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Achimba, E. O., & Ombui, K.

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[1] Achimba, E. O., & [2] Ombui, K.

[1] MSc. Student, Jomo Kenyatta University of Agriculture and Technology [JKUAT], Kenya
[2] Doctor, Lecturer, Jomo Kenyatta University of Agriculture and Technology [JKUAT], Kenya

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ABSTRACT

This study sought to find out the role of supplier relations management on the performance of selected hospitals in Kisii County. The methodology of this study was purely qualitative. In the present study, a census survey approach was taken in which the target population comprising all the 115 registered hospitals in Kisii County formed the study sample. Purposive sampling techniques was then employed whereby the units of analysis were key informants comprising top level officials from procurement departments across the 115 hospitals, bringing the sample size to 115. Data was obtained through primary data sources by means of questionnaires administered to a selected sample. Descriptive and inferential statistics were used to analyze the data collected. In descriptive statistics, frequencies, percentages, mean and standard deviation were used. In inferential statistics, regression analysis was used to determine the relationship between variables. The findings were presented in tables and graphs. Descriptive statistics revealed that a majority of practitioners in supplier relations management across the institutions surveyed put significant consideration both in the suppliers' organizational and financial stability and product quality thereof. There were low adoption levels of various supplier development measures across a majority of the institutions surveyed. It was also found that prices are a key consideration in supply chain performance. The study also found that supplier contracting has moderately to greatly impacted supply chain performance in most of the institutions reached. Inferential statistics revealed a positive correlation is seen between the each supplier relations management aspect and Performance. The strongest correlation was obtained between supplier selection and Performance (r = .798) and the weaker relationship found between Supplier development and Performance (r = .436). Supplier payment and Supplier contracting are also strongly and positively correlated with Performance at correlation coefficient of .716 and .708 respectively. All the independent variables were found to have a statistically significant association with the dependent variable at 0.05 level of confidence.

Key Words: *Supplier Selection, Supplier Contracting, Supplier Development, Supplier Payment*

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INTRODUCTION

The study sets out to explore the role of supplier relations management on the performance of hospitals in KISII County. Although labor costs constitute the major share of the total costs of a medical treatment, there is still a high economic potential in improving expenditure on products and services (European Commission, 2008). Supplier Relationship Management (SRM), understood as approach to systematically managing an organization's interactions with the companies that supply products and services to it, can help to reduce costs and enhance quality of service delivery (Mettler & Rohner, 2010).

In Switzerland, health care research and practice and the concept of SRM are not paid much attention yet. The weak positioning of the purchasing department in the value chain of health service delivery and resulting low attention on the part of the hospital's board of directors makes it difficult to promote the purchasing function from a pure cost driver to a respectable facilitator of health service delivery that contributes to revenue increases, knowledge acquisition, and added value to the organization. Accordingly, hospital buyers were just expected to attain the best price for the needed goods. Therefore trust between the buyer and the supplier is weak and the relationship is oftentimes adversarial. Due to the onward 'marketization' of health care, open-minded hospital managers expect that the hospital procurement department will increasingly contribute to revenue gains and to knowledge acquisition in future (Mettler & Rohner, 2010).

In South Africa, Supplier relations management is widely recognized as the most important responsibility of the purchasing function because the organization's suppliers can affect the price, quality, delivery reliability and availability of its products (Pearson & Ellram, 2008).

In Kenya, studies on supplier relationship management and development, conclude that Supplier Development Strategy, Supplier Motivation Strategy and Supplier Relationship Strategy affect procurement performance positively though the effect is not on a very significant scale. Supplier Evaluation and Rating Strategy and Communication Strategy affect procurement performance negatively. Between these two, only communication Strategy has a significant impact on procurement performance. On how hospitals use Supplier Motivation Strategy, Supplier Relationship Strategy, Supplier Evaluation and Rating Strategy and Communication Strategy to develop suppliers, the study concludes that KISII Hospital has a better approach to supplier development compared to Kenyatta National Hospital (Chepkwony, *et al*., 2014).

Statement of the Problem

Despite the extensive law provisions that guide the procedures of procurement among hospitals in Kenya, there has been a myriad of issues arising based on the delayed payments, illegal outsourcing, and unethical procurement which affect supplier relations management. The question that arises in this context constitutes whether the methods the public health sector adopt in their procurement processes has implications on the selection of appropriate supplier relations. More than 50% of the corruption cases alleged in the public hospitals sector are related to supplier relations adopted (Owalla, 2012).

Chepkwony et al. (2014) found that there have been numerous complaints from the general public regarding erratic supplies of the essential drugs and other medical supplies in most hospitals in the country. This coupled with the scanty literature on the state of supply relations management and the influence thereof on performance of hospitals forms the basis for the present study. The study set out to assess the role of supplier relations management on performance of hospitals in Kisii County. Hence, they did not address the influence of supplier relations management on the performance of hospitals specifically in Kisii, county. Could supplier selection, supplier contracting, and supplier development and supplier payment affect

performance of hospitals in Kisii County, Kenya? This study sought to explore more.

