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Project Financial Management Techniques and Implementation of Agribusiness Projects in Murang'a County, Kenya

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Abstract

Agribusiness projects in Murang'a County have faced multiple implementation challenges, affecting their overall success and sustainability. Many projects experience delays in execution, cost overruns, and deviations from the originally planned scope. Murang'a County has experienced increased number of agribusiness projects. The projects have adopted various financial management practices in an attempt to enhance sustainability of the projects. However, more than 80% of the agribusiness projects in Murang'a County are poorly implemented. Further, previous studies have shown research gaps that needed to be filled. This research sought to bridge these gaps by determining the project financial management techniques and their effect on implementation of agribusiness projects in Murang'a County, Kenya. Specifically, the research aimed to find out the effect of financial risk management techniques,budgeting techniques, financial reporting techniques and cash-flow management techniques on implementation of agribusiness projects in Murang'a County, Kenya. The current investigation utilized a design that was descriptive in nature. The research targeted 21 agribusiness projects in Murang'a County with 265 project staffs within the projects. The sample size was computed using Yamane formula and selected using stratified sampling procedure. Semi-structured questionnaires were utilized. The researcher undertook piloting involving 7 project staffs from one project in Murang'a County. The investigator employed the drop-wait-and-pick methodology in administering the questionnaire. Data was analyzed utilizing inferential as well as descriptive statistics. From the results, the model had an r value of 0.619 indicating a strong correlation between variables. The r square value was 0.383. From ANOVA statistics the F value was 9.296 (p-value=0.000). From the regression equation, financial management techniques had positive and significant regression coefficients. The study concludes that project financial management has a positive effect on implementation of agribusiness projects in Murang'a County. The research concludes that financial risk management, budgeting, financial reporting and cash flow management techniques have a positive effect on implementation of agribusiness projects in Murang'a County. From the findings, this study recommends that agribusiness projects in Murang'a County come up with strategies that would improve project implementation which is poor. This research recommends that a same investigation be undertaken on other factors influencing implementation; other project financial management techniques; other measures of project implementation; and other counties and different projects other than Murang'a and agribusiness projects.

Keywords: *Project Financial Management, Implementation, Financial Risk, Budgeting, Financial Reporting, Cash-Flow Management*

INTRODUCTION

A project is generally considered successful when it is completed within the planned timeframe, adheres to budgetary constraints, achieves its defined objectives, and satisfies the intended beneficiaries (Nzekwe, Oladejo, & Emoh, 2015). Project implementation involves managing human and material resources and executing activities according to established project management strategies. Anantatmula and Rad (2018) note that successful implementation reflects effective management and is critical for achieving project goals. The process requires careful coordination, monitoring, and integration of project operations to ensure outputs meet quality standards and stakeholder expectations.

Project financial management provides a crucial foundation for successful implementation. Mango (2015) asserts that financial sustainability is a key focus for project managers, supported by training, specialized staff, and adherence to frameworks such as the International Financial Reporting Standards (IFRS). Kerzner (2012) emphasizes that effective financial management leverages procedures and tools to control project activities without disrupting organizational operations. As projects become increasingly central to business strategies, managers must ensure that projects not only meet time and budget targets but also enhance long-term organizational performance.

Globally, agriculture is a significant economic sector. In the United States, it employs millions and contributes substantially to national income (Areguin & Stewart, 2021; ERS & USDA, 2022). The sector generates billions in output, yet the majority of farms are small and family-owned, facing challenges in financial efficiency and capital access. Studies in other countries, including the Philippines and China, highlight that proper financial management, record keeping, liquidity, and supply chain innovations improve resource utilization and operational efficiency in agribusiness enterprises (Capiña & Michael, 2022; Yu & Huang, 2025).

In Sub-Saharan Africa, agriculture has a high potential to drive GDP growth. Mang'ana, Ndyetabula, and Hokororo (2023) report that for agricultural SMEs in Tanzania, working capital and financing practices positively affect both financial and organizational performance, while accounting, reporting, and capital budgeting show less impact. Raimi, Panait, and Sule (2021) project that the sector's GDP contribution could reach US$1 trillion by 2030, driven by increased consumption and underutilized agricultural resources. Teye (2019) emphasizes that resource allocation in developing countries enhances agricultural sector performance and sustains livelihoods.

In Kenya, agriculture contributes 23.9% of GDP and employs 40% of the national workforce, including 70% of rural labor (KNBS, 2022). Murang'a County has experienced growth in agribusiness projects such as dairy, coffee, and irrigation under programs like Kahawa Bora and Mariira Farmers Training Institute (Murang'a County Integrated Report, 2022). However, many projects encounter implementation challenges, including delays, cost overruns, and failure to meet community expectations (World Bank, 2022). This study, therefore, investigates how project financial management techniques influence the successful implementation of agribusiness projects in Murang'a County.

