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PROJECT MANAGEMENT PRACTICES AND SUCCESS OF HOUSING PROJECTS IN NAIROBI CITY COUNTY, KENYA

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ABSTRACT

Project Management best practices institutionalization in both public and private sectors play a critical role in success of projects. Cases of project failure and poor management practices continue to be reported despite many studies having been done highlighting areas that have been weighed and found wanting. These studies have made various recommendations but improvements with regards to institutionalizing best practices in project management remain insignificant especially in the public sector. This study sought to establish the influence of project management practices on project success of housing projects in Kenya. The study focused on to examine how risk management influences success of housing projects in Kenya and also establish the extent to which scope management influences success of housing projects in Kenya. The study adopted descriptive survey design. The study population comprises of 4678 project managers, architects and site foremen at this housing construction site. Primary data was collected using semi-structured questionnaire. Pilot study was conducted in to test validity and reliability. Quantitative data was analyzed descriptively using frequencies, Mean, Standard deviation and percentage while Pearson's Product Moment Correlation Coefficient and Multiple linear regression analysis with aid of SPSS version 25 was used to generate inferential statistics. The data was presented in form of tables. Qualitative data was analyzed using content analysis. The findings of this study are useful to top executives, project managers, donors, project management staff and project beneficiaries. This study also enriches the literature that is currently available on how best to institutionalize project management best practices and extend the horizons of knowledge in the discipline of project management. The study concludes that stakeholder management has a significant effect on success of housing projects in Kenya. The study also concludes that scope management has a significant effect on success of housing projects in Kenya. From the findings, this study recommends that the organization should implement an integrated stakeholder engagement, transparency, accountability, crisis management and continuous improvement in housing projects in Kenya. In addition, the organization should prioritize in comprehensive risk assessment and mitigate strategies tailored to the local context.

Key words: Stakeholder Management, Scope Management, success of Housing projects

Background of the Study

Project management has obtained a reputation from industry and academia as a discipline that helps a project and organization achieve improved performance (Suk, Mulwa *et al* ,2017). There is substantial research supporting the value of institutionalizing best practices in project management. However, its effective implementation in many organizations especially in the public remains elusive (Ajmal, Malik & Saber, 2017). Furthermore, identifying practices that contribute to successful project management is still a challenge with term "project success" also subject to different opinions. In this regard, Fernandes, Ward and Arauj (2014) note that although there is sufficient literature on how project management provides advice on how to improve project management practice, organizations need guidance on the key project management initiatives they should put more efforts on.

According to Kerzner (2018) building of project management practices and methodologies is centered on unique organizational culture of each company and how each of the companies undertakes their team work, problem solving and decision making. These views are also supported by Wana, Ogola and Datche (2019) who allege that organizations that implement projects successfully have effective project management practices in place as tools to achieve business objectives and align projects to organizational goals. While the knowledge in project management theory is gaining grounds especially in academia, there is still much to be done especially regarding the full integration of the project management practice (Ahadzie, Kissi & Adjei-Kumi, 2012).

According Besner and Hobbs (2013) project management is practiced in many different contexts, each with its particular management problems. Project management practices institutionalization is crucial today despite the different contexts of application, as it leads to better development of projects, management of resources within time, cost, and quality constraints. Further there is need for organizations to confirm the strategic alignments of their projects with the organization goals before the application of best practices (Ferreira *et al.*, 2013; Fraz, Asim, Saad, Mohsin, Syed & Safia, 2016; Fitsilis & Chalatsis, 2014).

Indeed from a review of literature, there are ten project management practices also referred to as" knowledge areas" to be adopted; time management, human resource management, cost management, scope management, communication management, stakeholder management, procurement management, change management, risk management and integration management (PMI, 2013).Some literature sources tend to look at initiating, planning, executing, controlling, and closing (project life cycle) as the practices in project management (Alotaibi, 2019). This study will focus on the role of management of project communication, project risk, project scope and project stakeholder in enhancing chance of project success.

The application of best project management practices has become important issue in many developed countries due to its successful application in various industries and its proven effectiveness and flexibility in attaining project goals and objectives (Haron, Devi, Hassim,Tahir & Harun, 2017). According to PMI (2017), 21% of World organizations have standardized project management practices for their projects and project success rates have improved significantly. From this statistic, it shows clearly that project management practices have not yet been fully embraced globally or it is still in its infancy stages. Monteiro de Carvalho (2013) assert the fact that while the practices may have been institutionalized in organization's project management methodology, possibilities of not being followed or being prioritized by project managers could be a reality in Brazil.

