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**INFLUENCE OF SUPPLY CHAIN ORIENTATION ON PERFORMANCE  
OF CATEGORIZED HOSPITALS IN KENYA**

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## ABSTRACT

*The study sought to establish the relationship between supply chain orientation and performance of categorized hospitals in Kenya. The target population was all hospitals offering both inpatient and outpatient services in Kenya as listed by National Hospital Insurance Fund (NHIF). The sampling technique was stratified random sampling. The study used self-administered questionnaires to collect data. The descriptive statistics, reliability and validity tests of the constructs, correlation, factor and regression analysis model were used to analyze the collected data. Data was presented in tables and charts as was deemed appropriate in the study. The study findings indicated that private hospitals had a higher Data Envelopment Analysis score compared to the public and faith based hospitals. The findings implied that private hospitals were generally efficient than other type of hospitals. Further, the study determined that supply chain orientation had a positive significant relationship with performance. The study also found an R<sup>2</sup> value of 0.401 which implied that 40.1% of the variation in performance of hospitals in Kenya could be attributed to supply chain orientation. The study concluded that supply chain orientation was critical in the performance of hospitals in Kenya. The study also concluded that the suppliers and strategic partners were found to be reliable and generally the hospitals were satisfied with their current suppliers. The study recommended that it is imperative to invest in ICT to manage all supply chain processes thereby eliminating wastes. The notable areas that the study recommends for improvement include aligning of the procurement process, human resource management and improvement in the supply chain service charter.*

**Keywords: Supply Chain Orientation, Performance, Hospitals, National Hospital Insurance Fund.**

## INTRODUCTION

The relationship between supply chain orientation (SCO) and supply chain management (SCM) is a topic that is of interest to many firms who have adopted a supply chain management model within their operations (Tinney, 2012). While SCM is defined as a management philosophy that requires a systematic approach to viewing the supply chain as a whole versus a divided set of entities, Supply Chain Orientation is defined as the recognition by a company of the systematic, strategic, implications of the activities and processes involved in managing the various flows in a supply chain (Shanmugan & Kabiraj, 2012). SCO is therefore the foundation philosophy upon which SCM is built (Tinney, 2012). This suggests that organizations possessing a SCO approach SCM differently than firms that are less inclined to view SCM strategically (Esper, Defee, & Mentzer, 2010).

The adoption of SCO in each firm across the supply chain leads to increased performance of the entire supply chain (Lengnick-Hall, Lengnick-Hall, & Rigsbee, 2013). SCO directly influences supply chain performance through the development and sustainment of behavior elements that allow a firm to build trustful relationships with their supply chain partners. These SCO behavioral elements are; credibility, benevolence, commitment, cooperative norms and organizational compatibility (Tinney, 2012). Credibility is defined as the degree to which customers perceive that the supplier has required skills and knowledge to supply the product (Laequddin, Sahay, Sahay, & Abdul Waheed, 2010). Benevolence is the belief that supply chain partners are involved in and responsible for actions necessary for creation of successful organization (Sridharan & Simatupang, 2013). Commitment is the willingness to exert effort, provide resources and make short term sacrifices on behalf of the organization (Bingham, Mitchell, Bishop, & Allen, 2013). Cooperative norm is the reflection of expectations between two parties when working together to achieve mutual and individual goals jointly (Sridharan & Simatupang, 2013) and Organizational compatibility is defined as the possession of similar goals, culture, operational and management techniques among supply chain partners (Tinney, 2012).

Though there are numerous research on SCO such as Shanmugan and Kabiraj (2012), Tinney (2012), Esper, Defee, and Mentzer (2010), most studies are general, conceptual, theoretical and normative and only a few studies that provide set of specific strategies to improve supply chain orientation in a specialized industry such as Lengnick-Hall, Lengnick-Hall and Rigsbee (2013) that relate supply chain orientation practices and performance of human resource function. The study wishes to bridge this gap by assessing the relationship between supply chain orientation and performance of hospitals in Kenya.

