Vol. 14 Issue 07, July - 2025

The Contribution of Feasibility Study Practices on Performance of Public Sector Construction Projects, Case Study of County Government of Nairobi

Mr Thomas Mong'are Nyabero
Department of Construction Economics & Propert
Studies, TUK
Nairobi, Kenya

Dr. Absalom Habil Lamka
Department of Construction Economics & Property
Studies, TUK
Nairobi, Kenya

Dr. Josiah Nyangaresi Nyagwachi, Department of Construction Economics & Property Studies, TUK Nairobi, Kenya

Abstract: The construction industry faces a constant challenge in ensuring the feasibility of projects during the initial planning stages Construction projects are among the fundamental pillars of any country's economic development serving as key components of economic infrastructure and playing a crucial role in the developmental process (Bagheri et al., 2024). The Auditor General of Kenya's reports, Parliamentary Budget Committee (PBC) and Vision 2030 flagship Project progress Reports and findings for various financial years consistently reveal project abandonment, stalled and delayed projects, cost overruns, and low-quality construction in the public sector. However, despite repeated observations and recommendations from the Auditor General, the Parliamentary Budget Committee and Vision 2030 reports, these issues persist, indicating a systematic failure to address the root causes of these project failures. This constitutes a significant and persistent

problem with detrimental consequences including inefficient use of public funds, delayed service delivery, erosion of public trust, and negative impact on economic development, among others. This study explores the

contribution of feasibility studies on public-sector construction project performance. The study was guided by the following objectives; to identify how shortcomings in feasibility study influence public-sector construction project performance Nairobi county government, to find out impact of factors of feasibility study on public sector construction project performance within the county government of Nairobi, to examine the influence of degree of industry

adoption and awareness by practitioners concerning the importance of carrying out feasibility study on public sector construction project performance in the county government of Nairobi, to provide recommendations based on the study findings that will better overall public sector construction projects performance. The research used a mixed-approach strategy that combined qualitative and quantitative methods. Questionnaires used to gather information from the participants were structured self-administered five-point Likert-type scale. In contrast, interview guidelines were employed in order to gather qualitative information from construction industry players, including project managers, consultants, contractors, clients, and other supportive professionals who are senior members of their organization. The target population was 240 respondents, comprising of contractors, consultants' clients, and other professionals participating in construction industry projects, with a 150 sample size data analysis was done using SPSS version 21.for both descriptive and inferential statistics. Results were displayed in graphical, tabular, and charts format. All things considered, the results show how important feasibility studies are to improving successful projects, cutting expenses, avoiding risks, and overcoming implementation difficulties. According to the study's recommendations, governments should give required feasibility assessments for large public projects first priority in order to drastically lower the likelihood of failure. Standardized parameters must also be

Vol. 14 Issue 07, July - 2025

ISSN: 2278-0181

established for this research to guarantee consistency and dependability in their outcomes. Allocating sufficient funds for these feasibility studies is equally crucial; by giving their budgets top priority, we may avoid budgetary gaps that might obstruct their effective completion. We can guarantee the best possible resource allocation, drastically lower risks, and better the type of service provision to the community by successfully incorporating these studies into the planning of public projects. Public institutions will thus see a significant increase in project success rates, which will spur national

Keywords. Project performance, feasibility study, public sector projects

growth by encouraging the adoption of best practices and

INTRODUCTIO

A. Background of the Study

suggested techniques.

Construction sector with its numerous sub-units, including highways, bridges, commercial and residential buildings, and more, is vulnerable to numerous hazards (Arsian et al., 2023). In order to provide developments that meet a nation's social and economic needs, the building sector is essential (Ongondo et al., 2022). It is among the primary pillars supporting a country's economic growth (Atego, 2018). However, the Kenyan construction industry has a major obstacle in the form of successful project completion, which has a negative impact on client satisfaction, budget, and project duration (Atego, 2018). community's ability to achieve economic development depends on how many projects are effectively funded, carried out, and turned over to the appropriate authorities (Mwanzani, 2018). A first examination of a potential project or attempt to determine its viability is called a feasibility study merit and validity. May (2015); Mulonzi et al. (2021) state that a feasibility analysis is a objective assessment of the technical, financial, legal, economic, and environmental aspects of a proposed project.