Statement of the Problem

Agribusiness projects in Murang'a County have faced multiple implementation challenges, affecting their overall success and sustainability. Many projects experience delays in execution, cost overruns, and deviations from the originally planned scope. These issues have often resulted

in substandard outputs that fail to meet the intended quality standards or the expectations of community members and other stakeholders (World Bank, 2022). Timeliness remains a critical challenge, as several projects struggle to adhere to schedules, while budget constraints frequently lead to adjustments and additional expenditures before completion. Furthermore, some projects lack adequate monitoring mechanisms, resulting in poor tracking of progress and insufficient engagement with beneficiaries, which diminishes the projects' effectiveness and overall impact.

Effective project financial management is essential for mitigating these challenges and improving project outcomes. Techniques such as financial risk management, budgeting, financial reporting, and cashflow management enable project managers to allocate resources efficiently, anticipate and reduce risks, and monitor progress in real time. By employing these methods, delays and cost overruns can be minimized, adherence to quality standards ensured, and beneficiary satisfaction enhanced. Proper financial management therefore directly supports successful implementation of agribusiness projects, ensuring that they achieve their intended objectives and contribute meaningfully to local economic development (Shashkova, Soloviov & Syniakova, 2018)

Various studies have been done on project implementation locally. Nduthu (2018) investigated the project execution process, regulatory environment, as well as outcomes of indigenous chicken initiatives in Machakos County funded by the Agricultural Sector Development Support Programme. Wamalwa and James (2018), nevertheless, conducted studies examining crucial success variables in the projects, execution by non-profit institutions in Busia County, Kenya. The studies have produced gaps where they looked into different concepts, contexts while adopting research methodologies that are different from the present study. Furthermore, it is unclear if project finance management approaches have resulted in improved project execution. There have been few reviews of research on the effect of project finance management strategies on project implementation. When similar research was done, neither has addressed with each of project financial management techniques and its effect on project's implementation, more specifically in Agribusiness projects in Murang'a County. This study sought to fill this gap by evaluating the effect of financial risk management, budgeting, financial reporting, and cashflow management on successful implementation of agribusiness projects in the county.

Research Objectives

The General Objective

The study's general objective was to establish the project financial management techniques and their effect on implementation of agribusiness projects in Murang'a County, Kenya.

The Specific Objectives

Specifically, the study sought;

i. To establish the effect of financial risk management techniques on implementation of agribusiness projects in Murang'a County, Kenya
ii. To determine the effect of budgeting techniques on implementation of agribusiness projects in Murang'a County, Kenya
iii. To determine the effect of financial reporting techniques on implementation of agribusiness projects in Murang'a County, Kenya
iv. To establish the effect of cash flow management techniques on implementation of agribusiness projects in Murang'a County, Kenya

Review of Literature

Theoretical Literature Review

The study was anchored on prospect, contingency, expectancy, and modern portfolio theory. Prospect theory, developed by Kahneman and Tversky (1979), is a behavioral economic framework that explains decision-making under risk and uncertainty, emphasizing that individuals evaluate potential outcomes relative to reference points rather than absolute values and exhibit loss aversion (Harrison & Swarthout, 2023). While primarily focused on individual decision-making, the theory provides insights into how project managers assess gains and losses in financial management, guiding risk-related choices in agribusiness projects (Prietzel, 2020). In this study, prospect theory was applied to financial risk management in Murang'a County agribusiness projects, highlighting how managers' behavioral tendencies influence monitoring, contingency planning, and investment strategies, ultimately affecting project implementation success (Mwaniki & Muchelule, 2024).

Contingency Theory, developed by Pike (1986), asserts that organizational effectiveness, including financial and budgeting systems, depends on aligning management practices with contextual factors such as structure, culture, technology, and environment (Burgess, 2020). The theory emphasizes adaptive decision-making, highlighting that there is no universally optimal approach to budgeting or resource allocation. Despite its value, the theory is criticized for complexity and lack of prescriptive guidance, making practical application challenging (Csaszar & Ostler, 2020). In this study, Contingency Theory guided the examination of budgeting techniques, showing how context-sensitive financial planning enhances stakeholder engagement, resource use, and successful implementation of agribusiness projects in Murang'a County.

Expectancy Theory, proposed by Vroom (1964), explains motivation as the perceived link between effort, performance, and desired outcomes, comprising expectancy, instrumentality, and valence (Zheng et al., 2025). Individuals are motivated to exert effort when they believe it will lead to valued rewards. The theory's limitation lies in its assumption of rational decision-making and limited consideration of team or organizational dynamics (Zboja, Jackson & Grimes-Rose, 2020). In this study, Expectancy Theory was applied to financial reporting practices, suggesting that project managers and team members engage in reporting when they perceive that accurate financial reporting will positively influence project success, ultimately improving agribusiness project implementation in Murang'a County (Gituro & Mang'ana, 2024).

