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## Factors Influencing Implementation of Low-Cost Housing Programme by Kenya National Housing Corporation

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### **Abstract:**

*The Government of Kenya launched the national low-cost housing programme as part of the big four agenda in order to address the shortage of housing units in the country as well as their affordability levels. Despite the project likely to be of benefit to Kenyans, there has been emergent implementation challenges facing the project. This study thus sought to focus on the project management factors influencing the implementation of the national low-cost housing project. Amongst the aspects that was examined include stakeholder involvement, project managers' competences, and resources availability aspects. The theoretical review of the study was based on the dynamic capabilities' theory and the stakeholder theory. This study used the descriptive research design. The target population of this study was the National Housing Corporation (NHC) officials and staff at their headquarters at NHC house, Aga Khan Walk in Nairobi. There are 57 middle and senior levels officials that are directly involved with the national low-cost housing projects at the NHC. The study found an R value of 0.584, R Square value of 0.341 and Adjusted R Square value of 0.300. The study found there was a positive relationship between the three independent variables of the study and the dependent variable. This is because of positive unstandardized beta coefficients. An unstandardized beta coefficient for stakeholder involvement was 0.144, that for managers' competencies was 0.130 and the unstandardized beta coefficients for resource availability was 0.487. This implied that resource availability had the highest influence on project implementation, followed by managers' competencies and finally stakeholder's involvement. The study found that there was no statistically significant influence of stakeholder involvement on the implementation of national low-cost housing project. The study further found that there was a statistically significant influence of project managers' competences on the implementation of national low-cost housing project. The final hypothesis found that there was a statistically significant influence of resources availability on the implementation of national low-cost housing project.*

**Keywords:** Stakeholder Involvement, project managers' competences and resources availability

### **1. Introduction**

The implementation is one of the critical stages of the project management lifecycle. The project implementation is the phase in which the aspects of project plans are put in motion and executed with a view of achieving the project objectives (Zaid, 2015). This process may thus involve the allocation of tasks to specific team members for implementation, and allocation of resources to different tasks that need to be undertaken in order to achieve the project objectives (Ebekoziena & Jaafar, 2015). How well the project objectives are met is critical to the measurement of project implementation performance. In this context, the project implementation performance has been conceptualized as the meeting of the project of its objectives in relations to timelines, budgets, scope and to the satisfaction of the project stakeholders (Obi & Arif, 2012).

There are various activities and control mechanisms that are undertaken during the implementation. These processes include time control, cost control, quality management, and monitoring controls. The time control aspects relate to the time that is undertaken during the project implementation process. There must be control mechanisms to ensure that the project activities and tasks are undertaken within the required timeliness (Chepsiror, 2013). The cost control aspects are critical in ensuring the project activities are undertaken within the required budgetary allocation and that there is no wastage of resources in the implementation of the project (Thobane, 2009). The quality management aspects relate to the project being able to achieve the set scope and parameters of the project as per project design.

The project implementation performance continues to be a challenge in diverse low-cost housing projects. In Malaysia, there have been noted challenges in the implementation of the low-cost housing projects in the country. The government of Malaysia in execution of the seventh Malaysia Plan sought to construct low and medium cost housing to address housing inadequacies amongst its population. The project target to construct 350,000 housing units. In this context, Bakh, Zaharim, Sopian, & Moghimi (2013) noted that the implementation faced challenges such as stakeholder management. Amongst the stakeholder involvement challenges were local authorities charging different rates for similar

housing projects across their jurisdiction. Bakh *et al.*, (2013) also noted challenging project operational framework of some state government making adjustments to the national policy to accommodate their local dynamics. Zaid (2015) still in Malaysia noted that the tenth Malaysia Plan a total of 95,800 housing units were built in the period. However, the constructed houses failed to meet the demands for the qualifying citizens indicate inadequate provision of the target market at the implementation (Zaid, 2015). Other studies that have documented challenges with low cost housing projects in Malaysia include Abdul-Aziz, Ebekozi, and Jaafar (2018) and Ebekozi and Jaafar (2015).

South Africa has tried to solve its housing challenges through use of low-cost housing project across diverse local authorities in the country. Amongst the efforts that the south African government put in place to address the housing challenges after its independence was the formulation of the National Housing Policy Framework (Ngxubaza, 2010). The policy was meant to develop mechanisms for low cost and sustainable housing project. Amongst the challenges that were noted in the low-cost housing projects in south Africa was need to motivate stakeholders such private sector in the low-cost housing projects (Ngxubaza, 2010). The need to involve councilors in the decision making and implementation of the housing projects was noted (Ngxubaza, 2010). Chiro (2010) further notes that the resources availability challenges that municipalities faced in housing services provision in south Africa, they had to partner with private sector service providers in housing program.

In Nigeria, Obi and Arif (2012) notes challenges with the implementation phase of low cost housing project in the country. Amongst the challenges noted in the implementation phase of the project include inadequate stakeholder involvement leading inadequate supply of the low-cost houses. The resources availability for the government and private sector to develop quality and low cost houses has also been found wanting. Obi and Arif (2012) further noted that while within the 2010-2014 period a total of 700,000 units were proposed to be built, only 43,126 houses were delivered which represented 6.1% achievement rate. This raised the questions of the project management and capacity of the low-cost housing project to deliver on the planned housing project. Other African countries that have faced challenges with implementation phase of low cost housing project include Ethiopia (Franklin, 2018).

In Kenya, there have been empirical evidence challenges faced by the low-cost housing projects from a historical perspective. In Eldoret town, Chepsiror (2013) noted that project operational framework especially outdated implementation regulations were blamed for poor performance low cost housing projects in the town. Amongst the challenges that were noted included the project operational framework especially with the town implementation regulations as well as the resources availability of developers to deliver low cost housing projects (Chepsiror, 2013). In Turkana, Biwott (2018) noted various project management factors such as management, policies and capacity in the provision of low cost housing in the region.

The provision of affordable housing is one of the big four agenda deliverables for the government of Kenya (Government of Kenya, 2018b). Amongst the tasks that the government was to perform in the low cost housing project included provision of state land for project implementation, development of subsidized bulk support infrastructure for the identified sites, coordinate acquisition of statutory approvals, and ensuring that the houses are affordable to the Kenyans (Government of Kenya, 2018b). The current national low-cost housing project aims to construct one million homes by the year 2022. One completed one-bedroom unit will sell for Sh600,000, while a two-bedroom unit will go for Sh1.05 million. The cost of the units under the affordable housing programme will range from Sh800,000 for a bedsitter to Sh3 million for a three-bedroom unit (Government of Kenya, 2018b).

UN Habitat (2019) notes that low cost housing refers to housing developed adequate or basic standard quality and target costs affordable to the poor and low-income group in the country. The low cost housing also alternatively referred to as affordable housing refers to functional housing projects often aimed to the low income earners who would often not access sustainable housing facilities (Bakh *et al.*, 2012). Zaid (2015) further note that low cost housing refers to the housing projects that have the costs highly subsidized often through public funds. Chepsiror (2013) also conceptualized low cost housing project as those housing that are reasonably adequate in standard and location for the low income earners and doesn't cost much in a manner that the household is unlikely to meet their other basic needs in a sustainable manner. Amongst the characteristics of low-cost housing including cost subsidies, government involvement, and use of alternative building materials amongst other factors (Obi & Arif, 2012; Sulaiman, Hasan, & Jamaluddin, 2016; Thobane, 2009).

