undecided	Agreed	Strongly Agreed
Our university has maintained cash reserves to cover unexpected expenses					
Maintaining cash reserves reduces the financial risks faced by our university.					
Surplus cash contribute to our university's financial stability					
Our university reinvests its surplus into its strategic projects.					
Reinvesting in university projects improves our long term financial health.					
Our university invests surplus cash in short-term investments for more income					

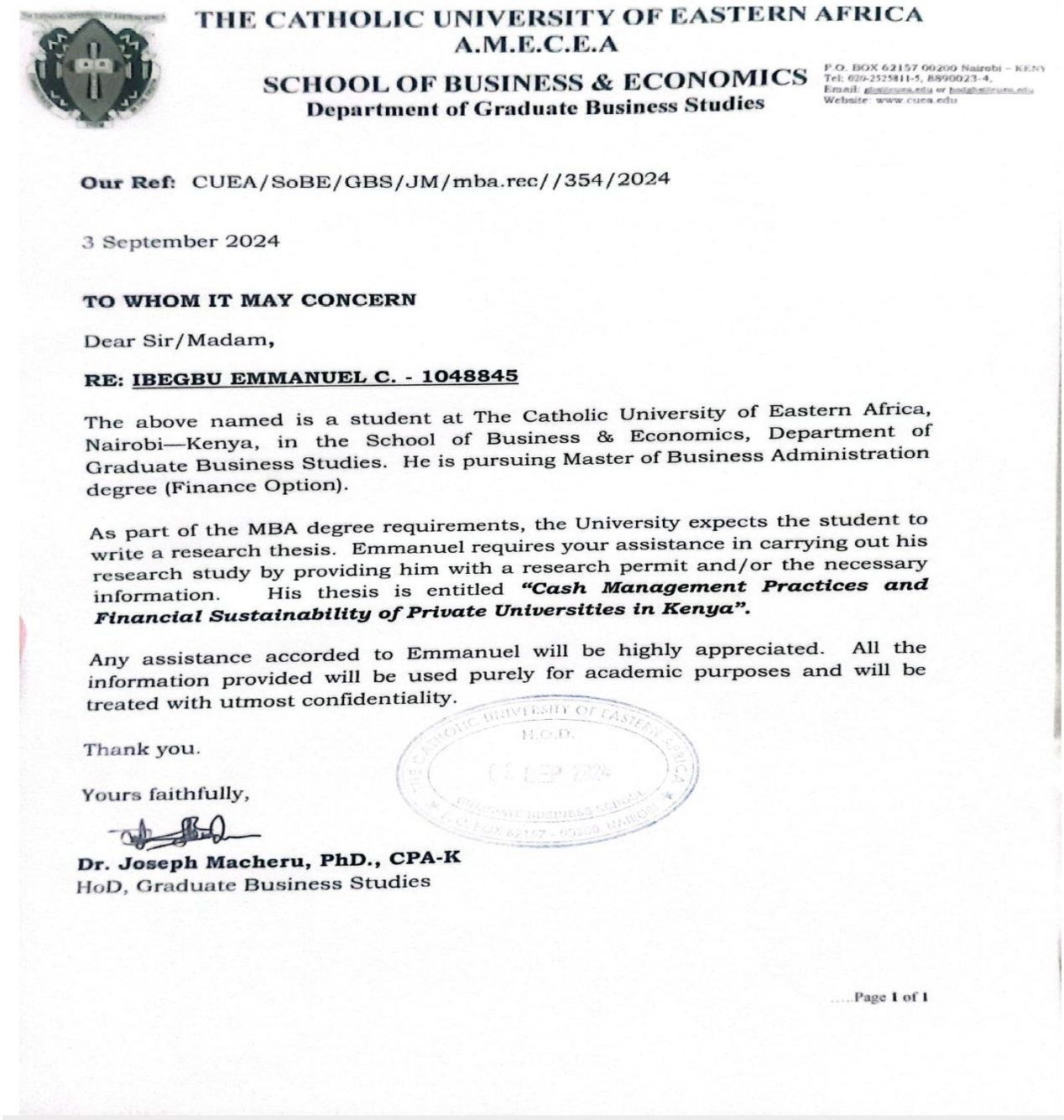
Short-term investments have provided our school with liquidity.					
Our university uses surplus cash for university expansion					
Our university invests surplus cash in long-term growth opportunities					