Modern Portfolio Theory (MPT), developed by Markowitz in the 1950s, provides a framework for balancing risk and return through diversification of financial resources (Jang & Seong, 2023). The theory emphasizes strategic allocation to maximize expected returns while minimizing exposure to financial risk. Criticisms include reliance on historical data, assumptions of rational behavior, and limited applicability to non-financial operational risks (Berk & Tutarlı, 2021). In this study, MPT guided the analysis of cash flow management techniques in agribusiness projects in Murang'a County, illustrating how strategic allocation, monitoring of inflows and outflows, and risk mitigation support liquidity, project sustainability, and successful implementation (M'Muruku, Kingori & Mwirigi, 2024).

Empirical Literature Review

Financial Risk Management and Project Implementation

In Uganda, Watema and Tulirinya (2021) explored project success, risk management techniques, and project execution among 117 staff from 45 NGO projects in Iganga Municipality. Using quantitative surveys and SPSS, the study found a positive link between risk management techniques and project execution. However, the study focused on NGOs and relied solely on

quantitative data, whereas the present study examines agribusiness projects in Murang'a County with a mixed-methods approach, emphasizing financial risk management strategies such as risk avoidance, reduction, transfer, and retention, highlighting a methodological and sector-specific research gap.

Alsaadi and Norhayatizakuan (2021) investigated risk management procedures in 400 construction project staff in Oman, using quantitative correlation and causation methods. The study revealed that risk management significantly enhances project execution. While informative, the study focused on Omani construction projects, lacked qualitative insights, and addressed general risk management. The current study applies these insights to agribusiness projects in Murang'a County, Kenya, emphasizing financial risk management, mixed-methods data collection, and local contextual adaptation.

Aarthipriya, Chitra, and Poomozhi (2020) examined risks affecting time and cost in Bangalore residential construction projects. The quantitative analysis concluded that financial risk management had minimal impact on project implementation. However, the study targeted residential construction, applied only quantitative methods, and explored general risks. The present study investigates financial risk management strategies in agribusiness projects in Murang'a County using semi-structured questionnaires and mixed methods, allowing for richer contextual understanding and sector-specific application.

Njuguna (2019) studied project performance and risk management techniques among 135 project staff in Nairobi County using descriptive design and structured questionnaires. Findings indicated that risk management positively influences project performance. While informative, the study focused on performance rather than implementation and utilized structured instruments. The current study adapts these insights to Murang'a agribusiness projects, employs semi-structured questionnaires, and emphasizes financial risk management strategies, providing a more comprehensive analysis of project implementation factors.

Pimchangthong and Boonjing (2017) assessed the impact of risk management on 200 IT project staff in Poland, using a descriptive approach and semi-structured questionnaires. Results showed that project implementation was adversely influenced by risk management approaches. However, the study was sector-specific, single-country, and relied mainly on quantitative methods. The current research applies these findings on structured risk assessment to agribusiness projects in Murang'a County, integrating qualitative and quantitative data and focusing on financial risk management strategies, highlighting context-specific applicability.

Budgeting and Project Implementation

Mutiso and Paul (2021) evaluated the implementation of county-funded water projects in Machakos County using a descriptive design, census method, and semi-structured questionnaires. Their findings, analyzed through thematic and SPSS-based statistical techniques, showed a positive and significant relationship between budgeting and project execution. However, the study targeted water projects and examined general budgeting, whereas the current investigation focuses on agribusiness projects in Murang'a County and specifically on budgeting strategies such as budget monitoring, rational resource allocation, and budget flexibility. Insights from Machakos suggest that structured budgeting enhances implementation, though contextual differences require adaptation to the agribusiness sector.

Rotich, Paul and Mukulu (2021) examined how budget planning influences the execution of water construction projects in Bomet County using a descriptive design and self-administered questionnaires. The results confirmed that structured budget planning significantly improves project execution. Nonetheless, the study focused on water projects, applied exclusively

quantitative techniques, and explored broad budgeting principles, unlike the present study which targets agribusiness projects in Murang'a County and investigates specific budgeting techniques through mixed methods. The demonstrated value of budget planning is applicable to agribusiness projects, though sector-specific financial dynamics necessitate contextual adjustments.

Rambo, Mbugua and Mwaguni (2020) investigated the link between budgeting and research project success in public institutions along Kenya's coast using descriptive and correlational designs. Data from 285 respondents, gathered through interviews and surveys, revealed a positive relationship between budgeting and project performance. However, the study focused on academic institutions and general budgeting practices, whereas the present study examines agribusiness projects in Murang'a County and analyzes targeted budgeting strategies. While the coastal findings affirm budgeting's importance, applying them to agribusiness projects requires consideration of differing operational structures and financial management needs.

Simiyu (2018) explored agricultural project performance among community-based organizations in Bungoma County using both descriptive and explanatory designs guided by positivism. Data were collected through self-administered surveys and interviews, with analysis involving regression, descriptive statistics, and content analysis. The study found budgeting to positively influence project implementation. However, it targeted community-based projects and used limited qualitative inputs, whereas the present study focuses on agribusiness projects in Murang'a County and employs a mixed-methods design emphasizing advanced budgeting strategies. The positive influence of budgeting in CBO agricultural projects offers useful insights, though differences in scale and governance must be considered.

