
PROJECT MANAGEMENT PRACTICES AND COMPLETION OF GOVERNMENT HOUSING PROJECTS IN MAKUENI COUNTY, KENYA

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Abstract

With specific focus on Makueni County, this study aimed to evaluate the impact of project management techniques on the completion of housing projects in Kenya. The study was guided by the following specific goals: to establish the impact of project planning on completing housing projects in Makueni County and to analyse the impact of project monitoring & evaluation on completing housing projects in Makueni County. Quantitative data was employed in a descriptive study design. The target population consisted of 200 individuals who work for the Makueni county department of lands, mining, physical planning, and urban development. Primary data was gathered via a structured questionnaire. SPSS version 25 was used for data analysis to provide both descriptive and inferential statistics. To ascertain the relationship between the independent variables and the dependent variable, multiple regression analysis was used. The findings of this study may assist in informing policy formulation by relevant authorities in project planning and implementation process. Scholars may find the results of this study useful to further the study using a wider scope other than projects in Makueni County only. Findings showed that; there was a moderate significant relationship between project planning and project completion ($r=0.345$, $p\text{-value}=0.000$), a small significant relationship between project monitoring and evaluation and project completion ($r=0.244$, $p\text{-value}=0.004$). The researcher recommends that; the project managers should make clear project plans with well-defined roles and responsibilities for every project member. Key stakeholders must be identified based on their interest and role in the project and involved in all phases of the project. Project monitoring and evaluation structures should be reviewed and more emphasis on project monitoring and evaluation systems. The county should also allocate adequate finances on time to prevent project delay and budget overruns.

Keywords

Project management techniques, housing projects, project planning, monitoring & evaluation

INTRODUCTION

As populations rise and cities are denser than ever, project completion is frequently the most crucial stage of any project's life cycle. As a result, public housing has gained importance for

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governments all over the world. The purpose is frequently to upgrade the deteriorating infrastructure, address the need to extend networks to new populations, and reach previously unreachable or underserved areas (Alinaitwe & Ayesiga, 2018). Along with meeting other important human needs for a safe, secure, and comfortable existence and living in the constructed environment, housing also offers the necessary amenities and infrastructure facilities. Housing project success or failure frequently depends on a number of variables, including stakeholder involvement, resource management, planning, monitoring, and evaluation (Akanni, 2017). Today, the ineffective and insufficient implementation of project management practices in the public housing projects' delivery affects the housing projects completion on time, with poor quality and poor service provision.

The Kenyan government launched the ambitious Affordable Housing Programme (AHP) as part of its Big 4 Agenda in response to a two million housing shortage that is expected to increase by 200,000 annually. However, there are only about 50,000 housing units available annually compared to the 250,000 units that are needed (Kenya National Bureau of Statistics, KNBS, 2020). The same problems that prevent housing projects from being completed successfully in most underdeveloped nations continue to exist in Kenya (Munywa, 2020). They include, among other things, a difficult land acquisition procedure, inadequate planning, expensive urban land, building laws, expensive transaction expenses, and inadequate infrastructure. It is anticipated that implementing efficient project management techniques within the current project management methodology will improve project completion, quality, and the availability of affordable housing (Munywa, 2020). In addition, it should ensure the sustainability of housing estates within the Kenyan economy and decrease capital waste, overall housing maintenance management expenses, and those costs.

Statement of the Problem

The success or failure of any project, particularly housing projects, is heavily influenced by project management standards. However, challenges persist, making it difficult to build efficient PM methods, which leads to several failed projects (Kariungi, 2016). Wote, the location of the Makueni county administration, has seen a number of housing projects stall, which has had a negative impact on the availability of homes there. The specific issue is that, according to Gikama and Karanja (2019), 40% of civil workers employed in Makueni County look for accommodation in Machakos County, while 10% work from Nairobi due to a lack of suitable housing in Wote (Cytonn, 2020). Additionally, 20% of the housing projects started during the 2017–2018 fiscal year have not yet begun, and 50% of them have stopped out because of a lack of funding, a shortage of land, or the decisions of inhabitants (stakeholders) to switch projects (Cytonn, 2020). If these issues are not resolved, the county will not be able to supply new, appropriate, and cheap housing in urban areas as part of her 2036 urban plan. Additionally, the study was driven by knowledge gaps found in past studies on the topic.