Section F: Financial Sustainability of Private Universities in Kenya

Statements	Strongly Disagreed	Disagreed	Undecided	Agreed	Strongly Agreed
Our university's student enrollment has steadily grown over the past five years.					
Our university has a strategic plan that prioritizes sustainable growth					
Our university is able to meet its short-term financial obligations					
Our university has sufficient liquidity to handle unexpected expenses					
Our university has not had to borrow overly to fund its operations in the last five years					
Our university has other sources of revenue besides school fees					

Our university maintains a healthy debt-to-equity ratio over five years					
For over 5 years now, our university has experienced surplus consistently					
Our university has maintained a sound cash position for some time					

Appendix C: Letters for Data Collection from Catholic University of Eastern Africa



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA
A.M.E.C.E.A

SCHOOL OF BUSINESS & ECONOMICS
Department of Graduate Business Studies

P.O. BOX 62157 00200 Nairobi – KENY
Tel: 020-2525811-5, 8890023-4,
Email: gbs@cuea.edu or hodgbs@cuea.edu
Website: www.cuea.edu

Our Ref: CUEA/SoBE/GBS/JM/mba.rec//354/2024

3 September 2024

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: IBEGBU EMMANUEL C. - 1048845

The above named is a student at The Catholic University of Eastern Africa, Nairobi—Kenya, in the School of Business & Economics, Department of Graduate Business Studies. He is pursuing Master of Business Administration degree (Finance Option).

As part of the MBA degree requirements, the University expects the student to write a research thesis. Emmanuel requires your assistance in carrying out his research study by providing him with a research permit and/or the necessary information. His thesis is entitled ***"Cash Management Practices and Financial Sustainability of Private Universities in Kenya".***

Any assistance accorded to Emmanuel will be highly appreciated. All the information provided will be used purely for academic purposes and will be treated with utmost confidentiality.

Thank you.

Yours faithfully,

Dr. Joseph Macheru, PhD., CPA-K
HoD, Graduate Business Studies

Page 1 of 1

Appendix D: Ethical Review Committee (ERC) Permission

VERDICT: APPROVED WITH COMMENTS

DAYSTAR UNIVERSITY
Excellence · Transformation · Servant-Leadership

Athi River Campus
P.O. Box 17, Daystar University,
90145, Athi River, Kenya

Valley Road Campus
P.O. Box 44400 - 00100,
Nairobi, Kenya

Tel: 0709 972 000
0716 170 313
0748 100 759
0724 256 408/9

E-mail: admissions@daystar.ac.ke OR
info@daystar.ac.ke

Website: www.daystar.ac.ke

Daystar University Institutional Scientific and Ethics Review Committee (DU-ISERC)

Our Ref: **DU-ISERC/26/09/2024/00124**

Date: 26th September 2024

To: Ibegbu Emmanuel Chinonye

Dear Emmanuel,

CASH MANAGEMENT PRACTICES AND FINANCIAL SUSTAINABILITY OF PRIVATE UNIVERSITIES IN KENYA

Reference is made to your ISERC application reference **No. 170924-01** dated **16th September 2024** in which you requested for ethical approval of your proposal by Daystar University Institutional Scientific and Ethical Research Committee (DU- ISERC).
We are pleased to inform you that ethical review has been done and the verdict is **Revise to the satisfaction of supervisors then proceed to the next level.** As guidance, ensure that the attached comments are addressed. Please be advised that it is an offence to proceed to collect data without addressing the concerns of DU- ISERC. Your application approval number is. **DU-ISERC-00124.** The approval period for the research is **between 26th September 2024 to 25th September 2025** after which the ethical approval lapses. Should you wish to continue with the research after the lapse you will be required to apply for an extension from DU-ISERC at half the review charges.

This approval is subject to compliance with the following requirements.

i. Only approved documents including (informed consents, study instruments, MTA) will be used.
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by Daystar University 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 Daystar University ISERC within 72 hours of notification.
iv. Any changes anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to Daystar University ISERC within 72 hours.
v. Clearance for 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 expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of a signed one-page executive summary report and a closure report within 90 days upon completion of the study to Daystar University DU- ISERC via email [duiserc@daystar.ac.ke].

