Project Integration Management and Performance of National Housing Corporation Projects in Kenya

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DOI: 10.29322/IJSRP.13.10.2023.p14247
https://dx.doi.org/10.29322/IJSRP.13.10.2023.p14247

Paper Received Date: 20th September 2023
Paper Acceptance Date: 23rd October 2023
Paper Publication Date: 30th October 2023

Abstract.

The general Objective of the study was to assess the influence of project integration management and performance of National Housing Corporation project in Kenya. The specific objectives of the research study were, to determine how project scope management affects Kenyan National Housing Corporation projects, to evaluate how project time management affects Kenyan National Housing Corporation projects, to determine how project cost management affects Kenyan National Housing Corporation projects and to assess how disclosure and reporting affect Kenyan National Housing Corporation projects. The research was guided by theory of constraint, stakeholder theory, contingency theory, general system theory. This study employed explanatory research design, and targeted 425 National Housing Corporation projects from 2013 to 2020. A total of 206 respondents were used in the study. Primary data was collected through questioners and Secondary data. The research found that project scope management improves performance of National housing corporation project. Moreover, project scope planning, scope control, scope validation should be enhanced for better performance of National Housing Corporation projects.

Keywords Project scope management, project integration management, National housing projects performance.

Introduction.

Projects are bounded by time and are supposed to be completed within the planned and stipulated time period, covering a predetermined scope, within the planned budget and quality specified by the customer or client (Abdilahi el al, 2020). Housing plays a huge role in revitalizing the economic growth in any country (Gitau & Sang, 2020). Access to adequate and affordable housing is current and growing problem in all countries globally. National Housing Corporation is mandated by Kenyan government to deliver
affordable housing. In recent years National Housing Corporation has continued to supply houses but the demand outstrips the supply

Today in the world of disruptive technology, rising software’s solutions, increasing ambiguity of risks, and high client and stakeholder’s expectations, managing projects is more complex than ever. Thus, for a project manager, synchronizing the different aspects of resources and processes of a project often fell over went. Project integration management makes every project a success, many organizations use it as a standard practice, and it helps project manager to oversee project complexity, manage project resources and manage risks. Project integration management focus on the individual procedures during execution process Martin & Chelule, (2018). Project integration management is a collection of processes required to ensure that various elements of the project are properly coordinated, not to fail in a project Hirpa, (2022). Project integration management help managers coordinate plan and ensure that all process within a project run effectively and that team members stay on track towards their final goals. Integration management is the practice of making certain every part of the project is coordinated Hafton, (2019).

Project management is an integrative undertaking requiring each project process to be appropriately aligned and connected with other processes to facilitate coordination. Scope entails what need to be done, who will do, Where should be done, How contract performance will be judged (PMI, 2017) Scope is important to manage any project, when managing scope it is critical that your priorities your tasks, enabling you to plan and assign resources effectively without creating a source of order. Scope shows the limit of project work boundaries and identifies the uniqueness of a project product, service and results that will produce those products that will uncover (Omondi, 2017). The scope always forms an overview of the stakeholder’s requirements concerning a project. Quality entails the part of the project scope requirement which is intended to be produced for the full satisfaction of project stakeholders. Quality can be assured by identifying and eliminating the factors that cause poor project performance over many years ago quality practices has taken root in all three variables of the iron triangle and is affected by balancing the three factor.

Project integration management involves coordinating the knowledge areas, anticipating and dealing with issues and making decisions each day about what is the best interest on the entire project. Project managers must ensure that they have integration in mind as a spring board to achieving success in a project. Project integration management is very vital in all project work Omondi, (2017) when project integration is properly performed; it ensures that all processes in a project run smoothly, that will produce a series of deliverables like project charter, scope management and project plan. Project scope management describe the procedures where all the elements or work required to ensure the success of the project is included in the project, it is basically to define what is define and what is not included in a project PMI, (2017). Project time management ensures that the project is completed within time as stipulated
in the project plan. Project cost management is to ensure that project is completed within the budget. Project cost management involves the process of cost estimation, cost budgeting and cost control.

