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**Financial Management Practices and Financial Sustainability in Mission Hospitals,  
Kiambu County, Kenya**

Josphat Karanja Mwangi and Dr. Eddie Simiyu

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<sup>1</sup>Josphat Karanja Mwangi

Department of Accounting and Finance, Kenyatta University, Kenya



<sup>2</sup>Dr. Eddie Simiyu

Department of Accounting and Finance, Kenyatta University, Kenya

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**Abstract**

**Purpose:** The study aimed to examine the role of financial management practices in the financial sustainability of mission hospitals in Kiambu County, Kenya. It seeks to understand how financial planning, funding practices, working capital management, and health sector regulations impact the economic stability and operational viability of these vital healthcare institutions.

**Methodology:** The study utilized a descriptive cross-sectional research design to explore the financial management practices and their impact on the financial sustainability of mission hospitals in Kiambu County, Kenya. Data collected on various financial indicators and management practices were analyzed using the Statistical Package for the Social Sciences (SPSS) version 22. Descriptive statistics such as mean and standard deviation were computed to summarize the financial management practices observed in the hospitals. The findings were presented using tables to display the summary statistics and charts and graphs to illustrate trends and comparisons across different financial indicators. Additionally, inferential analyses, including Pearson correlation and multiple linear regression, were conducted to assess relationships between variables and determine the predictors influencing the financial sustainability of the hospitals.

**Findings:** The study achieved an 89.6% response rate, revealing a predominantly male (53.4%) and mature workforce, with most respondents aged 31–40 and over 51. Significant positive relationships were found between financial sustainability and financial planning and control practices ( $\beta_1 = 0.241$ ,  $p = 0.003$ ), financing and funding practices ( $\beta_2 = 0.231$ ,  $p = 0.002$ ), and working capital management practices ( $\beta_3 = 0.332$ ,  $p = 0.000$ ). Financial management practices explained 39.2% of the variation in financial sustainability. Health sector regulations significantly moderated the relationship between financial planning and control practices and financial sustainability ( $\beta_{4a} = -0.215$ ,  $p = 0.035$ ), but had no significant moderating effect on financing or working capital management practices.

**Unique Contribution to Theory, Practice and Policy:** The study findings align with several financial theories, providing valuable insights into financial management practices in mission hospitals. They support the Pecking Order Theory by highlighting the prioritization of internal financing to maintain autonomy and minimize information asymmetry. Additionally, the findings contribute to the Cash Conversion Cycle Theory, emphasizing the role of efficient working capital management in enhancing liquidity and reducing the need for external financing. Moreover, the research supports contingency theory by underscoring the influence of financial management practices on financial sustainability and advocating for tailored financial strategies in mission hospitals. The study also contributes to the theory of budgeting by stressing the importance of systematic budgeting in financial decision-making for resource allocation and financial stability. These insights offer valuable guidance for both policymakers and practitioners in mission hospitals, informing policy decisions and providing practical recommendations to enhance financial management practices and achieve greater financial sustainability in these healthcare institutions.

**Keywords:** *Financial Practices, Financial Planning, Working Capital Management, Health Sector Regulation, Financial Sustainability*

**JEL Cod of Classification:** *G30, M41, G11, G32, G32, Q56*

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## INTRODUCTION

Mission hospitals are pivotal in healthcare delivery, especially in regions where they significantly contribute to outpatient and inpatient care. Long et al., (2020) explored the challenges faced by mission hospitals in India from 2010 to 2017, revealing their responses and contributions to the broader health system. Mission hospitals, such as AIC Kijabe Hospital and PCEA Kikuyu Hospital, are prominent in Kenya, specifically Kiambu County. They address gaps left by the Ministry of Health due to resource constraints and play a crucial role in providing healthcare services to medium- and low-income populations in rural areas (Mbugua Gaturu, 2012; Mwangi Ombui, 2013).

Mission hospitals navigate diverse challenges, including socio-political changes, governance issues, financial constraints, service delivery struggles, and human resource strains (Long et al., 2020). They are especially important during global pandemics, economic instabilities, and shifting donor preferences because they provide essential services to vulnerable populations (Garrett, 2017). In crises, these hospitals provide crucial healthcare access, maintaining continuity of care amidst economic uncertainties and evolving donor priorities.

Mission hospitals face issues such as inadequate infrastructure and healthcare personnel shortages, impacting their financial stability (Dovlo, 2005). In sub-Saharan Africa, mission hospitals like those in Ghana and Tanzania encounter distinct challenges related to local health policies, economic differences, and cultural aspects (Agyepong et al., 2017). In Kenya, organizations like the Christian Health Organization of Kenya and the Episcopal Conference of Kenya coordinate networks of mission hospitals to address healthcare gaps. However, these hospitals face significant challenges, including high staff turnover, rising healthcare costs, inadequate staffing levels, and limited financial support from subsidies (Mwangi and Ombui, 2013; Konyach et al., 2021).

The financial viability of faith-based organizations (FBOs) globally mirrors concerns such as donor fatigue, increased governmental scrutiny, and economic downturns (Farrants and Kristin, 2016). Financial sustainability, defined as the ability to consistently uphold financial resources to cover operational expenses and facilitate growth, remains daunting for FBOs, particularly in Kenya. Achieving financial sustainability involves developing diverse measures and prudent financial management practices (Keisler et al., 2014). Effective financial management practices are crucial for maximizing asset utilization and ensuring economic sustainability, with a significant number of Kenyan NGOs relying heavily on donor funding (Hager and Hung, 2019; Achola, 2017; Gitonga C, 2021).

Financial management in mission hospitals encompasses strategic planning and managing limited resources, ensuring an adequate supply of funds, covering expenses, managing debt, and providing satisfactory returns to stakeholders. Financial planning and control, budgeting, financial reporting, fundraising strategies, and working capital management are critical components of financial management practices (Uremadu et al., 2012; Gupta et al., 2023). These practices optimize resource allocation, monitor financial performance, and mitigate financial risks within the hospital's operations.

Fundraising strategies generate additional revenue streams, supporting operational and capital needs. Effective fundraising requires strong relationships with donors, clear communication of the hospital's mission and impact, and efficient management of fundraising campaigns. Working capital management involves balancing current assets and liabilities to ensure

adequate liquidity for day-to-day operations, optimizing resource utilization, and enhancing overall financial performance (Alya et al., 2021).

Financial sustainability refers to an organization's capacity to meet its objectives and fulfill stakeholder expectations over the long term, extending beyond short-term financial solvency to ensure growth, development, and effective operation while maintaining relevance in the future (Song and Zhou, 2020). It involves prudent financial resource management to support operations, investments, and strategic initiatives, ensuring stability, resilience, and viability over time. Achieving financial sustainability requires careful management of various financial factors, including revenue generation, expense management, debt management, and adaptation to changing economic and market conditions (Almagtome et al., 2019; Schwab et al., 2019).

Faith-based organizations (FBOs) like mission hospitals face challenges such as dependence on donor funds, requiring effective management and accountability to reduce reliance on donor funds while offering sustainable services to the community (Fago, 2019). Concerns about the ability of FBOs to build and sustain operations highlight the necessity of understanding their dynamics, financial viability, and economic sustainability. These organizations must find strategic options to ensure financial sustainability and maximize donor utility through optimal resource utilization (Mayberry et al., 2008).

In Kenya, the health sector regulations entail a comprehensive set of rules, laws, guidelines, and standards established by governmental and regulatory bodies to oversee and control the operation of healthcare systems, providers, and institutions (Okoroafor, 2021). These regulations ensure public access to high-quality, safe, and efficient healthcare services.