Research Objective

The general objective of the study was to assess the role of supplier relations management on performance of hospitals in KISII County, Kenya. The study was guided by the following specific objectives;

- To establish how supplier selection affect performance of hospitals in Kisii County, Kenya
- To ascertain how supplier contracting influence performance of hospitals in Kisii County, Kenya.
- To establish how supplier development affect performance of hospitals in Kisii County, Kenya.
- To determine how supplier payment influence performance of hospitals in Kisii County, Kenya.

LITERATURE REVIEW

Theoretical Review

The Theory of Transaction Cost Economics

The theory of transaction cost economics was driven by the objective of profit maximization. The basic assumption underlying the theory suggests that relationships between buyers and suppliers lower transaction costs and facilitate investment in relation-specific asset (Williamson, 1981, 1985). This makes reference to the relative cost of using markets as opposed to firm controlled resources for determining the resource allocation decisions. In the context of sourcing decisions, the firms source internally to minimize costs. This will prevent the supplier from taking for granted on the buyer side. On the other hand, if the supplier can produce a lower cost compared to sourcing internally, then the buyer should choose for external sourcing (Hsu *et al.*, 2008).

Systems Theory

According to Rudolph (2011), Systems theory is the interdisciplinary study of systems in general, with the goal of elucidating principles that can be applied to all types of systems at all nesting levels in all fields of research. The term does not yet have a well-established, precise meaning, but systems theory can reasonably be considered a specialization of systems thinking; alternatively as a goal output of systems science and systems engineering, with an emphasis on generality useful across a broad range of systems versus the particular models of individual fields (Senge, 2009)

Empowerment Theory

According to the theory, empowerment refers to the ability of people to gain understanding and control over personal, social, economic and political forces in order to take action to improve their life situations. It is the process by which individuals and communities are enabled to take power and act effectively in gaining greater control, efficacy, and social justice in changing their lives and their environment. It is a process that fosters power in people, for use in their own lives, their communities, and in their society, by acting on issues that they define as important. (Zimmerman 2000).

Resource Based Theory

The resource-based view (RBV) as a basis for the competitive advantage of a firm lies primarily in the application of a bundle of valuable tangible or intangible resources at the firm's disposal. To transform a short-run competitive advantage into a sustained competitive advantage requires that these resources are heterogeneous in nature and not perfectly mobile. Effectively, this translates into valuable resources that are neither perfectly imitable nor substitutable without great effort. If these conditions hold, the bundle of resources can sustain the firm's above average returns (Crook *et al.*, 2008).