Abuya (2015) notes that, from an analysis of 10 surveys conducted in United Kingdom, the findings reveal that in the last decade a general perception of dissatisfaction over project success and the need to improve on practices that would enhance success rates. Ouko (2014) observed from his studies that in North America, project management has a potential still to be fulfilled. He pointed out that news media in North America are littered with stories of failed

projects. He gave an example of the launch of the Affordable Care Act (Obamacare) registration website which he described as a disaster.

A number of studies reveal a lack of understanding of the rudiments of project management as major barriers towards the advancement of project management in most developing countries especially in the public sector. According to Ika (2012) from, despite project management being heralded as a promising approach for international development, underdevelopment in Africa including Nigeria has worsened due to poor project management practices. Abbasi *et al*. (2000) in agreement asserts that the state of project management practices in Africa, are still in early phases of development. These views are also supported by Kissi and Ansah (2014) who further adds there is lack of Professional Project Management Practices (PPMP) in developing countries which has resulted in low productivity and poor quality of projects. Kaliba, Muya and Mumba (2009) note that there is difficulty of administration rather than nature of projects which is the main trouble when it comes to institutionalization of project management practices with focus on Road Construction Projects in Zambia.

Wana *et al.* (2019) posits that Kenya as a country has witnessed a substantial increase in the number of stalled projects due to inappropriate project management practices. Furthermore, they assert that evidence shows that the performance of the projects in Kenya is poor and is often characterized by time and cost overruns, example being in power projects. Over 70% of the projects initiated are likely to escalate with time with a magnitude of over 50% therefore this gives room for viable practices to be incorporated.

The same views are shared by Kimani and Kimwele (2015), who further add that when project management practices are influenced by different operational parties, coordination and management of the same becomes impossible with each operational party influencing a project in their direction. Kimani and Kimwele (2015) recommend that organizations should institutionalize new project management practices to improve on projects delivery, cost saving, improved service to the nation and better organization management. Mohamad (2010) recommends adequate budgets, timely issuing of information, streamlined management structures and efficient legal processes as some of the new project management practices that can be adopted.

According to Nyika (2012) only 20.8 % of the projects were implemented on time and budget, while 79.2 % exhibited some form of failure in Kenya between the year 2000 and 2011. This scenario seems to be affecting key projects among them, infrastructural projects, Water and Irrigation projects like Galana/ Kulalu Food Security Project, Arror and Kimwarer dams, Huduma Number, Big Four legacy projects, among others.

A review from (Rwelamila & Purushottam, 2012; Sseagwa & Ngowi, 2009) reveals that the symptoms of project failure are same across Africa, and Kenya is among them. These symptoms according to these authors represent a significant plethora of bad project management practices. The symptoms highlighted are stakeholder's dissatisfaction with project deliverables, archaic project missions, little top management support, curriculum for project management is outdated, inappropriate schedules and plans, lack of stakeholders consultation, inappropriate recruitment and training of project managers and core teams, lack of sufficient monitoring and feedback during project implementation, inabilities to handle unexpected crises and deviations from project plans, excessive power and politics, negative impacts from environmental events and lack of urgency especially in public sector projects.

Statement of the Problem

The success of a project is a primary consideration in any project, and different strategies are usually employed to ensure better project performance. Over time, different studies have attempted to examine the different project management practices affecting housing projects' success. Time and cost are two critical indicators of project success; however, it has been found that 9 out of 10 projects experience cost overruns (Flyvbjerg et al., 2014), and the cost overruns

can be as high as 183% (Odeck, 2014), suggesting that the project management practices are not effective.

According to the Vision 2030 strategy, the construction industry is expected to grow at a rate of 10% per year, contributing significantly to the country's Gross Domestic Product (GDP). The construction sector's contribution to Kenya's GDP has been increasing steadily over the years, with the latest figures indicating that it accounted for 7.2% of the country's GDP in 2020, up from 6.6% in 2019 (Kenya National Bureau of Statistics, 2021). This demonstrates the significant role that the construction industry plays in driving economic growth in the country.

The inability to complete projects on time and within budget continues to be a chronic problem worldwide and is worsening. Overruns on construction projects are a universal phenomenon; even so, it is more severe in developing countries like Kenya. That it is now a norm to have time and cost overruns on public sector projects. In fact, the Africa construction trend report (2017) by Deloitte, detailed it with impeccable precision. The report indicated that 87 per cent of Kenya's public sector projects experience time delays while 48 per cent suffer cost overruns. Simply put; it is now almost a guarantee that any public project launched will delay and half a bet that it will be above budget.

The project management practices, specifically planning, resource scheduling, communication, and monitoring and evaluation have a substantial influence on the success of housing projects and addressing the identified challenges. In the past few years in Kenya, there has been an increase in the number of property developers bringing in different models of housing to the real estate sector. However, there exist several critical elements that have arisen in relation to the project performance executed by the developers (Kihoro & Waiganjo, 2013). According to Musyoka (2017), the success of these housing project often depends on the project management practices employed in particular projects. The lack of proper project planning, effective resource scheduling, effective project communication, and project monitoring and evaluation has continually led to the poor performance of Housing projects.