Mission hospitals such as AIC Kijabe Hospital and PCEA Kikuyu Hospital, located in Kiambu County, are subject to oversight by multiple regulatory bodies, including the Kenya Medical Practitioners and Dentists Council (KMPDC) and the Ministry of Health (MOH), to ensure compliance with national healthcare standards (Suchman and Montagu, 2021; Kinuthia et al., 2022). The Kenya Bureau of Standards (KEBS) oversees quality assurance processes, mandating that medical equipment and supplies meet national standards (Mutambi, 2022). Integration into the national health insurance system, regulated by the National Hospital Insurance Fund (NHIF), boosts revenue generation for mission hospitals (Diang'a, 2022).

Organizations like the Kenya National Commission on Human Rights (KNCHR) and the Ethics and Anti-Corruption Commission (EACC) monitor ethical and patient rights standards, ensuring that mission hospitals uphold ethical standards in patient care and protect patient confidentiality (Okello, 2021). The Christian Health Association of Kenya (CHAK) supports mission hospitals in financial planning, fundraising, and compliance with financial regulations, contributing to financial sustainability (Lekaldero et al., (2022). These regulatory bodies create a comprehensive framework that governs the operation of mission hospitals in Kenya, ensuring they provide safe, effective, and equitable healthcare services in alignment with national health objectives (Ismanu and Kusmintarti, 2019).

Mission hospitals in Kiambu County face numerous challenges but are crucial to healthcare delivery, especially for vulnerable populations. Effective financial management and compliance with health sector regulations are essential for their sustainability and continued contribution to the healthcare system (Long et al., 2020; Garrett, 2017; Mwangi and Ombui, 2013).

## **Statement of the Problem**

In Kenya, mission hospitals are committed to providing comprehensive and sustainable quality healthcare services to everyone, and they play a significant role, contributing 43% to healthcare service delivery (Gaturu et al., 2017).

Mission hospitals in Kiambu County face substantial financial challenges despite their critical role in providing essential healthcare services to underserved rural areas. Statistics indicate that 50% of church-based health facilities are unstable, 40% barely break even, and only 10% are financially robust, posing a threat to the church's contribution to the healthcare sector and the achievement of sustainable development goals (CHAK, 2018). While mission hospitals' compassionate approach is commendable, it also contributes to financial strain, with hospitals such as AIC Kijabe and PCEA Kikuyu covering millions of shillings in medical expenses for financially disadvantaged patients each year. Rising staff expenses further impact the financial sustainability of these hospitals, necessitating a delicate balance between economic viability and compassionate care provision (Gaturu et al., 2017). Existing studies in different contexts, such as those by Abera and Denu, (2017) and Prakash (2018), offer insights into financial management practices and sustainability, yet they lack a Kenyan perspective. Studies by Mbuya and Osodo (2018) underscore the importance of financial management but overlook the distinct challenges faced by faith-based hospitals. Despite valuable insights from studies like Oyaro (2021) and Abuor (2012), which highlight the benefits of working capital management and healthcare financing strategies, there remains a significant knowledge gap regarding the correlation between financial management practices and financial sustainability in Kenyan mission hospitals. Addressing this gap is crucial for developing targeted interventions to enhance the financial viability of mission hospitals in Kiambu County (CHAK, 2018; Consumer Federation of Kenya, 2017; Gaturu et al., 2017; Abera and Denu, 2017; Oyaro, 2021; Abuor, 2012).

## **LITERATURE REVIEW**

This chapter reviews prior research on financial management practices and sustainability in mission hospitals, forming the analytical framework for this study. It covers relevant theories such as the Pecking Order Theory, Cash Conversion Cycle Theory, Contingency Theory, and Budgeting Theory. The chapter also presents a conceptual framework and identifies existing gaps to establish the theoretical foundation.

### **Theoretical Framework**

Several theories are crucial to understanding financial management techniques. The Pecking Order Theory, proposed by Myers and Majiuf, (1984) and refined by Lucas and McDonald (1990), addresses financial decision-making in corporations, focusing on information asymmetry between managers and external investors. It suggests that firms prioritize internal financing, followed by debt, and finally equity, to minimize information asymmetry and maintain financial autonomy. Critiques of the theory highlight the need to consider external factors like government policies and interest rates. In mission hospitals, this theory implies a preference for internal financing to limit external liabilities and maintain a positive financial image.

The Cash Conversion Cycle (CCC) Theory, proposed by Blinder and Maccini (1991) and emphasized by Gitman (1974), measures the time it takes for a company to transform its resources into cash. It includes the inventory conversion period, the accounts receivable collection period, and the accounts payable period. A shorter CCC indicates better financial

performance and liquidity. For mission hospitals, optimizing the CCC is crucial for managing credit sales efficiently, improving liquidity, and reducing reliance on external financing.

The contingency theory, introduced by Pike (1986), emphasizes the influence of contextual factors on financial management. It suggests that different organizations require tailored financial management practices based on their unique circumstances. The theory highlights the importance of considering historical performance, capital budgeting policies, and professional competence. For mission hospitals, adapting management practices to specific contexts, such as mission alignment and community needs, is vital for effectiveness and sustainability.

The Theory of Budgeting, attributed to Lewis (1952), applies marginal utility to public expenditures. It outlines a process comprising investment screening, capital budget proposals, budget approval, project tracking, and post-completion audits. Budgeting is critical for effective financial management, uncertainty reduction, and resource allocation. It serves as a policy framework guiding income and expenditure decisions, ensuring organizational performance and efficiency. For mission hospitals, budgeting is essential for financial planning and sustainability. Integration and reconciliation of financial management theories provide mission hospitals with a comprehensive framework to address financing strategies, liquidity management, contextual adaptation, and budgetary control. While these theories overlap in emphasizing efficiency, sustainability, and risk management, they may present contradictions in specific recommendations, such as prioritizing internal financing versus optimizing the Cash Conversion Cycle (CCC). Resolving these requires a detailed approach tailored to hospital contexts. By integrating insights from these theories, mission hospitals can enhance financial decision-making, improve operational efficiencies, ensure sustainable healthcare delivery, and effectively manage resources to meet community needs.

### **Empirical Review**

The study analyzed various reviews on financial planning, control practices, financing, funding diversification, and working capital practices in relation to financial sustainability in mission hospitals.

### **Financial Planning, Control Practices and Financial Sustainability**

An organization's long-term success and stability rely on the close intertwining of financial planning and financial sustainability. Financial planning provides the framework for achieving financial sustainability by setting clear goals, identifying the resources needed to meet those objectives, and establishing strategies to acquire and allocate those resources effectively. This involves budgeting, forecasting, and strategic decision-making to optimize financial performance. Financial sustainability is the result of effective financial planning, which allows an organization to maintain its financial health, adapt to changing circumstances, and continue operating in a financially viable manner over the long term.

Studies by Hailey and Salway (2016) and Oyaro (2021) explored the impact of financial practices on the sustainability of non-profit entities, highlighting the need for tailored financial management strategies to address the unique challenges faced by mission hospitals. Mwangi and Ombui (2013) discussed the financial difficulties encountered by healthcare institutions, such as high staff turnover, rising healthcare costs, inadequate staffing levels, and limited subsidies, emphasizing the necessity for sound financial management practices.

Empirical evidence underscores the importance of strategic financial planning in achieving long-term sustainability. Kipkosgei Bore, (2022), emphasized the role of budgeting, revenue

generation, cost control measures, and investment strategies in maintaining financial stability for faith-based organizations. Studies also assess the impact of external factors, such as changes in healthcare policies and economic conditions, on financial stability. Schulz, and Johnson (2003) noted that mission hospitals often face constraints due to limited health insurance coverage and inadequate reimbursement rates, complicating their financial outlook.