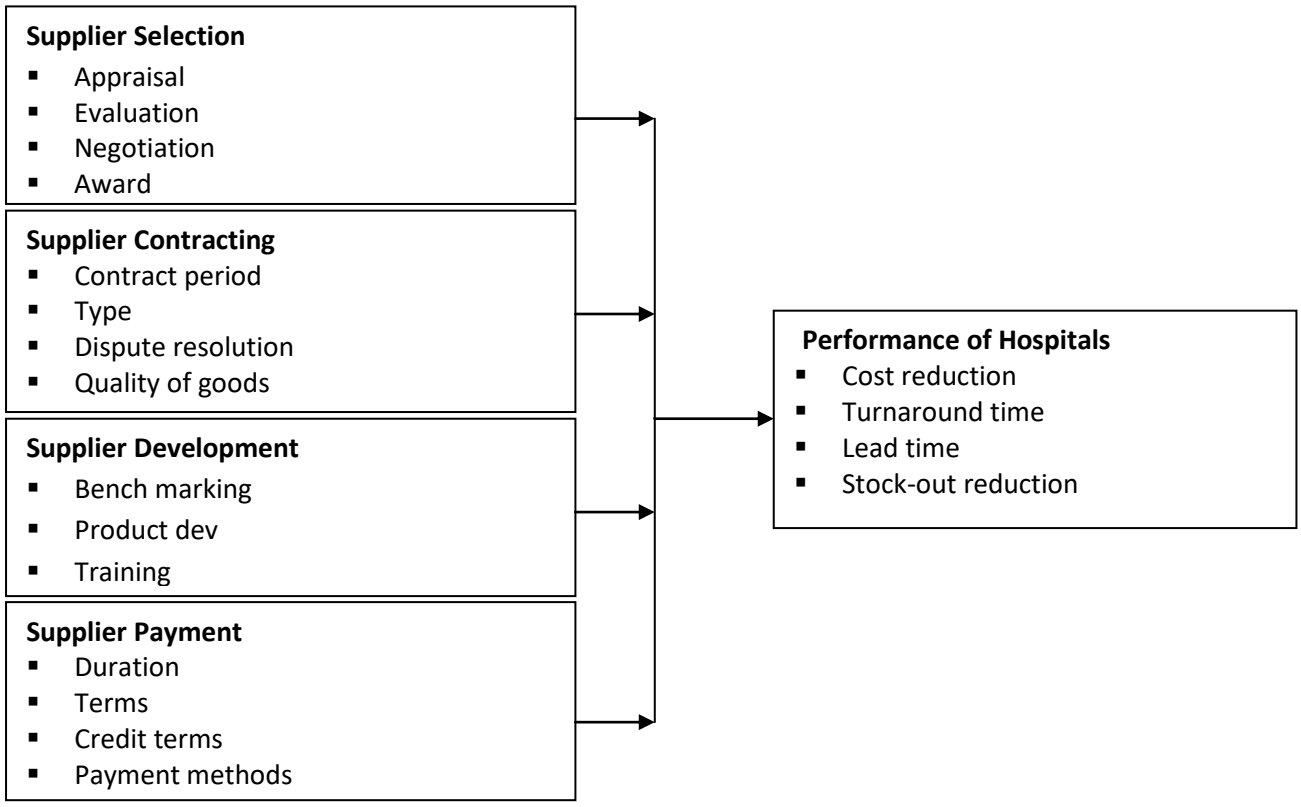

Figure 1: Conceptual Framework

Performance of Hospitals

Cost reduction as a business objective is the starting point for any business organization to thrive and it provides direction for action. It is also a way of measuring the effectiveness or otherwise of the actions taken by the management of the organization. The main goal or objective of any business organization according to Lucey (1993) is to make and maximize profit while other secondary objectives include going concern, growth, corporate social responsibility, benefits to employees and so on. Though other objectives are also considered very important as listed above, but profit maximization is usually the ultimate because it maximizes the shareholders wealth which is the ultimate aim of investing in a business. People will naturally prefer to invest in a highly profitable business (Charles, 1998).

Supplier Selection

Supplier appraisal is of importance as it is an essential aspect of both strategic sourcing, supplier management and the achievement of competitive advantage. The importance of supplier appraisal is that it is an essential aspect of both strategic sourcing, supplier management and the achievement of competitive advantage (Pearson & Ellram, 2008). Companies' aim that proper supplier appraisal would help to reduce product and material costs while maintaining a high level of quality and after-sales services. Therefore, an efficient supplier appraisal process needs to be in place for the successful supply chain management (Sonmez, 2008).

Supplier Contracting

The need for a defined contracting period is crucial as the performance is considered satisfactory by the Government, the fixed fee is payable at the expiration of the agreed-upon period, upon contractor statement that the level of effort specified in the contract has been expended in performing the contract work. Renewal for further periods of performance is a new acquisition that

involves new cost and fee arrangements (Abosag *et al*., 2008).

Supplier Development

Benchmarking Public Procurement is designed to support and enhance decision-making by policymakers in order to increase private sector participation in public tender and stimulate competition, which would ultimately reflect positively on both private and public sides of public procurement. The project will help identify areas for reform and achieve more transparent, competitive, and efficient public procurement systems. Benchmarking Public Procurement presents data that capture important dimensions of the quality and efficiency of public procurement systems to which business communities across the world are confronted (Chidambaranathan *et al.*, 2009).

Supplier Payment

Duration upon which payment should be made after the delivery of goods and services at a reasonable time of which should be adhered to by organizations as it contributes to maintaining a sustainable competitive edge, and is considered a building block of good supplier management practices. It has been argued that supplier payment activities should focus on developing supplier future capabilities in product and technology development rather than just on current cost and quality issues (Chakraborty & Philip, 2009).

Empirical Review

According to a study by Lee (2008); the impact of supplier selection criteria and supplier involvement on business performance: high-technology medical equipment in hospitals in Malaysia: results indicate that most commonly used criteria such as competitive pricing, product quality, delivery service and supplier capability are found to be insignificant related to hospitals business performance. Only buyer-supplier fit is positively impact on supplier performance. Nevertheless, greater emphasis should be placed on supplier involvement because the intangible criteria have significantly impact on the hospitals business performance. Consequently, supplier performance does not have the mediating effect on the relationship between supplier selection criteria, supplier involvement and hospital business performance. Hospitals should carefully select their suppliers to enhance their competitive advantage and long-term needs.

The UK government believes a culture of late payment is preventing UK businesses, especially SMEs, from investing in growth and fully contributing to economic recovery. SMEs generate half of the annual turnover of UK businesses, but they often lack access to credit and may get into financial difficulties because of late payment by customers: a survey in 2014 suggested that late payment was a major factor in 1 in 5 UK corporate insolvencies (NAO: UK, 2015).

