PROJECT APPRAISAL PRACTICES AND IMPLEMENTATION OF HEALTH SECTOR PROJECTS IN THE COUNTY GOVERNMENTS OF KENYA

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ABSTRACT

Effective project appraisal practices are essential considerations in enabling the project implementers to overcome the hindrances to successful project implementation. In Kenya, the county governments have attempted to embrace project appraisal practices with a view to enhancing the successful implementation of the health sector projects. However, studies delineating the perceived association between project appraisal practices and successful project implementation are relatively inadequate. Owing to this inadequacy, the study examined the relationship between project appraisal practices and the successful project implementation of the health sector projects as moderated by project complexity in the county governments in Kenya. The study adopted the correlational research design and targeted 3,752 health sector projects actively being implemented across the 47 county governments in Kenya. Stratified and simple random sampling techniques were used to select a sample of 354 health sector projects. Quantitative data was collected from the sampled project managers using the structured questionnaires. The descriptive results indicated that project appraisal practices were related to the successful implementation of the health sector projects in the county governments in Kenya. The study concludes that 48.7% of the variance in the successful implementation of the health sector projects was explained by project appraisal practices. The study also concluded that project complexity significantly moderated the relationship between project appraisal practices and the successful implementation of the health sector projects in the county governments in Kenya.

Keywords: Project Complexity, Project, Project Implementation, Project Appraisal Practices.

INTRODUCTION

Background of the Study

The successful project implementation in the health sector is vital to achieving the best possible health care outcomes consistent with the needs of the public. This is particularly important in the county governments. County governments are devolved administrative units established to bring governance and services closer to the people at the local level ((Domlyn & Wandersman, 2023). In Kenya, the primary objectives of the county governments include promoting a democratic and accountable exercise of power, recognizing the right of communities to manage their own affairs and ensuring the equitable distribution of national and local resources. For instance, the county governments are tasked with long-term planning, budgeting and implementing projects such as health projects. Health sector projects are initiatives designed to achieve specific health-related goals (Abdulrahman, 2019). According to Kaniaru (2020) numerous health sector projects are being executed in the

county governments including the modernization of major referral hospitals and the development of new facilities and programs to enhance healthcare education and infrastructure. Additionally, the health sector programs have focused on HIV prevention, TB diagnosis and management, Universal Health Coverage (UHC) initiatives and the deployment of new technologies, including the use of artificial intelligence in the healthcare delivery (Kioko & Mose, 2024).

Implementation of Health Sector Projects

Project implementation is the crucial phase where the plans for a health related project are put into action to achieve specific healthcare goals (Bredillet & Dwivedula, 2019). According to Havugimana (2015) project implementation is a shared responsibility among the key stakeholders including the project developers, funders, local practitioners and administrators. Successful execution of the health-linked projects serves as the bridge between project designs, policies and tangible outcomes to address the health challenges such as communicable diseases, maternal health and nutrition. Different scholars have conceptualized successful execution of the health-linked projects differently. In this study, however, four indicators of successful health sector project implementation were adopted. These were timeliness, budget adherence, quality of deliverables and achievement of strategic objectives (Chandes & Pache, 2020).

Globally, attention has turned to the execution of projects in the health sector. Timely execution of projects is perceived to enhance accessibility to health care services (Ameer, 2021). In the United States of America (USA) successful execution of health-linked projects has been influenced by stakeholder engagement (Day & Shea, 2021). In Australia, the execution of the Medicare projects has been questioned due to the huge expenditure allocated for the projects targeting preventive, therapeutic, rehabilitative and palliative health care services (Angeles, Crosland & Hensher, 2023). In New Zealand, Ameer (2021) reported that the involvement of diverse stakeholders did positively influence the successful implementation of health care projects in the regional governments. In the Solomon Islands, Abid and Mseddi (2021) reported that the equitable distribution of human resources for health (HRH) enhanced the provision of health care services.

Regionally, studies on the decentralisation of health care services have focused on specific aspects of devolved governance such as local revenue mobilisation, frontline worker motivation, maternal healthcare and primary health care education (Inkoom & Gyapong, 2025; Mohmand & Loureiro, 2017). However, many African governments are committed to ensuring that resources are made available to the healthcare sector. For example, in Nigeria, the successful execution of the health-linked projects has ensured universal access to health insurance even though only 4% of Nigerians are covered by the social health insurance programmes (Alemayehu & Warner, 2020). In Morocco, the state provides funding for the execution of the health-linked projects with the ministry of health providing the public healthcare services. However, this is not the trend across many African countries where the execution of the health sector projects has fallen short of the successful implementation parameters.

In Kenya, the execution of the health sector projects is generally the preserve of the county governments (Karanja, 2021) but a conglomeration of providers including the private sector and Faith Based Organizations (FBOs) work in synergy to support the health care system (Ajwang, 2024). However, Kenya has not achieved universal coverage in health care provision since the execution of the health sector projects requires enormous financial and nonfinancial resources and the implementation of the health sector related projects has remained problematic (Donaldson, 2025). In addition, challenges such as political interference have apparently undermined the execution of the health sector projects at the county level (Kilonzo, Kamaara & Magak, 2017). According to Kemboi (2021) allowing counties to adopt county specific project appraisal practices to implement the health sector projects can address the specific health sector needs and augment the capacity of the devolved units to make progress in enhancing access to health services and facilities.

Project Appraisal Practices

Project appraisal practices are systematic considerations for assessing the viability, feasibility and potential impact of a project before deciding whether to proceed with its implementation (Taliercio & Estrada, 2020). The goal of project appraisal is to provide decision-makers with the information needed to make informed choices related to allocation of resources. Project appraisal covers financial, technological and socio-economic aspects of the project (Kerzner, 2023) but in this study project appraisal was defined in terms of economic, technical, financial and social considerations and practices as moderated by project complexity.

