

Influence of Outsourcing Practices on Performance of Construction Projects in Public Level Four Hospitals in Nakuru County, Kenya

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ABSTRACT: This purpose of the study was to establish the influence of outsourcing practices on performance of construction projects in public level four hospitals in Nakuru County, Kenya. The county grapples with the challenge of supply chain related performance notably; delayed delivery of essential drugs, supply interruptions, long lead times and inadequate health facilities, and social determinants of health such as widespread poverty, lack of infrastructure and lack of food security which are significant structural challenges in improving health outcomes. This study adopted a descriptive survey design which was deemed suitable and appropriate because the design clarifies a phenomenon under study by providing the opinions of the phenomena within a specified time frame. The target population of the study was all 60 staffs directly involved in the implementation of the construction projects at the seven level four hospitals in Nakuru County, Kenya. A pilot study was undertaken to establish the reliability and the validity of the research instrument. Before embarking on data collection, a research permit was sought and obtained. The collected data was first cleaned to ensure that only those questionnaires that were correctly filled were used in the final analysis. The collected data was then analyzed descriptively and inferentially with the aid of SPSS and the findings were presented in tables. The study established that there was a strong and positive correlation between outsourcing practices and performance of construction projects [$r=0.622^*$]. From the regression model, it was established that Adjusted R-square of 0.357 implied that outsourcing practices explained 35.7% of performance of construction projects in public level four hospitals in Nakuru County, Kenya. The study recommends that construction project firms assess their activities critically to evaluate those that can be outsourced efficiently and thus lead to enhanced project performance.

Keywords:-outsourcing practices, performance of construction projects.

I. Introduction

Supply-chain management is the design, planning, execution, control, and monitoring of supply-chain activities with the objective of creating net value, building a competitive construction, leveraging worldwide logistics, synchronizing supply with demand and measuring performance globally [1]. Interconnected, interrelated or interlinked networks, channels and node businesses combine in the provision of products and services required by end customers in a supply chain. Besides weak business environments, institutions, and regulatory frameworks, one of the biggest challenges encountered by developing countries is the absence of appropriate and/or existing infrastructures, especially in transport, energy, and logistics. It is widely recognised that poor and insufficient infrastructure provisions are major obstacles to factor mobility, productivity and competitiveness. Recent studies [2] have highlighted the extent of current gaps and have quantified their negative impacts on growth and the business environment in several parts of the developing world. To address this, it is estimated that the world will require US\$57 trillion in terms of infrastructure investment between 2013 and 2030 to sustain gross domestic product growth [3]. All these shall be done through the procurement function as a key thematic area of project management. In Sub-Saharan Africa alone, the World Bank

estimates that infrastructure needs will potentially amount to US\$93 billion a year most which would be taken up by service sector construction projects. As such, supply chain management encompasses joining inventory network exercises that deal with data courses straight from data courses to changing existing connections.

Studies done on global space have associated supply chain practices with increased organization performance determined by a number of facets such as profitability, efficient information sharing and swift deliveries among others. This is not embedded on a particular industry but a cross-section of all industries [4]. [5], conducted a study on Green supply chain management practices in Germany. Their study found out that, technological integration appeared to be the core supply chain management practices highly identified and is dependent on other practices. They also found out that, long-term relationship development, joint development, partner development learning, stakeholder management, enhanced communication and innovations are the major practices that contribute positively to performance of public institutions. Furthermore, [6] on his study in China noted that, even though agricultural sector was considered a mature sector, significant inefficiencies were evident on on-farm resource management that indicated chances of environmental improvements attainable through supply chain management practices such as adoption of information technology, collaboration, enhanced farm-supplier relationships and green practices. [7], conducted a study on supply chain management practices in services industry using selected sectors in Bangladesh. The findings of the study indicated that, while supply chain management practices has been highly adopted in the manufacturing sector, the use of supply chain practices is not mature yet globally. In their study, supply chain practices were high in banking sector and low in the hotel industry.

