

Resource Management Practices and Performance of Commercial Housing Projects in Nairobi City County, Kenya

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Abstract

Housing projects have gained a lot of attention in almost every country both industrialized and developing economies. This is because it is one of the basic human needs and a source of income to the housing developers. It is one of the big four agenda to the current government of the republic of Kenya. However, many commercial housing projects in Kenya are facing performance challenges in the sense that some projects remain stalled; others get completed late beyond the planned time, reduced scope while others collapse because of poor quality. This study sought to examine the effects of resource management practices on the performance of commercial housing projects in Nairobi City County, Kenya. Particularly the study aimed to establish the effect of human resource management, financial management and material management on the performance of commercial housing projects in Nairobi City County, Kenya. The survey made use of descriptive research design. It targeted a population of forty commercial housing projects within Nairobi City County, Kenya completed between the years 2017 and 2020. The respondents were top housing projects managers (engineers, contractors and quantity surveyors), housing projects supervisors and housing projects owners in these selected projects. Collected data was analyzed using both descriptive and inferential statistics. Results were presented using tables and graphs. The results indicated that human resource management, financial resource management, and material resource management were highly significant at $p=0.0430$, $p=0.0436$ and $p=0.0451$ respectively. On the human resource management this study recommends that commercial housing projects in Nairobi City County should match their human resource management strategies with dynamic environment in order to achieve projects which are completed within scope, completed within budget, completed within time and achieve quality of the houses. On financial resource management, the study recommends that Nairobi county management needs to adhere to financial resource management practices as it enhance performance of commercial housing projects. It is therefore recommended that the county should carry out financial resource management in the manner that is approved by the IFRS. On material resource management, the survey makes a recommendation that there should be a centralized material management team co-ordination between the site and the county Project management.

Keywords: Resource Management Practices; Performance; Commercial; Housing; and Projects

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1.0 Background of Study

Housing industry is an important sector in any economy worldwide. It is among the biggest sectors in the construction industry in the world injecting to about 10% of the overall GDP (Bah *et al.*, 2018). The resources used in this area is almost 50% of the world capital on construction industry (Iacovidou & Purnell, 2016). With such an effect on the entire worldwide economy and immense resources being utilized on it, it is wise that their cost be well managed to enhance their performance. Everywhere in the world including Nairobi, Kenya has active housing projects since virtually every person and businesses requires a shelter.

Project Performance is the evaluation of project success to ensure the project is on course and operating within the approved time, scope, cost constraints and that the project is performing according to plan. They are benchmarks against which accomplishment or failure of the project will be compared (PMI, 2017). PMBOK (2017), characterized performance markers as set of standards or benchmarks by which achievement of the housing construction can be judged. Project performance can be measured using various indicators as evident in different researches. Ahadzie *et al* (2018) distinguished fifteen project performances for many housing developments and categorized them into the following segments as: environmental influence, consumer loyalty, generally budgeted cost and time limit, and quality standard. Maendo, James & Kamau (2018) identified time, cost and quality as the key project performance indicators.

Resource management involves planning, estimating and acquiring resources, and controlling people and other physical resources in a project (Project Management Institute, 2017). Three key aspects of resource management were considered in this study: human resource management, financial resource management and material resource management. According to Khann & Rashed, (2016) Human resource management practices entail human resource planning, recruiting the project team and motivating the team working on the projects.

Financial resources management practices entails cost estimation, budgeting and controlling financial resources of the project with the objective of enhancing the project's performance (PMI, 2016). The material resource management entails planning, ordering and controlling of all material and equipment needed in a project in order for them to be available when needed and in right quality and quantity, (Tasevska et al., 2014).

The effects of human resource management, financial resource management and material resource management on commercial housing projects performance have generally not been given a keen consideration by scholars and researchers in Kenya. A research done by Macharia (2017) on the impact of worldwide financial problems on the performance of financial institutions in mortgage financing to housing projects determined that mortgage terms affected the performance of housing projects. Ndururi (2016) studied on the impact of housing projects on monetary performance of Kenyan commercial banks and found a positive correlation between the two. This creates a gap on the research study concerning the effects of human resource management, financial resource management and material resource management on the performance of commercial housing projects, this study sought to address this gap.