Project complexity refers to the degree of interrelatedness among a project's diverse, evolving, and often unpredictable parts, which makes it difficult to plan, predict and manage successfully. It arises from multiple interacting factors, including numerous stakeholders, ambiguity, dynamic environments, and intricate systems, rather than just project size (Yakhchali & Farsani, 2013). In this regard, project complexity may act as a moderator by strengthening the link among the predictor and outcome variables. In this study, project complexity was conceptualized in terms of project size, interdependencies, organizational structures and technological requirements.

Statement of the Problem

Health sector projects play a critical role in addressing the healthcare delivery challenges. Therefore, the successful implementation of these projects is likely to enhance the provision of quality of healthcare by promoting social equity and enhancing community resilience. However, significant gaps persist in the successful implementation of the health sector projects, particularly in low-and middle-income countries like Kenya. As a result, these countries face the dual burden of infectious and chronic diseases, with infectious diseases remaining the major public health concern.

Despite increased funding, many health sector projects in the county governments have not attained the required implementation milestones with several projects having delayed at varying percentages. These delays highlight systemic challenges in project design practices and execution. With limited research, the specific challenges associated with project design

considerations with regard to the execution of the health sector projects have not been adequately addressed. Hence, the study was undertaken to bridge the espoused study gaps by examining the influence of project appraisal practices on the successful implementation of the health sector projects in the county governments in Kenya.

Objectives of the Study

1. To establish the influence of project appraisal practices on the successful implementation of the health sector projects in the county governments in Kenya.
2. To determine the moderating effect of project complexity on the relationship between project appraisal practices and the successful implementation of the health sector projects in the county governments in Kenya.

Research Hypotheses

This study was guided by the following hypotheses;

1. **H_0**: There is a significant influence of project appraisal practices on the successful implementation of the health sector projects in the county governments in Kenya.
2. **H_0:** Project complexity does not significantly moderate the relationship between project appraisal practices and the successful implementation of the health sector projects in the county governments in Kenya.

LITERATURE REVIEW

Theoretical Framework

The study was anchored on Theory of Reasoned Action. The Reasoned Action theory was proposed by Fishbein and Ajzen (1980) premising it on the fact that human beings are coherent and human behaviours are apparent due to objectivity of exploring the concerns of their actions. Following the theory, Hale, Householder and Greene (2002) posited that the purpose of an individual(s) to act in a manner is determined by the individual's attitude with consideration of the behaviour as well as the idiosyncratic customs. This theory has been employed in various research studies as a theoretical framework for environment assessment and appraisal (Heo & Muralidharan, 2023). For example, Liu and Upchurch (2023) adopted the theory to study the relationship between environment, knowledge about renewable energy and beliefs about the salient consequences of using renewable energy. However, other studies that have recently utilised this theory (Lew & Svensson, 2023) have employed it to determine, for example, the options in the process of decision making in public projects, planning in strategic decision making and undertaking action research in an organisation. This study extended this theory in conceptualizing the successful implementation of the health sector projects by scrutinizing the fundamental functions of project appraisal of the suggested projects for implementation. Hence, the theory enhanced the understanding of the relationship between project appraisal practices and the successful implementation of the health sector projects in the county governments in Kenya.

Conceptual Framework

The conceptual framework shows how project design considerations relate to the successful implementation of the health sector projects. Figure 1 presents the study variables with their respective indicators.

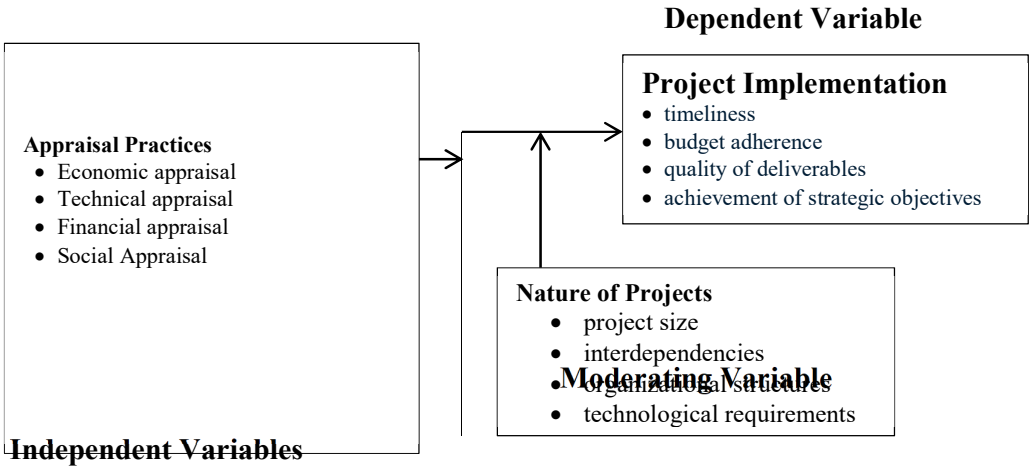

Figure 2.1: Conceptual Framework

Project Appraisal Practices

Project appraisal is a systematic process of assessing the viability, feasibility and potential impact of a proposed project before deciding whether to proceed with its implementation (Taliercio & Estrada, 2020). The goal of project appraisal is to provide decision-makers with the information needed to make informed choices about allocating resources to a particular project. Project appraisal may result in the preparation of the feasibility report (Kerzner, 2023; Taliercio & Estrada, 2020).

Project appraisal covers financial, technological and socio-economic aspects of the project and presents to decision-makers not a single numerical value or figure as a measure of the project's excellence but a set of valuations cherishing the project performance in totality (Kerzner, 2023). In this study, project appraisal was evaluated using economic, technical, financial and social appraisal.

Project economic appraisal is a systematic process for evaluating a project's overall value by examining its economic costs and benefits, which are often translated into monetary terms. The highlighted economic aspects include essential input requirements, capacity utilisation level, expected expenses and probable returns. While making a project appraisal, the technical feasibility needs to be considered (Taliercio & Estrada, 2020).