Wilson (2014), states that cash flow is the lifeblood of any business. Businesses need cash to buy supplies, pay employees, service debt and invest in equipment and training; this cash usually comes from receipts for sales. However, when selling to other businesses, companies usually make sales on credit, receiving payment only after they have supplied goods or services and invoiced the customer. Payment is normally due within an agreed number of days after the invoice date. A recent survey of small businesses suggests that they most commonly seek payment in 28–30 days (73%). A further 7% require payment within 7 days, 15% between 15 and 21 days, and 5% agree payment terms of more than a month.

There is a high correlation between integration with suppliers, customers and an organisation's performance (Frohlich & Westbrook, 2011; Rosenzweig *et al*., 2012). One approach is internet-based SCI, which has been praised in the literature. Frohlich (2011) found the following from his study of e-integration in the supply chain: a positive connection between e-integration and performance; and internal barriers hindered e-integration more than either upstream supplier barriers, or downstream customer barriers.

METHODOLOGY

This study employed a descriptive approach on the role of supplier relations management to the performance of hospitals. The target population for this research study was all the 115 registered hospitals in KISII County. The units of observation were the top cadre officers from procurement departments across the hospitals in Kisii County. The study adopted a census survey design with respect of unit of analysis which is the hospital in Kisii County. This study used primary data for statistical analysis. The study carried out a pilot study to pretest and validate the questionnaire and the interview guide. This study used the pilot study to help improve face validity of instruments. Content validity was established in this study by seeking assistance from supervisors who are experts in research thus helping improve the content validity of the instrument.

A construct composite reliability co-efficient (Cronbach alpha) or 0.7was considered to be adequate for this study. Quantitative data collected using questionnaires was analyzed by the use of descriptive statistics using Statistical Package for Social Sciences (Version 22.0Content analysis was used to analyze data collected from the unstructured questionnaires that is of qualitative nature. The study used inferential statistics which involved coefficient of correlation and multiple regression analysis to establish effects of supplier relations management on the performance of hospitals.

RESULTS

Supplier Selection

The study sought to examine the role of supplier selection on the performance of hospitals. To this end, respondents were asked to indicate which of the pertinent statements posed, they considered most important when selecting a supplier for their procurement needs. Results as presented in table 4.4 below and revealed that a majority of respondents (73.9%) consider capacity to meet long term needs as the most important criteria when selecting a supplier for their procurement needs. This was closely followed by 71.9% who considers Financial/business stability and Quality Management Systems, then 65.6% considering either Delivery performance and Management and Organization. Further, 40.6% of respondents consider Supplier's length of experience and Recalls and Complaints systems while 33.3% considers Production facility and equipment. Only 31.3% and 28.1% of respondents were found to consider Compliance and regulatory track record and Change & Deviation management respectively. It can be deduced from the findings that a majority of practitioners in supplier relations management across the institutions surveyed put significant consideration both in the suppliers' organizational and financial stability and product quality thereof. The most common areas of consideration particularly include capacity to meet long term needs, financial/business stability, quality management systems, delivery performance and management and organization. Asked on how the same has impacted supply chain performance in their respective institutions, a majority responded in the affirmative, arguing that supply chain performance in the respective organizations has considerably improved.

This is in agreement with Pearson and Ellram (2008) who note that the importance of supplier appraisal is that it is an essential aspect of both strategic sourcing, supplier management and the achievement of competitive advantage. The findings also agree with Sonmez (2008) who found that companies' aim that proper supplier appraisal would help to reduce product and material costs while maintaining a high level of quality and after-sales services. Therefore, an efficient supplier appraisal process needs to be in place for the successful supply chain management. Hsu et al. (2008) also agree that supplier evaluation is a crucial purchasing activity for many firms as it could improve on the firm's resources and core competencies. Kannan and Tan (2011) also observe that to sustain effective and reliable sources of

suppliers, buyer should select their suppliers carefully and evaluate them regularly ensuring that the terms of contract are beneficial to all during the tender awards. Table 1 below presents the findings.

Table 1: Supplier Selection

Statement	F	(%)
Capacity to meet long term needs	71	73.9
Delivery performance	63	65.6
Supplier's length of experience	39	40.6
Financial/business stability	69	71.9
Quality Management Systems	69	71.9
Change & Deviation management	27	28.1
Recalls and Complaints systems	39	40.6
Compliance and regulatory track record	30	31.3
Production facility and equipment	32	33.3
Management and Organization	63	65.6

Supplier Development

The study sought to establish the role of supplier development on the performance of hospitals. To this end, respondents were asked to indicate which of the pertinent measures posed they employed in the organization to ensure supply development for their procurement needs. It was revealed as presented in table 2 below that a majority of respondents (56.3%) track delivery performance as a measure employed in the organization to ensure supply development for their procurement needs. This was followed by 46.9% affirming to the use of an approved suppliers list; then 37.5% employing a supplier audit system then 32.3% using product quality review. It was further revealed that 30.2% of respondents employ corrective action system while 28.1% of respondents use a supplier rating system. A further 11.5% of respondents check for continuous improvement program; while 9.4% check for a Six Sigma or equivalent management system and only 7.3% affirmed to checking for a training program. Asked on whether or not the said measures have impacted supply chain performance in their respective organizations, a majority indicated moderate to minimal impact. The findings point to low adoption levels of various supplier development measures across a majority of the institutions surveyed. Consequently, moderate to minimal impacts of the same on supply chain performance have been realized in the respective institutions. It can thus be deduced that a majority of supplier relations management practitioners across the institutions do not adequately concern themselves with the growth and development of their suppliers. This should not be the case as supplier development directly determines the long term capacity to deliver on assignments.