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

Yours sincerely

Dr. Roseline Olumbe, PhD
Ag. Chair, Daystar University Institutional Scientific and Ethics Review Committee
Encl. Review Report

*"...until the day dawn and the **daystar** arise in your hearts"*
2 Peter 1.19 KJV

Appendix E: National Commission for Science, Technology, and Innovation (NACOSTI)

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **795558**

Date of Issue: **09/September/2024**

RESEARCH LICENSE



This is to Certify that Rev.. EMMANUEL CHINONYE IBEAGBU of Catholic University of Eastern Africa, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in on the topic: CASH MANAGEMENT PRACTICES AND FINANCIAL SUSTAINABILITY OF PRIVATE UNIVERSITIES IN KENYA for the period ending : 09/September/2025.

License No: **NACOSTI/P/24/39891**

795558

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 F: Permission for Data Collection from United States International University

United States International University-Africa
Education to take you places

EMMANUEL CHINONYE IBEAGBU
ibegbuemmanuel@gmail.com

30TH /09/2024

Dear Emmanuel,

REF: PERMISSION TO CONDUCT RESEARCH AT USIU-AFRICA

Following your request to conduct research at USIU-Africa on the topic **"Cash Management Practices and Financial Sustainability of Private Universities in Kenya"** the university's Research Office has authorized you to collect data from the respondents in the Institution.

However, the university imposes the following conditions:

1. No personal information will be asked of the respondents.
2. You will share the preliminary report findings with the university prior to completion.
3. You will provide a copy of the completed research to USIU-Africa.
4. Under no circumstances will the information obtained from USIU-Africa be re-used or disclosed for other purposes.

Your research period expires on 30th Septrmber, 2025. Kindly contact the undersigned in case of any clarifications.

Sincerely,

UNITED STATES INTERNATIONAL UNIVERSITY RESEARCH OFFICE AFRICA

Prof. Amos Njuguna,
DVC- Transformative Teaching,Learning and Research.
Tel: 0730116442
Email: amnjuguna@usiu.ac.ke

P.O. Box 14634-00800, Nairobi, Kenya | Tel: +254-730-116-291/290 | Email: info@usiu.ac.ke
www.usiu.ac.ke

Appendix G: Permission for Data Collection from KCA

Thika Road, Exit 5, Utalii Lane, Ruaraka
P.O. Box 56808-00200 Nairobi, Kenya
Telephone: 0734 888022, 0710888 022
Email: dvcrio@kcau.ac.ke
Website: www.kcau.ac.ke

OFFICE OF THE DVC RESEARCH, INNOVATION & OUTREACH

Ref: KCAU/DVCRIO/RDC/04 **Date:** 2nd October, 2024

Emmanuel Ibegbu
Catholic University of Eastern Africa
Department of Graduate Business Studies
P. O. Box 62157- 00200
Nairobi

Dear Mr. Ibegbu,

RE: AUTHORIZATION TO COLLECT RESEARCH DATA AT KCA UNIVERSITY

Reference is made to your email received on 18th September, 2024 requesting authorization to collect data at KCA University on the topic "**"Cash Management Practices and Financial Sustainability of Private Universities in Kenya"** for your Master program at Catholic University of Eastern Africa.

I am pleased to inform you that your request to collect data has been considered and approved. It is noted that your data will be collected from the Finance Department. KCA University guidelines and policies as well as the Data Protection Act of 2019 shall apply as you collect your data within the University. It is further noted that the data collected shall solely be used for academic purposes and will be treated with utmost confidentiality.

The University requires that upon completion of your research, you will submit a copy of your report to the Deputy Vice-Chancellor (Research, Innovation and Outreach) for records.

Yours sincerely,

Prof. Vincent O. Onywera
DEPUTY VICE -CHANCELLOR RESEARCH, INNOVATION AND OUTREACH AND PROFESSOR OF EXERCISE AND SPORTS SCIENCE

cc: Vice-Chancellor & CEO
DVC, Academic and Student Affairs
DVC, Finance, Planning and Development
Dean Research, Innovation and Outreach
Head of Finance
Chair, KCAUSERC
KCA University Data Protection Office

Sponsored by ICPAK

Appendix H: Permission for Data Collection from Africa Nazarene University

AFRICA NAZARENE
UNIVERSITY

P.O.Box: 53067 – 00200
Nairobi, Kenya.
Tel: 020 252 7170/1 – 5
Email: vc@anu.ac.ke
www.anu.ac.ke

24th September 2024

Emmanuel Ibegbu
The Catholic University of Eastern Africa
P.O. Box 62157 -00200
Nairobi, Kenya

Dear Emmanuel,

Re: Data Collection Authorization

We acknowledge receipt of your email requesting us to grant you permission to collect data for your Thesis titled**-:**

"Cash Management Practices and Financial Sustainability of Private Universities in Kenya".