In Kenya, housing has been categorized as a human right by the constitution. In this context, section 43 (1) (b) of Kenya's constitution indicates that every person has a right to accessible and adequate housing and reasonable standard of sanitation (Okumu, 2014). The housing market in Kenya is skewed in favour of the high-end income earners with the capacity to take mortgage facilities from financial services providers as means to acquire residential facilities (Edwin, 2013). The low-cost housing in Kenya are often undertaken in Kenya with a target market of the low- to middle- income earners in the country. According to Chepsiror (2013) low income earners refer to Kenyans earning less than Ksh 23, 671 while middle income earners refers to Kenyans earning Ksh 23,672 to Ksh 111,999.

## 2. Statement of the Problem

The Government of Kenya launched the national low cost housing programme as part of the big four agenda in order to address the housing deficit in the country (Government of Kenya, 2018b). Amongst the proposed housing units include Stone Athi Housing Phase I (120 Maisonettes), Stoni Athi Housing Phase II Economy (60 flats), Langata Commercial Center (110 flats), and NHC Olympic View Kibera (106 flats). However, the project is yet to start due to diverse major issues. Amongst these issues include delay in starting phase one of the project, implementation and logistical challenges, and taxation challenges to finance the project (Government of Kenya, 2018a). Thus, the national low-cost housing projects have continued to face challenges during the implementation phase. Various scholars such as Igwe

and Ude (2018), Abdullah (2015) and Gitau (2015) that have looked at the project implementation haven't looked at it from the perspective of factors driving its performance. This study thus sought to focus on the project management factors influencing the implementation of the national low-cost housing project.

### 3. Objectives of the Study

The study was guided by the following objectives of the study;

- To examine the influence of stakeholder involvement on the implementation of national low-cost housing project
- To establish the influence of project managers' competences on the implementation of national low-cost housing project
- To establish the influence of resources availability on the implementation of national low-cost housing project.

### 4. Theoretical Review

The theoretical review of the study was based on the theory of change, dynamic capabilities theory and the stakeholder theory.

#### 4.1. Management by Objectives Theory

The Management by Objectives theory was developed by Peter Drucker in 1954 (Ahmed & Ghandour, 2018).. The theory advocates for the execution of tasks or projects with a view of achieving those tasks' objectives. The basis of the Management by Objectives theory is the presence of objectives to be undertaken and achieved by diverse tasks (Nawi, Rahman, & Ibrahim, 2012).. The ease, cost and quality of achievement of these objectives is important as an indicator of the performance of the tasks (Tushabomwe, 2014). The theory further advocates for engagement of diverse stakeholders in the process of task execution in order to gain acceptance and cooperation amongst the stakeholders. This will enable quicker execution of the tasks at hand.

#### 4.2. Resource Based View Theory

The resource-based view theory was conceptualized in 1991 by Barney. The development of the theory had built on the works of other scholars such as Edith Penrose (Nawi et al., 2012). The theory conceptualizes resources as all [assets](#), capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness. There are both tangible and intangible resources. The tangible resources refer to those resources that can be touched and felt. On the other hand, the intangible resources refer to those resources that can't be touched. The Resource Based View Theory indicates the use of resource availability to achieve superior results for given task or project.

The resource-based view theory is important in this study in the context that the study sought to examine the influence of resources availability on the implementation of the national low-cost housing project. The resources availability could be both intangible and tangible resources to be used for the implementation of the national low-cost housing project. The tangible resources include the equipment, land and building materials amongst other items. On the other hand, the intangible resources would include skills, experiences, technical expertise and management amongst other aspects.

#### 4.3. Stakeholder Theory

The stakeholder theory is attributed to two different scholars working parallel to each other in 1983 that is Ian Mitroff and Edward Freeman (Ahmed & Ghandour, 2018). The stakeholder theory conceptualizes a stakeholder as an individual (s) who have a direct or indirect interest on a project. Their capacity to influence the project or be influenced by a project is one of the key characteristics of a stakeholder (Nzekwe, Oladejo, & Emoh, 2015). The stakeholder theory identifies different types of stakeholders such as internal stakeholders and external stakeholders. The internal stakeholders are stakeholders such as the employees of the project implementing agency and are within the institution (Nawi et al., 2012). On the other hand, the external stakeholders refer to the stakeholders who are outside the project implementing institution such as regulators and project beneficiaries amongst others. The stakeholder theory indicates that for the successful execution of a task or project then the stakeholders must be involved (Tushabomwe, 2014).

The theory is applicable in this study in the context that the implementation of the low-cost housing project would involve diverse stakeholders. The stakeholder involvement in the implementation has the capacity to influence the performance of the phase. Amongst the aspects of stakeholder involvement critical for the performance of the implementation include stakeholder mapping, stakeholder analysis, stakeholder participation and stakeholder communication management. This component of stakeholder involvement ensures that the stakeholder's views are considered during the implementation thus leading to quicker execution of the phase and quality outcome of the implementation phase of the project.

### 5. Review of Literature on Variables

#### 5.1. Project Implementation

The project implementation is concerned with the formulation of a predetermined course of action before the implementation of the project (Igwe & Ude, 2018). Naeem, Khanzada, Mubashir, and Sohail (2018) further note that implementation refers to the process of deciding ideal strategies, arrangement and timing of project exercises with a view

of boosting the possibility of project success. The performance of the implementation can be measured through examination of the timelines used in the process, practicality of the forecasted project activities demands, consensus amongst stakeholders on the way forward, acquisition of necessary project approvals and cost of implementation (Chawla, Chanda, & Angra, 2018).

### *5.2. Stakeholder Involvement and Project Implementation*

The stakeholder involvement in the performance of the implementation is critical in ensuring that the implementation phase is able to adequately map up the needs of the intended beneficiaries and adequately plan for the needs of the project. The stakeholders refers to the group of people who have the capacity to either influence or be influenced by the projects (Bayani bt Zakaria, Redhuan Bin Mohamed, bt Ahzahar, & Zubaidah bt Hashim, 2015). Stakeholders have also been conceptualized as people who have a direct or indirect interest in a given project. This may include internal stakeholders such as project managers and project management leadership of the implementing agency amongst others. The external stakeholders may include the project beneficiaries, suppliers, communities and regulatory authorities amongst others (Varajão, Dominguez, Ribeiro, & Paiva, 2014). The stakeholder involvement has been conceptualized as participation in project phases such as implementation by diverse groups of stakeholders such that their opinions and views are taken into consideration (Eshaghi, Mousavi, & Eshaghi, 2015).