B. Statement of the Problem

The Kenyan Auditor General's reports, parliamentary budget committee and vision 2030 flagship projects progress reports and findings for various financial years consistently reveal project abandonment, delays, cost overruns, and low-quality construction in the public sector. Despite observations and suggestions from Auditor General, Parliamentary Budget Committee and Vision 2030 flagship projects progress reports and findings these issues persist, indicating a systematic failure to address the root causes of these project failures. This constitutes a significant and persistent problem with detrimental consequences including; inefficient use of public funds, delayed service delivery erosion of public trust, and

negative impact on economic development among others. A delay in the project's building phase directly affects project costs, which leads to a negative cash flow. Project costs typically rise by 10% to 15% annually throughout the delay period. These expenses consist of labor payments, operating costs, and other ancillary tasks (Maskel & Gaikwad, 2021). Many construction projects are postponed or abandoned in spite of substantial funding intended to industrialize the nation by 2030 (Mwanzani, 2018). For example, the development of a Tier-One market at Athi-River on a 50-hectare plot of land has halted since then. according to the Vision 2030 reports for the fiscal years 2019–2020 and 2020–2021. In a similar vein, the planned development of Wholesale Hubs on a 20-acre plot of land in Muranga has stalled. According to Auma (2018), Kenyan construction performance is subpar, with over 70% of projects likely to have time delays of more than 50% and over 50% likely to go over budget by more than 20%. worldwide. Construction projects' performance in various industries has been the subject of numerous studies, which have found serious issues in numerous areas (Mwenezi, 2015). The failure to finish projects on schedule, with quality, and within budget is still a persistent issue that is getting worse globally, claim Tindiwensi and Anaitwa (2017). In Malaysia, a number of projects have not been finished within the allotted time, and the sector as a whole has a very bad reputation for handling site hazards, which results in project abandonment and failure. Accordingly, the construction sector has come under fire for project delays, higher expenses, low productivity, hazardous site conditions, and subpar work (Arifin et al., 2018).

Construction projects in Africa, especially Nigeria, frequently encounter complications and ambiguities because of the unpredictability of fulfilling deadlines. This can result in subpar work, expense overruns, and eventually failure of the project as well as abandonment. The government's persistent undertaking failures along with abandonments are causing major problems for

According to several studies and research in this area, among the primary reasons why Public investment project failures is what authorities in charge of the investments' ignorance of the significance of feasibility studies (Rasheed et al., 2023). One of the main causes of investment project failures, especially in their early phases, was identified by Sweis et al. (2019) as market feasibility carelessness. In Kenya, it is still unclear if a feasibility study is carried out and successfully carried out prior to project design and execution. The objective of this research was to ascertain how feasibility studies contribute to Nairobi's public sector construction projects' performance.

C. Research Objectives Specific Objectives

1.To evaluate how shortcomings in feasibility studies influence performance of construction projects in the public sector in Nairobi County government.

2. To evaluate how feasibility study factors, impact performance of construction projects in the public sector.in Nairobi County government

D. Literature Review

Feasibility Study

Any significant engineering project is likely to take a significant amount of time, money, and effort. It is advisable to conduct a feasibility analysis before making such a commitment. Feasibility studies can help by offering insightful project analysis and comments that helps define project management, spot any issues, and even result in future cost savings (Batista et al., 2021).

E The Theory of Performance (TOP)

A comprehensive framework known as performance theory looks at how people, teams, or organizations accomplish their goals and objectives. This theory developed from the work of great researchers, including Abraham Maslow (1908–1970), whose work influenced performance management practices that emphasize meeting employee needs and fostering a positive work environment, Max Weber (1864–1920) whose emphasis on clear roles, hierarchies, and rules provided a framework for effective project management, and Fredrick Taylor (1856-1915), whose work laid the foundation for performance management and optimization. A framework for comprehending the elements that affect project success, such as goal-setting, motivation, resource allocation, risk management, and performance management, is provided by performance theory. Six fundamental ideas are developed and connected by the Theory of Performance to develop a framework for understanding both performance and performance improvement. What it means to perform is to generate results that are worthwhile and a performer might be an individual or a team working together.