While the reviewed studies have examined the link between project management practices and the performance of most public and other construction projects, the studies focusing on the influence of project management practices on the performance of housing projects in Nairobi City County could not be found. Therefore, the current study attempts to address the gap by examining the project management practices on success of housing projects in Kenya.

General Objective

The general objective this study is to establish the effect of project management practices on success of housing projects in Kenya.

Specific Objectives

i. To examine the influence of Stakeholder Management on success of housing projects in Kenya
ii. To establish the influence of Scope Management on success of Housing projects in Kenya.

Theoretical Review

This study is founded on the, Theory of constraints (Goldratt, 1984), Stakeholder theory (Freeman, 1984).

Stakeholder Theory

Stakeholder theory was postulated by Freeman (1984) and it states that every individual or a group involved in a project will always safeguard their interests. The theory touches on stakeholders' management in relation to the project and its outcome. This theory examines personalized preferences while attempting to satisfy as many of those preferences as possible.

Generally, stakeholder theory argues that every individual or a group involved in a project do so to safeguard their interests. Stakeholders as earlier reviewed are individuals or groups that have interests on the project that is being undertaken (Macharia, 2013). This theory is further supported by Friedman (2006) who states that the organization should be thought of as grouping of stakeholders and the purpose of the organization is to manage their interests, needs and viewpoints.

According to stakeholder theory, project consists of various stakeholders whose participation is critical for project success, a view in line with this study. The theory postulates that project managers need to ensure that all stakeholders are satisfied with the project implementation process and that stakeholder' interests and their relationship is well taken care of for the long-term success of the project. This theory explains variable on stakeholder management.

Theory of Constraints

It is argued that this theory should be applied initially for project time management, although it also can be used for project risk assessment and cost management. Moreover, timelines are a major constraint in project execution because of the need for positive cash flow, reducing contingency costs of delays and need for scope changes. Therefore, the two key underlying features in using theory of constraints are the availability of critical resources, and the ability of organizations to mobilize these resources in a timely manner to meet project schedules and maximize resource utilization (Parker *et al*., 2015).

According to Blackstone (2010), the success of project depends on effective planning. The main argument of the theory is that project can be managed in such a way that it is not restricted from achieving its scope by proper planning. During project planning we can foresee the constraints that may hinder success of the project with respect to complexity. The theory explains the concept of scope management.

Conceptual Framework

A conceptual frame work is defined as a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation (Kombo and Tromp, 2009). A conceptual framework refers to a research tool intended to assist a researcher to develop awareness and understanding of the situation under scrutiny and to communicate it. It is a diagram that visually shows the relationship between the independent and dependent variable of the study