Diverse functions are involved in stakeholder involvement. Shani (2014) notes that stakeholder involvement may include stakeholder mapping, stakeholder analysis, stakeholder participation and stakeholder communication management. The stakeholder mapping is important in the performance of project phase due to various factors (Bodicha, 2015). The stakeholder mapping relates to the identification of all stakeholders that have the capacity to be affected or to affect the implementation. The identification of these stakeholders thus enables their successful engagement levels. In contexts where all the stakeholders have not been identified then there is high possibility of their needs not being considered thus leading to conflicts that may serve to derail the project (Tafawa, 2015). The stakeholder analysis involves the examination of the potential influence of each group of the stakeholders with a view of categorizing their influence. This is done in the context that the stakeholders don't have equal influence on the project and thus at the implementation phase those with higher influence on the project should be able to prioritized in the implementation phase.

The stakeholder involvement in implementation is critical due to various aspects. Anunda (2016) notes that stakeholder involvement in implementations enables the input of the stakeholders to be included in the phase. This input could be inform of the opinions of the viability of the project as a whole, processes of undertaking given tasks such as procurement aspects, best practices on the workflow aspects and the logistics involved (Abbas, Din, & Farooqui, 2016). This stakeholders' involvement and their submission of the input enables the implementation to be undertaken in a timely manner, impacts on the quality of the phase, and enables the out of the implementation to be useful to other implementations (Ndambuki, 2017).

The stakeholder involvement in the implementations enables these stakeholders to own the project and give it their good will. The stakeholder involvement in implementation phases enables project ownership amongst the stakeholders leading to cooperation amongst diverse stakeholders, and thus elimination or management of potential conflicts in the implementation phase (Siganda & Sigand, 2012). This is key in the context that implementation challenges include conflicts amongst stakeholders leading to lengthy time in implementation.

Amongst the purpose of the implementation and which determines its success is the ability to clear define the needs of the intended project beneficiaries. The stakeholder involvement enables the needs, priorities and concerns of the stakeholders such as project beneficiaries to be identified (Abdullah & AlNasseri, 2015). The stakeholder involvement thus serves not only as a platform for the stakeholders' views to be heard but also for the project managers to educate the stakeholders on the diverse aspects of the projects such benefits, costs, plans, timelines and any other information that could be relevant to them.

### *5.3. Project managers' Competences and Project Implementation*

The project managers' competences are key in the implementation of projects such as low-cost housing projects. The low cost housing projects is a project with huge financial undertaking and thus adequate implementation is required before implementation (Njeru, 2018). The project managers facilitate the implementation through resources mobilization and allocation. The resources required could be in terms of expertise manpower to give their insights of specialized aspects such as procurements, technical aspects of the project and regulatory aspects amongst other dynamics (Chanzu, 2016). The implementation phase of the project often requires finances for undertaking feasibility studies, logistics and other dimensions. The project managers of the implementing agency of the project ability to mobilize and allocate these resources enables the implementation phase to proceed with speed and ensure the quality of such implementation exercise.

The experience and professional competences of the implementing agency management is key in the implementation (Elkassas, Hosny, & Mattr, 2013). The experiences and professional competences of the management in undertaking similar projects guides their strategic direction in the current project. Experienced project management are likely to consider diverse metrics in the implementation and have hands-on practical experience with handling diverse implementation aspects such as budgeting, procurement plans, and regulatory licensing amongst other dynamics (Marier-bienvenue, Pellerin, & Cassivi, 2017).

The project management sets the agenda and pace in the implementation. There are diverse aspects that need to be considered in the implementation including action plans on procurements, logistics of implementation meetings, stakeholder engagement in implementation phase, project technical details and budgeting amongst other aspects (Lin &

Parinyavuttichai, 2015). The project managements key in setting the agenda in the implementation phase, guiding discussions and decision making within the implementation phase to ensure that the sessions are productive in nature (Igwe & Ude, 2018). The project management is also involved in making follow ups on arising aspects and ensuring that the aspects are concluded in a timely and comprehensive manner.

The communication amongst the diverse set of stakeholders and within the appropriate levels remains a key aspect of implementation. The project management plays a critical role in ensuring that there is a conducive environment for deliberations to occur, ensures that there is adequate communication levels between the stakeholders, acts to seek clarifications and conclusions on arising matters and resolves arising aspects (Naeem *et al.*, 2018). This is key in ensuring that there is building of a consensus on the diverse aspects being deliberated upon in implementation phase as well as the quality of such outputs (Jayasudha & Vidivelli, 2016).

The project management is key in developing and cultivating teamwork in the implementation phase of project. In the implementation phase of a project diverse stakeholders are often sourced and their inputs sought. These stakeholders must act as a team despite being sourced from diverse areas thus distorting the traditional hierarchical setting of an organization (Javed, Kamil, Mahmood, & Sulaiman, 2012). The project management must thus serve to ensure that the diverse outsourced stakeholders act as a team to deliver their respective roles in the implementation (Buertey, 2016).

#### 5.4. Resources availability and Project Implementation

The resources availability is often directly related to the performance of the implementation. The resources availability refers to the ability of the institution in respect to equipment, people, structures, and experiences amongst other aspects to execute the tasks at hand such as implementation (Makori & Wanyoike, 2015). The presence of technical knowhow is an important resources availability related to the implementation. The technical knowhow of the institution refers to the institution having human resources or capacity to procure human resources with adequate knowledge, skills, experiences and competences on the diverse specialized aspects of implementations (Fageha & Aibinu, 2013). These specialized aspects would include procurement aspects, legal aspects, and human resource aspects amongst other dynamics.

The experience of the institution in undertaking project implementation for a project of similar capacity in the past is critical for the performance of the implementation (Mwangi, 2016). The experience in implementation and executing similar projects in the past enables the organization to produce quality project implementation documents and in a timely manner (Kisera & Muturi, 2015). The quality aspects of the project plans refer to the ability to adequately estimate costs. Timelines, and make realistic forecasts in dynamic project demands. This is key in formulation of a project plans that can be implemented with little amendment levels.

## 6. Research Methodology

The research design refers to the blue print that was used in the research with a view of addressing the research objectives and determined data collection instrument, data structure and analysis aspects (Creswell, 2014). This study used the descriptive research design. The target population of this study was the National Housing Corporation (NHC) officials and staff at their headquarters at NHC house, Aga Khan Walk in Nairobi. The sampling frame gives all the members of the population. There are 57 middle and senior levels officials that are directly involved with the national low-cost housing projects at the NHC. Therefore, the target population of this study is 57 NHC officials at their headquarters. The data processing commenced with the finalization of the data collection phase. The collected questionnaires were examined inured to eliminate any half-filled questionnaires. The questions were then coded into the SPSS software and ready for analysis. The SPSS was used to generate the descriptive statistics such as frequencies, means and standard deviations as well as inferential statistics such as linear regression that was used for this study.