Nairobi has been one of the cities in Africa full of activity with commercial housing projects forming a bigger part of investment. However, there has been increase in poorly developed commercial houses, KPDA (2018). Jang & Kang (2015) asserts that the performance of commercial housing projects in Nairobi has been facing great challenges.

1.1 Statement of the Problem

In Kenya, housing projects directly add up to 14% of gross domestic product (GDP) and activates additional 6% on average in downstream costs (Musau *et al.*, 2018). Existence of housing projects assists in developing primary and secondary monetary markets. It is because of this importance that the current government has categorized it among its big four agendas. Resource management enables scarce construction resources to be efficiently utilized and thus increase chances of success (Muriithi & Waweru, 2017).

However, cases of commercial building construction projects being left incomplete and later auctioned have been witnessed with a good example being the auctioning of 54 apartment building due to high cost of completion (Chege & Bett, 2019). Collapsing of commercial housing projects in Kenya and particularly in Nairobi have become common in the recent past, others have completely stalled, reduced scope while others have either been completed with poor quality standards and reduced scope or beyond the budget limit. Public condemnation and outcry has followed mostly directed at owners of the building, government, and the involved professionals (Satterthwaite, 2016). This study therefore sought to address this gap by investigating the effect of resource management practices on performance of commercial housing projects in Nairobi City County, Kenya. Specifically, the study sought:

- i) To determine the effect of human resource management on the performance of commercial housing projects in Nairobi City County, Kenya.
- ii) To establish the effect of financial resource management on the performance of commercial housing projects in Nairobi City County, Kenya.
- iii) To investigate the effect of material resource management on performance of commercial housing projects in Nairobi City County, Kenya.

2.0 Literature Review

2.1 Theoretical Review

A theoretical framework is a gathering of related thoughts that gives direction to a research (Aparicio et al., 2016). In this study, the focus was on various theories in which the research was underpinned. The study was based on contingency theory, theory of constraints and resource based view theory.

2.1.1 Contingency Theory

This theory was advanced by Fred Fielder in the year 1964 by applying collective ideologies of previous work applications and making use of them in current projects. This theory alludes that there is no single suitable method that can be applied in all firms and solve organizational problem. What works well in a particular firm may not perform at all in other firms (Fielder, 1964). This model of contingency has been confirmed to reveal details of each housing building projects together with their distinctive viewpoints. In order to manage these projects properly, precise reflections requires to be put in place. In addition to that, (Donaldson, 2014) suggest that there is no single project that can be studied exhaustively without considering the context of contingency theory.

Contingency theory will be applicable to this research since commercial housing projects have a nature of changing and thus organizations handling these projects must come up with critical approaches in financial resource management that fit the project's locality, time and specifications. Moreover, housing projects are distinctive in a way and thus must be accomplished in accordance with their precise features and location.

2.1.2 Theory of Constraints

This theory was brought forward by Goldratt. He originally published it in the book *The Goal* in 1984. It

concentrated on the thinking handling the limitations experienced in every processes for ensuring maximum productivity of a processes Goldratt (1984). Its development was to help firms which experience numerous constraints that hamper performance. This theory of constraints connects all the procedures that affect organization output by concentrating on weakest areas that act as bottlenecks in a firm. This theory comprises of three concepts that are related to each other. They are performance evaluation procedures, logistics and reasonable thinking.

The theory was applied in this study to evaluate how proper material management that are scarce and other construction equipment used in commercial housing projects can be properly acquired and utilized to enhance project performance.