Countries in Sub-Saharan Africa are challenged by health concerns that significantly affect populations, an aspect that has pushed several African states to join the International Covenant on Economic, Social and Cultural Rights with the aim of protecting the right to the highest attainable health for all citizens residing in member states. The covenant binds state parties to implement effective activities in order to promote the health of children, improve industrial hygiene and the environment, ensure access to health services for all, and manage the outbreaks of infectious diseases [8]. Furthermore, [9] did a study in Ghana to determine influence of supply chain management on performance of Kasapreko Company Limited. Upon employing descriptive analysis on a sample of 200, the study indicated that the company has utilized supply chain practices for more than 6 years (2004-2010). The findings also ascertained that supply chain practices have significant effect on the performance of the company as seen on the sales trend over time. Their study noted that among the significant supply chain management practices includes inventory management, outsourcing, information sharing and green supply chain practices. Studies conducted in Kenya have demonstrated mixed reaction of supply chain practices and service delivery. [10], did a study on supply chain management practices on performance with key target of cement manufacturing companies in Kenya. Using principal component analysis to determine major Supply chain practices, seven components for supply chain management were extracted. The analysis established the seven components of supply chain management practices explain 84.55% of the performance of cement companies in Kenya.

Similarly, [11] sought to establish supply chain management dynamics in the construction industry in Kenya focusing on National irrigation board. The study concluded that, prudent supplier selection, long-term relationships, involvement of suppliers in product development, working with certified suppliers, strategic purchasing, supply network coordination, good interaction, logistics integrations and effective flow of information affect performance of construction industries. In her study, [12] investigated supply chain management practices and service delivery in humanitarian organisations in Kenya. Using census study survey, she employed regression analysis as an inferential statistics. The results indicated that there was a strong relationship between supply chain management practices and service delivery. The study also found that Humanitarian organizations in Kenya have employed SCM practices, which has led to an increase in saving lives, increased ability to respond to different magnitude of disasters, good utilization of resources, and reduction in time taken for relief chain to respond to disasters. Another study by [13] analysed supply chain management practices and operational performance of multinational manufacturing firms in Kenya. The findings of his study showed that 66.5% of organization performance in these companies is explained by supply chain management practices. Further, the study found that, these companies have embraced supply chain management practices that contributed positively to decision-making, real time delivery of goods and services and operational cost reduction. Nakuru County has seven level four hospitals. The health facilities are earmarked for upgrading and the common findings showed that these facilities have old dilapidated infrastructure some of which were built in the early 1900's. Most facilities lack a master plan, are poorly planned with buildings scattered all over. Similarly, a number of

them also had key stalled projects with various reports attributing these occurrences to a number of factors including supply chain management practices in the management of construction projects in these hospitals.

II. Statement of the Problem

In the recent past there has been noted hurried construction projects in Kenya as counties seek to improve their physical facilities and seek adequate space for implementation of universal health care. Consequently many health care organizations have also recognized the importance of adopting supply chain management practices despite the concept being associated with industrial settings, which has always been problematic. Various past investigations have been done on other related subjects yet little examination has been done to investigate the connection between supply chain practices in the health sector. Kenya has made some progress with respect to attaining its Vision 2030, but significant challenges remain namely social determinants of health such as widespread poverty, lack of infrastructure and lack of food security which are significant structural challenges in improving health outcomes. [10], did a study on supply chain management practices on performance with key target of cement manufacturing companies in Kenya and found that the seven components of supply chain management practices explain 84.55% of the performance of cement companies in Kenya. Similarly, [11] sought to establish supply chain management dynamics in the construction industry in Kenya focusing on National irrigation board. The study concluded that, prudent supplier selection, long-term relationships, involvement of suppliers in product development, working with certified suppliers, strategic purchasing, supply network coordination, good interaction, logistics integrations and effective flow of information affect performance of construction industries. [12], investigated supply chain management practices and service delivery in humanitarian organisations in Kenya and found that there was a strong relationship between supply chain management practices and service delivery. The study also found that Humanitarian organizations in Kenya have employed SCM practices, which has led to an increase in saving lives, increased ability to respond to different magnitude of disasters, good utilization of resources, and reduction in time taken for relief chain to respond to disasters. Another study by [13] analysed supply chain management practices and operational performance of multinational manufacturing firms in Kenya and showed that 66.5% of organization performance in these companies is explained by supply chain management practices. Further, the study found that, these companies have embraced supply chain management practices that contributed positively to decision-making, real time delivery of goods and services and operational cost reduction. Public hospitals grapple with supply chain related performance challenges notably; delayed delivery of essential drugs, supply interruptions, long lead times and inadequate health facilities, hence the current study will analyze the influence of supply chain management practices on the performance of construction projects in public level four hospitals in Nakuru County, Kenya.