Cheluget and Morogo (2017) analyzed the relationship between budgeting and project performance in Uasin Gishu County using ex post facto and descriptive designs with structured questionnaires. Their regression results showed that budgeting improved project performance. However, the study concentrated on general projects and relied solely on structured instruments, while the current study investigates agribusiness projects in Murang'a County using semi-structured questionnaires and mixed methods. Although the findings support budgeting's value, applying them to agribusiness projects requires adjustments based on unique financial and operational characteristics.

Kavale and Kalola (2017) assessed factors influencing government-funded technical institution projects in Garissa County using a descriptive survey design and purposive sampling. Their findings indicated that budgets had limited influence on project execution. However, the study focused on technical training projects, employed only quantitative questionnaires, and examined broad budgeting aspects. In contrast, the present study targets agribusiness projects in Murang'a County and evaluates specific budgeting strategies such as monitoring, rational allocation, and flexibility. Although budgets showed limited influence in Garissa, insights on financial planning provide useful considerations when contextualized to the agribusiness environment.

Financial Reporting and Project Implementation

Anuar, Alwi, and Ariffin (2023) examined financial management procedures and performance of Malaysian zakat institutions using a census of 14 organisations and responses from 140 staff and 140 customers. Using descriptive and correlational analyses, the study found that asset management, revenues, and disbursements reflected excellent institutional behaviour, and financial reporting showed a positive relationship with project implementation. However, the study focused on zakat institutions in Malaysia, while the current study examines agribusiness projects in Murang'a County, Kenya. It also used multiple structured questionnaires under a

census approach, unlike the present stratified mixed-methods design. The findings on reporting offer transferable insights with contextual adjustments.

Hussain et al. (2020) explored the relationship between financial reporting system effectiveness and project success in UAE construction projects. Using qualitative interviews with 15 managers and NVivo-based content analysis, the study revealed that ineffective financial reporting negatively affected project implementation. However, this study concentrated on construction projects in the UAE, while the current study targets agribusiness projects in Murang'a County. It also relied solely on qualitative data from a small sample, unlike the present mixed-methods design. Although the sectoral and methodological differences are notable, the study's insights on how reporting weaknesses hinder implementation remain partially applicable to agribusiness projects.

Msangi (2020) investigated factors influencing implementation of donor-funded projects in Tanzania using a descriptive design across 30 projects and purposive sampling of 156 staff. Questionnaires analysed through descriptive statistics indicated that financial reporting had no significant effect on project implementation. However, the study focused on donor-funded projects in three Tanzanian regions, whereas the present study examines agribusiness projects in Murang'a County. It also used only quantitative questionnaires and purposive sampling, unlike the current mixed-methods and stratified approach. Despite sectoral differences, the study underscores the need for structured reporting systems, a concept relevant to Murang'a agribusiness projects with suitable contextual adaptation.

In Marsabit County, Kenya, Ogot (2020) assessed how financial reporting quality influences financial sustainability of county-financed agricultural projects. Using descriptive and inferential analysis on data from 71 purposively selected respondents, the study found a strong relationship between financial reporting and project execution. However, the study focused on county-financed agricultural projects within Marsabit, differing from the agribusiness-focused scope of the current research in Murang'a County. It also used purely quantitative methods and purposive sampling, unlike the mixed-methods, stratified approach adopted in the present study. Nonetheless, the demonstrated link between reporting and project execution provides largely transferable insights to Murang'a agribusiness contexts.

Wandiri and James (2020) examined rural road development projects in Machakos County using a descriptive design and purposive sampling of 90 project staff. Semi-structured questionnaires analysed through descriptive and inferential statistics revealed that delays in cash disbursement and reporting challenges negatively affected project implementation. However, the study addressed county government road projects, while the present research focuses on agribusiness projects in Murang'a County. It also emphasised project management rather than project implementation as in the current study. Despite these differences, the finding that reporting inefficiencies hinder implementation provides relevant lessons for agribusiness projects, subject to sector-specific adaptations.

Cashflow Management and Project Implementation

Al-Nassafi (2022) examined how cash flow variations influence project performance in Kuwait using a descriptive-analytical design and a 31-item questionnaire administered to 181 randomly selected construction managers and business owners. The study found that variations in cash flow significantly affected project performance and that financial management moderated this relationship. However, the study was conducted in Kuwait, relied solely on quantitative structured questionnaires, and examined cash flow broadly, whereas the current research focuses on agribusiness projects in Murang'a County using a mixed-methods design and specific cash

flow dimensions operating, investing, and financing cashflows. The findings are partially transferable with contextual adaptation.

Omopariola, Windapo, Edwards, and Thwala (2020) explored Nigerian contractors' perceptions of cash flow challenges in building projects through a cross-sectional quantitative survey using Likert-scale items. Results showed that cash flow problems commonly led to reduced revenues, delays, and sometimes project abandonment. However, the study was confined to Nigeria, relied exclusively on quantitative survey data, and broadly assessed cash flow problems, whereas the current study uses a mixed-methods approach and specifically examines operating, investing, and financing cashflows in agribusiness projects in Murang'a County. The study's insights on cash flow challenges are relevant but require contextualisation for sectoral and regional differences.