Project cost, time management, and sustainability of housing projects in counties other than Makueni were the main topics of Apiyo and Mburu (2016), Gikama and Karanja (2019), Miniti and Moronge (2018), Kimweli (2017), Mohamud and Nyang'au (2020), and Emoyo, Kising'u, and Oyoo (2019). From the literature, it seems that little attention has been paid to project planning, project monitoring, and project evaluation, stakeholder involvement, and budgetary availability. The following question remains unanswered because of the analysis of research results on project cost and time management: What effect do project planning, project monitoring and evaluation, stakeholder involvement, and financial availability have on the completion of housing projects in Makueni County? Therefore, this study sought to fill

the gaps by focusing on project planning, monitoring, and evaluation, stakeholder involvement, and resource management.

Objectives of the Study

- i. To establish the influence of project planning on completion of government housing projects in Makueni County.
- ii. To assess the influence of project monitoring & evaluation on completion of government housing projects in Makueni County.

LITERATURE REVIEW

Theoretical Overview

Contingency Theory

The theory was proposed by the Austrian analyst Fred Edward Fiedler in his milestone 1964 article (Abudi, 2017). The hypothesis declares that when managers settle on a choice, they should consider all parts of the ongoing circumstance and follow up on those viewpoints key to the circumstance within reach. As per the hypothesis, every development project is extraordinary and with its own intricacies and in this way ought to be overseen as per its particular attributes and climate in that specific timeframe (Sawega 2015). The possibility hypothesis perceives this viewpoint and endeavours to recognize rehearses that best suit the remarkable requests of various undertakings. This hypothesis dismisses the possibility of one most ideal way to oversee projects on account of the fluctuating administration circumstances. Possibility hypothesis considers the association and interrelation between the association and the climate (Mutema, 2013). The hypothesis perceives that there is a scope of logical factors likewise alluded to as take a chance with factors which impact the task goals in an unexpected way. Instances of these factors are: outer climate, innovation, authoritative design and size, cost, culture, individuals included and system (Nyika, 2018).

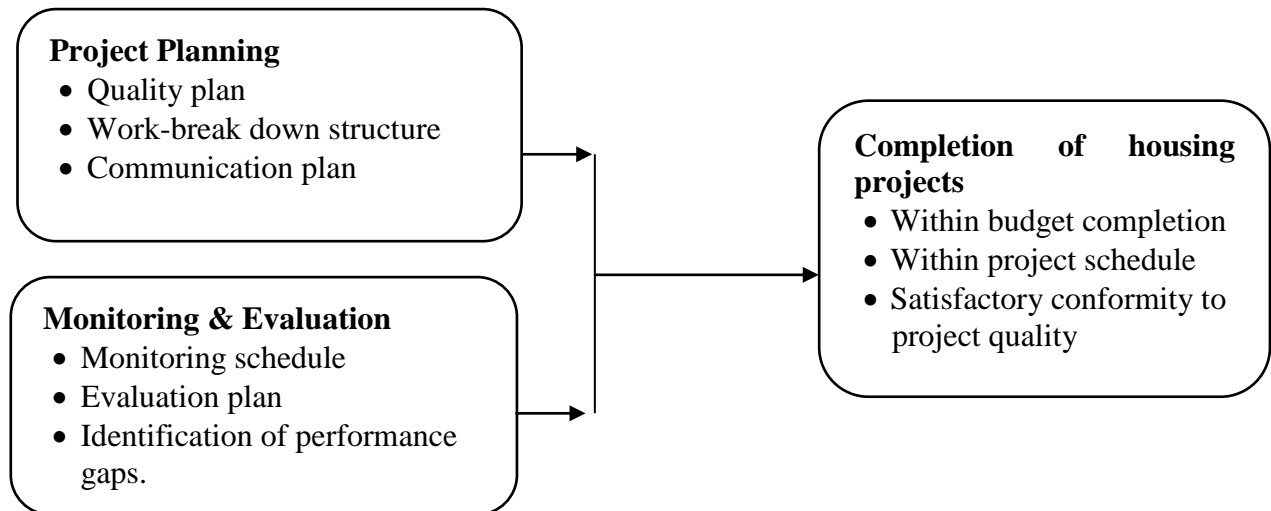
As indicated by Bawane (2017), possibilities for the two spending plans and timetables furnish the undertaking supervisor with the assessing alert they need to safeguard their tasks from cost and time overwhelms. Actually, assigning these possibilities can assist with projecting directors control a significant part of the tasks vulnerabilities. In applying this hypothesis in lodging projects, the hypothesis underscore that each venture is remarkable and has its own details which consequently requires appropriate administration work on as per its circumstance and particulars. In this review, possibility hypothesis was utilized to secure all the particular indicator factors.