### **Statement of the Problem**

Since independence, Kenya has been struggling to build a health system that can effectively and efficiently provide quality and affordable health service to the population (Turin, 2010). As a result, Kenya with a total population of 46 million citizens, currently has 0.2 physicians per 1000 population. Comparatively, Sweden with a population of only 8 million citizens, has a physician density of 3.93 physicians per 1000 population (CIA, 2016). The infant mortality rate in Kenya is

a pantry 58.1 per 1,000 live births. The overall under-5 child mortality rate is about 121 per 1,000 live births, which is double of the global average and maternal mortality rate is about 414 per 1,000 (ROK, 2014).

The performance challenge in the health sector emanate mainly from poor hospital management for example there is rampant corruption, capacity challenges, human resource deficiency and poor supply chain management in hospitals (Mohajan, 2014). According to National Ethics and Corruption Survey, Ministry of health is the second most corrupt ministry in Kenya and the health department in the county governments is the department most perceived to be prone to corruption (EACC, 2015). Among the hospital departments found to be prone to corruption include procurement department, pharmacy, personnel management, outpatient department, laboratory and stores in that order (EACC, 2010).

The study postulates that improvements in hospital supply chain management through implementation of SCO elements of trust, credibility, benevolence and commitment may directly improve performance of hospitals in Kenya. Since 45% of the hospital operating budget is allocated to supply chain, improvements and innovations in supply chain management may provide significant impact on cost and quality of healthcare (Chen, Preston, & Xia, 2013). The study will investigate whether implementing supply chain orientation concepts may assist hospitals to improve their performance.

### **Objective**

The main objective of the study will be to examine the influence of supply chain orientation on performance of categorized hospitals in Kenya.

## **THEORETICAL AND EMPIRICAL REVIEW**

### **Boundary spanning theory**

Boundary spanning theory expanded the theory of the firm by acknowledging the interaction of the firm with its environment. The theory uses boundary spanners and objects to emphasize the communication, coordination, and collaboration across organization boundaries (Carlile, 2002). Boundary spanners are individuals such as top management that support information

sharing across supply chain (Tortoriello, Reagans, & McEvily, 2011). Boundary objects are dynamic capabilities and systems such as IT capabilities that facilitate the development of competences across the supply chain (Levina & Vaast, 2005).

The theory fortifies that successful organizations collaborate and interact with other supply chain partners drawing expertise, competences and knowledge from diverse organizations in the supply chain (Levina & Vaast, 2005). According to the theory, organizations therefore need to overcome the barriers imposed by lack of dynamic capabilities and expand their boundaries across supply chain partners by investing in business analytics (Tortoriello, Reagans, & McEvily, 2011). The boundary spanners should possess supply chain competences that would facilitate communication, coordination, and collaboration between Supply chain partners in Supply chain management (Wei, Ke, Liu, Wei, & Hua, 2013). Boundary objects should support boundary spanners by providing dynamic capabilities that are robust and standard across the supply chain while at the same time flexible to local variations (Star & Griesemer, 1989).

Overall, the boundary-spanning theory encompasses an integrated foundation of marketing, customer value creating processes, networks and stakeholders (Clarkson, 1995). Hult (2011), elaborated that marketing activities included integrated logistics, channel management, and marketing communication while boundary customer value-creating processes include product development management, supply chain management and customer relationship management. Networks were either internal, to reduce hierarchy and open up the organization to the environment; vertical, to maximize productivity of dependent functions; inter-market, to leverage synergies across markets and opportunistic, to respond to customer needs and market opportunities (Clarkson, 1995).