The convergence of financial planning, control practices, and sustainability is crucial for the endurance of mission hospitals. Implementing robust control measures, such as regular financial audits, internal controls, and performance monitoring, strengthens financial sustainability by ensuring transparency, accountability, and regulatory compliance. These practices mitigate risks and enhance the resilience and longevity of mission hospitals.

### **Financing, Funding Practices and Financial Sustainability**

Financial management is at the heart of mission hospitals' operations, with financing, funding practices, and financial sustainability being the most important considerations. Mission hospitals navigate a complex landscape of funding sources, including government subsidies, donations, grants, patient fees, and revenue from auxiliary services. Diversifying funding streams is vital for their stability, reducing reliance on any single source, and providing flexibility in resource allocation. Community involvement in fundraising activities also improves their financial base and sustainability.

Effective funding practices are essential for optimizing resource allocation and ensuring transparent financial management. Mission hospitals implement robust financial management systems to meticulously track income and expenses, facilitating optimal fund utilization. This includes cost-control measures to maximize efficiency while maintaining quality care. Regular financial audits and internal controls uphold accountability and integrity, mitigating the risk of financial mismanagement.

The overarching objective for mission hospitals is financial sustainability, ensuring their ability to deliver healthcare services over the long term. Achieving this requires prudent financial planning, risk management, and strategic investment in infrastructure and human resources. Adaptation to evolving healthcare landscapes, such as shifts in policies and demographics, is crucial for sustained viability and relevance.

Prakash (2018) examined the dynamics of diversifying financing and funding sources and their impact on the long-term sustainability of NGOs in India, highlighting the benefits of diversification. Mwambere and Kosimbei (2022) explored funding diversification within the Taita Taveta County administration, emphasizing its role in enhancing government performance. Their study highlighted the importance of strategic financial management for public sector entities. In contrast, the current study focuses on the financial sustainability of mission hospitals in Kiambu County, relying solely on primary data to provide a detailed understanding of the financial landscape and offer tailored insights to enhance the long-term viability of these institutions.

### **Working Capital Management Practices and Financial Sustainability**

Effective working capital management is fundamental to an organization's financial health, involving the skillful management of current assets and liabilities alongside strategic financing strategies for current assets. This approach enables organizations to address day-to-day cash flow requirements, ensure timely payment of wages, fulfill obligations to creditors, meet governmental taxation requirements, and provide capital for long-term survival.

Musah et al., (2018) study in Ghana highlighted the positive impact of effective working capital management on SMEs' profitability, emphasizing the need for enhanced strategies to fortify profitability and foster overall firm growth. Njenga and Jagongo (2019) focused on the impact of working capital on SACCO profitability in Kiambu County, Kenya, recognizing the distinct financial challenges mission hospitals face compared to SACCOs.

Ali and Isak (2019) explored the influence of working capital on the profitability of service firms in Somalia, highlighting its vital significance in shaping financial performance. Tharmini and Lakshan's (2021) study on SMEs in Sri Lanka illustrated the impact of working capital on performance, emphasizing the need for a comprehensive evaluation beyond immediate profitability.

### **Health Sector Regulations and Financial Sustainability**

Mwongeli (2016) investigated the relationship between regulations and financial efficiency in Kenya's commercial banks, but found no correlation between regulations and financial performance. This is important because it helps Kenya's economy avoid financial crises by ensuring banks meet minimum capital requirements. Wangui et al., (2021) explored the moderating impact of government regulation on county government performance, revealing a notable moderating effect of government regulation on performance. Their study highlighted the importance of regulations in enhancing county efficiency and infrastructure development. The current study seeks to establish the moderating impact of regulation on financial controls and sustainability in mission hospitals in Kiambu County, Kenya.

### **Summary and Research Gaps**

Achola (2017) investigated the influence of financial sustainability factors on the growth of non-governmental organizations (NGOs) in Kenya, highlighting the importance of income generation capacity and diversification. The study revealed a heavy reliance on external donors for capital and identified financial management practices as crucial, yet these practices only contributed 16.4% to NGO growth. However, it did not delve into the specific financial practices driving growth or how NGOs balance internal and external dynamics for sustained success. To address this gap, future research should adopt qualitative methods, including interviews, focus groups, and case studies, to explore these financial practices and dynamics in depth.

Agyepong et al. (2017) explored pathways to longer, healthier lives for Africans by 2030, emphasizing people-centered health systems and innovative, country-specific approaches. However, the study lacked practical steps and mechanisms for achieving this goal, such as leadership roles, resource allocation, and monitoring frameworks. Addressing this gap requires a mixed-methods approach, combining qualitative methods like interviews and focus groups with quantitative methods like surveys and statistical analysis to develop a comprehensive strategy.

The integration of financial sustainability and accountability in higher education institutions was examined by Almagtome et al., (2019), identifying gaps in understanding how these aspects intersect. The research, particularly focused on the University of Kurdistan, did not comprehensively explore strategies for enhancing financial sustainability and accountability. Addressing this gap involves using qualitative methods such as interviews and case studies to gain a deeper understanding of effective strategies in higher education.



Optimal working capital management for PT Ultrajaya Milk Industry & Trading Company TBK was the focus of Alya et al., (2021), who identified a prolonged Cash Conversion Cycle (CCC) as a significant challenge. While the study provided inventory optimization solutions, it did not explore other factors contributing to CCC lengthening. To identify trends and correlations between financial variables and CCC lengthening, a mixed-methods research approach combining qualitative and quantitative methods is necessary.

Anwar (2015) discussed the implications of contingency theory for corporate financial planning and organizational structure, highlighting its adaptability to varying environmental conditions. However, the study did not explore specific contingent variables influencing organizational management decisions. To address this gap, qualitative methods are used to identify these variables through direct data collection from managers, providing insights into their decision-making processes.

Health care financing strategies and their impact on the financial sustainability of faith-based hospitals in Kenya were explored by Abuor (2012). The study identified crucial revenue streams but lacked an in-depth analysis of their effectiveness and associated challenges. Additionally, it did not offer concrete recommendations for diversifying revenue streams or leveraging insurance schemes effectively. To address this gap, a mixed-methods approach combining qualitative and quantitative methods is suggested, providing actionable recommendations for diversification and effective insurance scheme utilization.

The effect of working capital management on the profitability of Belgian firms was analyzed by Deloof (2003), who found a significant negative correlation between key working capital components and gross operating income. However, the study did not explore the specific strategies driving this relationship. Addressing this gap requires quantitative research to identify patterns, correlations, and causal relationships between variables, offering empirical evidence and actionable recommendations for managers.

Strategic control's influence on the organizational performance of mission hospitals in Kenya was investigated by Gaturu et al., (2017). The study found significant correlations between strategic management practices and performance but did not explore how these practices interact with organizational dynamics and challenges. Addressing this gap involves a qualitative research approach to examine these relationships in depth, providing practical recommendations for enhancing performance.

Gupta et al., (2023) studied the impact of working capital efficiency on firm value in Indian manufacturing enterprises, finding positive correlations. However, the study did not explore factors such as financial constraints and corporate governance mechanisms, highlighting a need for further comparative studies. To address this gap, a mixed-methods approach is needed to examine these factors and their impact on working capital efficiency.

The effect of funding diversification on the financial performance of NGOs in Kenya was examined by Jacinta and Gaiku (2022), who identified factors like financial planning and donor relationship management. The study lacked a detailed exploration of specific strategies and mechanisms within these areas. Addressing this gap requires a mixed-methods approach to understand the implementation and effectiveness of these strategies, offering practical insights.

Strategies to enhance the resilience and service capacity of mission hospitals in India were studied by Long et al. (2020), but the research did not provide a detailed exploration of specific strategies and mechanisms. Addressing this gap involves a qualitative approach to investigating these strategies in depth, uncovering their intricacies and effectiveness.