TesfaMariam, Woldesenbet, and Ponnambalam (2020) assessed the effect of cash flow management on building project performance in India using analytical hierarchy modelling and simulation. Findings showed cash outflows averaging 16.7%, accounting for a 30% variance in project cost, and highlighted that effective cash flow management enhanced performance. However, the study focused on Indian building projects, used modelling and simulation techniques, and examined project performance, while the present research investigates project implementation in Kenyan agribusiness projects using mixed-methods and stratified sampling. The structured cash flow insights are useful but must be adapted to local agribusiness financial systems.

Del Giudice, Della Peruta, and Baldini (2019) examined cash flow management and project implementation in Italian SMEs using a descriptive design covering 3,721 projects and a simple random sample of 128 firms. Multiple regression results showed a positive but insignificant relationship between cash flow management and project implementation. However, the study addressed SME projects in Italy, used only quantitative methods and simple random sampling, and assessed cash flow management broadly. In contrast, the current study focuses on agribusiness projects in Murang'a County and examines operating, investing, and financing cashflows through a mixed-methods approach. The general principles remain informative with contextual adjustments.

Shash and Qarra (2018) investigated cash flow management practices in Saudi building projects, examining forecasting methods, financing strategies, and monitoring techniques used by construction firms. Contractors employed cash flow forecasting, credit financing, outsourcing, and asset-based financing, and the study found that effective cash flow management enhanced project execution. However, the research focused on Saudi construction projects, relied primarily on descriptive analysis, and examined cash flow management broadly. The present study differs by analysing agribusiness projects in Murang'a County and using mixed-methods with stratified sampling to evaluate operating, investing, and financing cashflows. The findings apply with necessary agribusiness-specific adjustments.

RESEARCH METHODOLOGY

Research Design

This study adopted a descriptive research design. Both quantitative and qualitative approaches were used, enabling a comprehensive understanding of the phenomena under investigation. Descriptive research outlines key characteristics of events or groups and captures insights from human, organizational, or business perspectives. It is straightforward to apply, allows observation in natural settings, and generates rich data. The design's strength lies in its thorough

data collection, ability to examine multiple factors, and capacity to support multidimensional analysis while informing future research directions.

Target Population, sampling and Sample size

Target population consists of a number of businesses, persons or other institutions that serve as examples of the study's objectives (Thomas, Li & Pencina, 2020). The research targeted all agribusiness projects in Murang'a County as at December 2022. As per Murang'a County Records (2022), there were 21 agribusiness projects in Murang'a County as at December 2022 (Appendix 5). Project managers, project officers, and liaison officers individually served as participants for their respective projects. The respondents involved were 265 project staffs within the agribusiness projects in Murang'a County.

Table 1: Target Population

Staff	Number	Percentage
Project managers	21	7.9
Project officers	98	37.0
Liaison officers	146	55.1
Total	**265**	**100.0**

Sampling involves selecting a portion of a population to obtain data. This study used stratified sampling because the population consisted of distinct groups of project staff, including finance officers, managers, and liaison officers. Random sampling was then applied within each stratum to ensure fair representation. This approach enabled the researcher to obtain adequate responses from all categories and effectively address the study objective.

The target population comprised 265 project staff working in agribusiness projects in Murang'a County. The researcher applied Yamane's formula to determine the appropriate sample size for the study The formula took the form of:

$$n = \frac{N}{1 + Ne^2}$$

Where;

n = number in sample

N = target population

e = margin of error (10%)

$$n = \frac{256}{1 + 265\ (0.1)^2}$$

$$\text{n} = 72 \text{ project offocers}$$

A significance level of 0.01 was adopted instead of the conventional 0.05 to minimize the likelihood of committing a Type I error, ensuring that the findings are highly reliable and not due to chance. This stricter threshold was considered appropriate given the relatively small sample size and the importance of obtaining precise and robust results for decision-making within the agribusiness projects.

Data Collection and Analysis

This study used semi-structured questionnaires incorporating both open-ended and closed-ended items to collect qualitative and quantitative data. The mix of question types enhanced data richness and reliability by allowing respondents to clarify experiences while also providing measurable responses (Siedlecki, 2020). Closed-ended items were structured on a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree," enabling systematic comparison, pattern identification, and generation of generalizable numerical trends. Open-ended questions complemented this by capturing detailed insights, contextual explanations, and respondent

perspectives that deepened understanding of the quantitative results (Creswell & Poth, 2016). The questionnaire consisted of three sections: respondent and project background, financial management techniques, and project implementation. To support analysis, composite scores for each variable were computed by aggregating Likert-scale responses into single indices, ensuring robust and interpretable measurement suitable for further statistical evaluation.