The theory also emphasizes on use of multiple actors, both primary and secondary stakeholders. Primary actors are those that are critical to the organization survival and include customers, employees, suppliers, shareholders, communities, and regulators while secondary actors are not vital for the organization survival but can still mobilize public opinion in favor of or against an organization such as media and interest groups (Hult, 2011). Following the works of Carlile (2002); Tortoriello, Reagans, and McEvily (2011) and Levina and Vaast (2005) the study will

look into the importance of supply chain orientation and its effects on performance of the organizations.

### **Empirical Literature Review**

Tinney (2012) investigated the relationship between supply chain orientation, supply chain management, collaboration and the effects of those concepts on firm performance. The study interviewed a total of 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. Also, Tucker (2011) sought to refine the notion of supply chain orientation by determining additional SCO factors beyond those already in existence. The study adopted an exploratory research design and data was collected from nine supply chain experts in different manufacturing industries in Canada. The study found that trust, internal supply chain management focus and supply chain partner reliability are three key SCO factors that support enhancement of supply chain operation performance.

Further, Defee (2010) developed a framework for supply chain orientation using a theoretical review approach. The study aimed at differentiating the concept of SCM from that of SCO. The study proposed that SCO is concerned with achieving a level of alignment or fit SC strategy and SC structure. While SC strategy is concerned with holistic view of supply chain and supply chain emphasis across departments, supply chain structure is made up of organization design, human resource, information technology and organizational measurement.

Shanmugan and Kabiraj (2012) in an exploratory study aimed at developing a comprehensive measure to evaluate supply chain orientation in pharmaceutical firms, collected data from 100 executives working in pharmaceutical firms in India. The study sought to measure SCO using five dimensions; Market Orientation, Personal Selling Orientation, Research and Development Orientation, Production Orientation and Purchase Orientation. The study found that SCO can be effectively measured by analyzing the effects of the following capabilities; supply chain policy, sales persons knowledge and expertise, learning orientation, information sharing, customer orientation, relationship building, flexibility, collaboration, trust, inter functional cooperation and self development.

Chen, Preston and Xia (2013) sought to delineate the factors that influence hospital supply chain performance. The study adopted trust, knowledge exchange, IT integration between the hospital and its suppliers, and hospital–supplier integration as key factors that influence supply chain performance of hospitals. The study collected data from a sample of 117 supply chain executives from United State hospitals. The study found that trust and IT integration directly affected knowledge exchange. Knowledge exchange and IT integration directly affected hospital-supplier integration.

## **RESEARCH METHODOLOGY**

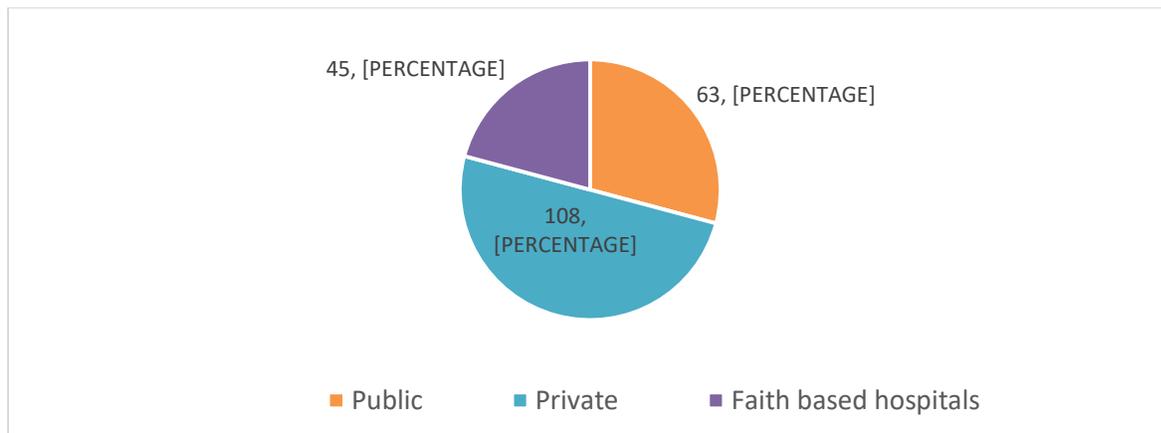
The study used a cross-sectional and descriptive research design. The design was appropriate because it was useful in establishing the nature of existing situation and current conditions and also in analyzing such situations and conditions. This study used positivism research philosophy. Positivism research philosophy reflects the belief that reality is stable. Positivists believe that reality is stable and can be observed and described from an objective viewpoint without interfering with the phenomena being studied. The target population for the study was all hospitals in Kenya offering both inpatient and outpatient services as listed by NHIF. According to NHIF (2017), there were 773 hospitals offering both inpatient and outpatient services in Kenya and accredited to provide inpatient medical insurance cover for their patients. These hospitals formed the target population and were the unit of analysis in the study. The unit of analysis was the public and private hospitals in Kenya offering both inpatient and outpatient services as listed by the NHIF. The unit of observation on the other hand was the overall procurement or supply chain manager in either public and private hospitals in Kenya offering inpatient and outpatient services as listed by the NHIF.