The project technical appraisal is an evaluation of a project's technical feasibility, focusing on whether it is soundly designed, properly engineered, and follows accepted standards. It examines aspects like technology choice, site selection, materials, processes, and the expertise needed to complete the project successfully. This appraisal helps identify potential barriers and determines if the project is technically possible before resources are committed (Schmoch, Beckert & Schaper-Rinkel, 2023). Project financial appraisal is the systematic process

of assessing a proposed project's viability, profitability and financial sustainability by evaluating its expected net cash flows and overall financial health. It helps decision-makers determine if an investment is worthwhile and select the best option among alternatives. The social appraisal is an assessment that evaluates the potential social impacts of a project on a community or society as a whole. It considers factors like community well-being, social equity, and the meaningfulness of social interactions to ensure a project is beneficial and avoids negative consequences (McDavid, Huse, & Hawthorn, 2021).

Project Complexity

A project complexity is the degree to which its numerous interdependent elements make its overall behavior difficult to understand, foresee, and control. It arises from the intricate interplay of factors such as large scope, technical challenges, dynamic market conditions, evolving client needs, stakeholder interests, and human dynamics. Managing complexity requires careful planning, adaptable strategies, and vigilant teams to navigate the inherent uncertainties, ambiguities and unexpected changes that influence project outcomes. Consequently, different scholars have operationalized project complexity in terms of diverse project categorization systems. For instance, Crawford (2025) identified fourteen attributes out of which the application area, nature of work, client/customer, complexity, cost, size, strategic importance, risk level, organizational benefit and deliverables were ranked as the most important project categorization attributes.

Other scholars have maintained that all projects are fundamentally similar and should possess the same characteristics (Yang, 2022). This is in contradiction to emerging literature which recognizes the need to perceive projects as possessing unique characteristics. However, project size, interdependencies, organizational structures and technological requirements were perceived to moderate the relationship between project planning considerations and successful implementation of the health sector projects in the county governments in Kenya.

Successful Project Implementation

Project implementation involves a comprehensive and multidimensional approach to address the complex challenges and requirements of healthcare systems (Sligo & Villa, 2017). Therefore, successful project implementation relies on thorough planning, with clear objectives and scope, effective resource and risk management, strong communication and stakeholder engagement, and continuous monitoring to adapt to changes. Breaking the project into smaller, manageable tasks, using project management tools, and a clear understanding of the project's purpose are also crucial for achieving project goals on time and within budget. With regard to health sector projects, the initial phases of project implementation typically include thorough needs assessments and stakeholder consultations to identify the key health priorities and allocate resources successfully. In addition, robust project management methodologies, such as the use of information systems for data management, are essential for tracking progress and ensuring accountability (Michelo & Mulla, 2017).

Therefore, ensuring successful project implementation involves diligent monitoring of several key indicators notably timeliness, budget adherence, quality of deliverables and achievement

of the strategic objectives as well as the strategic goals commonly categorized into time, cost, quality and scope. However, this study focused on timeliness, budget adherence, quality of deliverables and achievement of strategic objectives as the parameters of successful implementation of the health sector projects.

Empirical Literature Review

Past scholarly works have been directed towards discerning the perceived effect of project appraisal practices on successful project implementation. In Iran, Behzadifar and Saran (2023) examined the challenges encountered when implementing projects in the health sector. This was mainly a qualitative meta-synthetic study motivated by the fact that a higher quality of care would satisfy both the health providers and the public. From the explored study about eight themes were extracted. These themes included social appraisal, health system structure, financial resource appraisal and evaluation. Thus, it was observed that social and economic appraisal practices were essential in successful project implementation.

Hollada (2017) investigated the use of clean cooking technologies and its implication to sustainability based on a case study of Biomass and Liquefied Petroleum Gas Stoves in Puno, Peru. The study involved 31 in-depth interviews and six in-home observations which identified six major barriers to the consistent use of clean stoves. These barriers were perceived to be the significant differences in food taste and nutrition, cooking niches filled by different stoves, social norms, safety concerns, comparative costs and a lack of awareness about long-term health risks. The study recommended that, in order to effectively reduce household air pollution, clean cooking programs should address cost, taste, cultural traditions and safety concerns, within community-based and national initiatives to promote sustained and exclusive adoption of clean cooking technologies.

Mahamid and Dmaidi (2020) employed the questionnaire survey to determine the causes of the delays of the road projects in Palestine as reported by contractors and consultants. The survey comprised of 34 contractors and 30 consultants. The findings showed that a total of 52 factors triggered the delay of the project. However, inadequate of financial appraisal practices were significant determinants of project delay. However, the study didn't ascertain the perceived link between project appraisal practices and successful project implementation encompassing economic appraisal, technical appraisal, financial appraisal and social Appraisal as were considered in the study.

Amanor-Boadu (2021) expeditiously examined the financial appraisal practices in small scale projects in Pakistan. Theoretically, the study was guided by the resource based theory with the simple random sampling used to select the research participants. Moreover, the researcher settled on the semi-structured questionnaire as the tool of data collection and the regression analysis as the approach of data analysis. The results established the presence of a fuzzy link between financial appraisal and successful project implementation. The study argued that the scope of financial appraisal did not make any significant change in the execution of the concerned projects.

In Tanzania, Kuwawenaruwa and Borghi (2023) scrutinized the implementation of free health insurance projects for pregnant women from a poor neighbourhood. The study employed a mixed methods evaluation technique. Further, the econometric method was used in which the results were measured through household, patient and facility surveys and observations of care before the intervention started. From the findings, the scheme got high coverage among the target population and reduced the paid amount for antenatal and delivery care. However, there was no effect on coverage of the service and limited effects on quality of care were revealed. The lack of effect was partly due to the eleventh-hour timing of the first antenatal care registration and visits for the scheme, as well as minimal understanding of entitlements among providers and beneficiaries.

In Kenya, Ndegwa (2023) conducted a study focusing on programme evaluation to boost hand hygiene in the public hospitals through the promotion and production of alcohol-based handrub. About 25,738 hand hygiene compliance opportunities were observed and 15 baseline and post-intervention focus group discussions were conducted. Hand hygiene compliance increased significantly by 10 per cent. Healthcare workers liked the increased accessibility of alcohol-based band rub but disliked its smell, feel and sporadic availability. Onsite production and promotion of alcohol-based band rubs resulted in modest hand hygiene improvement. However, the outcomes of the foregoing studies have presented mixed and inconsistent results. While many studies focused on project appraisal practices fundamental questions remained unanswered as to what impact these had on successful project implementation (Okwemba, 2023). Therefore, the study was unique in that it did not only capture the determinants of the successful implementation of the health sector projects but also subserviently expounded on the moderating role of project complexity.