Utility Theory

The utility hypothesis was progressed by Bentham and Mill (1987). The utility hypothesis involves the test of dealing with an undertaking in accordance with partner assumptions by adjusting the factors of adverse results "lament" and positive results ("cheer") results as well as after-the-occasion surveys, for which a "disappointment" esteem is portrayed. Utility is a proportion of allure or fulfilment or a level of fulfilment or government assistance coming from project benefits (Valence, 2016). Worth of a task relies upon its utility while utility relies upon the particular conditions of the partners. The standards of tasks achievement ought to incorporate longer term parts of the venture result like its effect (Belassi, 2017). Utility hypothesis ought to accordingly be considered as a significant component in the meaning of venture lead time (Carlos, 2014). As per Tukul (2016), the task supervisor can utilize a utility-based way to deal with foster a long-range possibility distribution plan, a methodology informed by the connection between expected utility and the difficulties in

designating projects accessible assets like expense and time possibilities. This relates utility hypothesis to possibility allotment to further develop project execution. Postpone in project fulfilment influences adversely to the normal clients in that it denies them the utility they would have had from the task if it somehow happened to be finished on time (Chan, 2017). In this study the utility hypothesis will be utilized to help all the particular indicator factors.

Conceptual Framework



Empirical Literature Review

Project Planning and Completion of Government Housing Projects

A sequence of predetermined and coordinated actions and processes are used in planning, an institutionalized activity, to carry out operations for the identification, preparation, assessment, and implementation of projects (Kongere, 2017). Five processes are mentioned in the project life cycle according to the PMBoK Guide (Zwikael 2018). The processes include the initiation phase, which formally approves a new project; planning, which defines and refines project objectives and chooses the best course of action to achieve project objectives; executing, which coordinates people and other resources to carry out the plan; monitoring and controlling, which ensures high-quality project plan accomplishments; and closing, which formally accepts the project by its stakeholders and brings the project to an orderly conclusion (Zhao, 2019). Success of a project implies that specific desires for certain stakeholders are met.

Different elements may have an impact on project planning procedures. The management elements have a direct impact on project planning procedures, according to studies by Chatzoglou (2017), Whittaker (2018), and Yeo (2016). Similar findings were made by Verner (2017) in his study, which showed that project planning methods have an impact on how projects are planned. However, a recent study by Yeo (2019) shown that the project's organization is a useful tool for project planning tasks. Additionally, research by Aladwani (2016), Macaulay (2018), and Dvir (2016) revealed that the human component is crucial during the project's planning phase.

Munyoki (2014) conducted a descriptive analysis to identify the variables affecting construction project completion in Kenya. The study aimed to find out how contract length affects finishing of construction projects, whether project financing affects finishing of small construction projects in Nairobi, how planning affects finishing of large construction projects

in Nairobi, how supervision/inspection of work affects finishing of large construction projects in Nairobi, and how the type of project delivery chosen affects co Interviews with architects, quantity surveyors, structural, civil, mechanical, electrical, land surveyors, construction project managers, and private developers were conducted using a survey questionnaire. The results showed a positive and significant relationship between project planning and completion of construction projects.

A contextual investigation done by Oke (2018) in Nigeria, inspected the impact of undertaking anticipating execution of water projects subsidized by district advancement asset and found that arranging assists with disposing of or lessen vulnerability, further develops effectiveness, get better comprehension of venture targets, and give premise to checking and assessment of the task. Further, a cross sectional exploration by Enshassi (2019) concentrated on reasons for worker for hire's task disappointment in ten (10) non-industrial nations including Kenya. The factors were assembled to just five principal bunches which are: administrative, monetary, natural and political variables. Administrative variables were essentially connected with experience, arranging, obtainment, control, efficiency, correspondence and cases factors; monetary factors fundamentally connected with consumptions, material wastages, hardware cost and utilization, and variety request; climate factors primarily connected with guidelines, granting, economy, proprietor inclusion and bookkeeping rehearses and political factors principally connected with delay, conclusion, absence of asset, significant expense of materials, banks strategy and managing providers. The outcomes showed that arranging angle under project the executives is the most significant impacting factor on worker for hire's task achievement or venture disappointment.