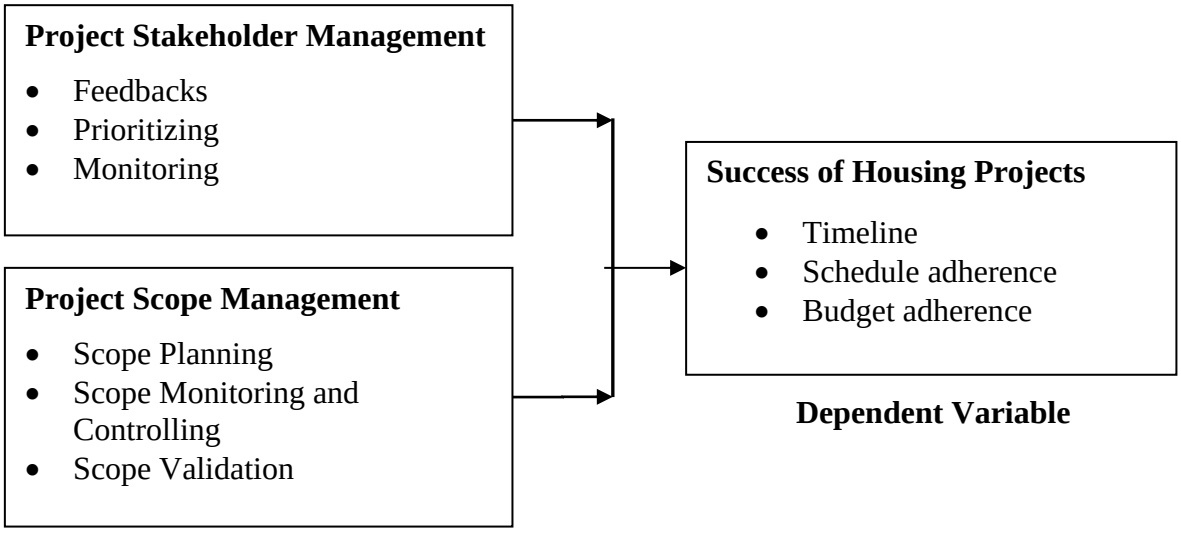

Figure 1: Conceptual Framework

Stakeholder management involves taking on board all the stakeholders at each stage of the project (Fraz *et al.,* 2016). According to Alotaibi (2019) project stakeholder management consists of processes required to identify people related to the project, organizations and groups who may affect the project or may be affected by the project. Freeman (1984) defines a stakeholder as any group or individual who can affect or is affected by the achievement of the organization's objectives. In other words stakeholders are individuals or groups that either directly or indirectly are affected by the performance of the organization. According to Project Management Body of Knowledge (PMBOK) project stakeholders are individuals and organizations that are actively involved in the project or whose interest may be positively or

According to PMBOK (2013) project scope refers to all the work or tasks that need to be done to deliver a product, service, or result with the specified features and functions. Further, there are three processes which entail project scope management, which consist of planning, controlling and closing (Snyder, 2014). Brandon (2006) defines project scope as a description of the project work to be performed in terms of the expected results. According to PMI (2008) project scope management is concerned with defining and controlling what is and what is not included in the project. The PMBOK identifies six processes the entail successfully defining and controlling the project scope: plan scope management, collect requirements, define scope, create Work Breakdown Structure (WBS), validate scope, and control scope.

The term projects success continues to generate a lot of debate with no consensus regarding the criteria to evaluate success among project management practitioners and academicians (Gomes & Romão, 2016; Hussein, Ahmad & Zidane, 2015; Collins & Baccarini, 2004). According to Hussein *et al.* (2015) over the last two decades, there has been a lot of research on the concept of project success criteria. The benchmark for measuring project success varies among different practitioners and perhaps it's the reason as to why stakeholders' differences remain a challenge in project management (Hammond, 2018). The authors note that the current research within this field could be grouped into the following three areas: an assessment of project success at or after project completion, the importance of defining project success criteria up-front in the project for managing the project and the potential threats and challenges influencing the initial definition of project success criteria.

RESEARCH METHODOLOGY

The study adopted a descriptive research design since the study intends to gather quantitative data that describes the nature and characteristics of project management practices within public primary schools in Western Kenya. Sekaran and Bougie (2011) add that this design helps one to understand the characteristics of a group in a given situation and assists in systematic thinking about aspects of a given situation. This design allows researchers to collect quantitative data which can be analyzed quantitatively using inferential statistics (Saunders *et al.,* 2009). This study considers this design appropriate since it facilitates gathering of reliable data while describing the true characteristics of project management practices within public primary schools.

The study population comprises of 4678 project managers, architects and site operations managers at this housing construction site. A sampling Frame is the list of elements from which the sample is actually drawn (Kombo & Tromp, 2006). Each project site has project managers, architects and site operations managers and it's from this that the sample was selected.

The sample size of 384 respondents were derived from the target population using Fishers sample size determination formula. Since the study population is less than 10, 000, the total sample size is determined by use of Mugenda and Mugenda (2012) as effective for social sciences, for samples less than 10,000. Based on the total population 4678, a sample size will be determined using Fisher's formula since the target population consists of a large number of units (Brymann, 2016). The researcher assumes 95% desired level of confidence, which is

equivalent to standardized normal deviate value of 1.96, and an acceptable margin of error of 5% (standard value of 0.05).

$n = z^2pq/e^2 = 384$;

Where: n = the desired sample size (if target population is large)

z = the standard normal deviate at the required confidence level.

P = the proportion in the target population estimated to have characteristic being measured.

q = 1-p d = the level of statistical significance set.

Assuming 50% of the population have the characteristics being measured, q=1-0.5

Assuming we desire accuracy at 0.05 level.

The Z-statistic is 1.96 at this level.

Therefore $n= (1.96)^2(.5)\ (.5)/\ (.05)^2 =384$.

The research instruments for data collection in this study was a self-administered structured questionnaire and document review. The self-administered structured questionnaire was used to collect quantitative data from sampled board of management members. The questionnaire was closed-ended and open ended. Besides utilizing questionnaires, the study reviewed various documents from the Ministry of housing to find out the number of projected completed between 2013 and 2021.

The study used self-administered questionnaires as a research instrument to collect data from the respondents by dropping them and picking completed questionnaires after one week. The researcher trained and hired the services of 4 research assistants to aid in data collection using questionnaires from normal employees.