RESEARCH METHODOLOGY

Study Design

The study was guided by the correlation research design which pursued the relationships between the study variables by refraining from any manipulation. Moreover, the correlation design permits the study to ascertain the strength and direction of the relationship existing between the two or even more variables (Creswell, 2014). From this schematization, the direction of the correlation can either be positive or negative. In this study, quantitative data was derived from the closed ended questionnaire items which were analyzed using correlation and regression analytical techniques. In consideration of the strengths of the considered design, it was necessary to adopt the correlation design to aid in examining the plausibly link between project appraisal practices and the successful implementation of the health sector projects in the county governments in Kenya as moderated by project complexity.

Target Population, Sampling Technique and Sample Size Determination

The study's target population were the active health sector projects implemented for at least five years across the 47 county governments in Kenya. A total of 3,752 health related projects under implementation or implemented within a budget of at least Kshs. 20 million were considered. The unit of observation was the respective managers of 3,752 health sector projects in the county governments. Since the number of the health sector projects was known, the study

used the Krejcie and Morgan (1967) sampling method to determine a sample size of 354 health sector projects. The principle of proportionality was considered in identifying the projects per county and 354 project managers as the sample size.

Study Instruments

The study adopted the questionnaire to collect primary data. A questionnaire is conceptualized as a method of data collection in which the respondents responds to written questions (Lawal, 2023). Kothari (2004) indicates that a questionnaire is a cost-efficient anonymous method of collecting data particularly from a huge group of respondents. The questionnaire was mainly close ended (Mugenda & Mugenda, 2003) but reflecting the study variables particularly project appraisal practices and project implementation. Ngechu (2004) observed that the closed ended questionnaire items made it easier to gather uniform responses.

Data Processing and Analysis

Descriptive and inferential statistics were computed to explore the responses to the parameters of the study variables. For inferential analysis, the study employed Pearson Correlation to ascertain the strength of the association between the predictor and outcome variables. Thereafter, regression analysis was used to determine the ability of the independent variable to predict the outcome variable. The coefficient of determination (R squared) was computed to ascertain the change in the outcome variable while the Analysis of Variances was used to determine the overall significance of the model. The regression model(s) was applied to establish the influence of project appraisal practices in the hypothesised relationships. The model equation was: $Y= \beta_0+\beta_i X_i+_{(i=1)}$

Where; Y= Successful Project Implementation

X_3= Project Appraisal Practices

$\boldsymbol{\beta_0}$ = Constant Term

$\boldsymbol{\beta_1}$ = Regression Coefficient

μ_i= Error term

Test for Moderation by Project Complexity

The simple regression analysis was used to determine the moderating effect of project complexity on the relationship between project appraisal practices and the successful implementation of health sector projects. The regression model used is; $\mathbf{Y=\alpha+(\beta_1 X)^* X_1 M_1+\varepsilon}$

Where, Y= Successful project implementation

α = Constant

X= Project Appraisal Practices (X_1)

X_5M_1= Project Complexity

ε= margin of error

RESEARCH ANALYSIS, FINDINGS AND DISCUSSION

Descriptive Analysis for Project appraisal Practices

Economic feasibility, technical appraisal, financial appraisal and social appraisal practices were used to examine project appraisal practices. The respondents agreed that the economic feasibility assessed the potential benefits to the community and public stakeholders

(Mean=4.01; SD=1.20). However, the respondents were noncommittal that the consideration of environmental sustainability was integrated into economic feasibility (Mean=3.26; SD=.93). Nevertheless, the results of economic feasibility were communicated to the general public to promote transparency and accountability (Mean=3.85; SD=1.13).

The study also shows that technical appraisal rigorously assessed the feasibility and viability of the project (Mean=3.71; SD=.86) with the appraisal assessing the latest technological advancements to ensure the project incorporated up-to-date solutions (Mean=4.11; SD=.70). In addition, the technical appraisal considered the projects' adherence to standards and regulatory requirements (Mean=3.71; SD=.89) and that the project managers concurred with the state of technical appraisal (Mean=3.85, SD=.69).

With regards to financial appraisal, the project managers conducted a comprehensive financial appraisal to evaluate the financial feasibility of the project (Mean=4.18; SD=.57), and that the financial appraisal included an in-depth analysis of both development and recurrent expenditures associated with the project (Mean=3.49; SD=.85). Further, the project management actively involved financial experts or relevant stakeholders in the financial appraisal process (Mean=3.88; SD=.87).

The results further show that social appraisal thoroughly considered the projects' impact on local communities and social dynamics (Mean=4.26; SD=.92) and that social appraisal considered the projects' alignment with the ethical and social responsibility standards (Mean=3.59; SD=.85). However, the respondents were noncommittal that the stakeholders represented diverse social groups who were actively involved in the social appraisal process (Mean=3.101; SD=.78).