Project Monitoring & Evaluation and Completion of Government Housing Projects

According to Amaka's (2018) descriptive study on the elements influencing the timely completion of public construction projects in Nigeria, M&E, risk management, support from top managers, technical assistance, design management, and goal management are crucial for a project's success. Arogo (2015) revealed on an empirical study that M&E indicators like monitoring schedule, assessment plan, and performance gap identification must be utilized to check the threat and ensure control for a project to attain its maximum potential. Clear objectives, monitoring and assessment, management support, control systems, and a clear communication strategy are among the common determinants of project success, according to Rahaman (2018) in research on why projects are successful.

Zvoushe and Gideon (2018) conducted a case study to investigate the impact of monitoring and evaluation mechanisms used by development organizations, specifically the United Nations Development Programme (UNDP) in Zimbabwe. According to the study, it is no longer possible to undervalue the importance of project monitoring and evaluation. According to the study's findings, the primary obstacles and issues that prevented monitoring and evaluation in development projects were a lack of commitment and a failure to carry out, debate, share, and consider the findings of monitoring and evaluation activities. Different requirements determined from the review were lack of prepared staff, deficient specialized assets, and insufficient portion of assets to observing and assessment and restricted preparing open doors. In any case, the review was finished in southern Africa (Zimbabwe) and the discoveries may not be guaranteed to apply in Kenya.

An exploratory examination by Karanja (2017) inspected the impact of venture checking and assessment on execution of street foundation projects built by nearby firms in Kenya. The key factors were preparing, authority and monetary administration angles according to project manageability. The review showed that the suitability of ventures is driven by great monetary

authority, satisfactory schooling, administration, productive observing and assessment. An exact investigation done by Harold (2018) on the connection between project arranging and undertaking a good outcome showed that information about checking and assessment helps project workers for hire and directors to successfully screen and assess the foundation projects and thusly work on the presentation of the tasks. The concentrate additionally figured out that project supervisors of street framework projects need to know the degree to which their activities are satisfying the ideal client guidelines. Moreover, the review demonstrated that data created through observing and assessment empowers the task administrators to settle on better choices that will prompt better execution of street foundation projects.

An exact examination by Harries and Reyman (2018) on the connection among M&E and project achievement zeroing in on foundation projects in Tanzania detailed that project chiefs ought to have the option to recognize the reason and extent of the M&E framework, plan for data revealing and use, assortment and the executives of information, investigation of information, checking and limit working of human asset. The concentrate additionally showed that M&E framework ought to zero in on the use of undertaking inputs and the adequacy of the task execution cycle to guarantee that the last street project achieves the ideal quality.

RESEARCH METHODOLOGY

A descriptive research design was used to carry out the study. The Makueni county department of lands, mines, physical planning, and urban development who are tasked with carrying out the government's housing policies and programs at the county level has 200 staff who were the target population. The department oversees 20 housing projects, including the continuing urban settlements improvement and the housing for civil officials that the Makueni County government is working on or has finished in the previous five years. Mugenda and Mugenda (2003) state that 10 percent to 30 percent of the target population should be represented well. However, because there are not many housing projects in the county, this study used the census approach to choose all 200 staff members from among the 20 housing projects the county is currently working. Quantitative data was used in this inquiry. The data was processed and analyzed using the Statistical Program for Social Sciences (SPSS) version 25 to produce the study's findings. The mean and standard deviations for predictor variables was calculated for descriptive analysis. The respondents' descriptive statistics, Pearson's correlation analysis, and multiple regression analysis were included in the data analysis.

RESEARCH FINDINGS

The sample size was 200 in 20 housing projects. Questionnaires were administered to 180 respondents and 137 successfully filled the questionnaire. This was a 76% response rate which was considered adequate for analysis.