The sampling frame for this study was the hospitals listed by NHIF as offering both inpatient and outpatient services for the year 2017. The study used stratified random sampling technique to select a sample of 264 hospitals in Kenya. The study used both primary and secondary data. Primary data was obtained from a structured questionnaire while secondary data was quantitative data on hospital performance which was sourced from the hospitals annual reports, pamphlets, office manuals circulars, policy papers, corporate or business plans as well as survey reports

from Ministry of health and Kenya National Bureau of Statistics. The researcher made use of research assistants who were adequately trained prior to questionnaire administration.

## **RESEARCH FINDINGS AND DISCUSSION**

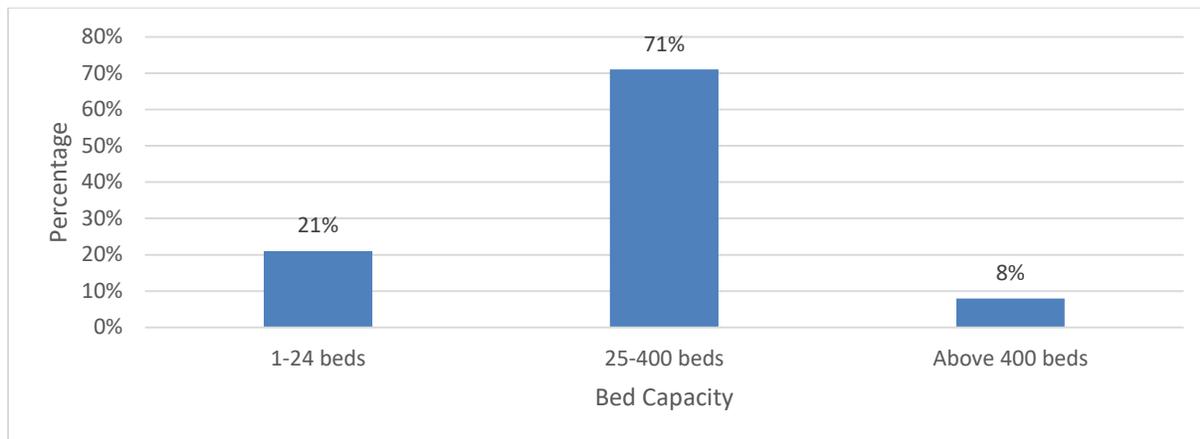
The study sought to collect data from 264 supply chain managers of hospitals in Kenya. However, the study managed to collect data from 216 key respondents and 48 respondents were non-responsive. Therefore, the study realized a response rate of 82%. This response rate is good in accordance to Garg and Kothari (2014) who posited that a response rate of more than 70% is good to conduct data analysis. Further, the study sought to determine the general characteristics of the hospitals studied. The general information sought was the type of hospital and the bed capacity of the hospitals. The bed capacity was used to measure the mediating variable, size, while the type of hospital was used to access the legal form of the hospitals studied. The findings are presented in this section based on the type of the hospital and the size of the hospital. The findings obtained indicated that 50% of the hospitals were private, 29% were public and 21% were faith based hospitals. The findings imply that more private hospitals were sampled than the public and faith based hospitals, which show generally that there are more private hospitals than faith based and public hospitals, in line with NHIF (2017). The findings are shown in Figure 1.