III. OBJECTIVES OF THE STUDY

The objective of the study was to analyze influence of outsourcing practices on performance of construction projects in public level four hospitals in Nakuru County, Kenya.

IV. LITERATURE REVIEW

Outsourcing practice is the turning over part or entire organization's activity to an external supplier or vendor. It entails movement of activities to an external party while some activities being undertaken in-house. [14], recommends that, while undertaking outsourcing practice, important issues have to be considered. These include contract negotiation, supplier selection and asset transition to suppliers. Every institution has a justification for opting for outsourcing. One of the reasons is cost reduction. It is the endeavor of every organization to lower costs. Therefore, opting for outsourcing practices is an efficient option to controlling these costs such as inventory, overhead, salaries, training and other. Outsourcing has been found to be one of the ways to free up company resources from some routine administration tasks. This gives them strength and time to concentrate on other activities of the organization that will ensure optimal performance. According to [14], poorly managed departments are principal motivators for outsourcing. This helps firms to focus on core competencies as they invest their resources in other areas. While outsourcing is majorly anchored on cost reduction, some organizations choose outsourcing on the account that they are not in a position to keep up the pace with the dynamic technology. The study noted that in addition, an organization might realize that it is not good in undertaking the task. Thus, it becomes justifiable to choose outsourcing rather than trying to improve on their performance by performing activities in-house. Outsourcing has been linked with a number of benefits. Richard [15] holds that, outsourcing reduces bureaucratic complexity. Administrative quests of consolidating transactions and other bureaucratic costs linked with governance oversight pull organizational performance down. As a result, these demands disrupt management on attending to important innovative and growth strategies. Therefore, outsourcing ensures that companies align competing priorities, focus on growth innovation and growth and commit resources to

those task that perform better in the organization. Outsourcing also facilitates production economies. This is because, decision on production and price are done before actual demand is projected. As transaction volumes change, companies may find it hard to maximally optimize their capacity or decide to ration production. By choosing outsourcing practice, they achieve flexibility whereby no ration is needed and the organization is in a position to meet demand needs thus providing a mechanism for risk transfer, minimize uncertainties and share scale economies with specialized organizations. [16], also analyzed the impact of outsourcing on the performance of sugar firms in western Kenya. Their study established that, sugar factories that opted for outsourcing in order to focus on key competencies had improved overall performance.

Further, [3] investigated the relationship between supply chain orientation, supply chain management, collaboration and the effects of those concepts on firm performance. The study used primary data and interviewed a total of forty five (45) executive-level logistics and supply chain management professionals employed by U.S. based organizations. The study found that supply chain orientation and collaboration was linked to firm performance. Similarly, [4] examined how supply chain networks affected the resilience of firms to the Great East Japan Earthquake, particularly looking at the effects on the time period before resuming operations after the earthquake and sales growth from the pre- to the post-earthquake period. The results indicated that the expansion of supply chain networks had two opposing effects on the resilience of firms to disasters. On the one hand, when firms were connected with more firms through supply chain networks, they were more likely to experience disruptions in supply and demand, which delayed recovery. On the other hand, firms benefited from diversified networks with suppliers and clients because they would substitute the surviving firms in the network for the damaged partners and receive support from them. The study indicated that the latter positive effect on recovery exceeded the former's negative effect for many types of network, implying that diversified supply chain network led to the resilience of firms to natural disasters. Project performance is a critical issue for the construction industry [17]. Project deliverables such as timely completion and client satisfaction are often used as yardsticks to determine success. More often than not, the success of a construction project hinges on the ability of the construction project manager to effectively perform his job functions with the intended efficacy. The construction industry is complex in nature because it contains large number of parties as clients, contractors, consultants, stakeholders, shareholders, regulators and others. The purpose of key performance indicators is that clients want their projects delivered: on time, on budget, free from defects, efficiently, right first time, safely, by profitable companies. In addition, the key performance indicators can be used for benchmarking purposes, and will be a key component of any organization move towards achieving best practice. Clients, for instance, assess the suitability of potential suppliers or contractors for a project, by asking them to provide information about how they response to a range of indicators. The key performance indicators framework consists of seven main groups: time, cost, quality, client satisfaction, client changes, business Performance, health and safety.