Project Planning

The first specific objective of the study sought to establish the influence of project planning on completion of government housing projects in Makueni County. Respondents were asked to tick on their level of agreement on influence of project planning. Findings are presented in Table 1

Table 1: Project Planning

| Statements | SD | | D | | NS | | A | | SA | | M |
|---|----|------|----|------|----|------|----|------|----|------|------|
| | F | % | F | % | F | % | F | % | F | % | |
| Before the project is implemented, a communication plan is created. | 5 | 3.6 | 23 | 16.8 | 13 | 9.5 | 63 | 46.0 | 33 | 24.1 | 4.30 |
| Before beginning a project, a work schedule is created. | 9 | 6.6 | 17 | 12.4 | 9 | 6.6 | 65 | 47.4 | 37 | 27.0 | 4.24 |
| Before beginning a project, change management methods are being developed. | 48 | 35.0 | 72 | 52.6 | 7 | 5.1 | 10 | 7.3 | 0 | 0 | 2.47 |
| Prior to project implementation, resource accumulation techniques are being developed for housing projects. | 9 | 6.6 | 4 | 2.9 | 16 | 11.7 | 71 | 51.8 | 37 | 27.0 | 4.10 |
| Before a project is implemented, quality plans are developed for housing projects. | 28 | 20.4 | 10 | 7.3 | 7 | 5.1 | 50 | 36.5 | 42 | 30.7 | 3.69 |
| Before beginning a project, a proper framework for resource allocation is typically created. | 38 | 27.7 | 68 | 49.6 | 11 | 8.0 | 11 | 8.0 | 9 | 6.6 | 1.96 |
| Before projects are implemented, a task allocation structure is typically developed. | 77 | 56.2 | 34 | 24.8 | 8 | 5.8 | 0 | 0 | 18 | 13.1 | 2.07 |
| Before beginning a project, the work that needs to be done is defined. | 4 | 2.9 | 14 | 10.2 | 7 | 5.1 | 60 | 43.8 | 52 | 38.0 | 3.96 |
| Before starting a project, appropriate completion procedures are defined. | 4 | 2.9 | 13 | 9.5 | 12 | 8.8 | 84 | 61.3 | 24 | 17.5 | 4.19 |
| Before project implementation begins, a project appraisal framework is typically created. | 66 | 48.2 | 44 | 32.1 | 4 | 2.9 | 5 | 3.6 | 18 | 13.1 | 2.08 |

Findings show that the respondents agreed that before the project is implemented, a communication plan is created (m=4.30) and before beginning a project, a work schedule is created (m=4.24). Respondents also agreed that; before starting a project, appropriate completion procedures are defined (m=4.19), prior to project implementation, resource accumulation techniques are being developed for housing projects (m=4.10), before beginning a project, the work that needs to be done is defined (m=3.96), and before a project is implemented, quality plans are developed for housing projects (m=3.69). Respondents however disagreed that before beginning a project, change management methods are being developed (m=2.47), before project implementation begins, a project appraisal framework is typically created (m=2.08), before projects are implemented, a task allocation structure is typically developed (m=2.07), and before beginning a project, a proper framework for resource allocation is typically created (m=1.96).

This is an indication that the project management team have good communication plans and good project designs prior to project implementation. This ensures that there is no information distortion among the project team and project stakeholders. Work schedules are also clearly laid out although the role is not defined. This may lead to role conflict and role duplication and cause project delays as well as cost overruns. The project management team does not also plan for project changes which are bound to happen during project lifecycle. This may lead to stakeholder dissatisfaction especially when the changes they suggest are not implemented in the project. Findings agree with Yeo (2019) that the project's plan is a useful tool for project performance. Phiri (2015) also found out that project planning is a very essential measure to ensure project execution is improved.

Project Monitoring and Evaluation

Research objective two aimed at assessing influence of project monitoring & evaluation on completion of government housing projects in Makueni County. The respondents were asked

to indicate their agreement level on statements related to project monitoring & evaluation. Findings are presented in Table 2.