Project performance metrics focus on the project impact at one point in time or over a fixed time frame (Kavitu el al 2018); the impact of the project value should supersede the cost of the intervention. Project performance is directly related to the project potential success. Project is considered to be implemented successful if event is a component of project is completed on schedule, realized the purpose on what it was designed through achieving the set project goals and objectives identified and the project is completed within the budget (Kirimi & Munyori, 2019). Project performance is evaluated differently by stakeholders based on their varying expectations, in relation to the actual quality, cost, and time (Martin & Chelule, 2018).

Over the past years a number of housing projects in Kenya have failed to be completed within the estimated time, scope, budget or the combination of them (Mwangi, 2018) In the construction industry, the term “delay” is used to describe the time overrun of a project beyond the officially agreed completion time due to causes by the parties in the contract, who are the, employer, contractor and the consultant (Kavita el al, 2018). It is a project spilling over its planned schedule and is considered a common problem in construction projects (Hirpa, 2022). To the owner, delay means loss of revenue through lack of use of proposed facilities. In some cases, to the contractor, delay means higher overhead costs because of longer work period, higher material costs through inflation and labor cost increases (Gitau & Sang, 2020).

Housing construction projects industry comprises of a large number of parties which include the clients, contractors, consultants, stakeholders, shareholders, regulators and among others. Many projects in Kenya suffer from many problems and complex issues in performance because of many reasons and factors (Elizabeth, 2020) Research evidence notes that performance of the construction projects in Kenya is minimal as time and cost overruns performance affects their implementation and successful completion (Ahmed el al ,2019). Project delays have a common problem not only with an immeasurable cost to society, but with debilitating effects to the contracting parties (Gibb & Hayaton, 2021).

Research Problem

According to comprehensive poverty report by Kenya Bureau of statistics K.N.B.S in the year 2020, the population of Kenya was found to be growing steadily, consequently, the demand for housing was reported to be on rise especially in urban areas, with urbanization which has become tremendous there is need for housing at the moment, the gap between demand and supply for housing continues to increase and widens, the estimated deficit is approximately 2.0 mn units, growing by 200,000 units per annum (K.N.B.S, 2019). The government pledged to build 50,000 housing units for middle and low income population every year, the units were to be
sold at a range of US $ 6,000 to US$30,000 but by the end of 2021, the five year plan had only yielded 431 units or 0.8% of the target as a result over 60% of urban households in Kenya live in slums were they struggle to raise US$10 a month for rent. G.O.K (2020) this is driven by rapid population growth rate at 2.5% per annum and high urbanization rate at 4.3% compared to 1.2% and 2.0% globally, with developers being unable to meet this demand due to inadequate credit supply, high cost of funding and low uptake of credit due to low purchasing powers by citizens (Mwangi, 2018). The acute housing shortage in Kenya has given rise to serious problem of affordability challenges as demand for housing continue to outstrip the supply.

Despite the contribution of building sector and the economy, performance of National Housing Corporation Projects performance have been poor they exist increase number of fail projects, incomplete projects, abandoned projects generally the performance of most projects have fail to meet the expected goal and objective, based on time and cost indicators (Omondi, 2017). They exist incomplete projects, many programs taking longer than scheduled, a lot of project being complex and not meeting the laid down performance metric as earlier planned, some projects do not satisfied the stakeholders or the clients because of design, some project did not involved the stakeholders of the project from start to completion Mwangi, (2018). Community participation is very vital in any development project especially Government projects. (Elizabeth, 2020, Kweyu, 2018). Performance measure is important in assessment of improvement of organization as well as determining whether or not it is achieving the stated goals Namusonge, Kabare and Mutua (2012) as cited by Gitau & Sang, (2022).

Previous studies by (Mwangi, 2018, Omondi, 2017 Martin & Chelule, 2020) mainly concentrated on factors influencing completion of projects. However none of the referenced research have concentrated on application of Project Integration Management and performance of National Housing Corporation Projects. Based on this gap the current research aims at answering questions, “how does” Project Integration Management influences performance of National Housing Corporation Projects in Kenya. This has left the knowledge gap in key areas of project integration management and performance of National Corporation projects. This Current study sought to fill this research gap by examine the influence of project scope, project time, project cost and disclosure and reporting on performance of National Housing Corporation Projects in Kenya.

**Research Objective**

1. To determine the influence of project scope management on performance of national Housing Corporation projects in Kenya.

**LITERATURE REVIEW.**
Theoretical Review.

Theory of Constraints.

