

Research Article

Effects of Outsourcing Practices on Performance of County Referral Hospitals in the North Rift Counties

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Received: September 30, 2022

Accepted: October 16, 2022

Published: October 23, 2022

Abstract: The study aims at establishing the effect of supply chain management practices on the performance of county referral hospitals: A case of the North Rift Counties in Kenya. This study will be anchored on the theory of constraints, and strategic choice theory. A pragmatic research approach with descriptive survey design will be adopted. The target population for this study therefore will comprise all relevant hospital departments involved in procurement that is: records management, dispatch store, procurement warehouse officers and head of departments being a total of 140 officers in the supply chain division. The Yamane formula (1967) will be used to calculate the sample size for the study. Questionnaires will be used to collect primary data from the respondents. Prior to the commencement of data collection, the study will obtain all the necessary approvals, including an introduction letter from the University which will necessitate application for a permit from the National Commission for Science Technology and Innovation (NACOSTI). Further, authority will be sought from the respective county medical superintendents of health to allow data to be collected in their respective hospitals. Then introduction letters will be written to the departmental heads to allow collection of data from the sample concerned. From the study findings the study concludes that there is a significant positive association between outsourcing practices and hospital performance in the North Rift Region in Kenya.

Keywords: Supply Chain Management Practices, performance of county referral hospitals, target population.

Introduction

Srinivasan *et al.*, (2011) described supply chain performance as the extent to which the processes within a company's supply chain department execute well. They state that among other aspects of supply chain success includes: supplier performance, customer happiness, stock costs, the number of on-time deliveries, product availability performance, and lead time. This is supported by Birech (2011) who reiterates that productivity, quality, inventory, lead-time, preventative maintenance, scheduling performance, and utilization; cost of quality, variations, period expenses, and safety are examples of specific measures.

A study by Quayle (2013) established that the introduction of supply chain has helped small and medium sized businesses in reducing costs without compromising on customer satisfaction levels. Tangible and intangible benefits were also eminent with benefits such as increasing on-time order delivery, reducing production costs, shortening the product development life cycle, improving quality, reducing inventory, and bettering inventory management being the tangible benefits. The intangible benefits include sharing and exchanging information accurately, timely, and consistently, faster response to customer needs and improving service quality. A study by Al-Madi (2017)

revealed that there is an impact of supply chain management practices on supply chain performance in the Jordanian Industrial Sector. It also revealed that there is a high level of awareness among the respondent about the supply chain management concepts. The study further revealed that there is been a shortage of research in the field of supply chain, generally in the Kenya and therefore, this study hopes that this paper will establish a foundation for further research in the area.

Ambe (2016) cites procurement in South Africa as a very significant in the public sector and is being used as a policy-making tool in view of the apartheid and unfair practices of the previous regimes. In an effort towards replacing such past and out of date procurement practices, the focus on supply chain as a strategic competitive driver has continued to receive renewed interest during the past few decades since globalization and the advances in technology has created new opportunities for the internationalization of organizations.

The current regional scenario of supply chain management relies on the availability and implementation of better purchasing. Therefore, to enhance the performance levels, it is a requirement that every organization adopts a selection matrix that improves supply performance by over 20% (Kirande, 2014). In Uganda, Uganda Clays enhances the purchasing as a core element of supply chain management to the enterprise through taking advantage of the provisions of supplier selection in acquisition of high quality products. Having a purchasing model in place ensures that Uganda Clays contracts between suppliers with the ability to meet the purchasing contractual expectations. This situation paves the way for the company to gain enhanced visibility into the supplier performance hence resulting in cost reduction and enhances profitability levels.

A study by Gudda and Deya (2019) concluded that performance of the firms can be improved by green projects/products. It was articulated that the current phenomenon of poor performance in the firms can be reversed if the firms and other stakeholders ensure green supply chain, supplier relationship, information technology and logistics management are embraced in the procurement function. The study recommended that for SMEs firms to have better performance they should focus more on embracing green supply chain practices to ensure that the products in their firms are environmentally friendly.

Outsourcing Practices and Hospital Performance

According to Apostolova *et al.*, (2015), strategic sourcing is an organized and collaborative approach that aims at managing the supply base most effectively with beneficial long-term supply relationships. It is a science of continuously monitoring and evaluating purchasing activities of the organization. Strategic sourcing process changes the way sourcing process looks, from the operational process to a strategic process. Strategic sourcing is not a onetime initiation but a cycle that is persistence which should be applied since is a cost minimization solution in a competitive market and a key to reduced supply risks. Kroes and Ghosh (2010) stated that outsourcing is the sub-hiring of activities, services or products to a third party, the activities are not core to the company business aimed majorly towards customer satisfaction, aiming at cost the general cost reduction, improvement of quality and timely delivery so as to avoid interruption of operations. There could be a struggle especially if one or both organizations in supply relationship bring to an end the existing relationships.