A pilot study was undertaken to pretest data collection instrument for validity and reliability. According to Mugenda and Mugenda (2003), sample size of between 10 and 30 is good representation of the target population hence 10% is adequate for pilot study. Therefore, 10% of 384 which is 38 respondents were involved in pilot study. The study used different groups of experts in the field of project management and issued them with the questionnaires. The recommendations from the experts and the pilot study respondents were used to improve on data collection instruments. Data validity played an important role towards generalization of the gathered data to reflect the true characteristics of the study problem. Reliability analysis was conducted using Cronbach's alpha to determine whether the data gathered on each variable has a significant relationship with the project management practices. According to Sekaran and Bougie (2009) Cronbach alpha closer to 1 is recommended. Therefore, this study will use Cronbach alpha of above 0.7

The study generated quantitative data from the structured questionnaire. Descriptive and inferential statistics were used to analyze quantitative data after appropriate data coding. Descriptive statistics to be used included frequencies, percentages, mean and standard deviation. Inferential statistics was used to establish the associations and relationships between the independent variable (project management practices) and the dependent variable (project success). The relationship between level of the independent and dependent variables will be measured using Pearson Correlation and regression analysis.

The study used linear regression analyses; linear multiple regression and hierarchical linear regression. Linear regression was used to test relationship between variables due to linear relationship between the variables. The following regression model was used for quantitative procedures examining the relationship between independent and dependent variables;

DATA ANALYSIS AND PRESENTATION

The sample size of the study was 384 respondents. The questionnaires were dropped off and picked up later after they were filled by the respondents. Out of 384 questionnaires which were distributed, 340 were duly filled and returned. The drop-off and pick-up-later method yielded the high response rate of 89% According to Babbie (2017), a response rate of 75 per cent is adequate for analysis as well as making conclusions and inferences about a population. This implies that the response rate of 89% was adequate for analysis, drawing conclusions and reporting

Pilot Test Results

In this study, A pilot study was undertaken to pretest data collection instrument for validity and reliability. Therefore, 10% of 384 which is 38 respondents were involved in pilot study.

In this study, Reliability was determined using Cronbach's alpha to determine whether the data gathered on each variable had a significant relationship with the project management practices. According to Sekaran and Bougie (2019) Cronbach alpha closer to 1 is recommended. Therefore, a Cronbach alpha of 0.7 and above was considered an indicator of reliability. As shown in Table 1, stakeholder Management had an average Cronbach's reliability alpha of 0.765, scope Management had a Cronbach's reliability alpha of 0.781 and project success had an average Cronbach's reliability alpha of 0.777. This shows that the study questionnaire met the reliability criteria ($\alpha>0.7$).

Table 1: Cronbach's Alpha Reliability Results

Variables	No of items	Cronbach Alpha	Comment
Stakeholder Management	6	0.765	Accepted
Scope Management	10	0.781	Accepted
Project success	5	0.777	Accepted

To.. ensure content validity, the questionnaire was subjected to thorough examination through the assistance of the supervisors and other lecturers in the field of project management. They were asked to evaluate the statements in the questionnaire for relevance and whether they were meaningful, clear and loaded of offensive. On the basis of the evaluation, the instrument was adjusted appropriately before subjecting it to the final data collection exercise. Their review and comments ensured that content validity is enhanced.

Descriptive Statistics

Stakeholder Management and Project Success

The objective of the study was to establish the effect of stakeholder management on success of housing projects in Kenya. The respondents were requested to indicate their level of agreement on various statements relating to stakeholder management and success of housing projects in Kenya. The results were as shown in Table 2.

From the results the respondents agreed that people selected as stakeholders had competing agendas which were not revealed at the start of the project (M=3.915, SD= 0.437). In addition, the respondents agreed that people selected have requisite skills to handle the project and freely voice their concerns if need be before decision are made (M= 3.866, SD= 0.617). Further, the respondents agreed that the project team members are selected at a point that they have the greatest impact on the project (M=3.739, SD= 0.552). The respondents also agreed that people selected as stakeholders benefit from projects initiated (M= 3.678, SD= 0.622). From the results, the respondents agreed that the project team or organization selected holds a position from which they can influence the project (M= 3.507, SD= 0.894).

Based on the findings as supported by majority of the respondents, it was evident that stakeholder management affected success of housing projects in Kenya as supported by an

aggregate mean of 3.741 (SD= 0.624). The study findings agree with those of Macharia (2013) that stakeholder management is a key factor which influences project success.

Table 2: Stakeholder Management and Project Success

	Mean	Std. Deviation
People selected as stakeholders benefit from projects initiated.	3.678	0.622
The project team members are selected at a point that they have the greatest impact on the project.	3.739	0.552
The project team or organization selected holds a position from which they can influence the project.	3.507	0.894
People selected have requisite skills to handle the project and freely voice their concerns if need be before decision are made.	3.866	0.617
People selected as stakeholders had competing agendas which were not revealed at the start of the project.	3.915	0.437
Aggregate	**3.741**	**0.624**

Scope Management and Project Success

The objective of the study was to establish the effect of scope management on success of housing projects in Kenya. The respondents were requested to indicate their level of agreement on various statements relating to scope management and success of housing projects in Kenya. The results were as shown in Table 3.