Mwangi and Ombui (2013) highlighted the impact of competitive strategies on the performance of mission hospitals but did not explore the specific implementation of these strategies. Addressing this gap requires qualitative methods, including interviews, focus groups, and case studies, to investigate the implementation and impact of strategic approaches in hospitals.

The regulatory framework's impact on the relationship between strategic leadership and the financial sustainability of NGOs in Kenya was examined by Oluoch et al., (2021). The study highlighted gaps in understanding the impact of the legislative environment on NGOs' financial sustainability. Addressing this gap involves a mixed-methods approach to understanding the impact of regulatory mechanisms and donor policies on the financial sustainability of NGOs.

The performance of small and medium-sized enterprises (SMEs) in Sri Lanka was the focus of Tharmini and Lakshan (2021), who identified a low degree of financial planning and control implementation. The study did not address financial sustainability, indicating a gap that requires further research into how financial planning and control can enhance financial sustainability.

Financial planning and control procedures in government performance were evaluated by Mwambere and Kosimbei (2022), but their analysis focused on financial sustainability. Addressing this gap involves a detailed exploration of how these procedures impact financial sustainability, offering insights into their broader implications.

The impact of working capital on the profitability of service firms in Somalia was examined by Ali and Isak (2019), providing valuable insights in a different geographical context. To address this gap, a study in Kenya is required to understand the local dynamics and financial challenges faced by firms in the region.

### **Conceptual Framework**

The conceptual framework illustrated the interplay between financial management practices and financial sustainability within mission hospitals in Kiambu County, Kenya. Financial planning and control practices, financing and funding practices, and working capital management practices all served as independent variables. These variables were anticipated to impact dependent variables, including long-term solvency, cost management, and financial resilience. Additionally, the framework acknowledged the moderating influence of health sector-set regulations in mission hospitals, which was expected to shape the relationship between financial management practices and financial sustainability.

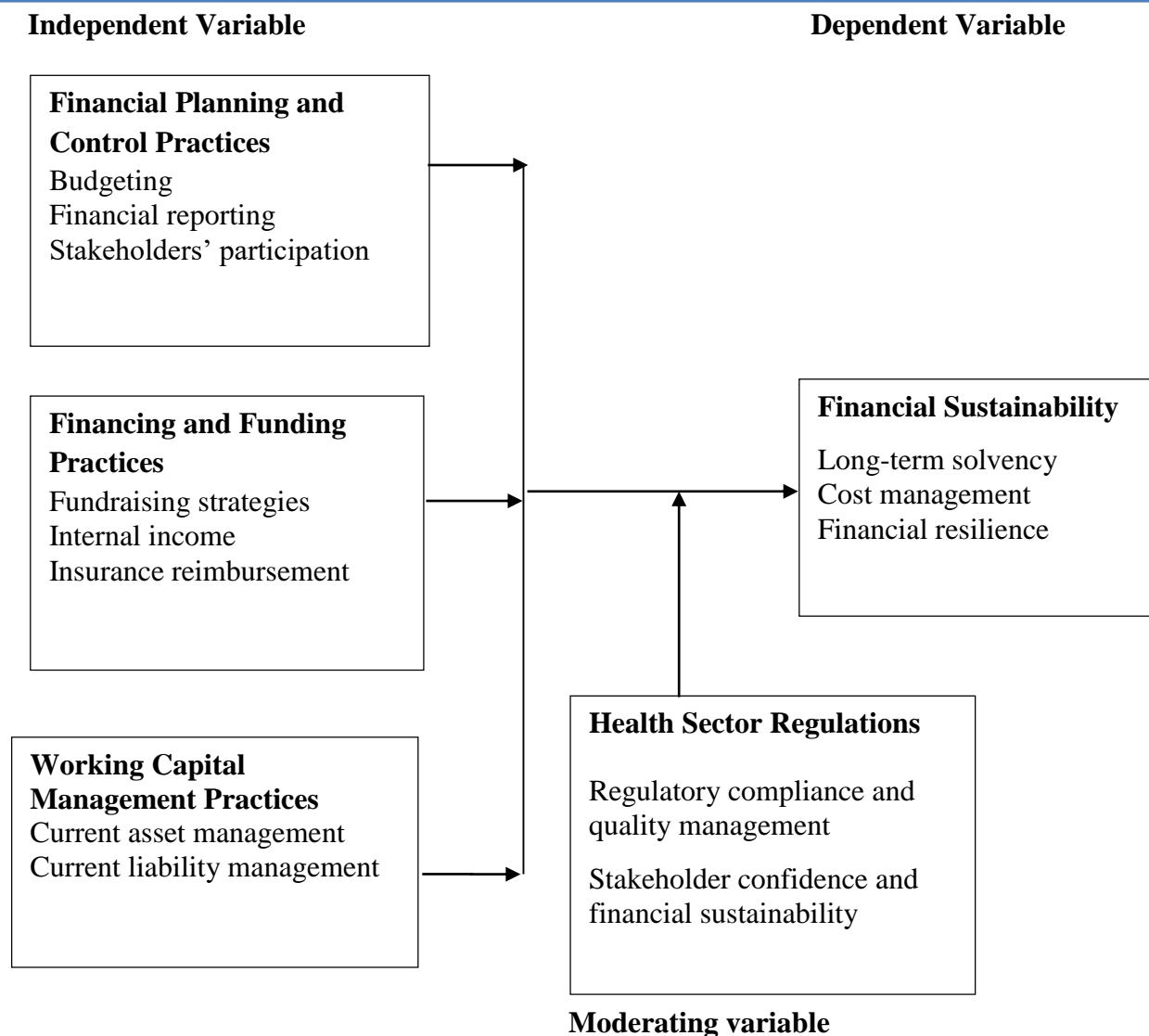


Figure 1: Conceptual Framework

Source: Researcher, (2024)

## METHODOLOGY

The methodology section of this study provides a detailed framework encompassing research design, sampling techniques, data collection methods, and analytical approaches utilized in investigating the financial sustainability of mission hospitals in Kiambu County, Kenya.

A descriptive, cross-sectional research design was selected to explore the intricate relationship between financial management practices and the financial sustainability of mission hospitals. This design facilitated a comprehensive analysis of the factors contributing to the variability in financial sustainability among these hospitals. Through multiple regression analysis, correlations among various financial management practices, including financial planning, financing, and working capital management, were examined to ascertain their influence on financial sustainability.

The empirical modeling analysis employed multiple regression analysis to explore the correlations among various financial management practices, including financial planning,

financing, working capital management, and financial sustainability indicators. The reduced model, or direct effect model, assesses the direct influence of these independent variables on the dependent variable, financial sustainability. This model is expressed by the equation,  $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$  ..... Where: Y is Financial Sustainability,  $\alpha$  is the Constant of the model,  $\beta_1$  to  $\beta_3$  are the coefficients of the regression equation,  $X_1$  is planning and control practices,  $X_2$  is Funding and financing practices,  $X_3$  is working Capital practices. This approach facilitates a comprehensive understanding of how different financial management practices directly impact financial sustainability.

### Moderated Effect Model

The study utilized the hierarchical multiple regression model proposed by Keppel and Zeddeck (2019) to incorporate the moderating effect of health sector regulations. The model was structured in the following steps:

**Step 1:** The direct effect model was established, including both the dependent and independent variables. This initial step examines the direct relationships without considering the moderating variable.

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$  ..... Where: Y is Financial Sustainability,  $\alpha$  is the Constant of the model,  $\beta_1$  to  $\beta_3$  are the coefficients of the regression equation,  $X_1$  is planning and control practices,  $X_2$  is Funding and financing practices,  $X_3$  is working Capital practices.

**Step 2:** Inclusion of the moderator as independent variable:

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 M + \varepsilon$  .....