2.1.3 Resource Based View Theory

Theoretical foundation of this theory has been in presence since 1950. The RBV theory acknowledges that organizational resources are of essential impact on the execution of firms' roles. Though resources can be sorted in various manners for instance the resources that are substantial and others that are immaterial, assets that are unmistakable guides in the execution of procedures of a business while the elusive assets are the ones that may bring about serious advantages by empowering structures to join important and remarkable practices (Barney, 1991). Barney (1991) additionally noticed that Resource Based View is supported by the suppositions of non-transferability of key resources between firms without bringing about any expense and resources being inconsistent circulated among associations. Consequently, given these uncertainties, the theory of RBV clarifies that those resources that are elusive, significant, rare uncommon additionally generally difficult to copy and have no key flawless substitutes are the ones basic in keeping up an associations' upper hand (Barney, 1991).

This theory is important in this research of resource management practices on performance of commercial housing projects since one of the crucial resources in a project and which are rare to imitate are human resources. The resource recognized by the resource based theory ought to be sorted out through undertaking assets intending to guarantee accomplishment of project results and achieve competitive advantage of the projects. The theory was subsequently proper for this research since it assisted in recognizing how vital human resources are properly planned, acquired, and motivated can be very much crucial in achieving housing project outcomes expected by project participants.

2.2 Empirical Review

2.2.1 Human Resource Management and Project Performance

Tansley *et al.*,(2014), conducted a research study about factors that determine labor productivity in project performance. They used descriptive examination and they focused on workers in a number of projects. This study established a positive correlation on HR practices and the success of projects. This research suggested that companies should practice workers involvement techniques that can assist in equipping them with relevant skills and enable them use their experiences to achieve their desires in work life. This research study focused only on the personality factors but non-human factors in a project work like financial matters and material management practices were not put into consideration.

Jin *et al.* (2017)studied the effect of HRMP on the success factors of water project firms. This study used a descriptive research approach and the results were analyzed through inferential analysis, descriptive and correlation. They found out that methodologies of incentives are important components of HRM of a company and there in essence of combining them with other HRMP so as to complement and strengthen each other for the objective of enhancing project performance. Nonetheless, the findings contradicted with Shahzad *et al.*, (2016)study on HRMP on performance of construction projects. They found out that motivation that accrues through a proper enticement system can lead to enhanced output of employees in construction.

Rugenyi & Bwisa (2017)did a research study on impact of HR planning on performance of irrigation projects. The study paid attention senior HR managers and it adopted inferential research design. It found out that planning of human resource assists firms in forecasting how change in their policy will influence what HR needs. It suggested that proper HR needs planning of any firm impacts on the accomplishment of the firm especially in fast-changing labour market. This research focused only on the HR requirements in irrigation projects and ways in which they impact firm's success. It didn't expound the findings to other projects like commercial housing projects and how they are influenced by HR planning.

2.3 Financial Resource Management and Project Performance

Mwenda (2012) did a research survey concerning the influence of financial planning on geothermal projects performance. Descriptive survey design was employed and it focused on power generating projects in rift valley. He discovered that level of literacy, way of life and financial position are the key management factors that influence the geothermal projects. Even though a number of many lower level staff have minimal authority in their work stations, they have a duty on a given area where they can formulate resolutions on and this is a challenge because it was not factored when this study was done. Geothermal firms are mostly flat and authority is widely allocated

to operational managers. Upper level managers are as well associated with this in an organization and may influence how financial resources are put into use.

Alam & Gühl, (2016) examined the effect of proper planning of cost on construction projects level of output. They applied descriptive research design and had a target population of the project managers. They established that proper approaches of planning of cost planning that comprise of cost budgeting and cost estimating practices have an impact on the overall performance on projects. With regard to this study, proper approaches on planning of cost are vital when it comes to finishing a particular project within the set budget. A budget to a project is important and affects it in all parts both in planning and project execution. The study suggested that tracking of project expenses is very important and critical for several project jobs and on the overall cost of the entire project. Though, this study didn't give the level of association amongst performance of a project and planning of cost.