From the results the respondents agreed that there is a clear way of tracking and measuring critical project achievements (milestones) as the project progresses in line with objectives at every stage of implementation (M=3.988, SD= 0.868). In addition, the respondents agreed that all the project activities identified are known from the onset of the project (M= 3.978, SD= 0.712). Further, the respondents agreed that during scope planning all key stakeholders were involved (M=3.885, SD= 0.598). The respondents also agreed that changes in project activities resulted to change in Project cost (M= 3.866, SD= 0.676). From the results, the respondents agreed that there is a detailed scope statement which was availed to all the project stakeholders before the project was executed (M= 3.789, SD= 0.889).In addition, the respondents agreed that there was a scope management plan initiated before project execution (M=3.777, SD=0.677). Further, the respondents agreed that there were project team members who were experienced in scope planning (M=3.699, SD=0.688). From the results, the respondents agreed that changes in project activities resulted to change in project schedule/time (M=3.675, SD=0.474). In addition, the respondents agreed that in case there is need to change the project scope, a scope change request form is filled, analyzed, reviewed and approved by stakeholders (M=3.657, SD=0.894). Further, the respondents agreed that change in project activities results to change in project outcome quality (M=3.599, SD=0.662).

Based on the findings as supported by majority of the respondents, it was evident that scope management affected success of housing projects in Kenya as supported by an aggregate mean of 3.791 (SD= 0.714). The study findings agree with those of Njau and Ogolla (2017) that scope management is a key factor which influences project success.

Table 3: Scope Management and Project Success

	Mean	Std. Deviation
All the project activities identified are known from the onset of the project	3.978	0.712
Change in project activities results to change in Project outcome quality	3.599	0.662
In case there is need to change the project scope, a scope change request form is filled, analyzed, reviewed and approved by stakeholders	3.657	0.894
Changes in project activities resulted to change in Project cost	3.866	0.676
Changes in project activities resulted to change in Project schedule/time	3.675	0.474
During scope planning all key stakeholders were involved.	3.885	0.598
There is a clear way of tracking and measuring critical project achievements (milestones) as the project progresses in line with objectives at every stage of implementation.	3.988	0.868
There were project team members who were experienced in scope planning.	3.699	0.688
There was a scope management plan initiated before project execution.	3.777	0.677
There is a detailed scope statement which was availed to all the project stakeholders before the project was executed.	3.789	0.889
Aggregate	**3.791**	**0.714**

Project Success

The respondents were requested to indicate their level of agreement on various statements relating to project success in Kenya. The results were as shown in Table 4. From the results the respondents agreed that the project received a clan bill from the auditors and other stakeholders on implementation (M=3.899, SD= 0.692). In addition, the respondents agreed that the project has satisfied the stakeholders 'needs as intended (M= 3.896, SD= 0.686). Further, the respondents agreed that the project used efficiently the resources as per the budget plan (M=3.757, SD= 0.894). The respondents also agreed that the project schedule achieved original timeline as set out in the project plan (M= 3.678, SD= 0.612).

Table 4: Project Success

	Mean	Std. Deviation
The project schedule achieved original timeline as set out in the project plan.	3.678	0.612
The project received a clan bill from the auditors and other stakeholders on implementation.	3.899	0.692
The project used efficiently the resources as per the budget plan.	3.757	0.894
The project has satisfied the stakeholders 'needs as intended.	3.896	0.686
Aggregate	**3.808**	**0.721**

Correlation Analysis

The present study used Pearson correlation analysis to determine the strength of association between independent variables (stakeholder management and scope management) and the dependent variable (project success). Pearson correlation coefficient range between zero and one, where by the strength of association increase with increase in the value of the correlation coefficients.

Table 5: Correlation Coefficients

		Project Success	Stakeholder Management	Scope Management
Project Success	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	340		
Stakeholder Management	Pearson Correlation	.896**	1	
	Sig. (2-tailed)	.002		
	N	340	340	
Scope Management	Pearson Correlation	.853	.058	1
	Sig. (2-tailed)	.003	.286	
	N	340	340	340

**. Correlation is significant at the 0.01 level (2-tailed).

The results revealed that there is a very strong relationship between stakeholder management and success of housing projects in Kenya (r = 0.896, p value =0. 002). The relationship was significant since the p value 0. 002) was less than 0.05 (significant level).The findings are in line with the findings of Macharia (2013) that there is a very strong relationship between stakeholder management and project success.