Where: Y is Financial Sustainability,  $\alpha$  is the Constant of the model,  $\beta_1$  to  $\beta_3$  are the coefficients of the regression equation,  $X_1$  is planning and control practices,  $X_2$  is Funding and financing practices,  $X_3$  is working Capital practices, M is health sector regulations.

**Step 3:** Hierarchical inclusion of interaction effect of health sector regulation and financial planning and control practices,

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 M + \beta_5 X_1 * M + \varepsilon$  .....

Where  $X_1 * M$  = interaction of financial planning and health sector regulations,  $\beta_5$  the co-efficient of financial planning and health sector regulations and financial interaction.

**Step 4:** Hierarchical inclusion of interaction effect of health sector regulation and financial planning and control practices, financing and funding practices,

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 M + \beta_5 X_1 * M + \beta_6 X_2 * M + \varepsilon$  .....

Where:  $X_1 * M$  = interaction of financial planning and health sector regulations,  $\beta_5$  the co-efficient of financial planning and health sector regulations and financial interaction,  $X_2 * M$  = interaction of financial funding practices and health sector regulation,  $\beta_6$  = co-efficient of financing funding practices and health sector regulation interaction.

**Step 5:** Hierarchical inclusion of interaction effect of health sector regulation and financial planning and control practices, financing and funding practices and working capital practices  
 $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 M + \beta_5 X_1 * M + \beta_6 X_2 * M + \beta_7 X_3 * M + \varepsilon$  .....

Where:  $M + \beta_6 X_2 * M + \beta_7 X_3 * M$ ,  $\beta_7 X_3 * M$  = interaction of health regulation and working capital. Threshold: if the  $r^2$  of the moderating model is more than the  $r^2$  of the direct effect model, then the moderator has an effect.

Variables were measured using ordinal and nominal scales, with Likert-scale questions capturing quantitative data and open-ended questions facilitating qualitative insights. The target population comprised of key financial management stakeholders across eleven mission hospitals in Kiambu, Kenya, including financial managers, administrators, and accountants, to understand the impact of financial management practices on economic sustainability. The sample size of 242 respondents justified the use of a census sampling methodology due to the manageable population size and the proximity of the mission hospitals. This approach, supported by Mugenda and Mugenda (2019), ensured accurate data collection and increased validity through triangulation. Census sampling allowed for comprehensive data collection from all 11 mission hospitals, resulting in a diverse and unbiased sample that provided reliable insights into improving healthcare delivery in these hospitals.

Expert reviews, pilot testing, and Cronbach's alpha analysis ensured the validity and reliability of the research instrument, ensuring its accuracy and consistency. Systematic data collection procedures were followed, with questionnaires distributed and collected in a timely manner while maintaining confidentiality and voluntary participation. Ethical considerations were upheld through the acquisition of necessary approvals and permits.

Data analysis was done using SPSS version 22, with descriptive statistics summarizing the data and inferential analyses, including Pearson correlation and multiple linear regression, exploring relationships and predicting financial sustainability. Diagnostic tests for multicollinearity and heteroscedasticity were performed to validate the regression models and ensure the robustness of the findings.

The methodology adopted in this study adhered to rigorous standards, facilitating a comprehensive examination of the factors influencing the financial sustainability of mission hospitals in Kiambu County. This approach upheld ethical guidelines and ensured the reliability of the research outcomes.

## **RESULTS AND DISCUSSIONS**

The diagnostic tests conducted in this study aimed to assess the assumptions underlying multiple regression analysis, particularly focusing on the normality, linearity, homoscedasticity, autocorrelation, and multicollinearity of the data.

### **Normality Test**

Normality, a fundamental assumption, was validated through various methods, including visual inspection of data plots, evaluation of skewness and kurtosis, and examination of P-Plots. Outlier detection during data cleaning played a crucial role in ensuring the integrity of the analysis. Histograms depicting standardized residuals further confirmed the normality assumption, as illustrated in Figure 2. Response scores for the variables were summed and averaged to derive their overall scores, confirming a normal distribution.

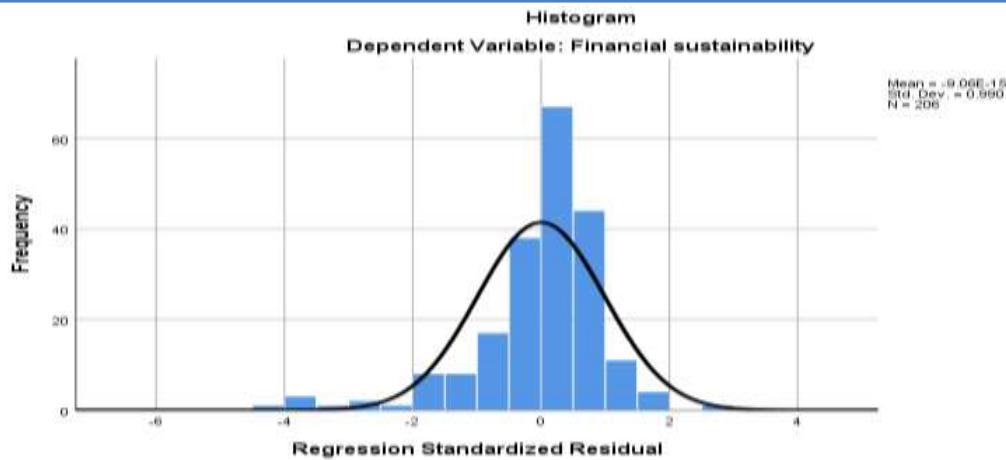


Figure 2: Normality Test

### Linearity Test

Linearity was examined to ensure the fundamental assumption of regression was met. Residual plots, as depicted in figure 3 (James et al., 2023), were used to assess linearity by displaying standardized residuals against predicted values. Analysis of these plots revealed the presence of both linear and curvilinear relationships in the data.

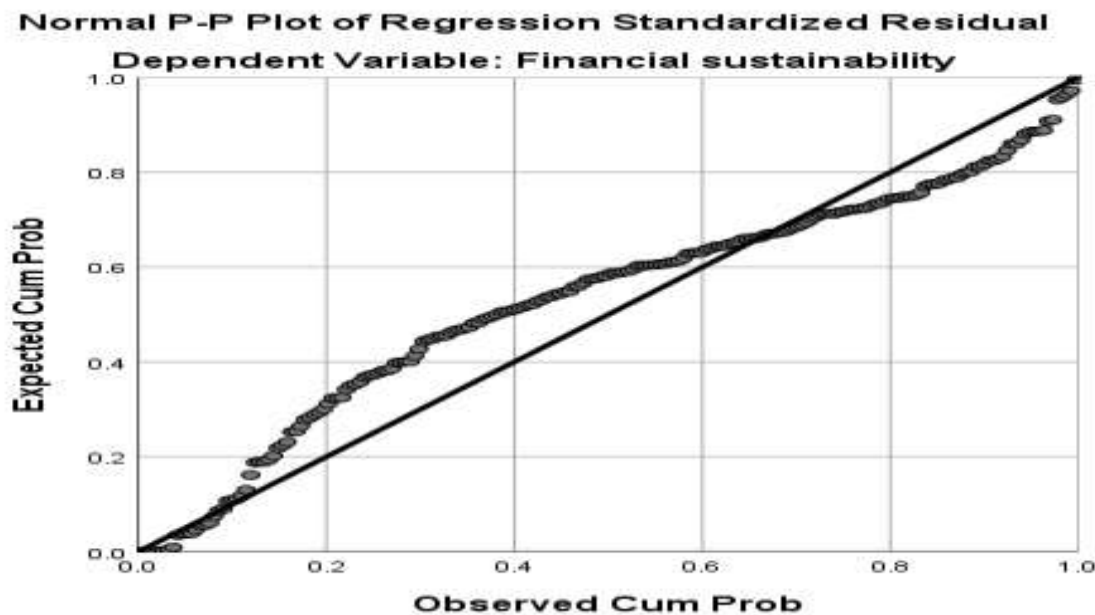


Figure 3: Linearity Test

### Homoscedasticity Test

Homoscedasticity, a vital assumption in multiple regressions (Alita et al., 2021) ensures uniform variability in the dependent variable scores concerning the independent variables. Scatterplots of residuals with independent variables were examined using statistical software to assess homoscedasticity, as recommended by Keith (2006). The standardized residual scatter plot (Figure 4) confirmed homoscedasticity, indicating consistent error variance across different levels of the independent variables (Alita et al., 2021). This uniform dispersion is essential for the reliability of regression analysis (Keith, 2006).