Auma (2017) conducted a research on aspects touching on achievement of various projects involved in construction in Kenya. Descriptive and Quantitative investigation approach was used in this study that had a target population consisting of projects involving housing construction in Kenya. They used questionnaires to gather data that comprised of likert kind of questions. They analyzed data with the use of descriptive as well as inferential statistics. This research found empirical evidence on poor quality budgets was that of the 40.912% of the projects deteriorated in cost up to about 20%, whereas 54.551% of projects had deteriorated in cost to the extent of up to 21% to 50% and 4.551% of the projects were completed above the budget to the extent of more than 50%. It is clear that budgeting consequently affected the construction project performance but the study only focused on budgeting and performance of residential housing projects.

2.4 Material Usage Management and Project Performance

Nyangwara & Datche (2015) studied project cost control procedure and the impact it has on project performance. It made use of descriptive research approach. This survey focused on the projects within Nairobi, Kenya. This survey concluded that control of cost notes areas that need remedial including activities, cost budgets and project duration, and measures of project performance that can cause doing well in project execution and attainment objectives in a project. This survey also established that a plan should consider human resources, tools, resources, amenities and other items that are important in ensuring timely completion of a project. Allocation of resources and making plans on a timely manner will not always give an assurance that the expected objective will be attained. The unanticipated issues arise in between the project life no matter how intense the process of planning has been.

Sanchez & Haas (2018) studied impact of material management on project delivery. He used descriptive analysis. They discovered that Materials management is made challenging by price fluctuations, materials shortages, damage and wastage, delays in supply and lack of storage space. Consequently, they recommended on adopting ICT-based method in managing materials on construction projects. They further explored the ICT techniques presently being used on construction projects. Improper management of the materials used in construction influences the chances of overall project success in construction sector on the basis of productivity, project duration, cost and quality. Wastage of materials should as well be reduced during construction so that profit in construction companies can be maximized. The study only recommended on ICT-based approach as a better way of managing construction materials thus overlooking other material management practices like proper material planning, ordering and controlling.

3.0 Research Methodology

The study employed descriptive research design. The design is favored because of its capability of minimizing biasness and increase reliability of the results through random selection of housing projects owners and a well-designed research protocol that explicitly outline data collection and analysis (Shipworth & Huebner, 2017).

This study targeted 100 respondents who were technical staff in the projects across the four sub counties. These respondents were selected since they were deemed influential in housing project delivery. Secondly they own adequate knowledge on completed commercial housing projects within Nairobi County and their experiences in housing project performance hence were used as the population of target

4.0 Results and Discussions

Collection of research data was done using questionnaires. Out of the one hundred (100) questionnaires issued to 40 Project managers, 20 project supervisors and 40 clients/owners of completed projects, seventy seven (77) questionnaires were filled correctly and received back representing a feedback rate of 77% and a non-reply rate of 23%. This rate of feedback is taken to be adequate as per Mugenda and Mugenda (2013) who gives an assertion that a feedback rate of 50% and above is sufficient for examination and recommendation.

4.1 Descriptive Statistics

4.1.1 Human Resource Management and Project Performance

One of the research objectives was to find out how far participants were in agreement / disagreement with

statement about the effect of HRM on the performance of commercial housing projects in Nairobi City County. The level of agreement / disagreement on this statement was determined using a likert Scale of 1-5 in which: 5= strongly agree, 4= agree, 3= Neutral, 2=Disagree, and 1=strongly disagree. These results are as presented in table 1.

Table 1: Human Resource Management and Project Performance

Parameter	N	Mean	Standard Deviation
Availability of competent personnel leads to better quality and timely project performance	77	4.37	.63
Three point estimating is ideal in dynamic housing projects environment	77	3.89	.89
Top project managers should seek estimation assistance from experienced project supervisors	77	4.11	.80
Analogous estimates may give inaccurate figure	77	4.21	.89
Overall	77	3.99	1.04

Source: Field data, (2020)

Table 1 results indicate that research respondents had a strong agreement that HRM practices had an influence the performance of commercial housing projects in Nairobi City County, Kenya as indicated by an overall mean of 3.99 and a standard deviation of 1.04. It was established from the results that the participants were having similar opinion that that the availability of competent personnel leads to better quality and timely project performance with mean of 4.37 and 0.63 as the standard deviation. On three point estimates, respondents found it was ideal in dynamic housing projects environment with a mean of 3.89 and 0.89 as standard deviation. It was established that top project managers should seek estimation assistance from experienced project supervisors this had a mean of 4.11 and a standard deviation of 0.8. Based on analogous estimates, many had an opinion that it gives inaccurate figure with mean of 4.21 and standard deviation of 0.89.