Table 1: Descriptive Analysis for Project Appraisal Practices

Statements	SD	D	N	A	SA	Mean	STD
The economic feasibility included an assessment of potential benefits to the community and public stakeholders	8.7	7.0	11.8	64.9	7.6	4.18	1.203
Consideration of environmental sustainability was integrated into the economic feasibility	3.0	14.9	44.8	27.5	9.9	3.263	.933
Economic feasibility results were communicated to the general public, promoting transparency and accountability	6.3	13.9	17.3	33.3	29.3	3.85	1.129
Aggregate Score for Economic Feasibility						3.758	.701
Technical appraisal rigorously assessed the feasibility and viability of the project	2.1	8.1	19.4	57.9	12.5	3.707	.864
The appraisal assessed the latest technological advancements to ensure the project incorporated up-to-date solutions	1.5	1.8	5.4	66.6	24.8	4.113	.704

Technical appraisal considered the project's adherence to standards and regulatory requirements	3.3	9.0	11.9	64.8	11.0	3.713	.897
Aggregate Score for Technical Appraisal						3.845	.697
The project manager conducted a comprehensive financial appraisal to evaluate the financial feasibility of the project	0	0.6	7.2	66.0	26.3	4.179	.572
Financial appraisal included an in-depth analysis of both development and recurrent expenditures associated with the project	4.5	8.7	22.1	63.0	1.8	3.49	.854
The project manager actively involved financial experts or relevant stakeholders in the financial appraisal process	2.4	5.4	13.7	59.1	19.4	3.878	.865
Aggregate Score for Financial Appraisal						**3.849**	**.574**
Social appraisal considers the project's impact on local communities and social dynamics	4.2	10.7	12.8	65.4	6.9	4.26	.92
The social appraisal considered the project's alignment with ethical and social responsibility standards	3.6	6.6	23.6	56.7	6.6	3.591	.849
Stakeholders representing diverse social groups were actively involved in the social appraisal process	4.5	9.9	59.4	23.6	2.7	3.101	.783
Aggregate Score for Social Appraisal						3.631	.598
Composite index for Project Appraisal Practices						**3.571**	**.53**

Project Complexity

Project complexity was examined by project size, interdependencies, organizational structures and technological requirements as captured in table 5. It is evident that project size determined the monitoring techniques applied (Mean=3.609; SD=.94). The results also show that there were a variety of tools applied to address different aspects of the project (Mean=4.09; SD=.47) and that project management sought feedback on how to implement the projects from different quarters (Mean=3.851; SD=.88).

With respect to interdependencies, the intricacies and complexities associated with the projects were considered when implementing the projects (Mean=3.77; SD=.82) and the projects successfully highlighted the key performance indicators and milestones (Mean=4.054; SD=.83). However, the respondents were non-committal as to whether diverse views from the project stakeholders (Mean=3.313; SD=1.00) were sought.

Regarding organizational structures, there was noncommittal response that rapid assessments were conducted as dictated by the structures of the projects (Mean=3.46; SD=.87) and that some projects were executed in different phases (Mean=2.904; SD=.76). However, the structural risks were clearly identified to enhance seamless execution of the projects (Mean=3.752; SD=.48). Shamsudeen, et al (2025) concurred that projects' structural risks

moderated the relationship between project planning considerations and successful project implementation.

Concerning technological requirements, the corrective tools were promptly applied to execute project activities (Mean=3.96; SD=1.01) and that modern project execution technologies adopted (Mean=3.63; SD=.98). The respondents were also noncommittal that the project implementers attached immense value to advanced technology (Mean=3.73; SD=.98).

Table 2: Project Complexity

Statements	SD	D	N	A	SA	Mean	STD
The project size determines the monitoring techniques applied	0	18.2	16.1	52.2	13.4	3.609	.935
There are a variety of tools applied to implement different project sizes	4.2	11.8	35.2	16.1	39.0	4.09	.88
The project manager actively seeks feedback on how to implement the projects from different quarters	0	7.5	20.0	52.5	20.0	3.851	.824
Aggregate Score for project size						**3.891**	**.599**
Intricacies associated with the projects are considered when implementing the projects	1.8	13.4	23.0	59.7	2.1	3.77	.818
Projects consider key performance indicators based on their complexity	0	5.1	16.4	46.6	31.9	4.054	.828
The project implementers consider diverse views from difficult project stakeholders	3.3	26.0	10.4	56.7	3.6	3.313	1.003
Aggregate Score for interdependencies						**3.612**	**.485**
Rapid assessments are conducted as dictated by the structure of the project	0.9	14.9	23.3	59.1	1.8	3.46	.799
Some projects are executed in different phases	10.0	16.6	20.4	50.2	2.8	2.904	1.171
The potential risks are clearly identified to enhance seamless execution of the projects	0	11.3	20.6	49.6	18.5	3.752	.886
Aggregate Score for organizational structures						**3.372**	**.339**
Corrective tools are promptly applied to execute project activities	7.5	15.8	19.1	54.9	2.7	3.96	1.014
Modern project execution technology are adopted	4.8	16.1	42.4	27.5	9.3	3.63	.979
Project implementers attach immense value to advance technology	1.2	26.0	13.7	52.5	6.6	3.73	.979
Aggregate Score for technological requirements						**3.791**	**.668**
Composite index for the project complexity						**3.52**	**.305**

Successful Project Implementation

Project implementation was examined by timeliness, budget adherence, deliverable quality and achievement of strategic objectives. Regarding timeliness, the project management adhered to

scheduled timelines to minimize time wastage (Mean=3.663; SD=1.04). This is congruent with Ling (2023) who asserted that project execution ought to relate seamlessly to the stipulated execution timelines. It is evident that time planning had been used to enhance timely completion of the project (Mean=3.97; SD=.88). However, project execution did not follow the stipulated timelines (Mean=2.113; SD=.67).

Regarding budget adherence, the respondents were noncommittal that the project outcomes were aligned with the expected budget estimates (Mean=2.722; SD=.96). Similarly, the execution of the projects did not demonstrate a commitment to delivering the project within budget (Mean=2.678; SD=.97). In addition, the respondents disagreed that a multi-sectorial approach was used when formulating the budget (Mean=2.319; SD=.79).

Regarding quality of deliverables, the procurement and supply chain management processes ensured quality health project are executed (Mean=3.66; SD=.92) and that innovative considerations were embraced in ensuring that there was enhanced cost-effective during project execution (Mean=3.97; SD=.81). Nonetheless, the respondents were noncommittal that the execution of the projects demonstrated efficiency in resource utilisation (Mean=2.427; SD=.93). This is supported by et al (2017) who averred that optimal resource utilization helped to meet the clients' satisfaction.

On achievement of strategic objectives, the mechanisms for strategic review of project execution decisions were not reviewed to incorporate stakeholders' feedback (Mean=2.355; SD=.65). However, the respondents were undecided as to whether the decisions about project execution were made on a consultative way (Mean=3.119; SD=.62). In addition, there was no commitment to soliciting public opinion regarding project execution (Mean=2.352; SD=.84).