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where;

Y= Performance of the Implementation

$\beta_0, \beta_1, \beta_2, \beta_3$  = Model coefficients

$X_1$  = Stakeholder Involvement

$X_2$  = Project managers' Competences

$X_3$  = Resources availability

$\epsilon$  = Error Term

## 7. Results and Discussion

The study used descriptive statistics to describe the basic characteristics of data (Upagade & Shende, 2012). The descriptive statistics used in this study were frequencies, percentages, mean scores and standard deviation. Frequencies were used to show the number of respondents giving a certain responses among the alternatives of the Likert Scale (Sekaran & Bougie, 2011). Percentages indicated the proportion of respondents citing a particular response in Likert Scale (Nicholson, 2011). The study also used mean scores to show the tendency of the respondents in responding to the various questions in the questionnaire (Nicholson, 2011). Using a Likert Scale where 1=No extent, 2=small extent, 3=moderate extent, 4=great extent, and 5= very great extent, a mean score of less than 1.5 would imply a tendency to completely disagree (No Extent) while a mean score of in the range of 1.5 and 2.5 would imply a tendency to agree to a small extent. A mean score of between 2.5 and 3.5 would indicate a tendency to moderately agree while a mean score of between 3.5 and 4.5 implies a tendency to greatly agree. A mean score of more than 4.5 would imply a tendency to agree to a very great extent (Coolican, 2009). Standard deviations were used to show the spread of responses across all the alternatives of a

Likert Scale in each question in the questionnaire (Fischer, 2006). In respect to the chosen Likert Scale in this study, a standard deviation of less than 1.0 implies the presence of consensus among the respondents (small spread of responses) while a standard deviation of at least 1.0 implies a lack of consensus among the respondents (large spread of responses) (Bryman, 2012).

### 7.1. Stakeholder Involvement and Project Implementation

The first objective of the study sought to examine the influence of stakeholder involvement on the implementation of national low-cost housing project. Shani (2014) notes that stakeholder involvement may include stakeholder mapping, stakeholder analysis, stakeholder participation and stakeholder communication management. In respect to this objective, descriptive statistics were computed and presented in Table 1

Description	Frequency and Percentages					Total	
	NE	SE	ME	GE	GLE	Mean	Std. Dev
Mapping of the stakeholders to identify them is undertaken at NHC	5 9.4%	5 9.4%	2 3.8%	35 66.0%	6 11.3%	3.60	1.132
The NHC undertakes analysis to find the likely influence of diverse stakeholders to the project	2 3.8%	6 11.3%	4 7.5%	36 67.9%	5 9.4%	3.72	0.907
There is sufficient communication from NHC to the stakeholders on diverse aspects of housing project	3 5.7%	4 7.5%	3 5.7%	41 77.4%	2 3.8%	3.55	1.066
The stakeholders are incorporated in housing project implementation at NHC	1 1.9%	3 5.7%	1 1.9%	40 75.5%	8 15.1%	3.94	0.795
The stakeholders identify their own needs at NHC	4 7.5%	2 3.8%	6 11.3%	34 64.2%	7 13.2%	3.58	1.117

Table 1: Stakeholder Involvement

Note: Ne=No Extent, Se=Small Extent, Me=Moderate Extent, Le=Great Extent, And Vle= Very Great Extent

Table 1 shows that the mapping of the stakeholders to identify them is undertaken at NHC were done to a great extent due to a mean score of 3.60. The achieved mean score in the range between 3.5 and 4.5 was attributable to 66.0% and 11.3% of the respondents who indicated that to a great extent and very great extent that there was mapping of the stakeholders to identify them is undertaken at NHC. However, a standard deviation of 1.132 implied that there was lack of common agreement among the respondents. This is because the standard deviation was above 1.0.

The study further sought to find out whether NHC undertakes analysis to find the likely influence of diverse stakeholders to the project. The study found out that majority (67.9%) of the respondents were agreement that to a great extent NHC undertakes analysis to find the likely influence of diverse stakeholders to the project. This resulted to a mean score of 3.72 and standard deviation of 0.907. The achieved standard deviation of less than 1.0 implied that on average, respondents were in consensus in rating this aspect.

Table 1 further indicates that on average, the respondents agreed that there is sufficient communication from NHC to the stakeholders on diverse aspects of housing project. This is due to a mean score of 3.55 and 77.4% of the respondents who indicated a great support to the statement. The standard deviation achieved in respect to this statement was 1.066 which implied that there was no consensus among the respondents in rating the extent of communication from NHC to the stakeholders on diverse aspects of housing project.

A mean score of 3.94 was achieved in rating the extent in which stakeholders are incorporated in housing project implementation at NHC. The achieved mean score was in the range between 3.5 and 4.5 and it therefore implied that on average the respondents to a great extent agreed that stakeholders are incorporated in housing project implementation at NHC. This is further evidenced by the majority (75.5%) of the respondents who indicated that to a great extent, stakeholders are incorporated in housing project implementation at NHC. A standard deviation of 0.795 was obtained in respect to the same statement which therefore implied that there was a moderate consensus among the respondents.

A majority of the respondents (64.2%) indicated that to a great extent stakeholder identify their own needs at NHC. This resulted to a mean score of 3.58 which implied that on average, respondents agree that to a great extent stakeholder identify their own needs at NHC. A standard deviation of 1.117 was achieved in rating the extent in which stakeholders identify their own needs at NHC. This implied a lack of consensus among the respondents in rating this aspect.

## 7.2. Managers' Competences and Project Implementation

The second objective of the study sought to establish the influence of project managers' competences on the implementation of national low-cost housing project. Table 2 shows the frequencies, percentages, mean scores and standard deviation for statements rating the extent of resources availability at National Housing Corporation (NHC).

Description	Frequency and Percentages					Total	
	NE	SE	ME	GE	GLE	Mean	Std. Dev
The NHC team has sufficient resources mobilization skills	0 0.0%	4 7.5%	3 5.7%	42 79.2%	4 7.5%	3.83	0.672
The project managers have the ability to lead teamwork for common outputs at NHC	3 5.7%	0 0.0%	4 7.5%	36 67.9%	10 18.9%	3.85	0.886
At NHC, the project managers' have sufficient professional experience of the management team	2 3.8%	3 5.7%	7 13.2%	35 66.0%	6 11.3%	3.60	0.927
The project managements at NHC have ability to communicate project implementation directions amongst stakeholders	1 1.9%	2 3.8%	5 9.4%	38 71.7%	7 13.2%	3.75	0.830
The project managers have sufficient leadership skills at NHC	0 0.0%	3 5.7%	6 11.3%	39 73.6%	5 9.4%	3.74	0.763

Table 2: Managers' Competences

Note: NE=No Extent, SE=Small Extent, ME=Moderate Extent, LE=Great Extent, And VLE= Very Great Extent

Table 2 reveals that on average, the respondents studied indicated that to a great extent NHC team had sufficient resources mobilization skills. This is evidenced by a mean score of 3.83 and a standard deviation of 0.672. The achieved mean score was due to a majority of the respondents (79.2%) who indicated that to a great extent NHC team had sufficient resources mobilization skills. The achieved mean score indicated that there was a consensus among the respondents in rating the extent in which NHC team had sufficient resources mobilization skills.