**Figure 1: Type of Hospital**

### **Bed Capacity**

The findings indicate that 71% of the hospitals had a bed capacity of 25-400, 21% had 1-24 beds and 8% had above 400 beds. The findings imply that there were more hospitals with a bed capacity of between 25 and 400 than those with more than 400 beds. The majority hospital sampled were therefore medium and big hospitals in Kenya. This is in line with ROK (2017) which indicate that there are more more medium and big hospitals in Kenya compared to small hospitals. The findings are as shown in Figure 2.



**Figure 2: Bed Capacity**

### **Descriptive Findings**

The study sought to determine the relationship between supply chain orientation and performance of hospitals in Kenya. Means and standard deviations and variances were used to give the findings under this objective. The means were interpreted as follows; A mean value of 0-1 implied the majority of the respondents agreed to the statements to a very small extent, a mean value of 1.1-2.0 implied the respondents agreed with the statements to a small extent, a mean value of 2.1-3.0 implied the respondents neither agreed nor disagreed with the statements, a mean value of 3.1-4.0 means that the respondents agreed to the statements to a great extent and a mean of 4.1-5.0 implied the respondents agreed with the statements to a very great extent.

The findings indicate that the mean values obtained for the majority of the items were above 3.0 indicating that the majority of the respondents agreed with the statements. The highest standard deviation was 1.083 while the lowest was 0.511 indicating that there were no major variations in

the responses obtained across the means. The study findings indicate that the majority of the respondents agreed to a great extent that the suppliers and strategic partners were reliable ( $M = 3.67$ ,  $SD = 0.686$ ).

The respondents also agreed to a great extent to the following statements: The hospital is satisfied with the past performance of current suppliers ( $M = 3.50$ ,  $SD = 0.511$ ); suppliers provide services that are superior compared to alternatives in the market ( $M = 3.38$ ,  $SD = 1.056$ ); suppliers demonstrate high level of professionalism ( $M = 3.33$ ,  $SD = 0.917$ ); and suppliers provide reliable information to hospital administration ( $M = 3.29$ ,  $SD = 1.083$ ). The respondents neither agreed nor disagreed that suppliers were willing to make short term sacrifices to maintain relationship with the hospital. The findings for means and standard deviations on the relationship between supply chain orientation and performance are shown in Table 1.

**Table 1 Descriptive Statistics on Supply Chain Orientation and Performance**

	N	Mean	Std. Deviation
The hospital is satisfied with the past performance of current suppliers	216	3.50	.511
Suppliers provide reliable information to hospital administration	216	3.29	1.083
Suppliers demonstrate high level of professionalism.	216	3.33	.917
Suppliers and strategic partners are reliable.	208	3.67	.686
Suppliers provide services that are superior compared to alternatives in the market.	216	3.38	1.056
Suppliers are willing to make short term sacrifices to maintain relationship with the hospital.	216	2.96	1.083
Suppliers and the hospital possess similar operating principles.	216	3.04	.550
Suppliers have similar work ethics as those of the hospital.	216	3.21	.932
Suppliers have complementary goals and objectives with those of the hospital.	216	3.00	.780

The findings of the study align with those of Tucker (2011) who found that trust, internal supply chain management focus and supply chain partner reliability are three key SCO factors that support enhancement of supply chain operation performance. Similarly, the findings are in

conformity with Chen, Preston and Xia (2013) who adopted trust, knowledge exchange, IT integration between the hospital and its suppliers, and hospital–supplier integration as key factors that influence supply chain performance of hospitals and found that trust and IT integration directly affected knowledge exchange which in turn improved performance.