4.1.2 Financial Resource Management and Project Performance

This survey objective was meant to establish how far the respondents were in agreement on statements concerning effect of financial resource management on the performance of commercial housing projects in Nairobi City County, Kenya.

Table 2: Financial Resource Management and Project Performance

Parameter	N	Mean	Standard Deviation
Most project managers use cost budgeting as a of tool of project cost management	77	4.07	.92
Without a budget, top project managers are likely to misuse allocated funds by exaggerating the costs	77	3.85	1.13
Housing projects budgets require expert judgment for them to be realistic	77	3.59	1.19
Contracted projects managers mostly rely on historical relationships in coming up with a budget	77	3.89	.85
Lack of well-defined budget leads to impulse buying that makes resources expensive	77	4.09	.93
Available project funds are mostly inadequate	77	3.85	1.13
A good cost budget should be an aggregate of all individual work units cost	77	3.69	1.29
Overall	77	3.78	1.01

Source: Field data, (2020)

Table 2 results indicate that research respondents had a strong agreement that FRM practices had an influence the performance of commercial housing projects in Nairobi City County, Kenya as indicated by an overall mean of 3.78 and a standard deviation of 1.01. The findings indicates that respondents agreed to the statement that most project managers use cost budgeting as a tool of project cost management with a mean of 4.07 and 0.92 as the standard deviation. With a mean of 3.85 and 0.13 as the standard deviation, results indicates that without a budget, top project managers are likely to misuse allocated funds by exaggerating the project costs. The study results indicated that housing projects budgets require expert judgment for them to be realistic with a mean of 3.59 and 1.19 as the standard deviation. It was as well pointed out that contracted projects managers mostly rely on historical relationships in coming up with a project budget with a mean of 3.89 and 0.85 as the standard deviation. Lack of well-defined budget will lead to impulse buying that makes resources expensive when available project funds are mostly inadequate with a mean of 4.09 and 0.93 as the standard deviation. Lastly, in was noted that a good cost budget should be an aggregate of all individual work units' costs with a mean of 3.69 and 1.29 as the standard deviation.

This study is in harmony with literature reviewed by Alam & Gühl, (2016) who examined the effect of planning of cost on performance of construction projects. The survey applied the design of descriptive research and had focused on research population comprising of project managers. This survey established that approaches of planning on the cost of a project like budgeting of cost and estimating on cost have effects on the performance of a project.

4.1.3 Material Resource Management and Project Performance

The third study objective was to establish how far the respondents were in agreement on statements concerning effects of MRM on performance of commercial housing projects.

Table 3: Material Resource Management and Project performance

Parameters	N	Mean	Standard Deviation
Cost controlling when properly done leads to efficient use of resources	77	4.03	.93
Forecasting activities are positively embraced by all personnel	77	3.74	1.09
Timely feedback improves cost and completion time of housing projects	77	3.41	1.18
There is a close link between work value and employee involvement	77	3.85	.86
Value management has been critical in ensuring good project performance	77	4.13	.96
Performance reviews have been applied throughout the entire project	77	3.84	1.19
Performance review when done throughout the project ensures timely corrections on deviations and enhance project success	77	3.44	1.29
Through cost forecasting, top project managers material wastage is avoided	77	3.76	.81
Overall	77	3.86	0.87

Source: Field data, (2020)