Table 3: Successful Project Implementation

Statements	SD	D	N	A	SA	Mean	STD
Procurement and supply chain processes ensure quality health project are executed	4.2	21.8	26.6	20.6	26.9	3.66	.931
Innovative considerations are embraced in ensuring that there is enhanced cost-effective during project execution	3.9	22.5	22.7	18.2	32.7	3.97	.915
The execution of the projects demonstrates efficiency in resource utilisation	6.6	56.7	25.7	9.6	1.5	2.427	.812
Aggregate Score for quality deliverables						**3.35**	**.694**
The project outcomes are aligned with the expected budget estimates	6.9	39.1	32.5	17.9	3.6	2.722	.956
The execution of the projects demonstrate a commitment to delivering within budget	6.3	44.8	28.1	16.7	4.2	2.678	.965
A multi-sectorial approach is used when formulating budget	8.1	63.0	19.7	7.5	1.8	2.319	.798
Aggregate Score for budget adherence						**2.573**	**.822**

Adherence to scheduled timelines minimizes time wastage	2.4	14.9	17.3	44.8	20.6	3.663	1.039
Time planning has been used to enhance timely completion of the project	4.2	9.0	27.5	54.9	4.5	3.97	.878
Following the stipulated timelines ensures the projects activities are completed on time	14.3	63.0	19.7	3.0	0	2.113	.669
Aggregate Score for timeliness						**3.25**	**.596**
There are mechanisms for strategic review and incorporating stakeholders' feedback	2.7	65.4	26.6	4.5	0.9	2.355	.654
Decisions about project execution are made on a consultative way	0.9	9.6	68.1	19.7	1.8	3.119	.622
There is a commitment to soliciting public opinion regarding project implementation	4.5	72.5	9.0	11.3	2.7	4.352	.841
Aggregate Score for achievement of strategic objectives						**3.26**	**.492**
Composite index for successful project implementation						**3.11**	**.396**

Correlation Analysis

The correlation results postulated the presence of a moderate positive relationship between project appraisal practices and successful project implementation (r=0.669, p=0.001). The results concur with Mburu (2023) who established a positive link between project appraisal practices and successful project implementation. However, Mburu (2023) did not ascertain the magnitude of the relationship. Generally it is important to note that all the correlation coefficients between the predictor variables and the criterion variable were positive. In deed Ronoh (2020) contended that project appraisal practices played a significant role in ensuring effective executing of projects.

Table 2: Correlation Coefficients Matrix

		SPI	**PAP**
SPI	Correlation	1	.669**
	Sig. (2-tailed)		.001
	N	**334**	**334**
PAP	Correlation	.669**	1
	Sig. (2-tailed)	.001	
	N	**334**	**334**

**. Correlation is significant at the 0.01 level (1-tailed).

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

SPI=Successful Project Implementation; PAP=Project Appraisal Practices

Regression Analysis for the Study Variables

The study assessed the relationship between project appraisal practices and the successful implementation of the health sector projects in the county governments of Kenya. The null hypothesis (H_0) posited that there was no significant relationship between project appraisal practices and the successful implementation of health sector projects in the county governments

in Kenya. From the regression results in Table 5, the R-value of 0.6982 suggested a moderate and positive correlation between project appraisal practices and the successful implementation of health sector projects. Moreover, the R Square value of 0.487 indicated that approximately 48.7% of the variation in the successful implementation of health sector projects could be explained by project appraisal practices. This implied that project appraisal practices incorporating social, economic, financial, technical and social appraisals had some significant explanatory power on the successful implementation of the health sector projects. The Adjusted R Square value of 0.377 further corroborates the model's explanatory power. The standard error of the estimate of 0.38045 indicated the average deviation between the observed and predicted values for successful project implementation.

The ANOVA table shows that the regression model was statistically significant ($F(1,333)=28.698$, $p=0.000$), indicating that project appraisal practices significantly influenced the successful implementation of the health sector projects. Hence, the null hypothesis that there was no significant relationship between project appraisal practices and the successful implementation of health sector projects was rejected. Similarly, the coefficients table, the unstandardized coefficient ($B=0.373$) suggested that for each unit increase in the composite index for project appraisal practices, the composite index for successful project implementation would increase by 0.373 units. The regression model fitted to test the relationship was;

$$\mathbf{Y}=\boldsymbol{\beta}\mathbf{0}+\boldsymbol{\beta}_1\mathbf{X}_1+\boldsymbol{\varepsilon}$$

The model equation was; $\mathbf{Y}=1.990+0.373\mathbf{X}_3$

where;

Y = Successful project implementation

X^2 = Project Appraisal Practices

Considering the p-value to be 0.000, the considered interpretation was that the computed change was significant as proposed in the research hypothesis. Compared with the reviewed studies, the results confirmed that indeed project appraisal practices were positively associated with successful project implementation and this is important because there is no way any project execution could effectively continue without appraising the financial estimates. This discernment is consistent with the outcomes of the previous studies which revealed that effective project appraisal practices significantly increased the likelihood of enhancing project execution.

Table 3: Project Appraisal Practices

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.6982[a]	.487	0.377	.00845

a. Predictors: (Constant), Project Appraisal Practices

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4.154	1	4.154	28.698	.000[b]
	Residual	48.200	333	.145		
	Total	52.354	334			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	*Beta*		
1	(Constant)	1.990	.142		14.050	.000
	Appraisal Practices	.373	.039	.282	5.357	.000

a. Dependent Variable: Successful Project Implementation
b. Predictors: (Constant), Project Appraisal Practices

Moderating Effect of Project Complexity

The study employed the simple regression analysis to test the moderating effect of project complexity on the relationship between project appraisal practices and successful project implementation. It was hypothesized that project complexity did not significantly moderate the relationship between project appraisal practices and successful project implementation in the county governments in Kenya. The model for this hypothesis was: $\mathbf{Y=}\boldsymbol{B0}\mathbf{+(\beta_1 X_1)* X_2 M_2+\varepsilon}$

Where,

Y= Successful Project Implementation

$\boldsymbol{B0}$= Constant

$X_{(1)}$= Independent Variable

X_2M_2 =Project Complexity

$\boldsymbol{\varepsilon}$= margin of error

Thus, the regression coefficient results after moderation presented in Table 5 postulated that the nature of the project significantly strengthened the relationship between project appraisal practices and successful project implementation (p=0.014). The multiple regression model analysis with project complexity introduced into the relationship is presented as follows: $Y=3.736+0.380X_1*(0.409X_2)M$. Given that the regression coefficient for the moderating effect of project complexity on the relationship between the parameters of project appraisal practices and successful project implementation was significant, it is deducible that paying attention to project complexity was equally significant.