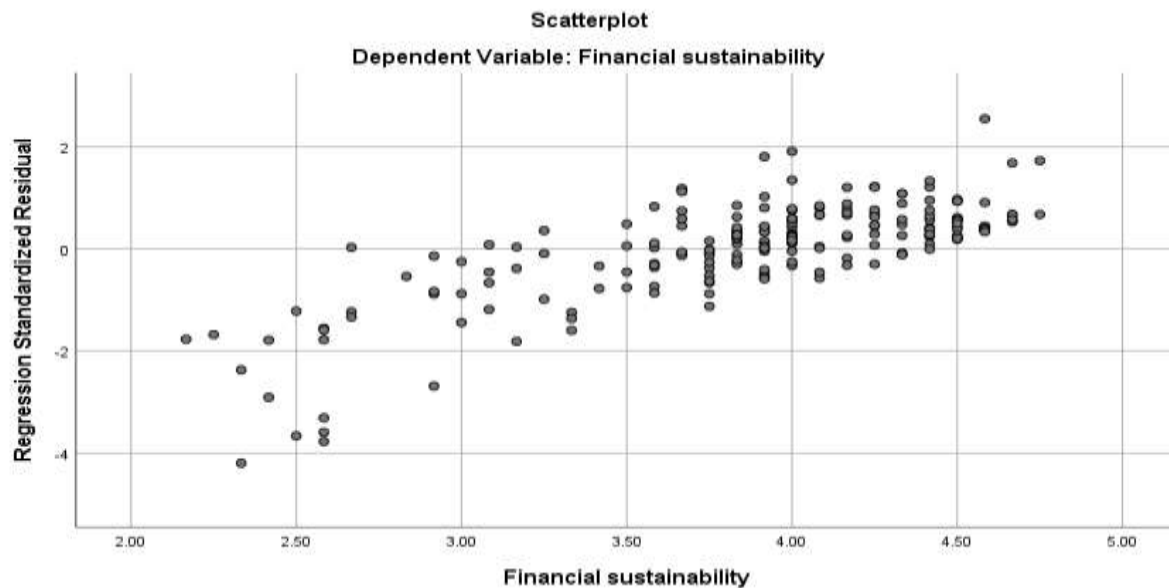


Figure 4: Homoscedasticity Test

**Autocorrelation Test**

Autocorrelation was assessed using the Durbin-Watson statistic, where  $d = 2.015$  (see table 1), falling within the critical range of 1.5 to 2.5. This indicates the absence of first-order linear autocorrelation in the regression data (Durbin and Watson, 1950). Therefore, the regression model's errors did not exhibit correlation across consecutive observations, which aligns with the fundamental assumption of independent errors in multiple regression analysis (Durbin and Watson, 1950).

**Table 1: Autocorrelation**

Model	Variable	Std. Error of the Estimate	Durbin-Watson
1	Financial planning and control practices	.50833	1.810
	Financing funding practices	.51292	1.744
	Working capital management	.49322	1.975
	Health sector regulations	.49337	1.838
	Overall	.46008	2.015

a. Predictors: (Constant), Health sector regulations, Financing funding practices, Financial planning and control practices, Working capital management

b. Dependent Variable: Financial sustainability

**Multicollinearity Test**

Multicollinearity, a concern when predictors are highly correlated, was assessed using the Variance Inflation Factor (VIF) (Shrestha, 2020). VIF values below 10, as per the rule of thumb, indicate acceptable multicollinearity (Keith, 2006). In this study, all VIF values were below the threshold, suggesting no significant multicollinearity issue (James et al., 2023).

**Table 2: Collinearity Diagnostics**

Model	(Constant)	Collinearity Statistics	
		Tolerance	VIF
1	Financial planning and control practices	.528	1.894
	Financing funding practices	.612	1.633
	Working capital management	.360	2.775
	Health sector regulations	.403	2.482

a. Dependent Variable: Financial sustainability

**Multiple Regression Analysis**

The multiple regression analysis aimed to examine the relationship between financial management practices and financial sustainability in Kiambu County's mission hospitals. The results, detailed in tables 3, 4, and 5, highlighted the significance of financial planning, control measures, and working capital management practices. The model's explanatory power, measured by  $R^2$  and adjusted  $R^2$ , revealed that 38.3% of the variation in financial sustainability is explained by these practices. The moderate correlation coefficient ( $R = 0.626$ ) indicated a substantial relationship between predictors and financial sustainability. Overall, the analysis underscored the positive impact of these financial management practices on mission hospitals' financial sustainability.



**Table 3: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.626 <sup>a</sup>	.392	.383	.46702

a. Predictors: (Constant), Working capital management, Financing funding practices, Financial planning and control practices

b. Dependent Variable: Financial sustainability

### Analysis of Variance (ANOVA)

The F-statistic (ANOVA) assessed the regression model's goodness of fit in predicting the financial sustainability of mission hospitals in Kiambu County. The model demonstrated high significance, with an F-statistic of 43.419 and a significance (p-value) of .000, suggesting a strong predictive capability beyond chance. This indicates that the predictors—working capital management, financing and funding practices, and financial planning and control practices—collectively contribute significantly to financial sustainability.

**Table 4: ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.409	3	9.470	43.419	.000 <sup>b</sup>
	Residual	44.057	202	.218		
<b>Total</b>		<b>72.467</b>	<b>205</b>			

a. Dependent Variable: Financial sustainability

b. Predictors: (Constant), Working capital management, Financing funding practices, Financial planning and control practices

### Regression Coefficient

The regression coefficient analysis elucidated the relationships between financial planning and control practices, financing and funding practices, working capital management, and financial sustainability in mission hospitals. Financial planning and control practices, financing and funding practices, and working capital management were found to have significant positive coefficients, indicating their influence on financial sustainability. Specifically, financial planning and control practices demonstrated a  $\beta$ -coefficient value of 0.241 ( $p = 0.003$ ), financing and funding practices showed a  $\beta$ -coefficient of 0.231 ( $p = 0.002$ ), and working capital management exhibited the highest  $\beta$ -coefficient of 0.332 ( $p < 0.001$ ), underscoring its paramount importance.

These findings were summarized in the regression model equation  $Y = 0.720 + 0.241X_1 + 0.231X_2 + 0.332X_3 + \varepsilon$ , where Y represents financial sustainability,  $X_1$  denotes financial planning and control practices,  $X_2$  denotes financing and funding practices,  $X_3$  indicates working capital management, and  $\varepsilon$  represents the error term.

The t-tests associated with these  $\beta$ -values confirmed the significance of financial management practices as predictors in the model. Financial planning and control practices, financing and funding practices, and working capital management emerged as substantial contributors to predicting financial sustainability, with t-values of 3.050, 3.200, and 3.730, respectively, highlighting their statistical significance. Additionally, the regression analysis rejected null hypotheses ( $H_{01}$ ,  $H_{02}$ ,  $H_{03}$ ) for each predictor, affirming their positive and significant effects on financial sustainability in mission hospitals. Specifically, the financial sustainability of these

hospitals improved with an increase in financial planning and control practices, financing and funding practices, and working capital management.