Table 3 results indicate that research respondents had a strong agreement that MRM practices had an influence the performance of commercial housing projects in Nairobi City County, Kenya as indicated by an overall mean of 3.86 and a standard deviation of 0.87. From these findings respondents agreed to the statement that Cost controlling when properly done leads to efficient use of resources with a mean of 4.03 and standard deviation of 0.93. Forecasting activities were positively embraced by all personnel with a mean of 3.74 and standard deviation of 1.09. Timely feedback was found to improve cost and completion time of housing projects with mean of 3.41 and standard deviation of 1.18. It was established that a close link exist between work value and employee involvement with a mean of 3.85 and 0.86 as the standard deviation. Value management was established as critical in ensuring good project performance with a mean of 4.13 and standard deviation of 0.96. Performance reviews were found to be applied throughout the entire project with a mean of 3.84 and standard deviation of 1.19. Through cost forecasting, top project managers material wastage can be avoided with a mean of 3.76 and 0.81 as the standard deviation.

4.1.4 Performance of commercial housing projects

Table 4: Performance of commercial housing projects in Nairobi City County, Kenya

Statement	N	Mean	Standard Deviation
Housing projects completed in right quality standards	77	2.14	0.16
Timely delivery of housing projects	77	2.99	0.85
Housing projects completed within budgeted cost	77	2.56	0.83
Projects meet clients specification in scope	77	2.27	0.63
Overall	77	2.49	1.99

Source: Field data, (2020)

On the findings on the above statements, respondents indicated to a great extent housing projects were not completed in right quality standards as indicated by a mean of 2.14 and standard deviation of 0.16; On timely delivery of housing projects respondents indicated to a great extent that there was no timely delivery of housing projects as indicated by mean of 2.99 and standard deviation of 0.85; on whether housing projects were completed within budgeted cost respondents indicated to a great extent that housing projects were not completed within budgeted cost as indicated by a mean of 2.56 and standard deviation of 0.83; On scope respondents indicated to a great extent that Projects did not meet clients specification in scope as indicated by a mean of 2.27 and standard deviation of 0.63. With overall mean of 2.49 and standard deviation of 1.99 respectively

4.2 Inferential Statistics

Multiple regression analysis was employed in the study to establish the effect of resource RMP on performance of commercial housing projects. The summary of the model is as shown in Table 4.7.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.953 ^a	0.881	0.718	1.780

Source: Field data, (2020)

a. Predictors: (Constant), HRM, FRM, and MRM.

Adjusted coefficient of determination (R^2) was 0.718 implying that 71.8% of the variations in performance of commercial housing projects that forms the dependent variable can be attributed to the three independent variables that were used in this study; HRM, FRM and MRM. The other 28.2% can be attributed to other factors which were not part of this study and affect the performance of commercial housing projects.

Table 6: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	152.151	18	43.038	14.365	.000
	Residual	63.2	45	3.220		
	Total	225.351	63			

Source: Field data, (2020)

a. Predictors: (Constant), Human resource management, financial resource management, and material resource management.

The ANOVA output indicates that the p-value is < 0.05 which is an indication performance of commercial housing projects in Nairobi County was influenced significantly by at least one of the independent variables. This indicates that the overall regression model was significant.

Table 7: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(1Constant)	1.359	0.473		2.825	0.0105
	Human resource management	0.639	0.172	0.505	3.709	0.0430
	Financial resource management	0.624	0.155	0.493	3.716	0.0436
	Material resource management	0.570	0.127	0.302	3.235	0.0451

Source: Field data, (2020)

a. Dependent Variable: performance of commercial housing projects in Nairobi City County, Kenya.

From Table 7, the regression coefficient for human resource management was positive implying that improvement in human resource management led to improvement in the performance of commercial housing projects in Nairobi City County. The coefficient had a p-value of 0.0430 which was less than 0.05 and the conclusion is that human resource management had a considerable effect on performance of commercial housing projects. This study agrees with the survey outcome of Armstrong and Murrill (2015) on impact of HR planning approaches on the performance of organizations. They found out that policies of reward as a motivation factor are crucial and certainly become a key component that determines performance of an organization. Nonetheless, the results were not in agreement with Bratton and Gold (2017) who did a study on HR planning policies on performance of an organization. Their discovery was that HR planning policies do not greatly influence organizational performance but good system of remuneration can result to propagation in the productivity of workers.