A mean score of 3.85 was achieved in rating the extent in which project managers have the ability to lead teamwork for common outputs at NHC. It therefore implied that on average, project managers had the ability to lead teamwork for common outputs at NHC. This was attributable to 69.9% who indicated a great extent and 18.9% who indicated a very great extent in the project managers' ability to lead teamwork for common outputs at NHC. The achieved standard deviation of 0.886 implied that there was a consensus in rating the project managers' ability to lead teamwork for common outputs at NHC.

According to Table 2, it was also revealed that at NHC, the project managers have sufficient professional experience of the management team. This was due to a mean score of 3.60 and 66.0% of the respondents supporting the same aspect. The study further revealed that there was consensus in rating this aspect to a standard deviation less than 1.0 (standard deviation=0.927).

The study further sought to find out the extent in which the project managements at NHC had ability to communicate project implementation directions amongst stakeholders. In respect to this, majority of the respondents (71.7%) indicated that to a great extent, project managements at NHC had ability to communicate project implementation directions amongst stakeholders. A mean score in the range between 3.5 and 4.5 (mean=3.75) was obtained and this implied that that on average the respondent to a great extent supported the statement. A standard deviation of 0.830 implied that there was a moderate consensus among the respondents in rating this aspect.

A mean score of 3.74 was achieved in rating the extent of project managers' leadership skills at NHC. This implied that on average respondents were in an agreement that to a great extent the project managers had sufficient leadership skills at NHC. This was further evidenced by the majority (73.6%) of the respondents who gave a response of "great extent" to the statement. The study further revealed that there was consensus among the respondents in rating this statement due to a standard deviation of 0.763. These findings are in disagreement with those by Biwott (2018) who noted that the competence of the project managers was a challenge. In line to the findings of the current study, Ramata (2017) found out that decision making effectiveness, prior project management experience, and development of standard procedures dependent on the managers' competences. The experience and professional competences of the implementing agency management is key in the implementation (Elkassas, Hosny, & Mattr, 2013).

The experiences and professional competences of the management in undertaking similar projects guides their strategic direction in the current project. Experienced project management are likely to consider diverse metrics in the implementation and have hands-on practical experience with handling diverse implementation aspects such as budgeting, procurement plans, and regulatory licensing amongst other dynamics (Marier-bienvenue, Pellerin, & Cassivi, 2017). The

experience in implementation and executing similar projects in the past enables the organization to produce quality project implementation documents and in a timely manner (Kisera & Muturi, 2015).

### 7.3. Resources Availability and Project Implementation

The study further sought to establish the influence of resources availability on the implementation of national low-cost housing project. The descriptive statistics for this objective were as shown in Table 3.

Description	Frequency and Percentages					Total	
	NE	SE	ME	GE	GLE	Mean	Std. Dev
The NHC has adequate technology at its disposal	2 3.8%	1 1.9%	3 5.7%	40 75.5%	7 13.2%	3.85	0.818
The NHC has adequate physical resources at its disposal	1 1.9%	4 7.5%	5 9.4%	30 56.6%	13 24.5%	3.75	1.054
The NHC has adequate financial resources at its disposal	3 5.7%	6 11.3%	2 3.8%	36 67.9%	6 11.3%	3.68	.872
The NHC has adequate human resources at its disposal	0 0.0%	5 9.4%	6 11.3%	38 71.7%	4 7.5%	3.58	0.929

Table 3: Availability of Resources

Note: NE=No Extent, SE=Small Extent, ME=Moderate Extent, LE=Great Extent, And VLE= Very Great Extent

A mean score of 3.85 and a standard deviation of 0.818 were achieved in rating the extent in which NHC had adequate technology at its disposal. The achieved mean score implied that on average the respondents were in agreement that to a great extent, NHC has adequate technology at its disposal. This is further evidenced by the majority (75.5%) of the respondents who to a great extent were in support of the statement. The achieved standard deviation was below 1.0 which implied that there was consensus among the respondents in rating the extent of technology at NHC.

In respect to physical resources, this study revealed that on average, the respondents indicated that The NHC had adequate physical resources at its disposal. This was evidenced by a mean score of 3.75 and 56.6% of the respondents who indicated "great extent" to the statements and 24.5% who indicated a "very great extent" response. The study also revealed that there was no consensus among the respondents in rating this aspect due to a standard deviation of 1.054.

The study further sought to establish the adequacy of financial resources at NHC. In response to this, a mean score of 3.68 was achieved. This implied that on average the respondents tended to agree that to a great extent NHC had adequate financial resources at its disposal. This is further evidenced by 67.9% of the respondents agreeing to the statement. However, a standard deviation less than 1.0 was achieved (standard deviation =.872) which implied that there was consensus among the respondents in rating the aspect of financial resources at NHC.

Focusing on human resources, the study established that majority of the respondents (71.7%) were in agreement that to a great extent NHC had adequate human resources at its disposal. This led to a mean score of 3.58 and a standard deviation of 0.929. The achieved mean score was in the range between 3.5 and 4.5 and this implied that on average the respondents indicated that NHC had adequate human resources at its disposal. There was a moderate consensus in rating this aspect due to a standard deviation of less than 1.0. This is in agreement with Mburu (2017) who noted that resources availability affected the quality of projects, sustainability aspects, cost aspects, and risk management amongst others.

### 7.4. Project Implementation

The extent of project implementation was rated in terms of the quality aspects of the project, timeliness in project implementation and Budget considerations in the in-housing project implementation at NHC. This is in line with Chawla, Chanda, and Angra, (2018) who noted that performance of implementation can be measured through examination of the timelines used in the process, practicality of the forecasted project activities demands, consensus amongst stakeholders on the way forward, acquisition of necessary project approvals and cost of implementation. Table 4 shows the descriptive statistics for project implementation.



Description	Frequency and Percentages					Total	
	NE	SE	ME	GE	GLE	Mean	Std. Dev
The required project implementation quality aspects are being achieved at NHC	2 3.8%	5 9.4%	0 0.0%	43 81.1%	3 5.7%	3.72	0.863
The required timeliness in project implementation is being achieved at NHC	1 1.9%	7 13.2%	12 22.6%	27 50.9%	6 11.3%	3.53	0.973
Budget considerations are being achieved in housing project implementation at NHC	0 0.0%	1 1.9%	16 30.2%	32 60.4%	4 7.5%	3.68	0.701

Table 4: Project Implementation

Note: NE=No Extent, SE=Small Extent, ME=Moderate Extent, LE=Great Extent, And VLE= Very Great Extent

Table 4 shows that the statement that the required project implementation quality aspects are being achieved at NHC had a mean score of 3.72 and a standard deviation of 0.863 were achieved. The achieved mean score implied that on average, the respondents agreed to a great extent that the required project implementation quality aspects were being achieved at NHC. This is further evidenced by the majority of the respondents (81.1%) who were in support of the statement. A standard deviation of less than 1.0 implied that there was consensus among the respondents in rating the quality aspect of project implementation.