Analysis involved both quantitative and qualitative techniques, where statistical descriptions and inferences were applied to numerical data, while thematic analysis was used to interpret narrative responses, with results presented in tables, charts, and prose. Multiple linear regression was adopted to assess the effect of financial management techniques on project implementation using the following model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

Y = Project Implementation; X_1 = Financial Risk Management; X_2 = Budgeting; X_3 = Financial Reporting; X_4 = Cashflow Management; β_0 = Constant Term; β_1–β_4 = Regression Coefficients; ε = Error Term.

Prior to regression analysis, diagnostic tests were performed, including normality using the Shapiro–Wilk test, heteroskedasticity using the Breusch–Pagan test, and multicollinearity using the Variance Inflation Factor. Data was cleaned, coded, and analyzed using SPSS Version 27

RESEARCH FINDINGS AND DISCUSSION

Response rate was analyzed by the researcher. This was anchored on the sum of questionnaires that were returned and duly completed by respondents. The researcher sent a total of 72 questionnaires. From the 72 questionnaires administered, a total of 65 questionnaires were duly filled and sent back. This yielded a response rate of 90.2%. This was sufficient as it was greater than 50% as recommended by Mugenda and Mugenda (2012). The results were as illustrated in Table 2.

Table 2: Analysis of Response Rate

Questionnaire	Frequency	Percent
Filled and returned	65	90.2
Not returned	7	9.8
Total	72	100.0

Descriptive Statistics

The study looked at establishing financial management techniques in agribusiness projects within Murang'a County. This was done through descriptive statistics generated through SPSS.

Financial Risk Management

Researcher established their agreement level on statements pertaining financial risk management as a project financial management technique. The results are illustrated by Table 3.

Table 3: Financial Risk Management

Statement	Mean	Std. Deviation
My project has a high level of financial risks	2.1282	.91678
Financial risk assessment is done for my project	2.3974	.88772
Financial risks are identified regularly within my projects	3.6538	.86530
The project manager and project team monitor and evaluate financial risks related to the project	4.0385	.71063
The project managers avoid some of the risks within my project	4.0256	.68328
My project management transfers financial risks facing my project	2.2179	.74985

My team pursues reduction of financial risks facing my project	4.3077	.46453
My team adopts risk retention when dealing with financial project risks	3.9103	.90001

The respondents, as per the Table, tended to disagree that their projects had a high level of financial risks (M=2.1282; SD=0.91678). They tended to disagree that financial risk assessment was done for their projects (M=2.3974; SD=0.88772). The respondents, however, tended to agree that financial risks were identified regularly within their projects (M=3.6538; SD=0.86530); the project managers and the team monitored and evaluated financial risks related to the projects (M=4.0385; SD=0.71063); and that project managers avoided some risks within their projects (M=4.0256; SD=0.68328). They further tended to agree that their teams pursued reduction of financial risks facing their project (M=4.3077; SD=0.46453); and that their teams adopted risks retention when dealing with financial project risks (M=3.9103; SD=0.90001). However, they tended to disagree that their project management transferred financial risks facing their projects (M=2.2179; SD=0.74985). This shows that the financial risk management is adopted in agribusiness projects.

Budgeting Techniques

The study also described the budgeting techniques. This was done by indicating the respondents' agreement level on statements regarding budgeting techniques displayed by Table 4.

Table 4: Budgeting Techniques

Statement	Mean	Std. Deviation
My project has an operating budget	4.0769	.67937
I have budgeted all the costs based on the set guidelines	2.0769	.73448
My team does a budget review often	3.8846	.66412
There is proper allocation of resources within project budgets in my team	3.8718	.72719
The funds of my project are disbursed on time	2.1538	.77421
The budget is adequate for my project	2.1282	.77893
Regular budget monitoring is done for my project	4.1538	.73990

From the Table, participants tended to agree that their projects had operating budgets (M=4.0769; SD=0.67937). They, nonetheless, tended to disagree that they had budgeted all the costs based on the set guidelines (M=2.0769; SD=0.73448). The respondents tended to agree that their teams did budget reviews often (M=3.8846; SD=0.66412); there was proper allocation of resources within project budgets in their teams (M=3.8718; SD=0.72719); and that regular budget monitoring was undertaken for their projects (M=4.1538; SD=0.73990). However, they tended to disagree that the funds of their projects were disbursed in time (M=2.1538; SD=0.77421); and that the budget was adequate for their project (M=2.1282; SD=0.77893). This shows that different budgeting techniques were adopted in agribusiness projects in Murang'a County.

Financial Reporting Techniques

The researcher determined level of agreement by respondents on financial reporting techniques. Tabulation of outcomes is done in Table 5.