We are pleased to inform you that your request has been granted with effect from Wednesday 25th September 2024. You will therefore be expected to adhere to the following:

1. Conduct your study within the stipulated period by NACOSTI.
2. Produce this letter to the relevant Officers to enable you to collect data.
3. Maintain the privacy, confidentiality and/or anonymity of your respondents in the presentation of your research data and findings.
4. Submit a copy of your report to the office of the Dean of Postgraduate Studies and Director of the Institute of Research after you are through with data collection.
5. Share a brief summary of the major findings with the university.

Please indicate your acceptance of this letter by signing below and return a copy of this letter to the undersigned.

Sincerely,

Prof. Elijah Siringi
Ag. Dean, Postgraduate Studies & Director Institute of Research

Appendix I: Permission for Data Collection from Pan Africa Christian University

Pan Africa Christian University

Thika Road Campus | Valley Road Campus
P.O. Box 56875-00200 | +254 730955000 | +254 730955501/2
enquiries@pacuniversity.ac.ke | www.pacuniversity.ac.ke

Emmanuel Ibegbu (Admission No. 1048845)

C/O Catholic University 2nd October 2024

Dear Emmanuel,

RE: Emmanuel Ibegbu (1048845): Cash Management Practices and Financial Sustainability of Private Universities in Kenya

You have been granted permission to collect data from our Finance department personnel using a questionnaire which has been evaluated together with the requisite documents.

The Directorate of Research finds your request reasonable and thus allows you to carry out this activity.

The Directorate will support you in whichever way that you may request so long as it does not compromise our policies. We would also appreciate if you would share the results of your study with us.

We wish you well in your studies.

Yours Sincerely,



Dr. Jane Kinuthia

DIRECTOR, RESEARCH

Pan Africa Christian University

Appendix J: Permission for Data Collection from Strathmore University

Strathmore UNIVERSITY

2nd October, 2024

Emmanuel Chinonye Ibeagbu,
Master of Business Administration (Finance Option),
Catholic University of Eastern Africa. Email:
ibegbuemmanuel@gmail.com

Dear Emmanuel Chinonye Ibeagbu,

RE: AUTHORIZATION TO COLLECT DATA AT STRATHMORE UNIVERSITY

The Research and Innovation Department at Strathmore University has reviewed and granted you the authorization to collect data from the Director of Finance or any other person as directed by the Finance Department for the completion of your Master of Business Administration (Finance Option). The study *"Cash Management Practices and Financial Sustainability of Private Universities in Kenya"* aims to establish the effect of cash management practices on the financial sustainability of private universities in Kenya, hence offering recommendations to the management of private universities.

The authorization is effective from **October 2nd, 2024**, to **January 1st, 2025**.

Please sign the declaration form binding you to the ethical use of the data you collect from Strathmore University (meant strictly for the purposes of your study).