Performance development is a process, and the present state performance is determined by six aspects: context, expertise, abilities, identity, personal factors, and fixed factors. Three axioms—mindset, immersion, in an enriched environment, and reflective practice—are put forth for successful performance enhancement. Results from higher-level performance can be categorized as follows: waste decreases, capability grows—the ability to handle more difficult performance or projects increases—

quality improves or products are more effective in meeting or exceeding stakeholders' expectations producing results Capacity enhances the ability to produce greater throughput; knowledge increases the breadth and depth of knowledge; skills increase the ability to define and stick to goals; and so on. expansion of application scope and inefficiency, as professional organizations establish their essence, individuals have a greater sense of self-identity and motivation.

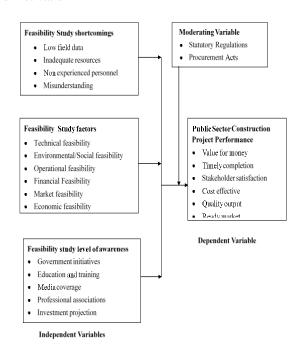


Figure 2.1 Conceptual Framework

Source (Author 2025)

F. Research Methodology Research design

This study used a descriptive method of research that incorporated both qualitative and quantitative techniques describe the current situation and assess cause-and-effect relationships between the research variables, whereas a qualitative method facilitates comprehension and investigation of the variety, depth, and complexity present in the problem under investigation.

Target Population

The whole team people which a sample is extracted from in order to draw conclusions or generations is referred to as the population in research. Stakeholders in the construction sector, specifically those working on projects in Nairobi County, made up the target group for this study. This includes government officials tangentially involved in the

project, consultants, contractors, and construction project managers. The population was separated into eight (8) strata by the study according to government officials, contractors, consultants, and project managers. According to Kinyanjui (2024) and Velychko (2015), the researcher employed a formula to determine the sample size for each stratum.

Since ni = kNi, k=n/N=150/240=0.625 (63%)

Sample Size and Sampling Techniques

Table 3.1 - Sample Size

| Levels | Populatio | Sample size |
|------------------------|-----------|-------------|
| | n | (n)(63%) |
| Directors /Contractors | 15 | 9 |
| Architects | 40 | 25 |
| Project managers | 39 | 25 |
| Civil /Structural | 32 | 20 |
| engineers | | |
| Mechanical/Electrical | 26 | 16 |
| engineers | | |
| Quantity Surveyors | 38 | 24 |
| Procurement officers | 19 | 12 |
| Others | 31 | 19 |
| Total | 240 | 150 |

Source (Author 2025)

The degree of precision, the degree of confidence, and the degree of variability in the attribute being evaluated were the three factors that were used to calculate the optimum sample size (Kinyanjui, 2024). The Yamane Formular (1967) was used in the study to calculate the populace sample size. The sample size can be determined with a precision of 3,, 5, 7 and 10 percent using this formula (e). Using a degree of variability (p) equal to 50 percent (0.5), the confidence level was 95 percent .N is the target population (240), n is the sample size, and e is the 5% margin of error.

$$n = \frac{N}{1 + Ne2}$$

The sample size was determined with high precision. of 5%, (e=0.05)

Sample Size in this study was; $n=240/1+(240*0.05^2)$)==150

Data Collection Instruments and Procedures

A combination of methods was used for data collecting in order to meet the goals. Semi-structured questionnaires and interviews surveys were employed to gather qualitative data, giving participants a chance to express their opinions about the role feasibility studies play in the success of public sector building projects.