This research was based on the theory constrain which is a collection of administrative ideas created by Goldratt in 1984. It holds that a system is faced by constraints that limit it from achieving its objective. This theory can be used to demonstrate the way project managers can manage organizations effectively on the assumption of system thinking and management (Kavita el.al, 2018). It focuses on three levels: namely the mindset of the organization, constrains and the needs in a multi-party situation as a necessary issue in construction projects which brings complications in project management (PMI, 2017).

Theory of constrain requires the recognition of constrains, oversight as well as management of these constrains. Its procedures and processes focus on moving barriers that deter each part from functioning as an integrated system. Like the weakest connection in a system or chain, each system must have a constraint or bottom neck which administers its results and output (Goldratt, 1984). Constraints limit output whether recognized or not at the point when legitimately recognized and managed; constraints provide a speedy route to decisive change and profile the bedrock for nonstop expansion (Gitau & Sang, 2020).

Based on the constrains theory, this study seeks to find out why most housing projects are difficult to manage with uncertainties around the three different opposing commitments of budget, due date and content which the Project managers and supervisors perceive as prerequisites for achievement of projects and are also evaluated and accepted as the measure of project success (Chan el al, 2018). Every one of the three constrains that is scope, cost and time have individual impact on the project and whenever any of these constraints is disregarded, it may lay sit out of gear, misusing a lot of competence. It’s therefore vital that for effective management of these constrains, the project manager adopts good project management practices on performance for projects to work well or fail to meet the anticipated outcome. The theory suggests that project manager and all the stakeholders of the project need to work together so that the constraints which may hinder the project success is managed hence this should be done by proper coordination of all project activities by defining all tasks and subtasks needed to complete the project.

Conceptual Framework

The conceptual framework in the study comprise of independent variable project scope management. Each project scope management are captured using a variety of constructs that describe it. The dependent variable in this study is performance of National Housing Corporation projects in Kenya. These variables and hypothetic causal paths and relationship are presented in figure 1.
Independent variable. Dependant variable.

Figure 1 Conceptual Framework.

Review of the Variables.

Project scope management.

According to Omondi,(2017) Project scope is the definition of what the project is supposed to accomplish or in other wards it is specific description of what the end result should be or accomplish . The scope often is referred some times as scope of work and it clearly a specific statement as to what has been agreed to be performed/achieved in a particular project. In other words, the scope expressly lays out the functions, features, data, content it can also be said scope clearly express the desired final product of a project, that will be included in the project at hand, it can also be said that the scope. One important component of scope of a project include specifically the quality of the final product, the allocated amount of time put into individual tasks that determines the overall quality of the project. Some project tasks may require a given amount of time to be completed successfully, but given more time could completely exceptionally, over the project cycle of large projects, quality always can have a direct significant impact on time and cost or vice versa. Scope management is the skill that project managers use to define the work that needs to be done (PMI, 2017).

According to Fashina el,al (2020), states that project scope is one of the main areas that contribute to project failure many project researchers’ documents that scope change is a major contributing factor for project failure. Among the project requirements are either altered before the commencement of work or altered half way through the project life cycle. But rarely are these changes effected by the completion date, this is more evident in project management. Murithi, (2018) argues that project changes in scope have been conventionally treated as having heavy or negative impacts on project completion and in theory they should not happen if project activities have been perfectly planned and schedule in other words, changes in scope of the project are bound to happen and if they happen, it has a negative effect on completion time of the project especially on complex projects that involves multi-stage iterative process.

The amount of time put into individual tasks may require a given amount of time to complete exceptionally, Over the e large projects, quality can have a significant impact on time and cost or vise verse, scope management is the skill project managers need to use to define the work that needs to be done on a given project (PMI, 2017). For example if the project is working to fixed level of scope...
then the cost of the project will largely be depended upon schedule availability. Similarly, when the time is fixed, the scope of the end product will depend on the budget or resources available. Project management researchers and authors widely recognize that the inherent trade off dynamics of the iron triangle, Scope constrained projects are bounded by performance criteria of the deliverables.

According to PMI (2017), the major input of these process are the project agreement, project workshops and assets, expert opinion, analysis of product, alternative development and workshop that are facilitated. The defined scope and the work breakdown structure will need the commitment of project stakeholder’s satisfaction, verification of project scope which entails official acceptance of project deliverables by various participants.