The finding is in tandem with Wagner (2010) who asserts that there is strong evidence that organizations today are increasingly implementing SD programs to improve supplier performance and remain competitive. Firms that include their suppliers in the early stages of innovation projects seem to substantially outperform their peers that do not. The finding is also in support of Modi and Mabert (2007 who observe that training in procurement is a vital aspect of giving fighting forces the ability to perform effectively in the field. Purchasing is just as important in the civilian sector. For this reason, leadership training begins with giving people the basic skills that they require to assume responsibility, and to discharge whatever managerial authority may be entrusted to them in a way that, if not spectacular, is at least not manifestly incompetent or catastrophically bad. Table 2 below presented the findings.

Table 2: Supplier Development

Statement	F	(%)
Use of a supplier rating system	27	28.1
Use of an approved suppliers list	45	46.9
Use of a supplier audit system	36	37.5
Use of a corrective action system	29	30.2
Check for a training program	7	7.3
Check for product quality review	31	32.3
Tracking delivery performance	54	56.3
Check for continuous improvement program	11	11.5
Check for a Six Sigma or equivalent management system	9	9.4

Supplier Payment

The study sought to determine the role of supplier payment on the performance of hospitals. To this end, respondents were asked to indicate which of the pertinent payment terms the organization consider most important when contracting for supply needs. As indicated by table 3 below, a majority of respondents (79.2%) consider prices most important when contracting for supply needs. This was followed by 71.9% of respondents affirming to bargains then 50.0% who consider discounts. It was further revealed that 37.5% of respondents consider Pre-payments/Deposits when contracting for supply needs, while 34.4% consider time of payment, and only 28.1% consider the mode of payment. It was also revealed upon probing that the payment terms have significantly impacted supply chain performance in the respective organizations. From the foregoing, it can be deduced that prices are a key consideration in supply chain performance. This can be attributed to the fact that spending less in procurement leads to minimized logistical expenditure and a higher profit margin. Accordingly, Sanchez-Rodriguez (2009) argues that for the organization to ensure improvement of performance and competitive advantage, they should engage with suppliers on contract terms that will not burden their cash flow or of which may lead to high amount if capital held in stock. Also, according to Horne and Wachowicz (1998), firms can only benefit from credit if the profitability generated from increased sales exceeds the added costs of receivables. It has also been argued by Chakraborty and Philip (2009) that supplier payment activities should focus on developing supplier future capabilities in product and technology development rather than just on current cost and quality issues. Table 3 below presents the findings.

Table 3: Supplier Payment

Statement	F	(%)
Mode of payment	27	28.1
Time of payment	33	34.4
Pre-payments/Deposits	36	37.5
Discounts	48	50.0
Prices	76	79.2
Bargains	69	71.9

Supplier Contracting

The study sought to ascertain whether supplier contracting has a role on the performance of hospitals. To this end, respondents were asked to indicate which of the pertinent measures the respective organizations consider most important when entering into a contract with a supplier. A majority of respondents (84.4%) were found to consider most the involvement of affected departments when entering into a contract with a

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supplier; followed by 81.3% considering a documented contract review process; then the presence of an insurance policy plan (78.1%). This was followed by 50.0% considering the provision on vague or conflicting requirements then the presence of a risk management plan as indicated by 45.8% while only 40.6% indicated that they consider requirements review in the procurement process. Asked whether the terms have impacted supply chain performance in their respective organizations, a majority indicated that there has been a moderate to great extent of influence in this regard. As such, it can be deduced that supplier contracting has moderately to greatly impacted supply chain performance in most of the institutions reached. This can be mainly attributed to among others, the involvement of affected departments when entering into a contract with a supplier, the consideration of a documented contract review process, the presence of an insurance policy plan as well as the provision on vague or conflicting requirements.