V. RESEARCH METHODOLOGY

According to [18], a research design is a strategy or an actual plan for conducting a scientific research. a research design is a plan and structure guiding investigations with the aim of obtaining primary data from respondents. The current study adopted descriptive survey design. This is because the study is aimed at answering research questions about the current state of supply chain management practices and their relationship with performance of construction projects. The study targeted all the seven level four hospitals in Nakuru County, Kenya. The respondents were all the 60 staffs directly involved in the implementation of the construction projects at the hospitals which include 4 county procurement staffs, 14 public works officers and 42 contractor staff. Since the target population is fairly small, a census study was undertaken. According to [19], primary data can be collected by means of qualitative data collection instruments (focus group discussions, interview guide and observations) and quantitative data collection instruments (questionnaires). The researcher used closed-ended questionnaires to collect primary data. The study data was collected through the use of a structured questionnaire based on a five-point Likertscale. Before embarking on data collection, the researcher sought an introductory letter from the Jomo Kenyatta University of Agriculture and Technology which was then used to obtain a research permit from the National Council for Science and Technology (NACOSTI) so as to increase the confidence of the respondents. A pilot test was conducted in construction projects at Pumwani Hospital on 7 staff to test the validity and reliability of the instruments. The data collected was first assessed for consistency and questionnaires that were unfilled were rejected. Data was first analyzed descriptively and inferentially with the aid of SPSS and the outputs presented in tables.

VI. RESEARCH FINDINGS AND DISCUSSIONS

The study sought to find out the distribution of the respondents according to their gender, age bracket, education level and their work experience. Majority of the respondents (58.5%) were male while the female respondents were 41.5% which was attributed to the gender gap existing in the public service in Kenya where majority employees are still of the male gender. The findings further indicated that a majority of the respondents were of the age group 21-30 years (39.6%) while the least age group was below 21 years (1.9%). This trend was attributed to the move towards enhanced usage of technology-related processes which has resulted in the employment of younger and technology-oriented employees. Similarly, the study established that majority of the respondents (39.6%) had a degree level qualification. Furthermore, over 49% of the respondents had either a bachelors or masters degree. This trend was attributed to the professionalization of most sectors in Kenya which has necessitated higher educational requirement for all staff. In terms of working experience, most of the respondents (56.6%) had less than 7 years of work experience while more 43% of the respondents had over 7 years of work experience. The work experience of the respondents implied they were knowledgeable in the subject area and thus their responses on the propositions of the study were valid and relevant.

6.1 Outsourcing Practices

The descriptive findings for outsourcing practices are presented in Table 1.

Table 1: Outsourcing Practices

Statement	SD(%)	D(%)	N(%)	A(%)	SA(%)	Mean	StdDev
The contractors adequately select outsourced vendors based on best prices for goods and services	1.9	5.7	15.1	22.6	54.7	4.23	1.031
The outsourcing of various activities, variation in cost of materials has significantly reduced	3.8	5.7	22.6	28.3	39.6	3.94	1.099
The logistical ability of suppliers is a key determinant when selecting suppliers for outsourcing purposes	0	7.5	9.4	49.1	34	4.09	.861
Outsourcing practices employed by the contractors has enabled enhanced flexibility in our operations	0	3.8	18.9	26.4	50.9	4.25	.897
The contractors always outsource warehousing facilities closer to project locations thus reducing operational and logistical costs	1.9	5.7	20.8	34	37.7	4.00	1.000
The contractors outsource specialized capabilities and equipment thus reducing costs of acquisition and maintenance while enabling us meet project objectives	0	7.5	20.8	24.5	47.2	4.11	.993
Outsourcing practices by construction firms have enabled enhanced performance in the construction projects	0	7.5	15.1	35.8	41.5	4.11	.934