According to PMBOOK (2018), the major inputs of the process of scope verification include namely the project management plan, traceability matrix, documents requirements and deliveries that are validated. Inspection is a major technique used for scope verification. The acceptance of deliverables, change request and updates of the documents are the output of the scope verification process. A well-defined project scope should be used to control tracking of project activities, the scope controlling process comprises of monitoring of product and project scope status,. It covers the inputs which include the following, project management plan, documentation requirement, requirement, information on performance of work and process organization group variances one of the tools and techniques used in this process.

According to Kerzner (2017); as cited by Hassan & Adeleke, (2019), their study findings reveal that poor scope definition is recognized by industry practitioners as one of the leading causes of failure of many projects adversely affecting project in area of cost, schedule and operational characteristics. Project scope planning comprises of determining and documenting a list of specific goals of a project, deliverables, tasks, costs and deadlines. The major takes away from the triple constrain, is that it is a triangle that cannot be altered one side without affecting the other sides.

According to research done by Mishra, (2019) the researcher findings reveals that they exist a variation in project tasks significantly as affected by time and schedule of project. In addition, the results further noted that any change in project activities will significantly affect the quality outcome of the project. In another study done by Chan el al, (2018) on project management practices and its effect on project execution, the research findings shows that important practices that are essential correlated with project performance and identifies with the scope. The findings suggest that weight be assigned on scope management with the view of attaining exemplary performance in projects.

**Performance of Projects**

To perform is to take a complex series of actions that integrate skills and knowledge to produce a valuable result. Project performance has been defined as the degree of achievement of certain effort or undertaking which relates to the prescribed goals or objectives that form the project parameters (Chan el al, 2018). The key requirements of suitable performance measures and measurement frameworks are identified as including, having a few but relevant measures, being linked with critical project objectives, providing accurate
information, and comprising financial and non-financial the successes of a project construction mainly depend on the success of performance. Project Completion is the degree of achievement of various efforts or undertaking which relates to the described goals or objectives that form the project parameters. In the view of Gitau & Sang, (2020) performance is the complex series of action that integrate skills knowledge to produce a valuable result. Scholars such as (Karimi & Munyori 2019, Fashina el al (2020), agree that conventional treatment for project performance is often based on the iron triangle where by committed outputs from the project are delivered based on three criteria namely scope, quality, time and cost.

The key performance measure and framework are identified as probably having few but relevant measure being linked with critical project objective, example providing accurate information and comprising financial and non-financial measures (Martin & Chelule, 2020) they are several many potential measures for evaluating the success of a construction project. All these address three key areas that are scope, schedule and cost. The research study discovered and outlined the major seven project performance indicators, as follows project construction cost, project construction time, project cost predictability, project time predictability, client satisfaction with the final product and lastly, client satisfaction with the service and also discovered the three company performance indicators as safety, productivity and profitability

**RESEARCH METHODOLOGY**

The research philosophy adopted was positivism, which seek to explain social phenomenon in an objective way through the gathering of verifiable facts using quantitative means. The study adopted explanatory design, the target population for the study comprised of 425 projects which have been undertaken by National Housing Cooperation from the period of 2013 to 2020 while the study unit of observation was the project managers. A simple random sampling technique was used to select the 206 participants for the study. Questionnaire were the chosen instruments for data collection, and a likert scale was used to record the participants response. Data collection procedure was started by obtaining permission from relevant authorities. Primary data was collected through administration of questionnaire to relevant construction project managers in National Housing Corporation. The collected data was analyzed by descriptive and inferential statistics

**Results and Analysis.**

This section provide descriptive and regression analysis

**Descriptive Statistics for project scope management**

The study sought the opinion of respondents on project scope management. The results of analysis are presented in Table 1.
Based on the findings on table 1, 50 (29.4%) of respondents disagreed that the scope planning of the project was done before the project was initiated. 86 (50.5%) respondents agreed that the scope planning of the project was done before the project was initiated. Respondents were undecided on whether the scope planning of the project was done before the project was initiated or not (mean = 3.35; STD = 1.158). It was established that 93 (54.7%) respondents disagreed that project scope control is a key issue in the implementation of the project. 53 (31.1%) respondents agreed that project scope control is a key issue in the implementation of the project. There was indecisiveness on whether project scope control is key issue in the implementation of the project or not (mean = 3.26; STD = 1.228).