### **Results on Performance of Hospitals**

Performance in the study was measured using four constructs namely total inventory expenditure, total wage bill, income from outpatient and income from inpatients. The findings indicate that the maximum inventory expenditure was 1,500,000,000 while the minimum was 1,026,000. The mean value was 180,952,306.21 with a standard deviation of 413,310,520.895. The maximum total wage bill reported was 7,100,000,000 and a minimum of 741,216 with a mean value of 672,825,692.54. The mean value for income from outpatients was 149,343,461.21 with a maximum value of 1,300,000,000 and a minimum of 1,665,456. Further, the mean value of income from inpatients was 927,698,608.71 with a maximum of 10,100,000,000 and a minimum of 1,184,040.

Data Envelopment Analysis (DEA) model was used to measure efficiency and optimum performance of the hospitals. DEA is simply calculated as the total weighted output divided by the total weighted input. The findings of the study indicate that the mean value for DEA in public hospitals was 1.0478, 2.1426 for private hospitals and 0.7144 for faith based hospitals. This implied that private hospitals were more efficient than the other types of hospitals, followed by public hospitals and finally faith based hospitals. The findings are shown in Table 2.

**Table 2 Descriptive Statistics on Performance of Hospitals**

	N	Minimum	Maximum	Mean	Std. Deviation
Total inventory expenditure	216	1026000	1500000000	180952306.21	413310520.895
Total wage bill	216	741216	7100000000	672825692.54	1981981429.638
Income from outpatient	216	1665456	1300000000	149343461.21	356925556.777
Income from inpatients	216	1184040	10100000000	927698608.71	2827532036.076

**Data Envelopment Analysis for Performance**

Public	63	.82	1.33	1.0478	.23002
Private	108	1.00	4.63	2.1426	1.52214
Faith Based hospital	45	.56	1.34	.7144	.34939

The study adopted DEA (Data Envelopment Analysis) model to measure efficiency and optimum performance of hospitals in Kenya in line with other scholars in the thematic area such as Caballer-Tarazona, Moya-Clemente, Vivas-Consuelo and Barrachina-Martinez (2010); Ozcan (2014); Chansky, Garner and Raichoudhary (2013) and Mayer (2013). The findings obtained in the study also concur with Pham (2011) who used data envelopment analysis method to calculate the relative efficiency of the hospitals and found that there was improvement in relative efficiency of hospitals that were attributed to technical aspects through encouragement of innovation in hospital operations thereby improving efficiency of hospitals.

**Inferential Statistics**

Inferential statistics was done using correlation and regression analysis. Correlation analysis was done using Pearson correlation coefficient while regression analysis was done using the fitness model, ANOVA and regression coefficients.

### **Correlation Analysis**

Findings of the study shown in Table 3 indicate that supply chain orientation and performance of hospitals in Kenya had a Pearson coefficient of 0.633. The significant value was obtained as ( $p = .000$ ) which was below 0.05 at 1 tailed test conducted in the study. This implies that there was a strong positive significant relationship between supply chain orientation and organizational performance. The findings are in agreement with the findings earlier posited by Tinney (2012) who determined that SCO directly influences firm performance through the development and sustainment of behavior elements that allow a firm to build trustful relationships with their supply chain partners. Further, the findings are in conformity with Tucker (2011) who found that trust, internal supply chain management focus and supply chain partner reliability are three key SCO factors that support enhancement of supply chain operation performance.

**Table 3: Correlation Findings**

		Performance
Supply Chain Orientation	Pearson Correlation	.633 <sup>**</sup>
	Sig. (1-tailed)	.000
	N	216

\*\* . Correlation is significant at the 0.01 level (1-tailed).