**Table 5: Regression Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.720	.278		2.593	.010
	Financial planning and control practices	.241	.079	.223	3.050	.003
	Financing funding practices	.231	.072	.223	3.200	.002
	Working capital management	.332	.089	.288	3.730	.000

a. Dependent Variable: Financial sustainability

### Moderated Multiple Regression Analysis

In the examination of Hypothesis 4, moderated multiple regression analysis was employed to assess the interaction effect and the moderating role of health sector regulations on the connection between financial management practices and financial sustainability in mission hospitals in Kiambu County. Following Liu et al., (2017), recommendations, standardization of predictor variables was conducted to mitigate potential multicollinearity issues. Interaction variables were generated by multiplying the standardized variables.

The analysis proceeded through a five-step hierarchical regression approach. Initially, Step 1 involved conducting multiple regressions on the three independent variables. Step 2 then introduced the moderator variable, health sector regulations. Progressing to Steps 3, 4, and 5, interaction terms between health sector regulations and each financial management practice variable were successively added. This systematic process facilitated the evaluation of interaction effects and the exploration of how health sector regulations influence the relationship between financial management practices and financial sustainability in mission hospitals.

### Model Summary on Interactions

The "Model Summary on Interactions" table offers a detailed insight into the hierarchical regression analysis exploring how health sector regulations moderate the relationship between financial management practices and financial sustainability in mission hospitals in Kiambu County.

In Model 1, financial management practices significantly explain 39.2% of the financial sustainability variance ( $R^2 = 0.392$ ). The addition of health sector regulations in Model 2 slightly improves the model, explaining 41.3% of the variance and a significant increase in predictive power (F-change statistic  $p = 0.008$ ). However, subsequent interaction terms (Models 3-5) contribute marginally to explanatory power, with non-significant changes in adjusted  $R^2$  and F-change statistics. For instance, while Model 3 includes interaction terms between financial planning and control practices and health sector regulations, it only marginally increases explanatory power to 42.6%.

The study underscores the pivotal role of financial management practices in shaping financial sustainability in mission hospitals. Although health sector regulations, particularly in tandem with financial planning and control practices, significantly enhance the model's explanatory power, the impact of additional interaction terms appears limited. This emphasizes the importance of understanding how health sector regulations interact with financial management practices to effectively influence financial sustainability.

**Table 6: Model Summary on Interactions**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.626 <sup>a</sup>	.392	.383	.46702	.392	43.419	3	202	.000
2	.643 <sup>b</sup>	.413	.401	.46008	.021	7.138	1	201	.008
3	.653 <sup>c</sup>	.426	.412	.45610	.013	4.527	1	200	.035
4	.657 <sup>d</sup>	.432	.415	.45487	.006	2.077	1	199	.151
5	.659 <sup>e</sup>	.434	.414	.45496	.003	.919	1	198	.339

a. Predictors: (Constant), Working capital management, Financing funding practices, Financial planning and control practices

b. Predictors: (Constant), Working capital management, Financing funding practices, Financial planning and control practices, Health sector regulations

c. Predictors: (Constant), Working capital management, Financing funding practices, Financial planning and control practices, Health sector regulations, FPCP\*HSR

d. Predictors: (Constant), Working capital management, Financing funding practices, Financial planning and control practices, Health sector regulations, FPCP\*HSR, FFP\*HSR

e. Predictors: (Constant), Working capital management, Financing funding practices, Financial planning and control practices, Health sector regulations, FPCP\*HSR, FFP\*HSR, WCM\*HSR

### ANOVA Interactions Results

The ANOVA Table 7 provides a detailed overview of hierarchical regression models examining the impact of financial management practices and their interaction with health sector regulations on financial sustainability in mission hospitals in Kiambu County. In Model 1, solely including financial management practices as predictors, the F-statistic of 43.419 ( $p = .000$ ) highlights significant model significance, indicating that these practices independently explain a considerable portion of financial sustainability variance. Expanding the model to include health sector regulations in Model 2 maintains significant model significance, with an F-statistic of 35.338 ( $p = .000$ ), suggesting that health sector regulations significantly contribute to explaining financial sustainability alongside financial management practices. When interaction terms are added to Model 3, the F-statistic stays significant at 29.672 ( $p = .00000$ ), which means that these interaction terms are better at explaining financial sustainability. Subsequent models (Models 4 and 5) continue to demonstrate significant model significance, with decreasing yet still substantial F-statistics (25.206 and 21.727, respectively) and consistently low p-values ( $p = .000$ ), signifying the ongoing contribution of interaction terms to the model's explanatory capability. The decreasing F-statistics across the models, coupled with consistently low p-values, underscore the significant improvement in the models' explanatory power resulting from the inclusion of both financial management practices and their interaction with health sector regulations in explaining financial sustainability in mission hospitals.

**Table 7: ANOVA Interactions Results**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	28.409	3	9.470	43.419	.000 <sup>b</sup>
	Residual	44.057	202	.218		
	Total	72.467	205			
2	Regression	29.920	4	7.480	35.338	.000 <sup>c</sup>
	Residual	42.546	201	.212		
	Total	72.467	205			
3	Regression	30.862	5	6.172	29.672	.000 <sup>d</sup>
	Residual	41.605	200	.208		
	Total	72.467	205			
4	Regression	31.292	6	5.215	25.206	.000 <sup>e</sup>
	Residual	41.175	199	.207		
	Total	72.467	205			
5	Regression	31.482	7	4.497	21.727	.000 <sup>f</sup>
	Residual	40.985	198	.207		
	Total	72.467	205			

a. Dependent Variable: Financial sustainability

b. Predictors: (Constant), Working capital management, Financing funding practices, Financial planning and control practices

c. Predictors: (Constant), Working capital management, Financing funding practices, Financial planning and control practices, Health sector regulations

d. Predictors: (Constant), Working capital management, Financing funding practices, Financial planning and control practices, Health sector regulations, FPCP\*HSR

e. Predictors: (Constant), Working capital management, Financing funding practices, Financial planning and control practices, Health sector regulations, FPCP\*HSR, FFP\*HSR

f. Predictors: (Constant), Working capital management, Financing funding practices, Financial planning and control practices, Health sector regulations, FPCP\*HSR, FFP\*HSR, WCM\*HSR

### Regression Coefficients of Interactions

The regression coefficient analysis highlighted significant predictors of financial sustainability in mission hospitals. Financial planning and control practices ( $\beta_1 = 0.241$ ,  $p = 0.003$ ), financing and funding practices ( $\beta_2 = 0.231$ ,  $p = 0.002$ ), and working capital management ( $\beta_3 = 0.332$ ,  $p < 0.001$ ) all showed statistical significance, meeting the criteria for introducing a moderator. Subsequent analysis in Model 2 revealed that health sector regulations ( $\beta = 0.252$ ,  $p = 0.008$ ) significantly predicted financial sustainability, indicating their role as a moderator. Interaction effects were examined to assess the moderation of health sector regulations on financial management practices. The interaction between financial planning and control practices and health sector regulations ( $\beta_{4a} = -0.215$ ,  $p = 0.035$ ) showed significant moderation, rejecting Hypothesis  $H_{04a}$ . However, interactions with financing funding practices ( $\beta_{4b} = 0.165$ ,  $p = 0.151$ ) and working capital management ( $\beta_{4c} = 0.132$ ,  $p = 0.339$ ) did not exhibit significant moderation, aligning with Hypotheses  $H_{04b}$  and  $H_{04c}$ , respectively.