On financial resource planning practices, the regression coefficient was found to be positive. This implied that application of financial resource management results in better project performance. The coefficient had a p-value of 0.0436 which is less than 0.05 implying that financial resource management plays a critical role on the performance of construction projects in Nairobi City County, Kenya. This is in agreement with the study done by Antvik and Sjöholm (2013) on effect of financial planning on the performance of projects. They came with a conclusion that cost budgeting need to be anchored project scope and recognized that managing financial resources positively and greatly influence the performance of projects. The study is also in conformity with the research study outcome of PMBOK (2014) on effect of planning of cost on performance of projects. This study discovered that practices of planning project cost that also include the budgeting of cost and cost estimating practice have positive effects on the performance of projects.

On material resource management, the regression coefficient was found to be positive. This implied that by

applying material resource management, the performance of commercial housing projects in Nairobi City County improved. The coefficient had a p-value of 0.0451 which is less than 0.05. This implies that a material management practice is critical in the performance of commercial housing projects. There is agreement with the findings of the study done by Plenert and Best (2012) on effect of material management on the performance of projects. Their study discovered that material planning practices result in an increase in the performance of projects since they result in a big decrease on the cost charge of holding construction materials inventory. This study also agrees with Kress (2014) research study on effect of material management on project performance that came with a conclusion that appropriate material usage results into improved project output.

5.0 Summary

In summary the study found out that many commercial housing projects in Kenya are facing performance challenges in the sense that some projects remain stalled; others get completed late beyond the planned time, reduced scope while others collapse because of poor quality. The results indicated that human resource management, financial resource management, and material resource management were highly significant.

5.1 Conclusion

Based on the outcome that human resource management practices have a positive correlation on performance of housing project, this study recommends that commercial housing projects managers in Nairobi City County should employ human resource practices that will ensure qualified personnel who are well trained and highly motivated are employed in projects in order to achieve projects which are completed within scope, completed within budget, completed within time and achieve quality of the houses.

Based on the outcomes of the research study, it can be concluded that financial resource management has a bigger influence on the performance of commercial housing projects in Nairobi City County, Kenya.

The research study evidently indicates the importance of managing all resource materials from the material planning, material ordering and material controlling stage. The study recommends that project materials which form a very significant resource if well planned and monitored can help in managing project cost to a big degree, more so Class A materials. Once the procedures of material ordering are correctly and efficiently followed in a housing construction project, total material cost of the project can greatly be reduced. The study also recommends that there should be a central place for managing and co-coordinating material handling operations from the site and the head office and a call for of resourceful Management Information System (MIS) that will help in material controlling and ensure project success.

5.2 Recommendations

Nairobi City County in Kenya needs to develop and document techniques for proper human resource planning, recruiting and motivation of commercial housing projects employees in order to boost employee and commercial housing projects performance. County that want to improve their productivity must make sure they properly make use of human resource management strategies in order for them to acquire a competitive advantage compared to other counties. It also recommends that Nairobi county management need to adhere to cost estimation cost budgeting and cost controlling management practices in order to enhance performance of commercial housing projects. It is therefore recommended that proper cost estimation need to be carried out based on project scope in order to come up with a project budget that is more accurate. Secondly, it is also important that the management of commercial housing projects establish appropriate strategies for cost controlling in order to foster project performance. Furthermore, the study recommends that project materials which form a very significant resource if well planned and monitored can help in managing project cost to a big degree, more so Class A materials. Once the procedures of material ordering are correctly and efficiently followed in a housing construction project, total material cost of the project can greatly be reduced. Finally, the study recommends that project materials which form a very significant resource if well planned and monitored can help in managing project cost to a big degree, more so Class A materials. Once the procedures of material ordering are correctly and efficiently followed in a housing construction project, total material cost of the project can greatly be reduced

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