#### Statistical Tests

The study found a KMO value of 0.750 and Bartlett's test,  $\chi^2(36, N = 216) = 456.903, p = .000$ . The test results indicated that supply chain orientation met KMO threshold of 0.6 and Bartlett's Test of Sphericity threshold of  $<0.05$ . The study therefore concluded that sampling was adequate for supply chain orientation variable. The findings are shown in Table 4.

**Table 4 KMO and Bartlett's Test for Supply Chain Orientation**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.750
	Approx. Chi-Square	456.903
Bartlett's Test of Sphericity	df	36
	Sig.	.000

The study further conducted the factor loading analysis to determine the number of variables that were retained. The study found that the first two factor had Eigenvalues of more than 1 representing 72.937% of the total variance explained while the remaining seven factors had Eigen values of less than 1. Further, the first factor accounts for 52.173% of the variance in supply chain orientation and the second factor accounts for 20.764% of the variance. All the remaining factors were found to be insignificant and therefore were dropped as shown in Table 5.

**Table 5 Total Variance Explained**

	Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
		Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Supply Chain Orientation	1	4.696	52.173	52.173	4.696	52.173	52.173
	2	1.869	20.764	72.937	1.869	20.764	72.937
	3	.911	10.126	83.063			
	4	.732	8.130	91.193			
	5	.519	5.767	96.960			
	6	.219	2.438	99.399			
	7	.054	.601	100.000			

**Table 6 Factor Loadings**

	Component	
	1	2
The hospital is satisfied with the past performance of current suppliers	.789	-.478
Suppliers provide reliable information to hospital administration	.805	-.531
Suppliers demonstrate high level of professionalism.	.771	-.509
Suppliers and strategic partners are reliable.	.570	.538
Suppliers provide services that are superior compared to alternatives in the market.	.506	.060
Suppliers are willing to make short term sacrifices to maintain relationship with the hospital.	.815	.343
Suppliers and the hospital possess similar operating principles.	.907	.330
Suppliers have similar work ethics as those of the hospital	.584	.728
Suppliers have complementary goals and objectives with those of the hospital.	.649	-.222

Linearity test was done using the Durbin-Watson test. If a significant deviation from linearity was greater than 0.05, then the relationship between the independent variable was confirmed to be linearly dependent and admissible. The findings on supply chain orientation indicate that there was a significant linear relationship between supply chain orientation and performance of hospitals as a significant deviation from linearity value of 0.063 was obtained.

**Table 7 Linearity Test**

			Sum of	df	Mean	F	Sig.
			Squares		Square		
Performance * Supply Chain Orientation		(Combined)	232.824	7	33.261	468.465	.163
	Between	Linearity	.836	1	.836	11.785	.056
	Groups	Deviation from Linearity	231.988	6	38.664	544.573	.063
	Within Groups		15.030	208	.071		
	Total		247.854	215			

Prior to analyzing data using inferential statistical techniques, the study checked the normality of the data set by looking at skewness and kurtosis. The skewness values obtained in the study indicate that the scores are skewed as many are negatively skewed and not that much closer to zero. However, because all the skewness value fall within the range of -3 to +3, there is no case of excessive skewness in the data. The kurtosis value also fall within the range of -3 to +3, and therefore do not display excessive kurtosis as well. These results suggest that the normality assumption is not strictly violated in the study. Normality test was done at 95% confidence interval for mean. The findings are shown in Table 8.

**Table 8 Normality Test Results**

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Supply Chain Orientation	216	.593	.166	-.359	.330

Heteroscedasticity occurs when the variance in scores on one variable is somewhat different to all of the values of the other. In statistics, heteroscedasticity describes a situation in which the error term in the relationship between the independent variables and the dependent variable, is different across all values of the independent variables. The research used Glejser Test to test for

heteroscedasticity. A significant value of 0.05 was used meaning that values greater than the significant value implied lack of heteroscedasticity issues in the study.