The results also revealed that there was a very strong relationship between scope management and success of housing projects in Kenya (r = 0. 853, p value =0. 003). The relationship was significant since the p value 0. 003 was less than 0.05 (significant level). The findings are in line with the results of Njau and Ogolla (2017) who revealed that there is a very strong relationship between scope management and project success.

Regression Analysis

Multivariate regression analysis was used to assess the relationship between independent variables (stakeholder management and scope management) and the dependent variable (project success).

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.922	.850	.849	.10428

a. Predictors: (Constant), stakeholder management and scope management

The model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The r-squared for the relationship between the independent variables and the dependent variable was 0.850. This implied that 85% of the variation in the dependent variable (project success) could be explained by independent variables (, stakeholder management and scope management).

Table 7: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	141.081	2	35.270	1629.10	.000[b]
	Residual	7.254	336	. 02165		
	Total	148.335	339			

a. Dependent Variable: project success

b. Predictors: (Constant), stakeholder management and scope management

The ANOVA was used to determine whether the model was a good fit for the data. F calculated was 1629.10 while the F critical was 2.399. The p value was 0.000. Since the F-calculated was greater than the F-critical and the p value 0.000 was less than 0.05, the model was considered as a good fit for the data. Therefore, the model can be used to predict the influence of stakeholder management and scope management on project success.

Table 8: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.239	0.061		3.918	0.000
	stakeholder management	0.357	0.098	0.356	3.643	0.002
	scope management	0.375	0.099	0.376	3.788	0.003

a Dependent Variable: project success

The regression model was as follows:

$Y = 0.239 + 0.357X_1 + 0.375X_2 + \varepsilon$

The results revealed that stakeholder management has significant effect on success of housing projects in Kenya, β1=0.357, p value=0. 002). The relationship was considered significant since the p value 0. 002) was less than the significant level of 0.05. The findings are in line with the findings of Macharia (2019) that there is a very strong relationship between stakeholder management and project success.

In addition, the results revealed that scope management has significant effect on success of housing projects in Kenya, β1=0.375, p value= 0. 003). The relationship was considered significant since the p value 0.003) was less than the significant level of 0.05. The findings are in line with the results of Njau and Ogolla (2017) who revealed that there is a very strong relationship between scope management and project success.

Conclusions

The study concludes that stakeholder management has a significant effect on success of housing projects in Kenya. The study findings revealed that consultation, prioritizing and monitoring significantly influences success of housing projects in Kenya

The study also concludes that scope management has a significant effect on success of housing projects in Kenya. The study findings revealed that scope planning, scope monitoring and controlling and scope validation significantly influences success of housing projects in Kenya

Recommendations

From the findings, the organization should foster strong stakeholder engagement and collaboration in housing projects in Kenya and this can gain valuable insights, build support, mitigate risks and ultimately increase the likelihood of successful project delivery while fostering positive social and economic impacts within the communities they serve.

The organization should also implement robust scope management processes in housing projects in Kenya which can minimize project risks, optimize resource utilization, and enhance stakeholder satisfaction by delivering projects that meet their intended objectives within agreed-upon timelines and budgets.

This study was limited to project management practices on success of housing projects in Kenya hence the study findings cannot be generalized to success of other projects in Kenya. The study therefore suggests further studies on project management practices on success of other projects in Kenya.

REFERENCES

Abuya, H.M. (2015).*Influence of effective management practices on project performance in Sotik Sub-County, Bomet County, Kenya*. Unpublished Masters' dissertation, University of Nairobi.

Aiken, L. S., & West, S. G. (1991). *Multiple regression*: *Testing and interpreting interactions*. Newbury Park: Sage.

Ajmal,M., Malik, M., & Saber, H. (2017). Factor analyzing project management practices in the United Arab Emirates. *International Journal of Managing Projects in Business, 10* (4), 749-769.

Alias,Z., Ahmad, Z., & Idris, M.F.M. (2012).Project Management towards best practice. *Procedia-social and Behavioral Sciences*, 68 (2), 108-120.

Alotaibi, A.B.A (2019) *Project Management: The Implication of Project Management Practices on Project Success in Saudi Arabia.* Unpublished Doctoral Thesis. University of Portsmouth.

Baccarini, D. (1996). The concept of project complexity— a review. *International journal of project management*, 14(4), 201-204.

Baccarini, D. (1999). The logical framework method for defining project success. *Project management journal*, 30(4), 25-32.

Besner, C. and Hobbs, B. (2012), "The paradox of risk management: a project management practice perspective", *International Journal of Managing Projects in Business*, Vol.5 No.2, pp.230-247

Besner, C., & Hobbs, B. (2008). Project Management Practice: Generic or Contextual: A Reality Check. *Project Management Journal*, 39 (1), 16-33.

Besner, C., & Hobbs, B. (2013).Contextualized project management practice: A cluster analysis of practices and best practices. *Project Management Journal*, 44(1), 17-34.