The finding is in tandem with Abosag et al. (2008) who argue that the need for a defined contracting period is crucial as the performance is considered satisfactory by the Government, the fixed fee is payable at the expiration of the agreed-upon period, upon contractor statement that the level of effort specified in the contract has been expended in performing the contract work. Accordingly, Gyau and Spiller (2010) offer that buyers must ensure contracts set out a dispute escalation process and specify the method. If the contract is silent on this point each party will treat the other's proposals with suspicion, assuming that there is an agenda or advantage behind a recommendation to, for example, arbitrate, adjudicate, litigate or mediate. There would also be the opportunity for the party receiving the claim to stall the process by refusing to agree. Vogele (2009) is further of the opinion that Commitment to quality by purchasers need to purchase goods and services of the right quality, at the most cost effective price, in the most economic quantities, and ensure that they are available when needed. Failure to meet any of these requirements can seriously affect a department's ability to meet its objectives and outputs and ultimately to deliver services to citizens. Table 4 below presents the findings.

Table 4: Supplier Contracting

Statement	F	(%)
A documented contract review process	78	81.3
Presence of a risk management plan	44	45.8
Presence of an insurance policy plan	75	78.1
Involvement of affected departments	81	84.4
Provision on vague or conflicting requirements	48	50.0
Requirements review in the procurement process	39	40.6

Supply Chain Performance of Hospitals

The study sought to determine supply chain performance among the institutions reached attributed to the adoption of the supplier selection criteria, supplier development measures, supply payment terms and or supplier contract terms. Findings in table 5 below reveal improved financial performance across the 5 year period running from the year 2011 to 2015. In procurement costs, a majority of respondents affirmed having grown incrementally from less than 10% in 2011 (41.9%), to growth by 10% in 2013 (34.8%), then by more than 10% in 2014 (39.0%) and 2015 (36.2%). Turnaround time also recorded positive growth with a majority affirming to less than 10% in 2011 (42.3%) and 2012 (37.7%), to 10% in 2013 (36.1%) then more than 10% in 2014 (41.1%) and 2015 (37.5%). A similar trend was recorded in stock-out levels, growing from less than 10% (44.1%) in 2011, to more than 10% in 2013 (36.4%), 2014 (40.4%) and 2015 (37.3%). Supply deficits further recorded positive growth with a majority affirming to less

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than 10% in 2011 (37.9%) and 2012 (35.9%), to 10% in 2013 (35.9%) and 2014 (35.3%) then by more than 10% in 2015 (36.2%). It can be deduced from the findings that key supply chain areas have considerable improved with the adoption of the supplier selection criteria, supplier development measures, supply payment terms and or supplier contract terms. Turnaround time and Supply deficits have particularly improved by at least 10 percent across most of the institutions pointing to the significance of supplier relations management in the supply chain process.

Accordingly Lucey (1993) argues that the main goal or objective of any business organization is to make and maximize profit while other secondary objectives include going concern, growth, corporate social responsibility, benefits to employees and so on. Charles (1998) adds that though other objectives are also considered very important as listed above, but profit maximization is usually the ultimate because it maximizes the shareholders wealth which is the ultimate aim of investing in a business. People will naturally prefer to invest in a highly profitable business. Table 5 below presents the findings.

Table 5: Supply Chain Performance

Procurement costs	**2011**	**2012**	**2013**	**2014**	**2015**
Increased by less than 10%	41.9	37.9	33.8	29.7	29.1
Increased by 10%	33.2	29.6	34.8	31.3	34.7
Increased by more than 10%	24.9	31.5	31.4	39.0	36.2
Turnaround time	**2011**	**2012**	**2013**	**2014**	**2015**
Increased by less than 10%	42.3	37.7	31.6	30.7	29.5
Increased by 10%	31.8	32.9	36.1	28.2	33
Increased by more than 10%	25.9	29.4	32.3	41.1	37.5
Stock-out levels	**2011**	**2012**	**2013**	**2014**	**2015**
Increased by less than 10%	44.1	35.2	33.4	25.7	27.1
Increased by 10%	31.7	32.6	30.2	33.9	35.6
Increased by more than 10%	23.5	32.2	36.4	40.4	37.3
Supply deficits	**2011**	**2012**	**2013**	**2014**	**2015**
Increased by less than 10%	37.9	35.9	31.2	25.7	33.1
Increased by 10%	36.2	31.3	35.9	35.3	30.7
Increased by more than 10%	25.9	32.8	32.9	39	36.2

Pearson Correlation Analysis

Table 6 below presents the Pearson correlations for the relationships between the various supplier relations management aspect supply chain performance among hospitals in KISII County. Pearson correlation was used to measure the degree of association between variables under consideration i.e. independent variables and the dependent variables. Pearson correlation coefficients range from -1 to +1. Negative values indicates negative correlation and positive values indicates positive correlation where Pearson coefficient <0.3 indicates weak correlation, Pearson coefficient >0.3<0.5 indicates moderate correlation and Pearson coefficient>0.5 indicates strong correlation. The analysis of correlation results in Table 6 illustrates that between supplier selection and performance in hospitals there is a positive coefficient 0.782, with p-value of 0.001. It indicates that the result is significant at α =5% and that if the supplier selection increases it will have a positive impact on performance of hospitals. The correlation results between supplier contracting and performance in hospitals also indicates the same type of result where the correlation coefficient is 0.700 and a p-value of 0.006 which significant at α = 5%. The results also show that there is a positive association between supplier development and performance in hospitals where the correlation coefficient is 0.677, with a p-value of 0.010.