In rating the timeliness of project implementation, a mean score of 3.53 and a standard deviation of 0.973 were achieved. The achieved mean score implied that on average the respondents agreed that the required timeliness in project implementation is being achieved at NHC. A standard deviation of less than 1.0 implied that there was consensus among the respondents in rating the extent of project timeliness in implementation. The study further sought to establish whether budget considerations were being achieved in housing project implementation at NHC. In respect to this, a mean score of 3.68 was achieved. This implied that on average, the respondents tended to agree that to a great extent budget consideration were being achieved in housing project implementation at NHC. In respect to the same statement. A standard deviation of 0.701 was achieved. This implied that there was consensus among the respondents in rating the extent of budget adherence in housing project implementation at NHC. The findings of this study are consistent with those by Kitur (2017) who established a positive influence of project implementation aspects on project performance.

## 8. Regression Analysis

The study undertook multiple regression analysis to establish the strength of prediction of the independent variables on the dependent variable. The regression analysis was also used in testing the hypotheses of the study. Table 5 shows the model summary for the regression analysis.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.584 <sup>a</sup>	.341	.300	.042302

Table 5: Model Summary

a. Predictors: (Constant), Resource Availability, Stakeholders involvement, Managers Competence

Table 5 show an R value of 0.584, R Square value of 0.341 and Adjusted R Square value of 0.300. R-value shows the correlation coefficient between observed and predicted values of dependent variable (Saunders, Lewis, & Thornhill, 2009). It shows the goodness of fit of a regression model (Hall, 2015). The R Square value of 0.341 indicates a strong correlation between the observed and predicted value of project implementation and therefore a goodness of fit. R Square value shows the coefficient of determination in a regression equation (Latunde, 2016). In this study, an R Square value of 0.341 implied that 34.1% of the variation in project implementation performance is due to changes in the resource availability, managers' competences, and stakeholder involvement. The achieved adjusted R Square value (less than the R Square value) implies that an additional predictor in the regression model improves the model less than expected (Glaveanu, 2012). A standard error of estimate of 0.42302 was obtained which implied that the regression model provides an accurate prediction. Table 6 shows the significance of the model in its prediction.

The analysis of variance gave the results shown in Table 6.

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	4.531	3	1.510	8.440	.000 <sup>a</sup>
	Residual	8.769	49	.179		
	Total	13.300	52			

Table 6: Anova<sup>b</sup>

a. Predictors: (Constant), Resource Availability, Stakeholders Involvement, Managers Competence

b. Dependent Variable: Implementation Of Hp

The study revealed that the regression model was statistically significant in its prediction due to an F-Value  $F(3,49)=8.440, p=.000$  that was significant at  $p<0.05$  level of significance. This further implied that the regression model provides a better fit for the data than a model that contains no predictor variables. Therefore, resource availability, managers' competences, and stakeholder involvement cumulatively and significantly predict the project implementation performance. The study further sought to establish the influence of each of the independent variable on the dependent variable and whose results are shown in Table 7.

Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.	
B		Std. Error	Beta			
1	(Constant)	1.875	.661		2.835	.007
	Stakeholders involvement	.144	.118	.145	1.220	.065
	Managers Competence	.130	.057	.105	2.281	.003
	Resource Availability	.487	.015	.548	4.240	.000

Table 7: Model Coefficients<sup>a</sup>  
a. Dependent Variable: Implementation of HP

Table 7 shows that there was a positive relationship between the three independent variables of the study and the dependent variable. This is because of positive unstandardized beta coefficients. An unstandardized beta coefficient for stakeholder involvement was 0.144, that for managers' competencies was 0.130 and the unstandardized beta coefficients for resource availability was 0.487. This implied that resource availability had the highest influence on project implementation, followed by managers' competencies and finally stakeholder's involvement.

The first hypotheses ( $H_{01}$ ) stating that there is no statistically significant influence of stakeholder involvement on the implementation of national low-cost housing project failed to be rejected at 5% significance level due to a p-value that was greater than 0.05. This therefore implied that that there is no statistically significant influence of stakeholder involvement on the implementation of national low-cost housing project. This is in contradiction with a study by Abbas, Din, and Farooqui (2016) who noted a positive relationship between stakeholders involvement and project implementation performance aspects.

The second hypotheses ( $H_{02}$ ) stating that there is no statistically significant influence of project managers' competences on the implementation of national low-cost housing project was rejected at 5% significance level due to a p-value of less than 0.05. This therefore implied that that there is statistically significant influence of project managers' competences on the implementation of national low-cost housing project. Consistent to this finding is the study by Njeru (2018) who found out that there was a positive correlation and influence between competence of project managers and the implementation of projects in terms of quality, time scope and budget utilization.

Third hypotheses ( $H_{03}$ ) stating that there is no statistically significant influence of resources availability on the implementation of national low-cost housing project was rejected at 5% significance level due to a p-value of less than 0.05. This therefore implied that that there is statistically significant influence of resources availability on the implementation of national low-cost housing project. A study by Mwangi (2016) concurs with the established findings in this study by noting that there was a positive relationship between the availability of resources for project implementation and project performance.

The following regression model was developed;

$$Y=1.875+ 0.144X_1+ 0.130X_2 + 0.487X_3 +0.042302$$

Where;

Y= Performance of the Implementation

$X_1$  = Stakeholder Involvement

$X_2$ = Project managers' Competences

$X_3$ = Resources availability

## 9. Conclusions of the Study

The study concluded that there was statistically significant influence of project managers' competences on the implementation of national low-cost housing project. Based on regression and correlation analysis, the study arrived at the conclusion that project managers competency significantly influences implementation of low-cost housing project in national government. Hence, it is paramount that managers competence be considered in regard to implementation of low-cost housing projects. In hindsight, the study concluded that stakeholder's involvement does not significantly influence implementation of low cost housing projects in national government. As such, though stakeholder's involvement may be important in the project, it may not determine the outcomes of the process.

In respect to resource availability, the study concluded that there is statistically significant influence of resources availability on the implementation of national low-cost housing project. Correlation analysis demonstrated a positive average significant relationship between resource availability and implementation of low cost housing project. Regression analysis depicts resource availability as the biggest contributor to implementation of low cost housing project by the

national government. As such, resource availability is a prerequisite factor as far as implementation of low-cost housing project by the national government is concerned.

## 10. Recommendations of the Study

The study recommends project planning team to carry out a proper stakeholder identification and analysis in the implementation of low-cost housing project. This will reduce incidences of stakeholder conflicts and court cases and therefore increasing the speed of project implementation. This aspect got the least rating. The study further recommends that employment and involvement of project managers with sufficient professional experience in project management. This will improve the quality and timeliness in project implementation. This aspect was lowly rated by the respondents. In respect to resources availability, this study recommends proper and adequate allocation of financial resources for the implementation of low-cost housing project. This recommendation is based on low rating on the adequacy of financial resources in the implementation of low-cost housing project. For policy making, the study recommends priority to be given on matters regarding stakeholder involvement, then competency aspects of managers and finally resources availability. This was the established order of influence of the independent variables of the study on the dependent variable.