From the findings in Table1, majority of the respondents (77.3%) agreed that contractors adequately select outsourced vendors based on best prices for goods and services while only 7.6% of the respondents disagreed as indicated by a mean of 4.23. Further, majority of the respondents (67.9%) agreed that outsourcing of various activities, variation in cost of materials has significantly reduced while only 9.5% of the respondents disagreed as indicated by a mean of 3.94. This finding is in agreement with those of [20] who noted that outsourcing allows firms to focus on their own core competences by relocating limited resources to strengthen their core product or service and to strategically use outside vendors to perform service activities that traditionally have been internal functions. Similarly, majority of the respondents (83.14%) agreed that the logistical ability of suppliers is a key determinant when selecting suppliers for outsourcing purposes while only 7.5% disagreed as indicated by a mean of 4.09. As noted by [21], logistics outsourcing based on supplier ability resulted in increased productivity, organizational effectiveness, increased profits, continuous improvement, improved quality and improved quality of work life and thus sourcing of these processes was an ideal solution that helps the firm expand and operate on a much larger scale. Similarly, majority of the respondents (77.3%)

agreed that Outsourcing practices employed by the contractors has enabled enhanced flexibility in our operations while only 3.8% disagreed as indicated by a mean of 4.25. The findings agree with those of [22] who concluded that outsourcing practices enhanced flexibility of the procurement function and thus it would ultimately impact the performance of construction projects.

Furthermore, majority of the respondents (71.7%) agreed that contractors always outsource warehousing facilities closer to project locations thus reducing operational and logistical costs while only 7.5% of the respondents disagreed as indicated by a mean of 4.00. As noted by [23], outsourcing coordinates the purchase, production and distribution functions to satisfy the advertising and marketing expectations and organizational wishes of availing the product to the clients. Further, majority of the respondents (71.7%) agreed that contractors outsource specialized capabilities and equipment thus reducing costs of acquisition and maintenance while enabling us meet project objectives while only 7.5% of the respondents disagreed as indicated by a mean of 4.11. Finally, majority of the respondents (87.3%) agreed that Outsourcing practices by construction firms have enabled enhanced performance in the construction projects while only 7.5% disagreed as indicated by a mean of 4.11. This finding is in line with those of [24] who found that outsourcing of inventories has an important bearing on the financial strength and competitiveness of organizations due to the reason that it directly affects the working capital, production and customer services and thus it can be suggested that implementation of planned outsourcing practices would have a positive effect on the performance of construction projects. Since all the means of the propositions for Outsourcing practices indicated agreement by the respondents, it can be deduced that inventory management practices influences performance of construction projects.

6.2 Performance of Construction Projects

The descriptive findings for propositions on performance of construction projects are shown in Table 2.

Table 2: Performance of Construction Projects

Statement	SD(%)	D(%)	N(%)	A(%)	SA(%)	Mean	Std Dev
The constructions firms, have consistently met cost reduction targets in all our projects	1.9	0	11.3	39.6	47.2	4.30	.822
The contractors significantly reduced project cost variation in most of our construction projects	0	1.9	9.4	45.3	43.4	4.30	.723
The constructions firms always strictly adhere to order planning schedules based on predetermined timelines	0	0	20.8	30.2	49.1	4.28	.794
The constructions have always been completed based on the planned time for projects completion	0	1.9	17	32.1	49.1	4.28	.818
The contractors have consistently met our expected levels in quality of equipment and raw materials in our projects	0	0	7.5	43.4	49.1	4.42	.633
The construction projects have consistently conformed to target specification	0	3.8	7.5	47.2	41.5	4.26	.763
The construction projects have internal mechanisms for information coordination thus minimizing project complaints and disputes	0	1.9	15.1	35.8	47.2	4.28	.794
The constructions firms have always maintained a policy of zero noncompliance to construction regulations	1.9	0	11.3	37.7	49.1	4.32	.827
The construction projects have adequate resources as planned through the entire project duration	0	3.8	3.8	41.5	50.9	4.40	.743