Table 2: Project Monitoring and Evaluation

| Statements | SD | | D | | NS | | A | | SA | | M |
|--|----|------|----|------|----|-----|----|------|----|------|------|
| | F | % | F | % | F | % | F | % | F | % | |
| There are coordinated efforts to create monitoring systems to track the development of housing projects. | 60 | 43.8 | 47 | 34.3 | 9 | 6.6 | 17 | 12.4 | 4 | 2.9 | 2.15 |
| There are coordinated attempts to create monitoring schedules to track the development of housing projects. | 21 | 15.3 | 5 | 3.6 | 4 | 2.9 | 19 | 13.9 | 88 | 64.2 | 3.69 |
| The evaluation plan developed to assess the status of housing projects is representative. | 31 | 22.6 | 19 | 13.9 | 9 | 6.6 | 18 | 13.1 | 60 | 43.8 | 3.24 |
| The establishment of monitoring methods to track the advancement of housing developments involves participation from all relevant parties. | 14 | 10.2 | 17 | 12.4 | 6 | 4.4 | 54 | 39.4 | 46 | 33.6 | 4.26 |
| During various project execution stages, there are coordinated efforts to identify performance gaps. | 46 | 33.6 | 62 | 45.3 | 9 | 6.6 | 6 | 4.4 | 14 | 10.2 | 1.95 |
| Collective efforts are being made to close performance gaps found during monitoring. | 14 | 10.2 | 8 | 5.8 | 6 | 4.4 | 75 | 54.7 | 34 | 24.8 | 4.22 |
| To make sure that input deliveries follow the project plan, the project is periodically and continuously reviewed. | 75 | 54.7 | 34 | 24.8 | 6 | 4.4 | 14 | 10.2 | 8 | 5.8 | 2.26 |
| The project is continually and periodically reviewed to make sure that work schedules follow the project strategy. | 80 | 58.4 | 28 | 20.4 | 4 | 2.9 | 10 | 7.3 | 15 | 10.9 | 2.18 |
| The project is continually and periodically reviewed to make sure that the project plan's output targets are met. | 69 | 50.4 | 26 | 19.0 | 10 | 7.3 | 14 | 10.2 | 18 | 13.1 | 2.45 |
| To provide the intended results, the project implementation process is periodically and continuously monitored. | 65 | 47.4 | 26 | 19.0 | 8 | 5.8 | 10 | 7.3 | 28 | 20.4 | 2.50 |

Findings show that the respondents strongly agreed that the establishment of monitoring methods to track the advancement of housing developments involves participation from all relevant parties (m=4.26) and that collective efforts are being made to close performance gaps found during monitoring (m=4.22). Respondents further agreed that there are coordinated attempts to create monitoring schedules to track the development of housing projects (m=3.69), and the evaluation plan developed to assess the status of housing projects is representative (m=3.24). The respondents however disagreed that the project implementation process is periodically and continuously monitored to provide the intended results (m=2.50), the project is continually and periodically reviewed to make sure that the project plan's output targets are met (m=2.45), the project is periodically and continuously reviewed to make sure that input deliveries follow the project plan (m=2.26), the project is

continually and periodically reviewed to make sure that work schedules follow the project strategy($m=2.18$), there are coordinated efforts to create monitoring systems to track the development of housing projects ($m=2.15$), and the respondents also disagreed that during various project execution stages, there are coordinated efforts to identify performance gaps ($m=1.95$).

This indicates that monitoring and evaluation practices are essential for project performance. The M&E reports enables the project team to monitor the progress of the project, and highlights areas for improvement. Monitoring and evaluation also help the project team to make informed decisions about project. Although the housing project team have put in place monitoring and evaluation plans, their implementation is questionable since the projects are rarely reviewed. The project team lack a comprehensive monitoring and evaluation system that would help them to constantly keep track of the project performance. Findings are in agreement with Zvoushe and Gideon (2018) that the primary obstacles and issues that prevent monitoring and evaluation in development projects are a lack of commitment and a failure to carry out, debate, share, and consider the findings of monitoring and evaluation activities.

Project Completion

Various measures were used to determine project completion. The respondents were asked to indicate their level of agreement or disagreement on the statements about successful completion of housing projects in Makueni County. Findings are presented in Table 4.9.