Table 4: Regression Model after Moderation

Analysis of Variance (ANOVA)					
Model	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Regression	21.715	5	4.947	36.3546	.000[b]
Residual	6.209	329	.108		
Total	**27.924**	**334**			

a. Dependent Variable: Successful Project Implementation
b. Predictors: (Constant), Appraisal Practices, Project Complexity

Beta Coefficients					
Model	**Unstandardized Coefficients**		**Standardized Coefficients**		
	B	**Std. Error**	***Beta***	**t**	**Sig.**
(Constant)	1.778	.212		6.791	.000
Appraisal Practices	.409	.021	.421	3.136	.014
Project Complexity	.183	.042	.214	4.913	.0101

Dependent Variable: Successful Project Implementation

CONCLUSION AND RECOMMENDATIONS

Conclusion

It is apparent that a positive and significant relationship between project appraisal practices and the successful implementation of the health sector projects. Hence, project appraisal practices are essential in enhance the successful implementation of the health sector projects. This implies that economic, technical, financial and social appraisals have made a significant contribution to the successful implementation of the health sector projects in the county governments of Kenya. As hypothesized, project appraisal practices accounted for 48.7% of the variance observed in the successful implementation of the health sector projects. It is also evident that project complexity significantly moderated the relationship between project appraisal practices and the successful implementation of the health sector projects in the county governments of Kenya. This is because the regression results portended the presence of a positive and significant effect of **project** size, interdependencies, organizational structures and technological requirements on the relationship between project appraisal practices and the successful implementation of the health sector projects in the county governments in Kenya.

Recommendations

Owing to the fact that project appraisal practices accounted for a significance change in successful project implementation, the study recommends that during project planning, economic, technical, financial and social aspects of the project appraisal practices should be prioritized. From a practical point of view, the study has identified the significant role played by project appraisal practices in enhancing the successful implementation of the health sector projects. It is recommended that the project managers in the health sector should

comprehensively coordinate the project appraisal practices in order to increase the chances of effective execution of the health related projects in the county governments in Kenya.

REFERENCES

Abid, K., & Mseddi, R. (2021). Project planning and organizational success in the tea sector in Kenya. *Journal of Business Management*, 4(1), 910-913.

Akortsu, A., & Abor, A. P. (2023). Financing public healthcare institutions in Ghana. *Journal of Health Organization and Management*, 25(2):128-41.

Alemayehu, M. & Warner, G. (2020). Implementation of health sector projects in Ethiopia. *Journal of Agribusiness Management*, *7*(8), 275-291.

Amanor-Boadu, B. (2021). Financial appraisal and allocation decisions in projects in Pakistan. *Journal of Business and Management*, *2*(3), 14-24.

Ameer, N. (2021). Project planning and Implementation of Agri-business Projects in Malaysia. *International Journal of Business Studies,* 1(2), 193-203.

Angeles, M., & Hensher, M. (2023). Challenges for Medicare and universal health care in Australia since 2000. *The Medical journal of Australia,* 8(18)., 203-209

Baltzell, K., & Chen, I. (2023). What is community engagement and how can it drive malaria elimination? *Malaria Journal*, 1(8), 1-11.

Barkan, A. B. (2020). Project planning: evolution of a definitional construct. *Business and Society*, 3(8). 268-95

Behzadifar, M., & Saran, M. (2023). The challenges of implementation of clinical governance in Iran: a meta-synthesis of qualitative studies. *Health research policy and systems*, *17*(1), 3.

Bower, D. (2015). The providential factors explaining the successful implementation of agricultural projects in Algeria. *International Journal of Productivity and Performance Management*, 59(3), 229-254.

Bredillet, P., & Dwivedula, D. (2019). Just planning Practices*:* The art of situated ethical judgment*. Journal of Planning Education and Research*, 26(1), 92-106.

Chandes, J., & Pache, G. (2020). Investigating Humanitarian Logistics Issues; from Operations Management to Strategic Action. *Journal of Business Management,* 21(3), 320-540.

Crawford, P. (2025). Understanding Project complexity: Economic Incentives in Project Management. *Accounting Review*, 5(3), 336-359.

Creswell, J. (2014). *Research Design: Qualitative, Quantitative and Mixed Method Analysis*. SAGE Publications.

Day, D., & Shea, D. (2021). Healthcare reform and the workplace experience of nurses in the United States of America: Implications for patient care and union organizing. *Industrial and Labour Relations Review*. 55(1):133-48.

Friedman, D., & Allen, N. (2022). Systems theory. *Theory & practice in clinical social work*, *2*(1), 3-20.

Hale, L., Householder, J., & Greene, L. (2002). The theory of reasoned action. *The persuasion handbook: Developments in theory and practice*, *14*, 259-334.

Havugimana, J. (2015). Community Involvement in Project Planning and Successful project implementation in Rwanda. *American Economic Review, 1*(5), 326-330.

Heo, J., & Muralidharan, S. (2023). What triggers young Millennials to purchase eco-friendly products? *Journal of Marketing Communications*, *25*(4), 421-437.

Hollada, J. (2017). Perceptions of improved biomass and liquefied petroleum gas stoves in Puno, Peru: implications. *International Journal of environmental research and public health*, *14*(2), 182.