The findings indicate that 59 (34.7%) respondents disagreed that the work break down structure was used to plan the project activities. 80 (47.1%) respondents agreed that the work break down structure was used to plan the project activities. The study established that there was indecisiveness on whether the work break down structure was used to plan the project activities or not (mean = 3.13; STD = 1.209). It was noted that 60 (35.3%) respondents disagreed that all the projects delivered were within the stipulated scope. 82 (48.2%) respondents agreed that all the projects delivered were within the stipulated scope. There was indecisiveness on whether all the projects delivered were within the stipulated scope or not (mean = 3.15; STD = 1.286).

It was established that 53 (35.3%) respondents disagreed that the collection of the project requirements was mandatory before execution of any project in my organization. 77 (45.3%) respondents agreed that the collection of the project requirements was mandatory before execution of any project in my organization. There was indecisiveness on whether the collection of the project requirements was mandatory before execution of any project in my organization or not (mean = 3.31; STD = 1.311).

It was established that 37 (21.8%) respondents disagreed that validation of project scope deliverables were compared against the scope baseline to ascertain if the project teams have produced what was in the planed document. 72 (42.4%) respondents agreed that validation of project scope deliverables were compared against the scope baseline to ascertain if the project teams have produced what was in the planed document. The respondents were undecided on whether validation of project scope deliverables were compared against the scope baseline to ascertain if the project teams have produced what was in the planed document or not (mean = 3.26; STD = 1.045). From the findings the respondents agreed that validation of project scope deliverables were compared against the scope baseline to ascertain if the project teams have produced what was in the document this concurs with Omondi,(2017) findings which reveal that project scope deliverables should be compared against the scope baseline to ascertain if the project teams of the project actually produced what it was originally planned in the document.

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https://dx.doi.org/10.29322/IJSRP.13.10.2023.p14247

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### Table 1: Descriptive Statistics for Project Scope Management

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>SD</th>
<th>D</th>
<th>NT</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
<th>STD</th>
</tr>
</thead>
<tbody>
<tr>
<td>The scope planning of the project was done before the project was initiated</td>
<td>Freq.</td>
<td>170</td>
<td>7</td>
<td>43</td>
<td>34</td>
<td>56</td>
<td>30</td>
<td>3.35</td>
</tr>
<tr>
<td>Project scope control is key issue in the implementation of the project</td>
<td>Freq.</td>
<td>170</td>
<td>28</td>
<td>65</td>
<td>24</td>
<td>39</td>
<td>14</td>
<td>2.68</td>
</tr>
<tr>
<td>The work break down structure was used to plan the project activities</td>
<td>Freq.</td>
<td>170</td>
<td>18</td>
<td>41</td>
<td>31</td>
<td>61</td>
<td>19</td>
<td>3.13</td>
</tr>
<tr>
<td>All the projects delivered were within the stipulated scope</td>
<td>Freq.</td>
<td>170</td>
<td>22</td>
<td>38</td>
<td>28</td>
<td>57</td>
<td>25</td>
<td>3.15</td>
</tr>
<tr>
<td>The collection of the project requirements was mandatory before execution of any project in my organization</td>
<td>Freq.</td>
<td>170</td>
<td>15</td>
<td>38</td>
<td>40</td>
<td>33</td>
<td>44</td>
<td>3.31</td>
</tr>
<tr>
<td>Validation of project scope deliverables were compared against the scope baseline to ascertain if the project teams have produced what was in the planed document</td>
<td>Freq.</td>
<td>170</td>
<td>10</td>
<td>27</td>
<td>61</td>
<td>53</td>
<td>19</td>
<td>3.26</td>
</tr>
</tbody>
</table>
This section provide descriptive and regression analysis.
According to the results in Table 2, it was found out that there is a weak positive and significant relationship between project scope management and performance of National Housing Corporation Projects in Kenya (r = 0.395; p < 0.05). This implies that increased project scope management is associated with enhanced performance of National Housing Corporation Projects in Kenya and vice-versa. This implies that enhance project scope management has a significant influence on performance of National Housing Corporation Projects. This current results are in line with the findings of Hassan & Adeleke, (2019) that established that project scope management enhances project performance and hence leads to projects being delivered within the stipulated time frame and within the assigned budget, proper planning of scope management prevents alteration of design and prevents the project from running into scope creep. Similarly, the study by Fashina et al, (2020) established that project scope management if well planned and followed will eventual give exemplary performance in projects.