## 11. References

- i. Abbas, A., Din, Z. U., & Farooqui, R. (2016). Achieving Greater Project Success & Profitability Through Pre-Construction Planning : A Case-Based Study. *Procedia Engineering*, 145, 804–811.
- ii. Abdullah, H., & AlNasseri, H. A. (2015). Understanding Applications of Project Planning and Scheduling in Construction Projects. Unpublished Thesis: Lund University.
- iii. Ahmed, D., & Ghandour, M. (2018). Assessing the Risks of Infrastructure Investments in Sudan. *The International Journal of Business & Management*, 6(10), 106–110.
- iv. Anunda, J. S. (2016). Factors Influencing the Performing of Projects Implemented by NGOs in the Health Sector: A Case of HIV/AIDS Projects in Nairobi County, Kenya. Equipments for the Award of the Degree of Master of Arts in Project Planning and Management of the University of Nairobi.
- v. Azmi, N. F., Ruslee, S. N., Adilah, Y., Harumain, S., Nizam, S., Chua, S., ... Peng, A. C. (2019). a Study of Overcrowding Factors in Public Low-Cost Housing in, 10(1), 52–58.
- vi. Bakh, B., Zaharim, A., Sopian, K. Bin, & Moghimi, S. (2013). Housing for Poor People : A Review on Low Cost Housing Process in Malaysia. *WSEAS Transactions on Business and Economics*, 2(9), 232–242.
- vii. Bakh, B., Zaharim, A., Sopian, K. Bin, Saadatian, O., Bakhtyar, B., Zaharim, A., ... Abdulateef, J. (2012). Affordable Quality Housing for Urban Low Income Earners in Malaysia. *Advances in Environmental Science and Sustainability*, 2(3), 60–73.
- viii. Bayani bt Zakaria, I., Redhuan Bin Mohamed, M., bt Ahzahar, N., & Zubaidah bt Hashim, S. (2015). A Study on Leadership Skills of Project Manager for a Successful Construction Project. *International Academic Research Journal of Social Science*, 1(2), 89–94.
- ix. Bergh, D. D., & Ketchen, D. J. (2009). *Research Methodology in Strategy and Management*. Emerald Group Publishing.
- x. Biwott, J. K. (2018). A Study of Challenges Facing Construction Of Affordable Decent Low-Cost Housing In Turkana County. Unpublished Master of Science in Construction Engineering and Management Thesis: Jomo Kenyatta University of Agriculture and Technology.
- xi. Bodicha, H. H. (2015). How to Measure the Effect of Project Risk Management Process on the Success of Construction Projects : A Critical Literature Review. *The International Journal of Business & Management*, 3(12), 99–113.
- xii. Bryman, A. (2012). Using IBM SPSS for Windows. *Social Research Methods*. <https://doi.org/10.4324/9780203410028>
- xiii. Buertey, T. (2016). Stakeholder Management on Construction Projects: A Key Indicator for Project Success. *American Journal of Civil Engineering*, 4(4), 117–126.
- xiv. Chanzu, F. K. (2016). Assessment of Project Management Strategies for Successful Completion of Rural Road Projects in County Government of Vihiga, Kenya. *International Journal of Economics, Commerce and Management*, IV(4), 264–284.
- xv. Chawla, V. K., Chanda, A. K., & Angra, S. (2018). The Sustainable Project Management: A review and Future Possibilities. *Journal of Project Management*, 3(4), 157–170.
- xvi. Chiro, T. E. (2010). Low Cost Housing Delivery Program : An Interpretive Systems Approach. Unpublished Thesis: University of Kwazulu-Natal.
- xvii. Coolican, H. (2009). *Research Methods and Statistics in Psychology 5th Edition*. Psychology, 2, 499 ST-Research Methods and Statistics in Psych. <https://doi.org/10.4324/9780203769669>
- xviii. Creswell, J. w. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches (3rd ed.)*. Sage Publications.
- xix. Ebekozi, A., Abdul-Aziz, A.-R., Jaafar, M., Ebekozi, A., & Jaafar, M. (2018). A Qualitative Approach to Investigate Leakages in Low-Cost Housing Provision in Malaysia. *Malaysian Journal of Society and Space*, 14(4), 262–273.
- xx. Ebekozi, A., & Jaafar, A.-R. A.-A. M. (2015). Financing Low-Cost Housing in Malaysia. *IOSR Joournal of Business and Management*, 2(3), 293–301.