Bouchery *et al.*, (2017) observed that most firms in each level in the supply chain, Outsourcing relationships will end up generating profits and increasing their revenue. The path may become a recipe for stagnation of many firms in their mutual relationships. The SCM practice that has been applied in many of the organizations in local and global market has become increasingly important over the last decade, the practice of outsourcing is a major part of business strategy practice that is driven so as to propel organization to a greater success. Bailey *et al.*, (2016) conducted research in outsourcing in Edinburgh and Lothians and suggested that to continue improving the quality of service, focusing on the core business functions of an organization, general reduction in operational

costs and accessing and taking advantage of advanced technology and management experience were some of the major motivations for outsourcing. Relatively speaking, the motivations such as sharing risks by parties in the outsourcing and coming up with strategic alliance were not as important as the formers.

According to Marshall *et al.*, (2015) cost reduction is usually viewed by organizations as the internal motivation for outsourcing which means that using the external resources to provide the same level of services at a lower price than operating its internal activities, they further analyzed the financial and economic characteristics of firms with outsourcing, and clearly categorized some motivations that included: to reduce costs; to concentrate attention on core business functions; to meet the day to day demands for the realization of assets and; to obtain the external capacity.

Apopa (2018), in her study stated that the most common economic factor that influences the decision is the need to reduce costs. Where the benefits analysis was carried out and has been established that it is most important and economical to outsource to a third party rather than continue to operate a given function that will focus toward making better profits in business.

Kimechwa *et al.*, (2015), who did a study on outsourcing and found out that, outsourcing, is a popular initiative with managers because they believe that outsourcing of suppliers of goods and services are inherently more efficient due to economies of scale. The outsourcing of organization benefits from getting the services from the provider at a reduced and negotiated price for a reduced cost since it is provided on a large scale and usually at a reasonable time if it is good work.

Lyson and Farrington (2016) stated in their study that, through outsourcing of goods and services, a firm may gain external capacity which assists in obtaining funding for capabilities improvement and its growth, and reduces staff pressures since staff management problems are minimized. This is made possible through procurement service providers that are able and willing to leverage their resources across multiple clients and become more suitable in staffing during peaks and low in seasons in business activity with a client as well as improving their competence.

Chepwogen and Moronge (2019) established that that supplier outsourcing influenced performance of manufacturing firms in Kenya. The study further established a regression coefficient of the study showed that supplier outsourcing had a significant positive influence on performance of manufacturing firms in Kenya. Whereas the study by Chepwogen and Moronge (2019) established a positive correlation between the variables in the manufacturing industry, the current study intends to establish will endeavour to established if there is a relationship between outsourcing and performing in the health sector.

Research Methodology

This study therefore adopted a pragmatic research approach with descriptive survey design. This design is applicable to this study given that it adopted both questionnaire and interview schedules in collecting quantitative and qualitative data respectively. The target population for this study therefore comprised all relevant hospital departments involved in procurement that is: records management, dispatch store, procurement warehouse officers and head of departments being a total of 140 officers in the supply chain division as they are fully concerned within the execution of supply chain management practices.

According to Best and Kahn (2006) a sample is a small proportion of a population selected for observation and analysis. Kothari (2011) qualifies this by stating that sampling as the means of getting an appropriate representative of respondents from the wider study population. Since the study population was small, 140 respondents, the study adopted a census sampling hence, using all the study population as a study sample. This study therefore used questionnaires to collect quantitative data.

Findings of the study

Descriptive Analysis on Outsourcing Practices

The study sought to find out the extent of Outsourcing on Performance of County Referral Hospitals. The data was analyzed based on the 134 respondents who fully responded to the questionnaire. Responses were based on a 5-item 5-point Likert scale where high mean scores on the scale close to 5 denoted that a high agreement level on outsourcing practices while low scores (close to 1) denoted that low-level agreements on the same as depicted on table 1.