Data Collection Procedure

An approval letter was provided by the Technical University of Kenya School of Graduate Advanced Studies (SGAS) as a go ahead with the proposal to the researcher. (NACOSTI) National Commission for Science, Technology, and Innovation granted a research permission to the researcher too. Prior to data collection, a cover notes outlining the study's purpose was added to the questionnaire. Schedules for interviews and selfadministered questionnaires were used to gather data.

Reliability and Validity

The study employed as a gauge of internal consistency, Cronbach's Alpha assess dependability of data devices."r" stands for the Clonbach Alpha coefficient, which has a range of 0 to 1. An alpha of 0.7 and above is generally considered to be a sign of adequate reliability (Kinyanjui, 2024; Kothari & Garg, 2019). During the pilot study, the researcher utilised the test-re test to evaluate the instruments' reliability. Thirty respondents were given the questionnaires by the researcher. The same responders were given the identical instruments by the researcher a week later. Data from the two test periods were then correlated by the researcher using the Spearman rank correlation procedure to produce a correlation coefficient. $rs=1-6\sum 62/n(n^2-1)$

where d=u-v (the difference between the paired variables before rank).

n is the number of variable pairs.

The spearman's rank, rs=, ranges from -1 to +1.

-1 represents a perfect negative correlation.

A moderately negative correlation is -0.5.

0=no correlation

1=perfect positive correlation.

| | 1 | | | |
|---------------|---------|----------|-------|--------------|
| The extent of | First | Second | d=u-v | d^2 |
| influence on | week(u) | week (v) | | |
| project | | | | |
| performance | | | | |
| Very great | 6 | 7 | -1 | 1 |
| Great | 8 | 7 | 1 | 1 |
| Moderate | 6 | 6 | 0 | 0 |
| Low | 5 | 6 | -1 | 1 |
| Very low | 5 | 4 | 1 | 1 |
| | n=30 | n=30 | | $\sum d^2=4$ |

Vol. 14 Issue 07, July - 2025

ISSN: 2278-0181

VOI. 11 ISSUE 07, VOII. 2021

Rs=
$$1-6\sum d^2/n-(n^2-1)$$

 $1-6x4/30(30^2-1)$
=0.999

Conclusion: The sets of instruments have a perfect positive correlation with one another, making them dependable.

Pilot Testing of the Instruments

To improve the validity and reliability of the instrument, a study was conducted to determine the applicability and dependability of the data collection tool and study design (Kinyanjui, 2024; Kalatya, & Moronge, 2017).

Validity of the Data Collection Instruments

Three forms of the validity were examined in this research: content validity, construct validity, and face validity. Face validity examined if the questions are in line with the study's central concept and whether The face validity was attained by evaluation of the questions by project management professionals. The degree to which the instruments offer sufficient coverage of the subject being studied was assessed using content validity. By submitting the tools used to collect data for an assessment group, which offered their opinions and assessed each item's significance, the content validity was attained.

Data Analysis and Presentation

Regression and correlation analysis utilizing Pearson's product-moment correlation linear using regression with the version of the Scientific Package for Social Sciences (SPSS) 27 were examples of inferential statistics. Tables, charts, and narrative summaries were used to convey the findings in a thorough manner because they make it possible to communicate the information in a way that is easy to grasp, captivating, and clear.

Data Presentation.

Pie charts, bar graphs, and tables were utilized to display the data. Quantitative information or categories were summarized using frequency distribution tables. The data was also presented using percentages and frequencies. The tools that are utilized to display the data in an easy-tounderstand format are frequency distribution tables. Titles and numbers were assigned to the tables.

Ethical Considerations

Every stage of the research procedure was guided by ethical considerations to protect participant rights and guarantee answer anonymity. The goals of the study, their rights to voluntary participation, and the confidentiality of their data were all explained in detail to the participants. In order to comply with ethical standards and protect participant welfare during the study project, ethical endorsement was requested out of the appropriate review of the institution boards.

H. Data Analysis, Presentation, And Interpretation Shortcomings in Feasibility Studies and Performance of Public Sector Construction Projects.