Further, the result shows that there is a positive association between supplier payment and performance in hospitals where the correlation coefficient is 0.607, with a p-value of 0.025. This therefore infers that supplier selection contributed most to performance in hospitals followed by supplier contracting, then supplier development while supplier payment had the least influence on performance in hospitals in the study area. This is in agreement with Pearson and Ellram (2008) who note that the importance of supplier appraisal is that it is an essential aspect of both strategic sourcing, supplier management and the achievement of competitive advantage. The findings also agree with Sonmez (2008) who found that companies' aim that proper supplier appraisal would help to reduce product and material costs while maintaining a high level of quality and after-sales services. Therefore, an efficient supplier appraisal process needs to be in place for the successful supply chain management. Hsu et al. (2008) also agree that supplier evaluation is a crucial purchasing activity for many firms as it could improve on the firm's resources and core competencies. Kannan and Tan (2011) also observe that to sustain effective and reliable sources of suppliers, buyer should select their suppliers carefully and evaluate them regularly ensuring that the terms of contract are beneficial to all during the tender awards

From the foregoing, it can be deduced that prices are a key consideration in supply chain performance. This can be attributed to the fact that spending less in procurement leads to minimized logistical expenditure and a higher profit margin. Accordingly, Sanchez-Rodriguez (2009) argues that for the organization to ensure improvement of performance and competitive advantage, they should engage with suppliers on contract terms that will not burden their cash flow or of which may lead to high amount if capital held in stock. Also, according to Horne and Wachowicz (1998), firms can only benefit from credit if the profitability generated from increased sales exceeds the added costs of receivables. It has also been argued by Chakraborty and Philip (2009) that supplier payment activities should focus on developing supplier future capabilities in product and technology development rather than just on current cost and quality issues. The finding is in tandem with Abosag et al. (2008) who argue that the need for a defined contracting period is crucial as the performance is considered satisfactory by the Government, the fixed fee is payable at the expiration of the agreed-upon period, upon contractor statement that the level of effort specified in the contract has been expended in performing the contract work. Accordingly, Gyau and Spiller (2010) offer that buyers must ensure contracts set out a dispute escalation process and specify the method. If the contract is silent on this point each party will treat the other's proposals with suspicion, assuming that there is an agenda or advantage behind a recommendation to, for example, arbitrate, adjudicate, litigate or mediate. There would also be the opportunity for the party receiving the claim to stall the process by refusing to agree.

Table 6: Pearson Correlation Matrix

			Perfomance	Supplier Selection	Supplier Development	Supplier Payment	Supplier contracting
perfomance	R		1.000				
	Sig. (2-tailed)		.				
	N						
Supplier selection	R		.782	1.000			
	Sig. (2-tailed)		.001				
	N		96				
Supplier development Phase	R		.700	.076	1.000		
	Sig. (2-tailed)		.006	.05.			
	N		96	96			
Supplier payment	R		.677	.142	.065	1.000	
	Sig. (2-tailed)		.010	.001	.023		
	N		96	96	96		
Supplier contracting	R		.607	.054	.065	.087	1.000
	Sig. (2-tailed)		.025	.000	.001	.086	
	N		96	96	96	96	

* Correlation is significant at the 0.05 level (2-tailed)

Multiple Regression Analysis

A multiple regression model was fitted to determine whether independent variables notably, X_1= supplier selection, X_2=Supplier contracting, X_3= Supplier development, X_4= Supplier payment simultaneously affected the dependent variable Y= Performance in hospitals. As a result, this subsection examines whether the multiple regression equation can be used to explain the nature of the relationship that exists between the independent variables and the dependent variable. The multiple regression model was of the form: Where; β0 = Constant Y= Performance in hospitals; X_1= Supplier selection; X_2= Supplier contracting; X_3= Supplier development; X_4= Supplier payment; β i = Coefficients of regression for the independent variables Xi (for i = 1,2,3,4); e. = error term As can be observed in Table 7, the regression model of Performance in hospitals coefficient of determination R Square was 0.748 and R was 0.865. The coefficient of determination R Square indicated that 74.80% of the variation on Performance in hospitals can be explained by the set of independent variables, namely; X_1= Supplier selection; X_2= Supplier contracting; X_3= Supplier development; X_4= Supplier payment. The remaining 25.20% of variation in performance in hospitals can be explained by other variables not included in this model. This shows that the model has a good fit since the value is above 60%. This concurs with Graham (2012) that R-squared is always between 0 and 100%: 0% indicates that the model explains none of the variability of the response data around its mean and 100% indicates that the model explains the variability of the response data around its mean. In general, the higher the R-squared, the better the model fits the data. The adjusted R square is slightly lower than the R square which implies that the regression model may be over fitted by including too many independent variables. Dropping one independent variable will reduce the R square to the value of the adjusted R square.