The obtained values of significance for Supply Chain orientation variable was 0.115. This indicates that there are no heteroscedasticity problems as the variable has a score of higher than 0.05. The findings are shown in Table 9.

**Table 9 Heteroscedasticity Test Results**

Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	1.221	.082		14.936	.000
Supply Chain Orientation	-.050	.032	-.128	-1.584	.115

### **Regression Analysis**

The study conducted regression analysis between supply chain orientation and performance of hospitals in Kenya. This was done using the coefficient of determination which was used to show the variability of the dependent variable in relation to the independent variable, ANOVA which was used to show the significance of the model and the coefficients which were used to test hypothesis of the study. The findings are shown in Table 10.

**Table 10 Regression Analysis for Supply Chain Orientation**

<b>Model Summary</b>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics F Change	df1	df2	Sig. F Change
1	.633 <sup>a</sup>	.401	.398	.69998	.401	143.351	1	214	.000

a. Predictors: (Constant), Supply Chain Orientation

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	70.238	1	70.238	143.351	.000 <sup>b</sup>
	Residual	104.854	214	.490		
	Total	175.093	215			

a. Dependent Variable: Performance  
 b. Predictors: (Constant), Supply Chain Orientation

<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.111	.259		-.429	.669
	SC Orientation	.924	.077	.633	11.973	.000

a. Dependent Variable: Performance

The study realized an R<sup>2</sup> value for the relationship between supply chain orientation and performance of 0.401. This implied that 40.1% of the variation in performance could be attributed to changes in supply chain orientation in hospitals in Kenya. Therefore, other factors not studied in the present study contribute to 59.9% of the variation in performance of hospitals. Further, the study conducted ANOVA to test for the reliability of the regression model. The significant value obtained was 0.000 which was less than 0.05 at 95% confidence level. The F value was 143.351 which was significant as shown by the significant value. This implied that the model was reliable in predicting the relationship between supply chain orientation and performance. Hypothesis was tested using the regression coefficients. The study tested the following alternative hypothesis;

*H<sub>a</sub>: There is a significant and positive influence between supply chain orientation and performance of hospitals.*

According to the findings shown in Table 10, supply chain orientation had coefficients ( $\beta = .633$ ,  $t = 11.973$ ,  $p = .000$ ). The significant value obtained was less than 0.05 set by the study, similar to the t value which was more than 1.96 at 5% significant level. The results therefore imply that there was a positive significant relationship between supply chain orientation and performance of hospitals in Kenya. Based on the findings, the study rejected the null hypothesis and therefore confirmed that supply chain orientation had a positive significant influence on performance of hospitals.

The findings obtained by the study align with those of Acar et al. (2017) who revealed that SCO had significant and positive effects on performance. In addition, Chen, Preston and Xia (2013) found that supply chain orientation constructs of trust and IT integration directly affected knowledge exchange and by extension led to improved overall performance. Based on the ordinary least square model;  $Y = \beta_0 + \beta_1 X_1 + \varepsilon$  for the ordinary least square model, ordinary least model therefore will be;  $Y = -0.111 + 0.924 X_1 + 0.259$ . This implies that a unit increase in supply chain orientation will lead to 92.4% increase in hospital performance in Kenya.

## **Conclusion**

The study concluded that supply chain orientation was critical in the performance of hospitals in Kenya. The study also concluded that the suppliers and strategic partners were found to be reliable and generally the hospitals were satisfied with their current suppliers. In addition, the study found that suppliers were not willing to make short term sacrifices and did not have complementary goals with those of the hospitals.

## **Recommendations**

The study recommended that the hospitals needed to invest in improving the supply chain orientation practices such as improving the level of trust and credibility so that suppliers may be willing to offer short term sacrifices. Further, hospitals needed to encourage contracting suppliers with complementary goals and objectives so as to facilitate and promote growth of hospitals.

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