Table 3: Project Completion

| Statements | SD | | D | | NS | | A | | SA | | M |
|---|----|------|----|------|-----|------|----|------|----|------|------|
| | F | % | F | % | F | % | F | % | F | % | |
| Prior stages of housing projects were successfully finished on schedule. | 37 | 27.0 | 74 | 54.0 | 4 | 2.9 | 37 | 27.0 | 74 | 54.0 | 2.48 |
| The earlier stages of housing projects were finished within the allocated budget. | 37 | 27.0 | 74 | 54.0 | 6 | 4.4 | 20 | 14.6 | 0 | 0 | 2.53 |
| The homes in the earlier phases were finished within the defined scope. | 20 | 14.6 | 19 | 13.9 | 10 | 7.3 | 9 | 6.6 | 79 | 57.7 | 2.28 |
| The already-completed projects were finished on schedule. | 13 | 9.5 | 79 | 57.7 | 14 | 10.2 | 31 | 22.6 | 0 | 0 | 2.54 |
| Within the allotted financial amounts, the currently completed projects were finished. | 86 | 62.8 | 19 | 13.9 | 8 | 5.8 | 0 | 0 | 24 | 17.5 | 2.27 |
| The current, finished projects were finished within the defined scope. | 41 | 29.9 | 75 | 54.7 | 0 | 0 | 9 | 6.6 | 12 | 8.8 | 1.82 |
| The ongoing projects follow the established budgetary allocations. | 8 | 5.8 | 4 | 2.9 | 8 | 5.8 | 33 | 24.1 | 84 | 61.3 | 3.98 |
| The ongoing projects follow the established scope definitions. | 17 | 12.4 | 11 | 8.0 | 710 | 7.3 | 16 | 11.7 | 83 | 60.6 | 3.55 |
| The ongoing initiatives respect the time frame that has been established. | 69 | 50.4 | 41 | 29.9 | 6 | 4.4 | 9 | 6.6 | 12 | 8.8 | 2.16 |
| Consumers of the NHC homes have had less complaints regarding the quality of the homes. | 22 | 16.1 | 0 | 0 | 4 | 2.9 | 37 | 27.0 | 74 | 54.0 | 3.92 |

The findings show that the respondents agreed that; the ongoing projects follow the established budgetary allocations ($m=3.98$), consumers of the NHC homes have had less

complaints regarding the quality of the homes (m=3.92), and the ongoing projects follow the established scope definitions (m=3.55). The respondents disagreed that the already-completed projects were finished on schedule (m=2.54), the earlier stages of housing projects were finished within the allocated budget (m=2.53), prior stages of housing projects were successfully finished on schedule (m=2.48), the homes in the earlier phases were finished within the defined scope (m=2.28), the currently completed projects were finished within the allotted financial amounts (m=2.27), the ongoing initiatives respect the time frame that has been established (m=2.16), and respondents also disagreed that the current finished projects were finished within the defined scope (m=1.82). This is indication that the housing projects have been experiencing delay and cost overruns. This could be a result of poor project management practices or delay in funding. Findings are in agreement with Gikama and Karanja (2019) that a number of housing projects in Makueni County have stalled which has had a negative impact on the availability of homes to the citizens.

Correlation

Correlation analysis was used to determine the strength and direction of a variable investigation. The correlation analysis was carried out to study the association between variables. Pearson Correlation ranges is set between -1 and +1. Where -1 shows that perfect negative correlation exists between variables. +1 shows positive perfect correlation. Pearson correlation results are presented in Table 4

Table 4: Correlation Coefficient

| Variables | | Project completion | Planning | M&E |
|--------------------|---------------------|--------------------|----------|-----|
| Project completion | Pearson Correlation | 1 | | |
| | Sig. (2-tailed) | | | |
| Planning | Pearson Correlation | .345** | 1 | |
| | Sig. (2-tailed) | .000 | | |
| M&E | Pearson Correlation | .244** | .185 | 1 |
| | Sig. (2-tailed) | .004 | .030 | |

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

Findings show that there was a moderate significant relationship between project planning and project completion ($r= 0.345$, $p\text{-value}=0.000$), a small significant relationship between project monitoring and evaluation and project completion ($r= 0.244$, $p\text{-value}=0.004$). Findings support Munyoki (2014) that there exists a positive and significant relationship between project planning and successful completion of construction projects. Harold (2018) also found that monitoring and evaluation helps significantly affect project performance. Imunya (2017) found that stakeholder’s participation significantly enhances project performance, and Oluoch (2016) found that monetary, human, and material assets had a significant effect on project achievement.

Regression

The model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. Table 5 presents the Model Summary.