Table 1. Descriptive Statistics Outsourcing and Performance

	N	Minimum	Maximum	Mean	S.D.
There is improvement in service delivery	134	3	5	4.13	.783
There is improvement in decision making	134	2	5	3.99	1.069
There is cost cutting due to outsourced services	134	2	5	3.83	1.008
Outsourced services are excellently performed	134	2	5	4.20	.932
There is regular discussion on outsourcing services	134	3	5	4.29	.839

From the results in table 1, it was observed that, there is good improvement in service delivery given the high-level mean score of 4.13 (STD .783) as measured from the upper limit mean score of 5. The findings also recorded a good improvement in decision making given a mean score of 3.99 (STD 1.609) considered good enough from the upper limit of mean score of 5. On whether the outsourcing practices have had a cost cutting effect due to outsourced services, the result indicated a good score with mean of 3.83 (STD 1.008). Further, the study finding observes that the outsourced services are excellently perfumed with a good indicator of a mean score of 4.29 (STD .932). Finally, the study observes that there is regular discussion on outsourcing services given that it attracted a good mean score 4.29 (STD .839). Generally, the study findings observe that there is a good indication in outsourcing practices in the hospitals in the North rift region with higher mean score to the upper limit scores of mean 5.0.

Linear Regression on Outsourcing and on Performance

The study further conducted a linear regression given that the data was found to be parametric in nature to make inference on the association between outsourcing practices and organizational performance. Before running the regression, it was important to test the data to establish the chance of linearity. First the P-P plot was generated as shown in figure 1.

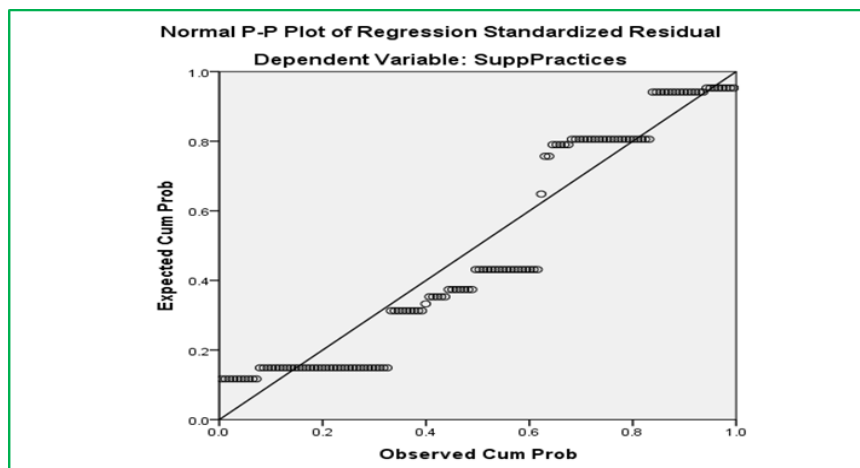


Figure 1. P-P plot of regression standardized residual

The scatter plot (figure 1) showed that the relationship between outsourcing in County Referral Hospitals and performance of said hospitals was linear and did not reveal any bivariate outliers since the responses were concerned along the gradient. Further, the histogram was generated as shown in figure 2.

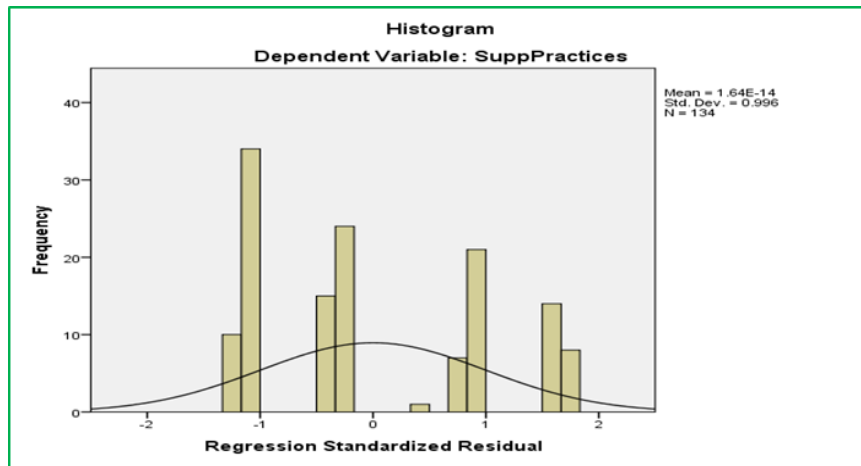


Figure 2. Histogram for outsourcing

Figure 2 observed that an analysis on the standardized residuals showed that data contained no outliers (Standard Residual mean Minimum = -1.64, Standard Residual mean Maximum = 0.996). Residual plots showed homoscedasticity and normality of the residuals. This allowed the study to compute the linear regression. With prove that the data set had a linear association with the model, a test of ANOVA was conducted to establish the significance level between the outsourcing and performance of the hospitals as shown in table 2.