As shown in Table 2, majority of the respondents (86.8%) agreed that they had consistently met cost reduction targets in all their projects while only 1.9% of the respondents disagreed as indicated by a mean of 4.30. Similarly, majority of the respondents (88.7%) agreed that they had significantly reduced project cost variation in most of their construction projects while only 1.9% disagreed as indicated by a mean of 4.30. As noted by[25] a key indicator of performance of the procurement function is cost reduction in the overall project process and thus the findings of the

study are in agreement. Furthermore, [25] noted that cost reduction is only beneficial if the project budget has minimum project cost variations. It can therefore be deduced that on costs and cost variations, performance of construction projects findings agrees with other findings found in literature. On timelines, majority of the respondents (79.3%) agreed that they always strictly adhere to order planning schedules based on predetermined timelines as indicated by a mean of 4.28. This indicates that public sector projects are guided by predetermined timelines which should be met as an indicator of project performance. Furthermore, majority of the respondents (81.2%) agreed that constructions had always been completed based on the planned time for projects while only 1.9% disagreed as indicated by a mean of 4.28. This finding is a clear pointer to the fact that all government projects are planned and executed within given timelines and thus it would be expected that project implementers will be constrained by the timelines. Furthermore, a prerequisite to awarding of tenders is a schedule of activities to meet project objectives by project implementers and thus all factors kept constant, it would be expected that project timelines are met.

On project quality and project specifications, majority of the respondents (92.5%) agreed that they had consistently met their expected levels in quality of equipment and raw materials in the projects as indicated by a mean of 4.42. Furthermore, majority of the respondents (88.5%) agreed that their construction projects had consistently conformed to target specification while only 3.8% disagreed as indicated by a mean of 4.26. As enumerated by [17], project performance is a critical issue for the construction industry since project deliverables such as timely completion and client satisfaction are often used as yardsticks to determine success. They noted that more often than not, the success of a construction project hinges on the ability of the construction project manager to effectively perform his job functions with the intended efficacy. Their study explained that because the industry has complexity in its nature arising from the large number of parties as clients, contractors, consultants, stakeholders, shareholders, regulators and others, quality and conformance to project specification implies that it requires a delicate balance between stakeholders and project goals. Finally, majority of the respondents (83%) agreed that their projects had internal mechanisms for information coordination thus minimizing project complaints and disputes while only 1.9% disagreed as indicated by a mean of 4.28. It can thus be suggested that efficient and effective information coordination is important in enhancing project performance. Furthermore, majority of the respondents (86.8%) agreed that they had always maintained a policy of zero noncompliance to construction regulations while only 1.9% disagreed as indicated by a mean of 4.32. This is in line with recommendations by [17] who noted that in order to eliminate noncompliance of policy regulations there should be continuous coordination and relationship between project participants through project life cycle in order to solve problems, minimize disputes and enhance project performance. Similarly, majority of the respondents (92.4%) agreed that construction projects had adequate resources as planned through the entire project duration while only 3.8% disagreed as indicated by a mean of 4.40. As enumerated by [26], this would be a necessary condition for project performance since resource availability and timelines of resource deployments are important in enhancing project performance.

6.3 Correlation Analysis

The respondents' ratings in the statements related to each variable were cumulated to obtain a composite score for the variable which was then correlated. The findings of the correlation analysis are presented in Table 3.