Table 2: Correlation Analysis Results

<table>
<thead>
<tr>
<th></th>
<th>Project performance</th>
<th>Project scope management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project performance</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>170</td>
</tr>
<tr>
<td>Project scope</td>
<td>Pearson Correlation</td>
<td>.395**</td>
</tr>
<tr>
<td>management</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>170</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**
Relationship between projects Integration Management and Performance of National Housing Corporation Projects.

**Table 3: Model Summary Project Integration and Performance**

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
<th>Change Statistics</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>.614</td>
<td>.377</td>
<td>.358</td>
<td>.82273</td>
<td></td>
<td>.377</td>
<td>19.835</td>
<td>5</td>
<td>164</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Disclosure and reporting, Project scope management, Project time management, Project cost management, community participation

c. Dependent Variable: Performance of National Housing Corporation Projects in Kenya

A simple linear regression was performed to examine the link between the two variables. The table 3 presents R and R square values coefficient of correlation between project integration management and performance of National Housing Corporation Projects in Kenya. The R square 0.337 reveal that 37.7% of the variation in performance of National Housing Corporation Projects can be explained by project scope management, project time management, and project cost management, project disclosure and reporting. The remaining 62.3 % of project performance variation was determined by factors that did not form part of the model.

**Table 4: ANOVA Project Integration Management and Performance**

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>7.256</td>
<td>4</td>
<td>1.814</td>
<td>9.725</td>
</tr>
<tr>
<td>Residual</td>
<td>17.161</td>
<td>92</td>
<td>.187</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24.418</td>
<td>96</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance of National Housing Corporation Projects in Kenya

b. Predictors: (Constant), Disclosure and reporting, Project scope management, Project time management, Project cost management

Table 5 indicate the ANOVA model results .The F statistics value was 9.725 and the p value of 0.000 was less than 0.05.tthis implies that the regression model predicted significantly the dependent variable(Performance of National Housing Corporation projects).this suggests that project integration was a significant predictor.

**Table 5: Regression Coefficient Project cost Management**
the dependent variable: Project performance

The value of (t = 3.470; p < 0.05), the finding indicates a positive and significant effect of project scope management and performance of National Housing Corporation Projects in Kenya. It further obtained a beta coefficient of 0.347 for project scope management. This implies that 1 unit increase in project scope management enhances performance of National Housing Corporation Projects in Kenya by 0.347 units. This result implies that project scope management affects performance of National Housing Corporation Projects in Kenya.

This result agrees with the study findings of Omondi, (2017) that planning of scope management in projects enhances project performance. The findings further reveals that proper scope planning comprises of determining and documenting a list of specific goals of a project, tasks, costs, and deadlines, if the project scope is altered automatically the project is bound to fail in performance. Project scope management planning should be considered if projects are to be completed on time and within the assigned budget. This study further agrees with the findings of Kiari and Waynoka, (2016) as cited by Murithi, (2018) in their study on determinates of Financial Integrated Management system. The results of the findings indicates that many government projects are characterized by political interference in regards to identification and definition of scope alteration, the findings by the researcher recommends that project manager supervision on government funded projects should be firm particularly on management of the project scope because failure to be firm the performance of the project is doomed to fail and the intended objective will not be achieved.

The linear regression

\[ Y = 1.646 + 0.374x \]

where:

\( Y \) = Performance Housing projects

\( X \) = Project cost Management projects
Descriptive Statistics for Performance of National Housing Projects

The study sought the opinion of respondents on performance of housing projects in Kenya. The results of analysis are presented in Table 6.
Table 6 Descriptive Statistics for Performance of National Housing Corporation Projects in Kenya