Table 2. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	84.135	1	84.135	2003.310	.000 ^b
	Residual	5.544	132	.042		
	Total	89.678	133			
a. Dependent Variable: SuppPractices						
b. Predictors: (Constant), Outsourcing						

Table 2 observed that outsourcing statistically significantly influenced performance of county referral hospitals $F(1,132) = 2003.310$, p -value $<.001$. Statistically, the null hypothesis, there is no significant association between the outsourcing and performance of hospital in the North Rift Counties, was rejected since probability value was <0.05 . Hence, the study accepted the alternative hypothesis and concluded that, there is a statically significant association between the outsourcing and performance of hospital in the North Rift Counties.

Table 3. Model Summary

Model	R	R-square	Adjusted R-square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R-square Change	F-Change	df1	df2	Sig. F Change	
1	.969 ^a	.938	.938	.20493	.938	2003.310	1	132	.000	.068
a. Predictors: (Constant), Outsourcing										
b. Dependent Variable: SuppPractices										

Table 3 showing the model summary of this data set established from the coefficients of regression that the correlation between outsourcing and performance of hospitals in county referral hospitals

was statistically significant $r(0.969) = 0.890, p < 0.001$. The R^2 value of .938 showed that about 93.8% of changes in hospital performance was explained by outsourcing practices while 6.2% is explained by the error term. Further, the adjusted R^2 value of .938 shows that 93.8% changes in hospital performance is explained by the outsourcing practices while the difference, 6.2% is explained by the other variables other than this outsourcing practice, showing a model with a good model fit (Cohen, 1988).

Table 4. Regression Coefficients for Outsourcing

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.763	.083		9.172	.000		
	Outsourcing	.890	.020	.969	44.758	.000	1.000	1.000

a. Dependent Variable: SuppPractices

First, it is observed that outsourcing in county referral hospitals has a strong relationship with organizational performance ($r=0.969, p < .001$). The regression equation for predicting organizational performance from outsourcing was $Y = .763 + .890X$ an indication that organizations with better outsourcing are more likely to perform better compared to organizations with bad outsourcing practices.

This study agrees with studies by Bouchery *et al.*, (2017) who in their study a significant positive association between outsourcing relationship and increased profits and revenue in the banking sector. Similar observation was made in this study which was carried out in the service industry, the Level five hospitals in the North Rift Region Kenya. The study further is in agreement with studies by Bailey *et al.*, (2016) who in their study “Outsourcing in Edinburgh and Lothians,” established a significant positive association between outsourcing services quality service delivery. This study just like indicated Bailey *et al.*, (2016) observed that with outsourcing of goods and services, there is reduced operational costs and the amount of risks is spread.

The study is also in agreement to studies by Marshall *et al.*, (2015) whose study observed a significant positive relationship between outsourcing service and cost reeducation hence increased organizational performance. Just like the findings in this study, they established reduced cost of operations and reduced risk spread. The study further is in tandem with studies by Kimechwa (2015), who did a study on outsourcing and found out that, outsourcing had a significant positive relationship with organizational performance due to the fact that outsourcing of suppliers of goods and services are inherently more efficient due to economies of scale. The advantage of economies of scale spikes organisation performance consequently. The study too is in agreement with studies by Lyson and Farrington (2016) who established a positive significant relationship between outsourcing of goods and services and company performance. The study agrees with the core argument of Lyson and Farrington (2016) that through outsourcing of goods and services, a firm may gain external capacity which assists in obtaining funding for capabilities improvement and its growth, and reduces staff pressures since staff management problems are minimized. Finally, the study is in tandem with studies conducted by Chepwogen and Moronge (2019) who established that supplier outsourcing influenced performance of manufacturing firms in Kenya. Whereas Chepwogen and Moronge (2019) study was conducted in the manufacturing industry, the current study which was done in the service industry and have found a positive significant relationship with hospital performance.

Conclusions

From the study findings the study concludes that there is a significant positive association between outsourcing practices and hospital performance in the North Rift Region in Kenya.

Recommendations

Outsourcing and performance

From the study findings, the study recommends that for the hospitals to continue getting the most value from outsourcing as a function of supply chain practices, the management ought to continuously engage the departments and the suppliers to improve on service delivery. The management too should ensure they involve low cadre and upper cadre management decision making as better design making will attract better performance. The study also recommends that the hospital management should procure more of its supplies through outsourcing as there was a high-level agreement that through procurement, there are cost cutting that leads to better financial performance.

Conflicts of interest: The authors declare no conflicts of interest.

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Citation: Kigen Joseph Kimutai, Duncan Nyakundi Nyaberi and Chirchir Kipkoech. 2022. Effects of Outsourcing Practices on Performance of County Referral Hospitals in the North Rift Counties. *International Journal of Recent Innovations in Academic Research*, 6(10): 8-15.

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