The study aimed to investigate the impact of shortcomings in feasibility study processes on the performance of public sector construction projects in Nairobi County. The researcher asked respondents to indicate their agreement with statements about the deficiencies in order to determine how they affect project performance.

Table 4.9: The Influence of Shortcomings in Feasibility Studies

| Shortcomings of Feasibility Studies | 1 S D F % | 2 D F % | 3 N F % | 4 A F % | S A F % | M ea n | S D |
|--|-----------------------|------------------|------------------|------------------|------------------|---------------|---------------|
| Cost overruns, timetable delays, or even project failure can arise from inaccurate data since it can lead to faulty assumptions, inflated cost projections, and wrong conclusions about the sustainability of the project. | 5 4 | 8 | 15 12 | 48 37 | 54 42 | 4. 06 2 | 1. 05 8 |
| Feasibility studies may prioritize some factors while ignoring others, which could result in unanticipated issues and compromise the success of the project. | 6 5 | 12 9 | 18 14 | 55 42 | 39 30 | 3. 83 8 | 1. 09 4 |
| Time is a premium in projects that move quickly, and it is necessary to finish a thorough feasibility assessment. The quality of the study could be jeopardized if this process is rushed. | 3 2 | 14 11 | 22 17 | 49 38 | 42 32 | 3. 86 9 | 1. 05 5 |
| A thorough feasibility assessment necessitates knowledge in a number of areas. The findings could not be trustworthy if the research team is not qualified. | 5 4 | 9 7 | 21 16 | 47 36 | 48 37 | 3. 95 3 | 1. 07 3 |
| External elements that can have a substantial impact on project results, such as market fluctuations, regulatory changes, and technical improvements, are sometimes | 7 5 | 15 12 | 25 19 | 45 35 | 38 29 | 3. 70 8 | 1. 16 0 |

Vol. 14 Issue 07, July - 2025

feasibility overlooked in studies. A badly done feasibility study 10 17 53 44 41 34 91 08 5 13 may lead to significant 8 financial losses and project abandonment. It might be difficult to 14 23 50 35 1. effectively 11 18 39 27 69 15 convev the 6 feasibility study's findings to stakeholders, which can result in varying degrees of comprehension. Among other things, rushing 12 20 51 43 3. 1. 39 33 05 the feasibility study might 15 90 result in missed hazards, insufficient analysis, and bad decision-making. 11 19 54 41 Unexpected external factors 3. 1. may cause the feasibility 42 32 88 06 study to become out of date and produce erroneous forecasts Composite SD & Composite 1. Mean 87 08

Source(Author 2025)

Because they examine a project's viability, feasibility studies have a significant influence on whether it succeeds or fails (Smith & White, 2023). Nevertheless, certain shortcomings in feasibility studies may have a detrimental effect on project execution. The review's most important concern is information dishonesty, which 78% of respondents thought would result in incorrect assumptions, inflated expenses, and incorrect findings (Davis et al., 2024).

Feasibility Study Factors and Public Sector Construction **Project Performance**

The study aimed to investigate the impact of feasibility study Factors on the performance of public sector construction projects in Nairobi County. The researcher asked respondents to indicate their agreement with statements about the feasibility factors in order to determine how they affect project performance.

Table 4.10: Feasibility Study Factors and Public Sector Construction Project Performance