The health sector regulations positively influence and significantly moderate the relationship between financial planning and control practices and financial sustainability. The moderated multiple regression model indicates that health sector regulations have a significant moderating effect on financial planning and control practices in mission hospitals in Kiambu County.

**Table 8: Regression Coefficients of Interactions**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.720	.278		2.593	.010
	Financial planning and control practices	.241	.079	.223	3.049	.003
	Financing funding practices	.231	.072	.223	3.200	.002
2	Working capital management	.332	.089	.288	3.739	.000
	(Constant)	.588	.278		2.118	.035
	Financial planning and control practices	.186	.080	.172	2.317	.022
	Financing funding practices	.215	.071	.208	3.005	.003
3	Working capital management	.184	.104	.160	1.772	.078
	Health sector regulations	.252	.094	.228	2.672	.008
	(Constant)	-2.492	1.474		-1.691	.092
	Financial planning and control practices	1.010	.395	.933	2.556	.011
	Financing funding practices	.242	.072	.234	3.358	.001
4	Working capital management	.167	.103	.145	1.621	.107
	Health sector regulations	1.058	.390	.956	2.711	.007
	FPCP*HSR	-.215	.101	-1.348	-2.128	.035
	(Constant)	-1.088	1.763		-.617	.538
	Financial planning and control practices	1.270	.433	1.173	2.930	.004
	Financing funding practices	-.409	.457	-.395	-.894	.372
5	Working capital management	.175	.103	.152	1.699	.091
	Health sector regulations	.695	.463	.628	1.499	.135
	FPCP*HSR	-.282	.111	-1.767	-2.540	.012
	FFP*HSR	.165	.114	1.031	1.441	.151
	(Constant)	-.807	1.788		-.451	.652
	Financial planning and control practices	1.498	.494	1.384	3.029	.003
	Financing funding practices	-.215	.500	-.208	-.430	.668
Working capital management	-.343	.550	-.298	-.624	.534	
Health sector regulations	.633	.468	.572	1.353	.178	
FPCP*HSR	-.341	.127	-2.141	-2.684	.008	
FFP*HSR	.113	.126	.709	.897	.371	
WCM*HSR	.132	.138	.831	.959	.339	

a. Dependent Variable: Financial sustainability

**Summary of Hypotheses Results**

Table 9 presents a summary of the hypothesis testing results obtained through multiple regression analysis, along with the corresponding interpretations. The hypothesis testing yielded significant relationships between independent variables and financial sustainability in mission hospitals. Hypotheses  $H_{01}$ ,  $H_{02}$ , and  $H_{03}$  were rejected, indicating statistically significant associations. For  $H_{01}$ , concerning financial planning and control practices, the rejection ( $\beta_1 = 0.241$ ,  $p = .003$ ) underscores their significant impact on financial sustainability. Similarly,  $H_{02}$  ( $\beta_2 = 0.231$ ,  $p = .002$ ) and  $H_{03}$  ( $\beta_3 = 0.332$ ,  $p = .000$ ), exploring financing funding practices and working capital management, respectively, were rejected, indicating significant relationships. Contrary to expectations, health sector regulations did not align with  $H_{04a}$ ,  $H_{04b}$ , or  $H_{04c}$ . Instead, they moderated the relationship between financial planning and control practices and financial sustainability ( $\beta_{4a} = -0.215$ ,  $p = .035$ ), rejecting  $H_{04a}$ . However, no significant moderating effects were found for funding practices ( $H_{04b}$ ) or working capital management ( $H_{04c}$ ), indicating that these relationships remained unchanged.

**Table 9: Summary of Hypotheses and Results**

<b>Hypothesis</b>	<b><math>\beta</math>-value</b>	<b>P-value</b>	<b>Results</b>
<b>Ho<sub>1</sub>:</b> There is no significant relationship between financial planning and control practices and financial sustainability in mission hospitals.	$\beta_1=0.241$	.003	Rejected
<b>Ho<sub>2</sub>:</b> There is no significant relationship between financing funding practices and financial sustainability in mission hospitals.	$\beta_2=0.231$	.002	Rejected
<b>Ho<sub>3</sub>:</b> There is no significant relationship between working capital management and financial sustainability in mission hospitals.	$\beta_3=0.332$	.000	Rejected
<b>Ho<sub>4a</sub>:</b> Health sector regulations do not moderate the relationship between financial planning and control practices and financial sustainability in mission hospitals.	$\beta_{4a}= -0.215$	.035	Rejected
<b>Ho<sub>4b</sub>:</b> Health sector regulations do not moderate the relationship between financing funding practices and financial sustainability in mission hospitals	$\beta_{4b}= 0.165$	.151	Fail to reject
<b>Ho<sub>4c</sub>:</b> Health sector regulations do not moderate the relationship between working capital management and financial sustainability in mission hospitals	$\beta_{4b}= 0.132$	.339	Fail to reject

## CONCLUSION AND RECOMMENDATIONS

### Summary

The study achieved a high response rate of 89.6%, indicating robust data collection from 206 completed questionnaires out of 230 distributed. This rate surpassed similar studies and ensured sufficient data for comprehensive analysis. Demographic analysis revealed a gender disparity, with more male employees in mission hospitals. The workforce was predominantly in the 31–50 age range, indicating a mature staff with extensive experience. Financial planning and control practices ( $\beta_1 = 0.241$ ,  $p = 0.003$ ), financing and funding practices ( $\beta_2 = 0.231$ ,  $p = 0.002$ ), and working capital management ( $\beta_3 = 0.332$ ,  $p < 0.001$ ) all emerged as significant influencers of financial sustainability. Health sector regulations emerged as a pivotal factor, with a statistically significant positive predictor ( $\beta = 0.252$ ,  $p = 0.008$ ). Notably, they moderated the relationship between financial planning and control practices and financial sustainability ( $\beta_{4a} = -0.215$ ,  $p = 0.035$ ). However, these regulations did not exhibit significant moderation in the relationships between financing and funding practices, working capital management, and financial sustainability. Financial management practices explained 39.2% of the variance in financial sustainability ( $R^2 = 0.392$ ), with an additional 2.1% contribution from health sector regulations ( $R^2 = 0.413$ ). The interactions underscored the nuanced role of health sector regulations in shaping financial sustainability, highlighting the need for tailored regulatory frameworks in mission hospital contexts.

### Conclusions

The study focused on financial management practices and their impact on Kiambu County mission hospitals' financial sustainability. It found that financial planning and control practices, financing and funding strategies, and working capital management all significantly contribute to financial sustainability. Effective budgeting, financial reporting, and stakeholder

engagement were highlighted as critical components for efficiency and transparency. Robust financing strategies, diverse fundraising, and proper working capital management were also vital for financial health. Health sector regulations were found to moderate the relationship between financial management practices and financial sustainability, enhancing the effectiveness of these practices. While the study underscores the importance of effective financial management, it also emphasizes the need for tailored regulatory approaches to address specific challenges faced by mission hospitals and ensure their long-term financial sustainability.

### **Recommendations**

The study recommends CEOs prioritize robust financial planning and control practices to enhance financial sustainability, including comprehensive budgeting, meticulous financial reporting, and stakeholder engagement. Sustainable financing and funding practices are advised to reduce reliance on external donations, along with effective working capital management.

CFOs are urged to establish transparent financial planning mechanisms, explore diverse funding sources, and engage with policymakers. Stringent credit management practices are recommended, as well as maintaining accurate accounts receivable records and optimizing revenue collection. Regarding insurance, evaluating coverage, negotiating terms, and staying updated on regulations are crucial. Future research should explore additional factors influencing financial sustainability, including resources, training initiatives, and government commitment. Investigating external factors like economic conditions and policy changes and broadening the scope to include diverse healthcare settings are also recommended for a comprehensive understanding.

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