Yours sincerely,

02 OCT 2024

Prof. Izael Da Silva
Deputy Vice-Chancellor - Research and Innovation

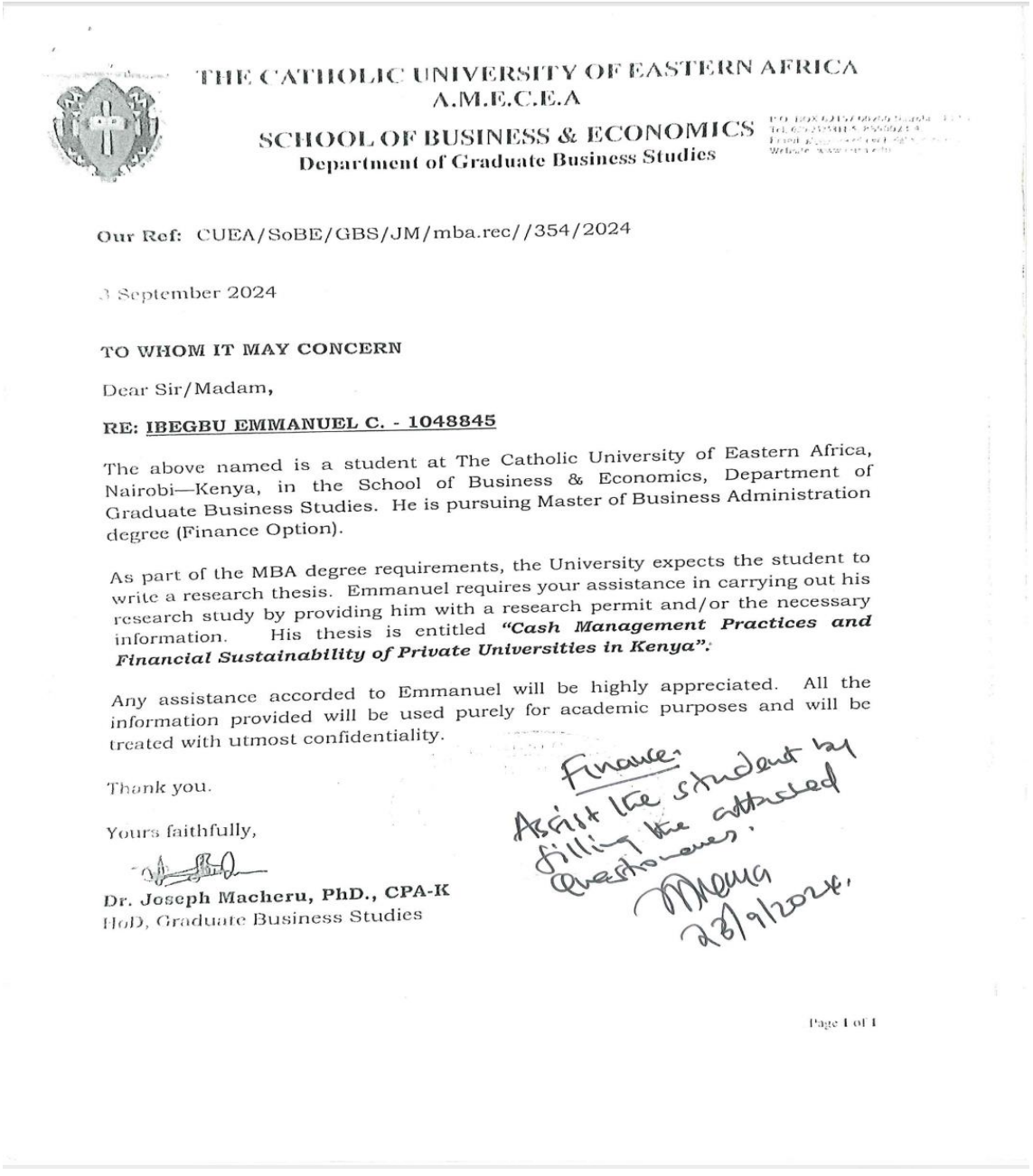
Ole Sangale Rd, Madaraka Estate. PO Box 59857-00200, Nairobi, Kenya. Tel +254 (0)703- 034000
Email info@strathmore.edu www.strathmore.edu

Appendix K: Permission for Data Collection from Amref International University

On Tue, Sep 17, 2024, 9:16 AM Patrick Okwarah <Patrick.Okwarah@amref.ac.ke> wrote:

> Dear Emmanuel,
>
> Many thanks for the clarification.
>
> I'm happy to connect you with our Finance Controller, @Rose Wambui Mungai, with whom I discussed your research and the fact that you have obtained all ethical approvals. Rose will guide you on whom to interview within her department, should she be unavailable.
>
> Please feel free to reach out to her with more details, including whether you plan to conduct the interview virtually or in person.
>
> Kind regards,
> Patrick

Appendix L: Permission for Data Collection from Management University of Africa



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA
A.M.E.C.E.A
SCHOOL OF BUSINESS & ECONOMICS
Department of Graduate Business Studies

Our Ref: CUEA/SoBE/GBS/JM/mba.rec//354/2024

3 September 2024

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: IBEGBU EMMANUEL C. - 1048845

The above named is a student at The Catholic University of Eastern Africa, Nairobi—Kenya, in the School of Business & Economics, Department of Graduate Business Studies. He is pursuing Master of Business Administration degree (Finance Option).

As part of the MBA degree requirements, the University expects the student to write a research thesis. Emmanuel requires your assistance in carrying out his research study by providing him with a research permit and/or the necessary information. His thesis is entitled ***"Cash Management Practices and Financial Sustainability of Private Universities in Kenya".***

Any assistance accorded to Emmanuel will be highly appreciated. All the information provided will be used purely for academic purposes and will be treated with utmost confidentiality.

Thank you.