| 6 | 60 | _ | | | C 4 | | c D |
|--------------------|----|---|----|------|-----|----|-----|
| Contribution of | SD | D | N | Α | SA | М | SD |
| Feasibility | 1 | 2 | 3 | 4 | 5 | ea | |
| Studies | F | F | F | F | | n | |
| | % | % | % | % | F | | |
| | | | | | % | | |
| Feasibility | 3 | 9 | 20 | 60 | 38 | 3. | 0.9 |
| studies' | 2 | | 1 | 47 | 29 | 93 | 63 |
| contribution | | | | | | 1 | |
| A decrease in | 4 | 1 | 25 | 584 | 32 | 3. | 1.0 |
| cost overrun | 3 | 1 | 1 | 5 | 25 | 79 | 05 |
| | | 8 | 9 | | | 2 | |
| A decrease in | 3 | 8 | 18 | 624 | 39 | 3. | 0.9 |
| time overrun | 2 | 6 | 14 | 8 | 30 | 96 | 44 |
| | _ | | | | | 9 | |
| Proposed | 4 | 1 | 20 | 55 | 41 | 3. | 1.0 |
| alternatives that | 3 | 0 | 15 | 42 | 32 | 91 | 23 |
| increase the | | 8 | 13 | '- | 52 | 5 | |
| value for the | | | | | | | |
| money | | | | | | | |
| The initiative has | 5 | 1 | 22 | 52 | 39 | 3. | 1.0 |
| greater | 4 | 2 | 17 | 40 | 30 | 83 | 75 |
| economic | 4 | 9 | 1/ | 40 | 30 | 1 | /3 |
| | | 9 | | | | 1 | |
| viability. | _ | _ | 24 | F.C. | 22 | 2 | 1.0 |
| It is a more | 6 | 1 | 21 | 56 | 33 | 3. | 1.0 |
| socially | 5 | 4 | 16 | 43 | 26 | 73 | 92 |
| sustainable | | 1 | | | | 8 | |
| project. | | 1 | | | | | |
| | | _ | | - 4 | | 2 | 1.0 |
| It is a more | 4 | 9 | 22 | 54 | 41 | 3. | 1.0 |
| environmentally | 3 | 7 | 17 | 42 | 32 | 91 | 16 |
| sustainable | | | | | | 5 | |
| project. | | | | | | | |
| The finished | 3 | 7 | 18 | 66 | 36 | 3. | 0.9 |
| product is more | 2 | 5 | 14 | 51 | 28 | 96 | 15 |
| independent. | | | | | | 2 | |
| Future expansion | 3 | 8 | 16 | 60 | 43 | 4. | 0.9 |
| is taken into | 2 | 6 | 12 | 46% | 33 | 01 | 53 |
| account | | | | | | 5 | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Early detection | 5 | 1 | 15 | 58 | 42 | 3. | 1.0 |
| of the threats | 4 | 0 | 12 | 45 | 32 | 93 | 43 |
| and weaknesses | | 8 | | | | 8 | |
| | | | | | | | |
| Being aware of | 3 | 7 | 18 | 64 | 38 | 3. | 0.9 |
| the project's | 2 | 5 | 14 | 49 | 29 | 97 | 24 |
| necessity | | | | | | 7 | |
| | | 1 | | | | 1 | |

Vol. 14 Issue 07, July - 2025

| permits more | 5 | 1 | 20 | 55 | 38 | 3. | 1.0 |
|-------------------|---|---|----|----|----|----|-----|
| efficient | 4 | 2 | 15 | 42 | 29 | 83 | 66 |
| decision-making | | 9 | | | | 8 | |
| | | | | | | | |
| There is less of | 4 | 9 | 22 | 57 | 38 | 3. | 1.0 |
| an effect on the | 3 | 7 | 17 | 44 | 29 | 89 | 02 |
| social | | | | | | 2 | |
| environment. | | | | | | | |
| Stakeholder | 6 | 1 | 19 | 59 | 35 | 3. | 1.0 |
| satisfaction is | 5 | 1 | 15 | 45 | 27 | 81 | 65 |
| attained overall. | | 8 | | | | 5 | |
| The project's | 4 | 8 | 22 | 60 | 36 | 3. | 0.9 |
| legality is taken | 3 | 6 | 17 | 46 | 28 | 89 | 62 |
| into account. | | | | | | 2 | |
| The contractual | 3 | 7 | 20 | 62 | 38 | 3. | 0.9 |
| elements are | 2 | 5 | 15 | 48 | 29 | 96 | 32 |
| taken into | | | | | | 2 | |
| account. | | | | | | | |
| Composite Mean | | | | | | 3. | 0,9 |
| & Composite SD | | | | | | 89 | 99 |
| | | | | | | 9 | |

Source(Author 2025)

Applying feasibility studies to cut down on cost overruns is one of the biggest findings, with 75% of respondents confirming that feasibility studies lower budgetary risk. This supports the claims made by Smith and Brown (2021) that thorough feasibility studies improve budget accuracy and guard against misappropriation of funds in public works projects. Furthermore, 69% of interviewees concur that feasibility studies prevent time overruns, supporting Turner's (2020) assertion that on-time project delivery is a result of careful planning and early risk assessment.