Table 3: Outsourcing Practices and Performance of Construct Projects

Outsourcing Practices		
	Pearson Correlation	.622**
Performance of Construction Projects	Sig. (2-tailed)	.000
	N	53

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

From the correlation analysis, it was established that there was a strong and positive correlation between outsourcing practices and performance of construction projects in public level hospitals $r=0.622^{**}$. This implied that higher levels of performance of construction projects can be associated with the level of outsourcing undertaken by project implementers. The findings are in agreement with those of [27] who investigated the influence of procurement

outsourcing practices on performance of manufacturing firms in Nairobi County, Kenya and found that there existed a strong and positive relationship between outsourcing practices and performance of manufacturing firms in Kenya.

6.4 Regression Analysis

Simple linear regression analysis was undertaken to establish the relationship between outsourcing practices and performance of construction projects and the regression results are presented in Table 4.

Table 4: Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.622 ^a	.387	.375	.40949

a. Predictors: (Constant), Outsourcing Practices

The fitted model Adjusted R square of 0.357, being the coefficient of determination implied that outsourcing practices explained 35.7% of performance of construction projects in public level four hospitals in Nakuru County, Kenya.

Table 5: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.409	1	5.409	32.256	.000 ^b
Residual	8.552	51	.168		
Total	13.960	52			

a. Dependent Variable: Performance of Construction Projects

b. Predictors: (Constant), Outsourcing Practices

From Table 5, it can also be deduced that the model was statistically significant (F = 32.256, P < 0.05).

Table 6: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.523	.321		7.865	.000
Outsourcing Practices	.437	.077	.622	5.679	.000

a. Dependent Variable: Performance of Construction Projects

From the fitted model, the study established the following regression function:

$$Y = 2.523 + 0.437X_1$$

Where: **Y** = Performance of construction projects and **X₁** = Outsourcing practices.

From the fitted model in Table 6, holding outsourcing practices constant, performance of construction projects would increase by a factor of 2.523. Further, a unit increase in outsourcing practices would lead to an increase in performance of construction projects by a factor of 0.437. The study further sought to test the hypothesis: H₀: Outsourcing practices have no significant influence on performance of construction projects in level four hospitals in Nakuru County, Kenya. From Table 6, outsourcing practices ($\beta = 0.437$, P = 0.000 < 0.05), the null hypothesis was rejected and the study concluded

that outsourcing practices have a statistically significant influence on performance of construction projects. The findings are in agreement with those of [27] who found that there existed a strong and positive relationship between outsourcing practices and performance of manufacturing firms in Kenya.

VII. CONCLUSIONS

The study concluded that construction projects in public level four hospitals in Nakuru County, Kenya employed outsourcing practices which enabled enhanced flexibility in their operations. Further, construction projects firms adequately selected their outsourced vendors based on best prices for goods and services. Further, it was concluded that these project implementing firms outsourced specialized capabilities and equipment thus reducing costs of acquisition and maintenance while enabling them meet project objectives. Similarly, it was concluded that the logistical ability of suppliers was a key determinant when selecting suppliers for outsourcing purposes by construction project implementers. Further it was concluded that project implementers outsourced warehousing facilities closer to project locations thus reducing operational and logistical costs. Further, it was concluded that due to outsourcing of various activities by construction project implementers, variation in cost of materials had significantly reduced. Finally, Outsourcing of inventories therefore has an important bearing on the financial strength and competitiveness of organizations due to the reason that it directly affects the working capital, production and customer services. The study therefore recommends that construction project firms assess their activities critically to evaluate those that can be outsourced efficiently and thus lead to enhanced project performance. The study recommends that the construction firms employ outsourcing practices to enable enhanced flexibility in their operations. Further, construction projects firms should adequately selected their outsourced vendors based on best prices for goods and services. Similarly project implementing firms should outsource specialized capabilities and equipment to reduce costs of acquisition and maintenance while still meeting project objectives. Further it is recommended that construction project implementers consider the logistical ability of suppliers as a key determinant when selecting suppliers.

SUGGESTIONS FOR FURTHER RESEARCH

The researcher suggested that further study be conducted to investigate other factors that influence performance of construction projects in public hospitals in Kenya. Similarly, more research should be undertaken to evaluate these factors across different sectors and industries in order to enhance their generalization.

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