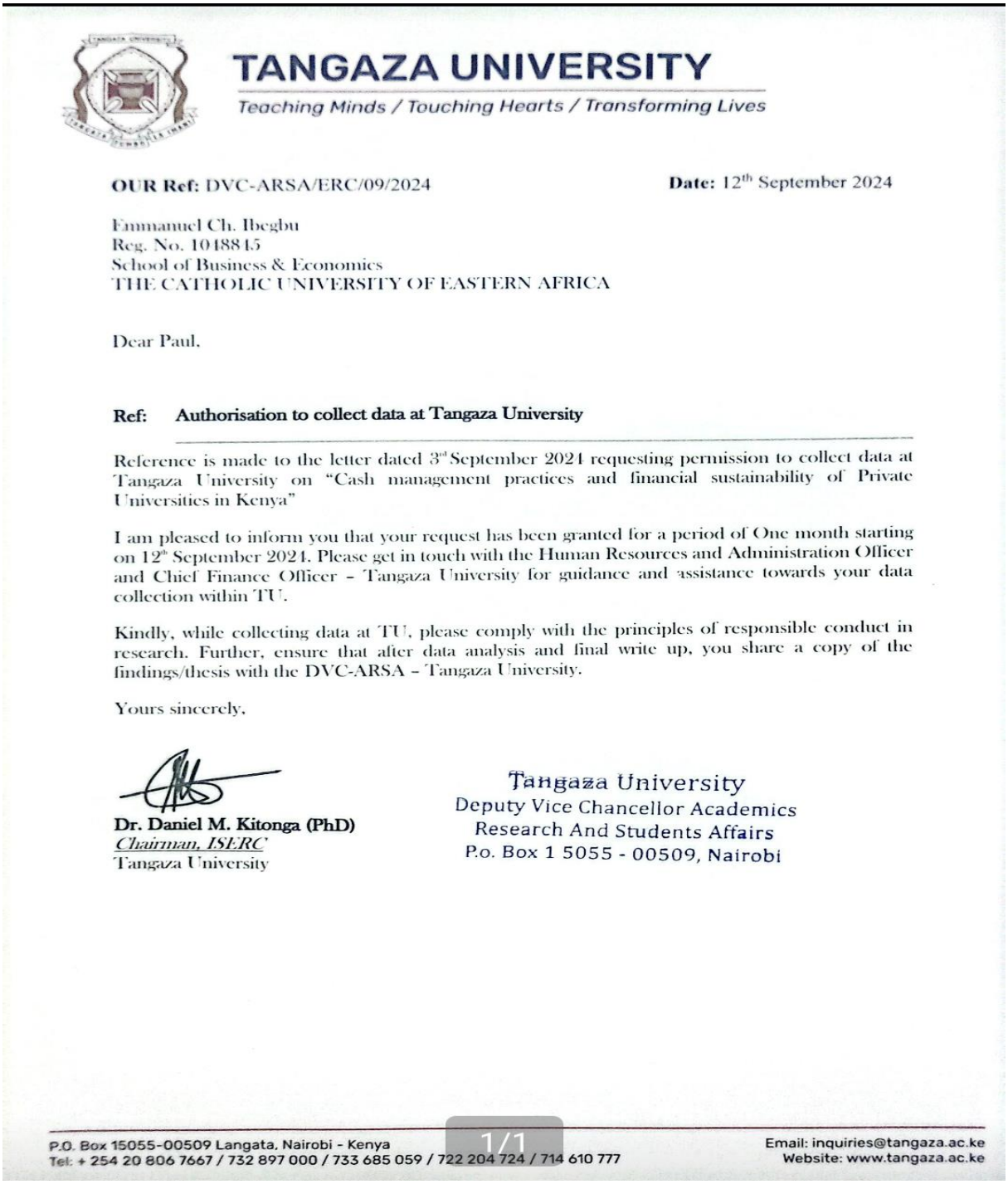
Yours faithfully,

Dr. Joseph Macheru, PhD., CPA-K
HoD, Graduate Business Studies

Finance:
Assist the student by filling the attached questionnaires.
28/9/2024.

Page 1 of 1

Appendix M: Permission for Data Collection from Tangaza University



TANGAZA UNIVERSITY

Teaching Minds / Touching Hearts / Transforming Lives

OUR Ref: DVC-ARSA/ERC/09/2024 **Date:** 12th September 2024

Emmanuel Ch. Ibegbu
Reg. No. 1048845
School of Business & Economics
THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

Dear Paul,

Ref: Authorisation to collect data at Tangaza University

Reference is made to the letter dated 3rd September 2024 requesting permission to collect data at Tangaza University on "Cash management practices and financial sustainability of Private Universities in Kenya"

I am pleased to inform you that your request has been granted for a period of One month starting on 12th September 2024. Please get in touch with the Human Resources and Administration Officer and Chief Finance Officer – Tangaza University for guidance and assistance towards your data collection within TU.