Level of Awareness of Feasibility Studies and Public-Sector Construction Project Performance

The study aimed to investigate the impact Level of awareness of feasibility study practices on the performance of public sector construction projects in Nairobi County. The researcher asked respondents to indicate their agreement with statements about the level of awareness to determine how they affect project performance.

| Level of | Frequenc | Percentag | Mean | SD |
|------------|----------|-----------|-------|------|
| Awareness | y | e | | |
| Not at all | 10 | 7.7% | | |
| aware | | | | |
| Slightly | 22 | 16.9% | | |
| aware | | | | |
| Moderatel | 35 | 26.9% | | |
| y aware | | | | |
| Very | 38 | 29.2% | | |
| aware | | | | |
| Extremely | 25 | 19.2% | | |
| aware | | | | |
| Mean | | | 3.345 | |
| | | | 4 | |
| SD | | | | 1.18 |
| | | | | 9 |

Table 4.17: Level of Awareness of Feasibility Studies Source(Author 2025)

A minority of respondents, 7.7%, said they were "not aware at all," suggesting that some people or experts are not familiar with feasibility studies. Furthermore, 16.9% of them scored as Slightly Aware, indicating that while they must have been aware of feasibility studies, they lack knowledge regarding their significance in project planning. The largest percentage (26.9%) fell into the category of "Moderately Aware," which denotes a broad degree of awareness but possibly a lack of exposure on the field. On the other hand, 29.2% of participants were Very Aware, indicating a high level of awareness and understanding of the use of feasibility studies in decision-making.

Contribution of Awareness to Project Performance

By encouraging decision-making, risk management, cost control, scope compliance, schedule management, quality assurance, stakeholder cooperation, and overall project success, knowledge of feasibility studies significantly improves a project's performance. Not at All, Slightly, Moderately,

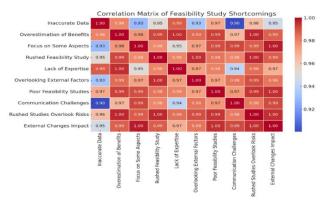
Correlation Coefficient of level of Awareness and Project Performance

All the level of awareness factors has a very strong correlation against the performance of public sector construction projects. Cost factor leads with a coefficient of 0.9273 with the lowest being 0. 8526.. This overally suggests that there is a close connection between level of awareness on feasibility studies and public-sector construction project

Vol. 14 Issue 07, July - 2025

Inferential Statistics: Analyzing the Influence of Feasibility Study Shortcomings on Project Performance

Using a correlation matrix, the study shows how different shortcomings of feasibility studies are related to one another. The correlation matrix used here shows the relationships between particular shortcomings including incomplete data, overestimation of advantages, lack of experience, and premature



feasibility studies.

Study Shortcomings. Correlation Analysis

Source (Author 2025)

J. Summary, Conclusions, And Recommendations

Recommendations

Policy Recommendations

First, governments should mandate feasibility studies for large public projects in order to reduce the number of failures.

Second, the feasibility study guidelines should be standardized. Inconsistency in the feasibility study is caused by the absence of consistent methodology and appraisal criteria.

Third, in order to prevent financing constraints that could impede its implementation, the feasibility study budget needs to be given top priority.

Practical Recommendations

First, in order to give project teams, the tools they need to perform thorough feasibility analyses, capacity-building initiatives ought to be started.

Second, the feasibility research process needs to involve more stakeholders.