Inkoom, D., & Gyapong, A. (2025). *Decentralization in Africa: Local Government and Health Care in Ghana, Malawi and Tanzania*. Palgrave Macmillan.

Kaniaru, A. (2020). A holistic self-regulated learning model: A proposal and application in ubiquitous-learning. *Expert Systems with Applications*, *1*(23), 299-314.

Kanyinga, S., & Svoronos, A. (2021). Project Planning and contingency management for health sector projects in Iran. *Journal of Agricultural and Environmental Sciences*, 1(1),1641-1647.

Karanja, C. (2021). Non-profit Sector is set for major changes as PBO Bill is signed into Law. *International Journal of Business and Economics* 7(5), 409-411.

Kemboi, D. (2021). Influence of Devolution Support Systems on Quality of Healthcare Projects in Elgeyo Marakwet County, Kenya. *International Journal of Recent Research in Social Sciences and Humanities*, 7(2): 11-21.

Kerzner, H. (2023). *Using the project management maturity model: strategic planning for project management*. Wiley.

Kilonzo, S., & Magak, K. (2017). Improving access to maternal health care through devolution in western Kenya. *International Journal of Operations & Production Management* 19(3), 275-292.

Kipcherop, M., Mose, K. (2024). The Resource Base Approach: Adherence to delivery schedules and the success of the health sector projects in Nakuru County. *International Journal of Business and Management*, 1(9), 201-218.

Kothari, C. R. (2004). *Research Methodology: Methods and Techniques.* New Age Publishers.

Krejcie, R., & Morgan, D. (1967). *Determining Sample Size for research activities, Educational and Psychological Measurement*. Sage Publications.

Kumaraswamy, M. (2017). Systemizing Project activity duration estimations, *Journal of Management and Engineering*, 12(1), 34-39.

Kuwawenaruwa, A., & Borghi, J. (2023). Implementation and effectiveness of free health insurance for the poor pregnant women in Tanzania: A mixed methods evaluation. *Journal of Business Management*, 3(1), 44-49

Kwadwo, A. (2024). Assessing the Generation and Management of Internally Generated Funds in Public Hospitals in Tamale West Hospital. *European Journal of Economics, Finance and Administrative Sciences*, 17(1), 45-59.

Lawal, S. (2023). e-Lancing and Research Methodology: A review and research agenda for bridging the science-practice gap. *Human Resource Management Review*, *23*(1), 6-17.

Lew, C., & Svensson, G. (2023). Formal and informal planning in strategic decision-making: an assessment of corporate reasoning. *Journal of Business & Industrial Marketing*, *34*(2), 439-450.

Ling, C. (2023). Criteria of implementation of health sector projects: An exploratory re-examination. *International of Project Management*, 17(4), 243-248.

Mahamid, I., & Dmaidi, N. (2020). Causes of delay in road construction projects in Palestine. *Journal of management in engineering*, *28*(3), 300-310.

Liu, M., & Upchurch, P. (2023). Change program management: Toward a capability for managing value-oriented, integrated multi-project change in its context. *International Journal of Project Management*, *36*(1), 134-146.

Mbui, L., & Minja, T., (2023). Understanding The Project complexity from observational data. *Journal of the Royal Statistical Society,* 1(2), 267-306.

Mburu, A. (2023). Planning or no Planning? The development of the project management discourse. *Journal of Modern African Studies*, 1(1),35-66.

McDavid, E., & Hawthorn, R. (2021). Literature Review: Analysing Implementation and Systems Change Implications for Evaluating HPOG. *Journal of Management Development* 3(12),409-421.

Michelo, C., & Mulla, S. (2017). Criteria of implementation of health sector projects: An exploratory re-examination. *International of Project Management*, 17(4), 243-248.

Mohmand, K., & Loureiro, M. (2017). Introduction: Interrogating Decentralisation in Africa. *IDS Bulletin*, *48*(2).

Mugenda, O. & Mugenda, A. (2003). *Research Methods, Quantitative and Qualitative Approaches.* ACTS.

Munge, C. & Briggs, S. (2023). The factors responsible for the completion of projects sponsored by local government in South Africa. *Journal of Agricultural Economics,*1(3):1-9.

Ndegwa, L. (2023). Evaluation of a program to improve hand hygiene in Kenyan hospitals through production and promotion of alcohol-based Handrub. *Antimicrobial Resistance & Infection Control*, *8*(1), 2.

Ngechu, M. (2004). *Understanding the Research Process and Methods: An Introduction.* Acts Press.

Ngigi, B. L. & Busolo, F. X. (2019). Opportunities and challenges for evidence-informed HIV-noncommunicable disease integrated care policies and programs: lessons from Malawi, South Africa, Swaziland and Kenya. *Aids*, *32*, 21-32.

Okwemba, Z. (2023). The determinants of the successful project implementation in the health sector in Kajiado County. *Journal of Business and Management*, 3(2), 301-311

Ozawa, R. (2025). Human resources management practices and successful project implementation in Britain. *Journal of Cleaner Production*, *2*(19), 753-762.

Ozawa, R. (2025). Human resources management practices and successful project implementation in Britain. *Journal of Cleaner Production*, *2*(19), 753-762.

Ronoh, W. (2020). Effect of Business Planning on Organizational Performance and Project Restructuring. *Journal of Applied Sciences*, 4(1), 19-27.

Shamsudeen, L. (2025). The role of project appraisal practices on the successful implementation of projects undertaken by commercial banks in Kenya. *International Journal of Business Administration and Management, 1*(7), 91-103.

Sligo, J., & Villa, L. (2017). A literature review for large-scale health information system project planning, implementation and evaluation. *International journal of medical informatics*, 9(7), 86-97.

Taliercio, R., & Estrada, E. (2020). Best Practices in Project Appraisal and Selection. *Well Spent*, 249.

Yakhchali, S., & Farsani, H. (2013). Do different project categories need different leadership styles? *Journal of Economics Issues*, 1(23), 17-18.

Yang, L. (2022). Validation of a model measuring the effect of a project manager's leadership style on successful project implementation. *Journal of Civil Engineering*, 17(2), 271-280.