Kindly, while collecting data at TU, please comply with the principles of responsible conduct in research. Further, ensure that after data analysis and final write up, you share a copy of the findings/thesis with the DVC-ARSA – Tangaza University.

Yours sincerely,

Dr. Daniel M. Kitonga (PhD)
Chairman, ISERC
Tangaza University

Tangaza University
Deputy Vice Chancellor Academics
Research And Students Affairs
P.o. Box 1 5055 - 00509, Nairobi

P.O. Box 15055-00509 Langata, Nairobi - Kenya
Tel: + 254 20 806 7667 / 732 897 000 / 733 685 059 / 722 204 724 / 714 610 777
Email: inquiries@tangaza.ac.ke
Website: www.tangaza.ac.ke

1/1

Appendix N: Permission for Data Collection from St. Paul's University

ST. PAUL'S UNIVERSITY

Private Bag 00217 LIMURU, KENYA
Email: dvcaa@spu.ac.ke
Website: www.spu.ac.ke

Tel Office: + 254(0) 20-2020505/10
Mobile: + 254(0) 728 -669000
(0) 736 - 424440

OFFICE OF THE DEPUTY VICE CHANCELLOR - ACADEMICS

30th September 2024

Ibegbu Emmanuel Chinonye
Reg. No: 1048845
The Catholic University of Eastern Africa

Dear Ibegbu,

RE: PERMISSION TO COLLECT DATA AT ST. PAUL'S UNIVERSITY

This is to acknowledge receipt of your letter dated 26th September 2024, requesting for permission to collect data at St. Paul's University for your research study titled ***"Cash Management Practices and Financial Sustainability of Private Universities in Kenya".***

I have noted that you have already obtained the necessary approvals and clearance. The permission is therefore granted, but kindly note that the collected data must be used unanimously and for academic purposes only. You are requested to get in touch with the Human Resource Manager, who will be your liaison person. Further you are requested to share your findings with the university upon the conclusion of the study.

We wish you all the best in your studies.

Yours Sincerely,

DVC Academic Affairs
St. Paul's University
P. O. Private Bag, Limuru - 00217
Tel: 020 - 2020505 / 510

Prof. A.K. Waithima, PhD.
Deputy Vice Chancellor, Academic Affairs

cc: Human Resource Manager

Appendix O: Permission for Data Collection from Mount Kenya University

Mount Kenya University

COLLEGE OF GRADUATE STUDIES AND RESEARCH

OUR REF: MKU00/CGSR/L-2024/022

27th September, 2024

Mr. Ibegbu Emmanuel Chinonye
C/O Catholic University of Eastern Africa (CUEA)
P.O BOX 62157-00200
NAIROBI, KENYA
Email: ibegbuemmanuel@gmail.com;

Dear Mr. Chinonye,

REF: AUTHORIZATION FOR DATA COLLECTION AT MOUNT KENYA UNIVERSITY

Following review of your request for data collection, we are of the opinion that your study title, ***"Cash Management Practices and Financial Sustainability of Private Universities in Kenya"*** has provided a detailed outline of the research methodology, including the procedures for data collection, analysis, and storage, which align with the ethical standards and regulations governing research at Mount Kenya University.

As such, this letter formally authorizes the collection of data for research purposes. We understand the importance of data collection for academic research and its contribution to advancing knowledge in various fields. This authorization includes access to facilities, participants, and any other resources necessary (if requested) for the successful execution of the study. Further, we expect that you will share with us the findings of your study at the end of the research period.

We trust that yourself/team/assistant will conduct the research with utmost professionalism, integrity, and respect for the rights and confidentiality of participants. In addition, you (your team) should strictly adhere to the ethical principles outlined by our institution and to obtain informed consent from all participants involved in the study. Any personal or sensitive information should be handled in accordance with The Data Protection Act, 2019 laws and regulations of Kenya.

While at Mount Kenya University, kindly liaise with the Principal Finance Officer Email: pfo@mku.ac.ke; for guidance on the specific respondents.

We advise that you or your appointed representative should be there to oversee the data collection and please should you need other support, liaise with Dr. Francis Makokha, Director, Research and Innovation at fmakokha@mku.ac.ke.