Table 5: Model Summary

| Model | R | r ² | Adjusted r ² | Std. Error of the Estimate |
|-------|-------|----------------|-------------------------|----------------------------|
| 1 | 0.708 | 0.570 | 0.551 | .864 |

Predictors: (constant) planning, M&E, stakeholders, resources allocation

Findings in Table 5 show R-square value of 0.570. This shows that 57% of changes in project completion may be explained by project planning, monitoring and evaluation, stakeholders' involvement, and resources allocation. This means that other project management practices that this study did not focus on contribute to 43% of project completion.

An analysis of variance was conducted on the relationship between independent variables and dependent variable. ANOVA results are presented in Table 6

Table 6: Analysis of Variance

| | Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|--------------|-----------------------|-----------|--------------------|----------|-------------------|
| 1 | Regression | 45.302 | 4 | 11.326 | 19.388 | .000 ^b |
| | Residual | 77.107 | 132 | .584 | | |
| | Total | 122.409 | 136 | | | |

Predictors: (constant) planning, M&E,

Dependent variable: Project completion

The ANOVA shows that the F value of 19.388 is significant at the 0.05 significance level. The model was hence suitable for explaining changes in project completion as caused by project planning, M&E, stakeholders, resources allocation.

Multiple regression shows how a change in the independent variable would predict a unit change in the dependent variable. Table 7 presents the regression coefficients.

Table 7: Regression Coefficients

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|----------------------|------------------------------------|-------------------|----------------------------------|----------|-------------|
| | B | Std. Error | Beta | | |
| Constant/Y Intercept | 1.716 | .426 | | 4.024 | .000 |
| Planning | .360 | .072 | .355 | 4.970 | .000 |
| M&E | .094 | .056 | .130 | 1.671 | .097 |

As per the SPSS generated in Table 7,

The following regression equation was established from the regression analysis:

$$\text{Project completion} = 1.716 (Y) + 0.360X_1 (\text{planning}) + 0.094X_2 (\text{M\&E})$$

From the above regression model, holding project planning, M&E, at constant zero, project completion would be 1.716. It was established that a change in project planning, may cause changes in project completion by a factor of 0.241, a change in monitoring and evaluation practices may cause changes in project completion by a factor of .034. The t statistics show that project planning had the greatest effect on project completion (4.970), and monitoring and evaluation practices had the least effect of project completion (1.671).

Conclusion

Project planning leads to project success. Planning helps the stakeholders and the project team to understand the project design and the required resources required for project implementation. Project planning help project team to understand their roles. Every team member can carry out his/her duty effectively and there is no role duplication hence saving on project time. Project planning is project backbone, and a project success is influenced by the design of a project. This is the most essential phase in project performance. Flexible work schedules enable team members to have work-life balance and carry out their roles

effectively as good planning ensures that there is no role ambiguity. The procedure of project planning requires that clients' expectations are first prioritized and resources for project implementation evaluated to determine whether there would be adequate resources to implement the project or whether there would be need for more resources.

The county has not fully implemented M&E systems which implies that the county uses traditional techniques of M&E. There are no period reviews of the project performance which could be achieved through constant monitoring and evaluation. M&E systems would enhance fast and timely decision making on project progress. M&E systems help to collect project data, monitor and evaluate projects in real time.

Recommendations

The project managers should make clear project plans with well-defined roles and responsibilities for every project member. The resources required for project implementation should also be well laid out in the project plan for proper allocation. The work schedules for the project team should be clarified to enable the team to plan their time accordingly. Key stakeholders must be identified based on their interest and role in the project and involved in all phases of the project. Stakeholders particularly the project beneficiaries should be sensitized on the importance of actively participating in community development projects. This would encourage more project beneficiaries to participate in development projects to oversee their successful implementation. There should be frequent stakeholders' forums that will enable all stakeholders to share ideas on project implementation.

Project monitoring and evaluation structures should be reviewed and more emphasis on project monitoring and evaluation systems. There should also be period review of monitoring reports to assess if the project adheres to the plans and whether the project team is on the right track. This will enhance project quality and beneficiary satisfaction. The county government should strive to adopt information systems that will enhance effectiveness of the monitoring and evaluation activities.

Areas for Further Study

A similar study on current housing projects that are not more than 4 years since completion. A similar study should be conducted in other county government to assess the findings vary or are similar to Makueni County. A similar study should also be conducted in real estate firms in Kenya since they are involved in management of several housing projects. A study on effect of county leadership change on performance of county government funded projects.

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