Dane, F. C. (1990). *Research methods (Vol. 120)*. Pacific Grove, CA: Brooks/Cole Publishing Company.

Denscombe, B. (2008).*Research Methods (4 ed.).*Pearson Publishers.

Fernandes, G., Ward, S., & Arauj, M. (2014*).* Developing a framework for embedding useful project management improvement initiatives in organizations. *Project Management Journal*, 45(4), 81-108.

Ferreira, M., Tereso, A., Riberio, P.,Fernandes, G., & Lourerio, I. (2013).Project Management Practices in Private Portuguese Organizations. *Procedia Technology*, 9 (2013), 608-617.

Fitsilis, P., & Chalatsis, T. (2014).Adoption of Project Management Practices in Public Organizations. *Ibusiness*, 6(03), 131.

Fraz, A.,Asim, W., Saad, A.,Mohsin, J., Syed, T.H.S., & Safia, S. (2016).Effect of Project Management Practices on Project success in Make-to-Order manufacturing Organizations. *Indian Journal of Science and technology*, 9 (21), 1-8.

Freeman, R. E. (2010). *Strategic management: A Stakeholder Approach.*Cambridge University Press. USA.

Freeman, R.E. (1984) *Strategic Management – A Stakeholder Approach*.Pitman Publishing Inc.

Gomes, J., & Romão, M. (2016). Improving project success: A case study using benefits and project management. *Procedia Computer Science*, 100, 489-497.

Gupta M & Gupta D. (2011). *Research Methodology.* New Delhi, Eastern Economy printers Private Limited, New Delhi.

Hammond, S. K. A. (2018). Critical Project Success Factors and its Empirical Studies on Project Management Practices. *Dama International Journal of Researchers*, 3(11), 20-26.

Hass, K. B. (2017). Living on the edge: Managing project complexity. In *Handbook of Research on Leveraging Risk and Uncertainties for Effective Project Management* 1(1), 177-201). IGI Global.

Hass, K. B., & Lindbergh, L. B. (2010). The bottom line of project complexity. PMI Global Conference, Washington, DC. Abstract retrieved from http://marketplace. pmi. org/Pages/ProductDetail. aspx.

Hussein, B. A. (2012). An empirical investigation of project complexity from the perspective of a project practitioner. *In Proceedings of IWAMA 2012-The Second International Workshop of Advanced Manufacturing and Automation* (pp. 335-342).

Hussein, B. A., Ahmad, S. B., & Zidane, Y. J. (2015). Problems Associated with Defining Project Success.*Procedia Computer Science,* 64, 940-947.

Ika, L. A. (2012). Project Management for development in Africa: Why projects are failing and what can be done about it. *Project Management journal*,43 (4) 27-41.

Kaliba, C., Muya, M., & Mumba, K. (2009). Cost escalation and schedule delays in road construction projects in Zambia. *International Journal of Project Management, 27*(5), 522-531.

Kerzner, H. & Belack, C. (2010). *Managing Complex Projects.* New York, NY: John Wiley & Sons.

Kerzner, H. (2010). *Project management-best practices: achieving global excellence* (Vol. 14). John Wiley & Sons.

Kerzner, H. (2013).Project Management: A systems approach to planning, scheduling and controlling. Wiley & Blackwell.

Kimani, A.Z & Kimwele, M. (2015). Factors influencing project delays in Kenya.A case study of National Housing Corporation. *International Journal of Social Sciences Management and Entrepreneurship,* 2(1), 1-14.

Kissi,E., & Ansah, S.K. (2014). Professional Project Management practices and its constraints in developing African countries: a Literature Review. *Covenant Journal of Research in the Built Environment,* 1(2), 123-131.

Kombo, D.K., & Tromp, D.L. (2009). Introduction to proposal writing. *Nairobi: Pauline publications.*

Loo, R. (2002).Working Towards Best Practices in Project Management: A Canadian study. *International Journal of Project management,* 20 (2), 93-98.

Macharia, N.S. (2013).*Influence of stakeholders' involvement on project outcome: A case of Kigumo Girls Academic Centre of Excellence Project, Murang'a County.* Unpublished Masters' dissertation, University of Nairobi.

Mugenda, A. & Mugenda O.(2006). *Research Methods: Qualitative and Quantitative Approches. (*2nd Ed.). Nairobi: ACTS.

Njau, D.N. & Ogolla, P. (2017). Factors influencing project scope performance: A case of Kenya National Youth Service projects in Kenya. *The Strategic Journal of Business & Change Management,* 4(4), 207-220.

Nyika, D. (2012). An analysis of the causes of failures in the implementation of Projects in Kenya.*African Habitat Review,* 6 (12), 379-388.