Third, to enhance data collecting, analysis, and decisionmaking, technological integration in feasibility studies must be promoted.

Recommendations for Further Research

First. It is necessary to perform an early comparative study of feasibility studies for public and private projects.

Second, further research is required to examine how new technologies-such as the use of AI and Big Data to improve accuracy and efficiency—affect feasibility studies Third, longitudinal feasibility study research on feasibility study outcomes is necessary to be conducted to find out the long-term impacts of feasibility evaluations on project sustainability.

CONCLUSIONS

- I. It was determined that by lowering expenses, guaranteeing risk management, and aiding in decisionmaking, feasibility studies also significantly contribute to project execution.
- II. According to the findings, accurate feasibility studies are necessary to ensure projects' sustainability and longterm viability.
- III. According to the report, feasibility studies optimize cost effectiveness, risk mitigation, and decision-making, all of which greatly enhance project performance.
- multifaceted strategy IV. A involving technology innovation, practical implementation techniques, and policy initiatives is required to overcome project failure.
- V. Public institutions will increase the credibility and dependability of feasibility estimates by using best practices, which will ultimately result in sustainable and high-quality project implementation.
- VI. To guarantee project life and sustainability, the study's conclusion emphasizes the significance of carrying out exhaustive feasibility assessments.

REFERENCES

Agoro D. J., Kowenje C.O., Lalah J.O., Osewe E.T., & Ogunah J.A. (2013). Effects of Zeolite X on Dissipation of Hexazinone from Agricultural Waste Waters in Western Kenya. IJERT Vol. 10: 2278 - 0181. Ahalya N., & Ramachandra T.V. (2002). Feasibility Aspects of Biological Restoration presented at the National Conference on Aquatic Restoration and Biodiversity - Feb 15 - 16 2002 in Kongunadu Arts and Science College, Coimbatore, India.

Ahmed, M. N., Mohammed, H. A., Aswed, G. K., & Alyhya, W. S. (2019). Investigating factors affecting feasibility study of construction projects in Iraq. Periodicals of Engineering and Natural Sciences (PEN), 7(3), 1209-1217.

Alhamami, B. R. M., Nassar, Y. S., & Qendeel, L. M. R. (2023). Feasibility studies and their effects on the success or failure of investment projects. "Najaf governorate as a model". Open Engineering, 13(1).

Amit B. Minocha A.K. (2006). Conventional and non-conventional adsorbents for removal of pollutants from water. Indian Journal of Chemical Technology. Vol. 13, pp 2 03 - 217.

Anees, M., Hussain, S. M., Khan, K., & Abbas, A. T. (2018). Factors Affecting the Need for Feasibility

Vol. 14 Issue 07, July - 2025

ISSN: 2278-0181

Mr. Thomas Mong'are Nyabero

Lecturer-KIHBT

Student-Master of Construction Project Management - TUK-On-Going

Bachelor of Quantity Surveying-TUK

Higher Diploma in Construction (Building Economics-TUK

Diploma Technical Teacher Education-KSTVET

Diploma in Building-RVIST

Registered & practicing Quantity Surveyor—BORAQS

Consulting Quantity Surveyor.

Dr. Absalom Habil Vugigi Lamka

PhD Construction Project Management-TUK

MSc Construction Project Management-JUAT

B Phil Construction Project Management-UON

HND Building & Civil Engineering-Mombasa National

Polytechnic

Chairman Department of Construction and Property Studies-

TUK

Position: Senior Lecturer, Department of Construction and

Property Studies (Dcps)-TUK

External Examiner-Tshwane University of Technology,

University of Eldoret and JKUAT

Consulting Construction Project Manager

Dr. Josiah Nyagwachi

PhD Construction Management- Nelson Mandela Metropolitan University

MSc. Project Management (University of Pretoria)

BSc-Civil Engineering (UON)

Founder Kenya University Project & Property Developer

Lecturer, Department of Construction and Property Studies (Dcps)- TUK

External examiner-(NMMU)

Registered & Practicing Structural Engineer

Member –(EBK)