- xx. Edwin, C. (2013). The Challenges of Housing Development for the Low Income Population in Kenya: A Case of Eldoret Town. Unpublished Thesis: University of Nairobi.
- xxi. Elkassas, E., Hosny, H., & Mattr, W. (2013). Optimum Organizational Structure for Construction Projects ( Management Tool of Selecting Organization in Egyptian Construction Market ). *International Journal of Engineering Science and Innovative Technology (IJESIT)*, 2(3), 411–431.
- xxii. Eshaghi, A., Mousavi, S., & Eshaghi, A. (2015). The Application of SWOT Model to Compile Appropriate Strategies for Projects Risk Management in: Fooladtechnic International Company. *Science Journal of Business and Management*, 3(3), 26–34.
- xxiii. Fageha, M. K., & Aibinu, A. A. (2013). Managing Project Scope Definition to Improve Stakeholders' Participation and Enhance Project Outcome. *Procedia - Social and Behavioral Sciences*, 74, 154–164. <https://doi.org/10.1016/j.sbspro.2013.03.038>
- xxiv. Fischer, C. T. (2006). Qualitative Research Methods for Psychologists. *Qualitative Research Methods for Psychologists*. <https://doi.org/10.1016/B978-0-12-088470-4.X5000-5>
- xxv. Franklin, S. (2018). Slums to Failed Estates? Evidence from a Lottery for Low-Cost Housing in Ethiopia.
- xxvi. Gitau, M. (2015). The Effects Of Risk Management At Project Planning Phase On Performance Of Construction Projects In Rwanda. Unpublished Master of Science in Project Management Thesis: Jomo Kenyatta University of Agriculture And Technology.
- xxvii. Glăveanu, V. (2012). *Handbook of Research Methods in Industrial and Organizational Psychology*. New Jersey: Taylor & Francis.
- xxviii. Government of Kenya. (2018a). Eye on the “Big Four.”
- xxix. Government of Kenya. (2018b). Kenya Affordable Housing Programme Development Framework Guidelines.
- xxx. Hall, G. (2015). Research Methods for LLE. *Literature in Language Education*. <https://doi.org/10.1057/9781137331847.0016>
- xxxi. Igwe, N. N., & Ude, A. O. (2018). Project Planning and Implementation in Nigeria: Revisiting International Best Practices. *European Scientific Journal, ESJ*, 14(14), 152. <https://doi.org/10.19044/esj.2018.v14n14p152>
- xxxii. Javed, M. S., Kamil, A., Mahmood, B., & Sulaiman, S. B. (2012). Project Variables in Performance of the Project Planning , Implementation and Controlling Processes. *International Journal of Engineering and Innovative Technology (IJEIT)*, 1(3), 254–267.
- xxxiii. Jayasudha, K., & Vidivelli, B. (2016). Analysis Of Major Risks In Construction Projects. *ARPN Journal of Engineering and Applied Sciences*, 11(11), 6943–6950.
- xxxiv. Khan, J. ., Daniel, P. S., Sam, A. G., Khan, J. ., Daniel, P. S., & Sam, A. G. (2011). *Research Methodology*. Delhi: Gyan Publishing House.
- xxxv. Kisera, N. J., & Muturi, W. (2015). Factors Affecting Performance of Women Investment Groups : A Survey of Gucha Sub County , Kisii County. *The International Journal of Business & Management*, 3(4), 412–419.
- xxxvi. Kitur, H. K. (2017). Influence of Project Planning and Evaluation on Performance of Constituency Development Funded Projects in Public Schools in Rongai District , Kenya. *Scholars Journal of Economics, Business and Management*, 4(12), 893–900.
- xxxvii. Latunde, Y. C. (2016). *Quantitative Research Methods*. New Age Publishers.
- xxxviii. Lin, A. Y., & Parinyavuttichai, N. (2015). Is Project Management and Risk Escalation: Towards A Dynamic Model. *Australasian Journal of Information Systems*, 19(0), 1–22.
- xxxix. Makori, J. O., & Wanyoike, D. (2015). Assessment of Result Based Monitoring and Evaluation on Performance of Donor Funded Value Chain Projects in Kenya. *International Journal of Economics, Commerce and Management United Kingdom*, III(6), 1106–1123.
- xl. Marier-bienvenue, T., Pellerin, R., & Cassivi, L. (2017). Project Planning and Control in Social and Solidarity Economy Project Planning and Control A in Literature Social and Solidarity Economy Organizations : Review Organizations : A Literature Review. *Procedia Computer Science*, 121(1), 692–698.
- xli. Mburu, S. N. (2017). Influence of Project Planning on Sustainability of Road Construction Projects in Nairobi City County, Kenya: A Case of China Wuyi Company Limited. Unpublished Thesis: Management University of Africa.
- xl.ii. Mwangi, S. W. (2016). Do Public-Private Partnerships Deliver Value for Money in Infrastructure Projects? A Critical Literature Review. *The International Journal of Business & Management*, 4(1), 169.
- xl.iii. Naeem, S., Khanzada, B., Mubashir, T., & Sohail, H. (2018). Impact of Project Planning on Project Success with Mediating Role of Risk Management and Moderating Role of Organizational Culture. *International Journal of Business and Social Science*, 9(1), 88–98.
- xl.iv. Nawi, H. S. A., Rahman, A. A., & Ibrahim, O. (2012). Government ICT Project Failure Factors : Project Stakeholders ' Views. *Journal of Research and Innovation in Information Systems*, 2, 69–77.
- xl.v. Ndambuki, D. M. (2017). Sustainability of Government Sponsored Community Based Projects in the Rural Areas in Kenya. *The International Journal of Business & Management*, 5(4), 11–16.
- xl.vi. Ngxubaza, V. (2010). An Investigation of the Low Cost Housing Process with Specific Reference to the Mbashe Local Municipality. Unpublished Master of Technology Thesis: Cape Peninsula University of Technology.
- xl.vii. Nicholson, H. (2011). *Research Methods in Theatre and Performance*. *Research Methods for the Arts and the Humanities*, 3(4), 1–33.
- xl.viii. Njeru, I. M. (2018). Influence of Monitoring and Evaluation Strategies on Performance of Medical Camp Projects in Hospitals in Kenya: A Case of Embuy North Sub County. *International Academic Journal of Information Sciences and Project Management*, 3(1), 61–73.

- xlix. Nzekwe, J. U., Oladejo, E. I., & Emoh, F. I. (2015). Project Failure as a Reoccurring Issue in Developing Countries: Focus on Anambra State, South East Nigeria. *International Journal of Energy and Environmental Research*, 3(3), 1–20.
- I. Obi, L., & Arif, M. (2012). A Case For Target Value Design Towards Effective Low-Cost Housing Project Cost Management And Performance In South-East Zone Nigeria.
  - ii. Okumu, E. A. (2014). Strategy, Technology and Innovation in Low Cost Housing by Elsek and Elsek (Kenya) Limited. Unpublished Master of Arts in Project Planning and Management: University of Nairobi.
  - iii. Ramata, A. (2017). Factors Influencing Building Construction Projects Costs Management In Commercial Real Estate In Nairobi County , Kenya. Unpublished Master of Arts in Project Planning and Management Thesis: University of Nairobi.
  - liii. Saunder, M., Lews, P., & Thornhill, A. (2009). *Research Methods for Business Students* (4th ed.). Harlow: Prentice Hall Financial Times.
  - liv. Sekaran, U., & Bougie, R. (2011). *Research Methods for Business: A Skill Building Approach* (5th ed.). Delhi: Aggarwal Printing Press.
  - lv. Shani, F. (2014). Implementation of Public-Private Partnerships at Kajiado County, Kenya. Unpublished Master of Business Administration Thesis: University of Nairobi.
  - lvi. Shirish, T. S. (2012). *Research Methodology in Education*. Lulu Publications.
  - lvii. Siganda, S. M., & Sigand, S. M. (2012). Factors Influencing Implementation of Projects In State Owned Sugar Firms In Kenya : The Case of South Nyanza Sugar Company Limited. Unpublished Master of Arts in Project Planning and Management Thesis: University of Nairobi.
  - lviii. Sulaiman, F. C., Hasan, R., & Jamaluddin, E. R. (2016). Users Perception of Public Low Income Housing Management in Kuala Lumpur. *Procedia - Social and Behavioral Sciences*, 234, 326–335. <https://doi.org/10.1016/j.sbspro.2016.10.249>
  - lix. Tafawa, A. (2015). Project Management Theory Exploration for Indigenous Contractors ' Project Planning in Nigeria Department of Quantity Surveying, 5(3), 60–72.
  - lx. Thobane, A. (2009). The Feasibility of a Green Procurement Practice for Low Cost Housing in the City of Tshwane Metropolitan Municipality vd Walt. Unpublished Masters in Environmental Management Thesis: North West University.
  - lxi. Tushabomwe, D. (2014). NGO Accountability in Uganda : Analyzing the Reasons, Challenges and Remedial Postulates Abstract : *The International Journal of Humanities & Social Sciences*, 2(7), 390–398.
  - lxii. UN Habitat. (2019). *Low-income Housing*.
  - lxiii. Upagade, V., & Shende, A. (2012). *Research Methodology* (2nd ed.). Ram Nagar, New Delhi: S.Chad and Company Ltd.
  - lxiv. Varajão, J., Dominguez, C., Ribeiro, P., & Paiva, A. (2014). Critical Success Aspects in Project Management: Similarities and Differences between the Construction and the Software Industry. *Technical Gazette*, 3(2), 583–589.
  - lxv. Zaid, S. (2015). Is Public Low-Cost Housing In Malaysia Really Affordable ? Measuring Operational Affordability Of Public Low-Cost Housing In Kuala Lumpur. *International Academic Conference*, 1–19.