Table 5: Financial Reporting Techniques

Statement	Mean	Std. Deviation
The books of accounts for the project are maintained for my projects	4.0641	.63122

My project team prepares quality financial reports	4.0000	.68376
The financials relating to the projects are comprehensive	2.1154	.72040
There are financial reports available for my projects	3.9231	.67937
The costs and incomes are included in the financial reports for my projects	4.0897	.72409

From the results, the respondents tended to agree that books of accounts were kept for their projects (M=4.0641; S.D=0.63122). The respondents also tended to agree that their teams prepared quality financial reports (M=4.0000; SD=0.68376). However, they tended to disagree that the financials relating to the projects were comprehensive (M=2.1154; SD=0.72040). Despite the disagreement, they tended to agree that there were financial reports available for projects (M=3.9231; SD=0.67937). In addition, they tended to agree that the costs and incomes were included in the financial reports for their projects (M=4.0897; SD=0.72409). This shows that financial reporting is a key technique adopted by project managers in agribusiness projects in Murang'a.

Cashflow Management Techniques

In this part, the investigator aimed to determine agreement level on cash flow management for the agribusiness projects in Murang'a County. This sought to describe the cash flow management techniques within the projects. The results are as depicted in Table 6.

Table 6: Cashflow Management Techniques

Statement	Mean	Std. Deviation
My project has been experiencing cashflows challenges in the recent years.	3.9744	.64414
Cashflow management is done within my projects	4.0513	.70060
My project has a high level of cash outflows compared to inflows	2.2051	.67148
My project has adequate cashflows from operations	2.1923	.64582
Cash flows from investments are high for my projects	2.3846	.80953
Financing cash flows are high for my projects	4.0513	.75416

From outcomes, respondents tended to agree that their projects had been experiencing cash flow challenges in the recent years (M=3.9744; SD=0.64414). Also, the respondents tended to agree that cash flow management was undertaken in their projects (M=4.0513; SD=0.70060). However, the respondents tended to disagree that their projects had high level of cash outflows compared to inflows (M=2.2051; SD=0.67148). They also tended to disagree on the statement that their projects had sufficient cash flows from operations (M=2.1923; SD=0.64582). In addition, they tended to disagree on the statement that cash flows from investments were high for their projects (M=2.3846; SD=0.80953). The respondents, however, tended to agree that financing cash flows were high for their projects (M=4.0513; SD=0.75416). This shows that cash flow management techniques are adopted within agribusiness projects in Murang'a.

Project Implementation

The researcher aimed to determine rate of agreement by respondents on statements on implementation of agribusiness projects in Murang'a. This was in describing the implementation of the projects. Table 7 displays the outcomes.

Table 7: Project Implementation

Statement	Mean	Std. Deviation
My project has experienced increased project costs in the last five	4.1667	.59033

years.		
The project management has made adjustments to project budgets before completion.	4.1923	.64582
The timelines for my projects have regularly been changed	4.1410	.63908
The users of my project have low satisfaction levels	4.1410	.69739

Outcomes display respondents' tended to agree that their project had experienced increased project costs in the last five years (M=4.1667; SD=0.59033). Further, project management had made adjustments to project budgets before completion (M=4.1923; SD=0.64582). In addition, timelines for the projects had regularly been changed (M=4.1410; SD=0.63908). They also tended to agree that the users of their projects had low satisfaction levels (M=4.1410; SD=0.69739). This shows that project implementation is a key challenge in agribusiness projects in Murang'a County.

Multiple Linear Regression Analysis

Researcher sought to establish the impact of project financial management techniques on project implementation. Findings are presented in the model summary, ANOVA table and the table of coefficients.

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.619[a]	0.383	0.349	0.33642

a. Predictors: (Constant), Cash flow management techniques, budgeting techniques, financial reporting techniques, financial risk management techniques.

From Table 8, regression model had an r value of 0.619. This indicated that project financial management techniques considered in the study had a strong relationship with project implementation. The table also showed that the model had an r square value of 0.383 indicating that the project financial management techniques contributed 38.3% to the change in project implementation. This indicates that there are other factors contributing the remaining variability in project implementation (61.7%).

Table 9: ANOVA Statistics

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.120	4	1.280	9.296	.000[b]
	Residual	8.262	60	0.138		
	Total	13.382	64			

a. Dependent Variable: Project implementation

b. Predictors: (Constant), cashflow management techniques, budgeting techniques, financial reporting techniques, financial risk management techniques

From Table 9, the ANOVA statistics revealed a F value of 9.296 ($p<0.000$). This showed that the model substantial as the F-statistics showed a significant value. The results led to the conclusion that project financial management techniques had significant effects on project implementation

Table 10: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.319	0.377		-6.153	0.000
	Financial Risk management techniques	0.466	0.097	0.462	4.795	0.000

Budgeting techniques	0.380	0.100	0.354	3.804	0.000
Financial reporting techniques	0.493	0.164	0.283	3.009	0.004
Cashflow management techniques	0.282	0.138	0.194	2.052	0.000

a. Dependent Variable: Organization Performance

The regression model was fitted into;

$Y = -2.319 + 0.466X1 + 0.380X2 + 0.493X3 + 0.282X4$

From the regression equation, the model had a constant of -2.319. This stipulates that where project financial management techniques are held constant, the project implementation for agribusiness projects would stand at -2.3. Further, the findings showed that enhancement in financial management techniques would result to increase in the project implementation for agribusiness projects.