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>SD</th>
<th>D</th>
<th>NT</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
<th>STD</th>
</tr>
</thead>
<tbody>
<tr>
<td>All the projects completed by my organization are always aligned with the stated business requirements</td>
<td>Freq. 170</td>
<td>21</td>
<td>26</td>
<td>48</td>
<td>53</td>
<td>22</td>
<td>3.17</td>
<td>1.207</td>
</tr>
<tr>
<td>Stakeholders’ satisfaction is a key indicator of project performance and realization of its objectives</td>
<td>Freq. 170</td>
<td>30</td>
<td>34</td>
<td>30</td>
<td>50</td>
<td>26</td>
<td>3.05</td>
<td>1.349</td>
</tr>
<tr>
<td>Aspects of micro economy affect the number of projects completed</td>
<td>Freq. 170</td>
<td>22</td>
<td>38</td>
<td>38</td>
<td>45</td>
<td>27</td>
<td>3.10</td>
<td>1.281</td>
</tr>
<tr>
<td>With the community being the direct beneficiary of the projects, the success of the project outcomes is always determined by their levels of satisfaction</td>
<td>Freq. 170</td>
<td>16</td>
<td>40</td>
<td>45</td>
<td>40</td>
<td>29</td>
<td>3.15</td>
<td>1.231</td>
</tr>
<tr>
<td>The current trends and changes in technologies affect the project deliverables to be attained</td>
<td>Freq. 170</td>
<td>9.4</td>
<td>23.5</td>
<td>26.5</td>
<td>23.5</td>
<td>17.1</td>
<td>3.29</td>
<td>1.112</td>
</tr>
</tbody>
</table>

The study found out that 47 (27.7%) respondents disagreed that all the projects completed by my organization are always aligned with the stated business requirements. 75 (44.1%) respondents agreed that all the projects completed by my organization are always aligned with the stated business requirements. The respondents were undecided on whether all the projects completed by my organization are always aligned with the stated business requirements or not (mean = 3.17; STD = 1.207). It was noted that 64 (37.6%) respondents disagreed that stakeholder satisfaction is a key indicator of project performance and realization of its objectives. 76 (44.7%) respondents agreed that stakeholder satisfaction is a key indicator of project performance and realization of its objectives. The respondents were undecided on whether stakeholder satisfaction is a key indicator of project performance and realization of its objectives or not (mean = 3.05; STD = 1.349).

The study results reveals that that 60 (35.3%) respondents disagreed that aspects of micro economy affect the number of projects completed. 73 (42.4%) respondents agreed that aspects of micro economy affect the number of projects completed. The respondents were undecided on whether aspects of micro economy affect the number of projects completed (mean = 3.10; STD = 1.281). The study determined that 56 (32.9%) respondents disagreed that with the community being the direct beneficiary of the projects, the success of the project outcomes is always determined by their levels of satisfaction. 77 (45.3%) respondents agreed that with the community being the direct beneficiary of the projects, the success of the project outcomes is always determined by their levels of satisfaction. The respondents were undecided on whether with the community being the direct beneficiary of the projects, the success of the project outcomes is always determined by their levels of satisfaction or not (mean = 3.11; STD = 1.241).

The study determined that 56 (32.9%) respondents disagreed that the current trends and changes in technologies affect the project deliverables to be attained. 69 (40.6%) respondents agreed that the current trends and changes in technologies affect the project deliverables to be attained. The respondents were undecided on whether the current trends and changes in technologies affect the time to be taken by each activity is estimated during the planning process to ascertain the required timeframe for every task or not (mean = 3.29; STD = 1.112).
It was noted that 71 (41.8%) respondent disagreed that projects completed are normally delivered within the projected timeframes. 53 (31.2%) respondents agreed that projects completed are normally delivered within the projected timeframes. It was consented that projects completed are normally delivered within the projected timeframes (mean = 2.82; STD = 1.102). Project is considered to be successful implemented and completed if it is on schedule on budget and achieves all goals originally set for and accepted PMI, (2017).

**Conclusion of the study.**

Scope clearly expresses the desired final results of a project it should be planned well to avoid scope creep in projects. The study concluded that project scope management positively and significantly affects performance of National Housing Corporation Projects in Kenya. The study concludes that proper project scope management is important and should be enhance in order for national housing projects to improve in performance.

**Recommendation of the study.**

To policy makers and project managers, the study recommends that project scope management should be enhanced in order to improve performance of housing projects.

The findings by the researcher recommends that project managers supervising on government projects should be firm particularly on management of the scope because if the project scope is altered automatically the project is doomed to fail and the intended objective will not be achieved.
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