Sincerely

Mount Kenya University
P. O. Box 342 - 01000, THIKA
Office of the Principal
College of Graduate Studies & Research

Dr. Henry Yatich, PhD
PRINCIPAL
Copy to: *Vice-Chancellor*
Deputy Vice-Chancellors
Principal Finance Officer
Director, Research and Innovation

Appendix P: Participant Information Sheet

PARTICIPANT INFORMATION SHEET

Title of Study: Cash Management Practices and Financial Sustainability of Private Universities in Kenya

Investigator: Ibegbu Emmanuel Chinonye

Institutional Affiliation: Catholic University of Eastern Africa (CUEA)

Introduction

You are invited to participate in a research study that aims to investigate the relationship between cash management practices and the financial sustainability of private universities in Kenya. Before you decide to take part, please take time to read and understand the following information about what the study involves and your role as a participant. Your questions are welcomed.

Purpose of the Study

The objective of this study is to assess how cash management practices influence the financial sustainability of private universities in Kenya. The findings will offer insights that may help improve financial strategies within educational institutions, especially private universities.

Study Activities

As a participant, you will be asked to complete a questionnaire that will capture information regarding cash management practices and their effect on the financial sustainability of your institution. The questionnaire is as follow;

the information, asked any necessary questions, received satisfactory explanations, and fully understood all aspects of the study. Your participation is completely voluntary, and you are not under any obligation to take part; your involvement is entirely by your own choice.

What are the Possible Risks or Danger if I take part in the Study?

There are no foreseeable risks or danger in taking part in this study. We assure you that the information you will provide will be treated with high level of confidentiality and will not be used in any other thing without your express permission.

What will Benefit if I Participate in the Study?

The intended outcome of the research may serve to improve cash management practices and financial sustainability of your institution when adopted and applied. Again, it is important to say that there are no monetary benefits involved in the whole process.

Will Anything Happen to me if I refused to Participate in the Study?

No, the decision to participate in the study is all yours and you will not lose anything if you did not participate. Again, you can always decide not to participate and dropout at any time when you feel not comfortable anymore.

Who will have Access to my Information During this Research?

We want to assure you to always know that the information that you will provide for us will be treated confidential and will only be accessed by our research team and no other persons.

Are there People I can Contact in case I have further Questions?

Yes! You can contact the following people

- Ibegbu Emmnauel Chinonye at **ibegbuemmanuel@gmail.com** or **0745291186**.
- My; Dr. Cliff Osoro **(0720077652)** First supervisors
- Henry K. Mburu, Ph.D., CPA **(0707054399)** Second supervisors
- CUEA Graduate Business Studies at gbs@cuea.edu Independent person

I, the participant has read through the participant consent form, asked necessary questions, and adequate and satisfactory answers were provided. I hereby give my consent to participate in the study

Participant's Name:

Participant's Signature:

Date:

I Ibegbu Emmanuel Chinonye the investigator states that I have taken time to explain, answer questions raised by the participants to their satisfaction.

Investigator's Signature:

Investigator's Name:

Ibegbu Emmanuel Chinonye

Date:

16/09/2024

Appendix Q: Participant Consent Form

PARTICIPANT CONSENT FORM

TOPIC: CASH MANAGEMENT PRACTICES AND FINANCIAL SUSTAINABILITY OF PRIVATE UNIVERSITIES IN KENYA

INVESTIGATOR: IBEGBU EMMANUEL CHINONYE

INSTITUTIONAL AFFILIATION: CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)

Purpose of the Study

The goal of this study is to investigate the effect of cash management practices employed by private universities in Kenya on the financial sustainability of the institutions. The findings from this research will provide valuable insights that can support the financial health and sustainability of educational institutions in Kenya, benefiting more the private universities.

Must I Take Part in this Study?

You are free to decide whether to participate in the study or not to participate. In other words, it is optional depending on your decision. However, if you opt to participate, you will be required to complete a questionnaire to get information on cash management practices and financial sustainability of your institutions.

The Individuals that can Take Part in the Study

- Finance officers
- Bursars
- Accountants, or individuals in equivalent roles responsible for overseeing cash management and financial operations in private universities in Kenya.

Individuals that are not Allowed to Take Part in The Study

- Persons with no knowledge or information on cash management practices and financial sustainability of the participants of the study (Private universities in Kenya)

The things that are required of me, if I opt to Participate in the Study

You will be required to sign this participant consent form, indicating that you have read