From the regression equation, financial risk management techniques had a regression coefficient of 0.466 (p=0.000). This indicated that a unit increase in financial risk management techniques would lead to increased project implementation by 0.466. Hence, financial risk management techniques had a positive effect on project implementation. Findings are similar to Watema and Tulirinya (2021) who found a positive relationship between risk management techniques and project implementation. They also agreed with findings of Alsaadi and Norhayatizakuan (2021) whose outcomes showed that risk management techniques considerably enhanced the implementation of building projects. The findings however differed with those of Aarthipriya, Chitra, and Poomozhi (2020) who found that financial risk management had no impact on project implementation. They also differed with those of Pimchangthong and Boonjing (2017) whose outcomes depicted that project implementation was adversely influenced by risk management approaches.

From the fitted equation, budgeting techniques had a regression coefficient of 0.380 (p=0.000) indicating that an increase in budgeting techniques by a unit increase the project implementation by 0.380. Therefore, budgeting techniques had a positive effect on project implementation. The findings are similar to the findings of Mutiso and Paul (2021) who found that implementation of projects had a positive association with budgeting. They also agreed with findings of Simiyu (2018) whose findings demonstrated that budgeting had a favorable impact on project implementation. However, they disagreed with the findings of Kavale and Kalola (2017) who found that budgeting techniques had no impact on how projects were implemented.

From the findings, financial reporting techniques had a regression coefficient of 0.493 (p=0.004) indicating that if financial reporting increased by a unit, there is likely to be an increase project implementation by 0.493. Therefore, financial reporting had a positive effect on project implementation. The findings are aligned to those of Anuar, Alwi, and Ariffin (2023) whose findings indicated a favorable correlation between financial reporting and project implementation. However, they differed with findings of Hussain et al. (2020); and Wandiri and James (2020) who discovered that project implementation was adversely affected by financial reporting. They also differed with those of Msangi (2020) who found that project implementation was not significantly impacted by financial reporting.

From the findings, cash flow management techniques had a regression coefficient of 0.282 (p=0.044) indicating that a unit increment in cash flow management increased project implementation by 0.282. Therefore, cash flow management techniques had a positive effect on project implementation. The findings are same as the findings of Al-Nassafi (2022) whose

investigation discovered that cash flow management had a favourable impact on project implementation. They also corresponded with Shash and Qarra (2018) finding that cash flow management positively improved project implementation. However, they were different from those of Del Giudice et al. (2019) who found that cash flow management had an insignificant relationship with project implementation.

Conclusions

The study concludes that project implementation in agribusiness projects in Murang'a County faces significant challenges, with project financial management techniques positively influencing implementation but explaining only 38.3% of the variation ($R^2 = 0.383$), indicating that other factors also play a substantial role. In addition, the study concludes that financial risk management practices, such as regular risk identification, monitoring, and risk reduction, have a positive and significant effect on project implementation. Further, the study concludes that budgeting techniques, including preparation of operating budgets and regular budget reviews, have a positive and significant effect on project implementation. Moreover, the study concludes that financial reporting practices, despite limitations in comprehensiveness, have a positive and significant effect on project implementation. The study concludes that cash flow management practices, including the use of various cash flow techniques to address financing, operating, and investment challenges, have a positive and significant effect on the implementation of agribusiness projects.

Recommendations

The study recommends that agribusiness projects in Murang'a County strengthen financial risk management by conducting regular risk assessments using structured tools, transferring high-impact risks through insurance or guarantees, developing clear mitigation plans with contingency budgets and supplier diversification, and training staff in continuous risk monitoring and reporting. For budgeting, the study recommends preparing and approving budgets in alignment with agricultural cycles, adopting evidence-based approaches like activity-based or zero-based budgeting, ensuring timely fund disbursement, and conducting regular variance analyses to guide corrective actions. In terms of financial reporting, the study advises adopting standardized reporting templates, leveraging digital accounting tools for accuracy and timeliness, preparing comprehensive reports including budget performance and cash flow statements, and building finance staff capacity in reporting standards and internal controls. Finally, for cash flow management, the study recommends diversifying funding sources, strengthening invoicing and receivables management, stabilizing revenue through value-added products and long-term contracts, preparing regular cash flow forecasts, and minimizing operational outflows through cost-saving measures and better supplier negotiations.

Areas for Further Research

The findings showed that1project financial management techniques contributed 38.3% to project implementation of agribusiness projects in Murang'a County. This indicated that there were other elements that accounted for the remaining 61.7% change in project implementation among the projects. Therefore, this study recommends that a similar research be done on other factors influencing implementation of agribusiness projects in Murang'a County. This study also recommends that other researchers look into a similar study based on other project financial management techniques other than the ones considered in this study. There is also the need to adopt other measures of project implementation in future studies. Similar studies also need to be done based on other counties and different projects other than Murang'a and agribusiness

projects. The study also recommends that other researchers in similar future studies adopt secondary data other than primary data.

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