The study further used Analysis of Variance (ANOVA) in order to test the significance of the overall regression model. Green and Salkind (2013)

posit that Analysis of Variance helps in determining the significance of relationship between the research variables. The results of Analysis of Variance (ANOVA) for regression coefficients in Table 7 revealed that the significance of the F statistics is 0.000 which is less than 0.05 and the value of F-calculated (3.1983) which is greater than the F-table value(1.4266) being significant at 0.00 confidence level. The value of F is large enough to conclude that the set coefficients of the independent variables are not jointly equal to zero. This implies that at least one of the independent variables has an effect on the dependent variable.

Table 7 presented the beta coefficients of all independent variables versus performance in hospitals. As can be observed from Table 7, Supplier selection (X_1) had a coefficient of 0.735 which is greater than zero. The t statics is 4.801 which has a p-value of 0.000 which is less than 0.05 implies that the coefficient of X_1 is significant at 0.05 level of significance. This shows that supplier selection has a significant positive influence on versus performance in hospitals. The coefficient of supplier contracting (X_2) was 0.636 which was greater than zero. The t statistic of this coefficient is 3.011 with a p value of 0.003 which is less than 0.05. This implies that the coefficient 0.003 is significant. Since the coefficient of X_2 is significant, it shows that supplier contracting has a significant effect on versus performance in hospitals. Table 7 also shows that supplier development (X_3) had a coefficient of 0.576 which is greater than zero. The t statistics is 2.742 which has a p-value of 0.005 which is less than 0.05 implies that the coefficient of X_3 is significant at 0.05 level of significance. This shows that supplier development has a significant positive influence on versus performance in hospitals.

Table 7 further shows that supplier payment (X_4) had a coefficient of 0.607 with a t statistic of 2.611 which has a p-value of 0.007 which is less than 0.05. This implies that the coefficient of X_4 is significant at 0.05 level of significance. This shows that supplier development has a significant positive influence on versus performance in hospitals. Finally, the constant term is 8.001. The constant term is the value of the dependent variable when all the independent variables are equal to zero. The constant term has a p value of 0.001 which is greater than 0.05. This implied that the constant term is significant. The multiple regressions versus performance in hospitals is thus an equation through the 8.001. If all the independent variables take on the values of zero, there would be 8.001 versus performance in hospitals. The finding is in tandem with Wagner (2010) who asserts that there is strong evidence that organizations today are increasingly implementing SD programs to improve supplier performance and remain competitive. This is in agreement with Pearson and Ellram (2008) who note that the supplier selection is that it is an essential aspect of both strategic sourcing, supplier management and the achievement of competitive advantage. The findings also agree with Sonmez (2008) who found that companies' aim that proper supplier selection would help to reduce product and material costs while maintaining a high level of quality and after-sales services. Therefore, an efficient supplier appraisal process needs to be in place for the successful supply chain management. Hsu et al. (2008) also agree that supplier evaluation is a crucial purchasing activity for many firms as it could improve on the firm's resources and core competencies. Kannan and Tan (2011) also observe that to sustain effective and reliable sources of suppliers, buyer should select their suppliers carefully and evaluate them regularly ensuring that the terms of contract are beneficial to all during the tender awards

From the foregoing, it can be deduced that prices are a key consideration in supply chain performance. This can be attributed to the fact that spending less in procurement leads to minimized logistical expenditure and a higher profit margin. Accordingly, Sanchez-Rodriguez (2009) argues that for the organization to ensure improvement of performance and competitive advantage, they should engage with suppliers on contract terms that will not burden their cash flow or of which may lead

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to high amount if capital held in stock. Also, according to Horne and Wachowicz (1998), firms can only benefit from credit if the profitability generated from increased sales exceeds the added costs of receivables. It has also been argued by Chakraborty and Philip (2009) that supplier payment activities should focus on developing supplier future capabilities in product and technology development rather than just on current cost and quality issues. The finding is in tandem with Abosag et al. (2008) who argue that the need for a defined contracting period is crucial as the performance is considered satisfactory by the Government, the fixed fee is payable at the expiration of the agreed-upon period, upon contractor statement that the level of effort specified in the contract has been expended in performing the contract work. Accordingly, Gyau and Spiller (2010) offer that buyers must ensure contracts set out a dispute escalation process and specify the method. If the contract is silent on this point each party will treat the other's proposals with suspicion, assuming that there is an agenda or advantage behind a recommendation to, for example, arbitrate, adjudicate, litigate or mediate. There would also be the opportunity for the party receiving the claim to stall the process by refusing to agree.

Table 7: Multiple Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.865[a]	.748	.720	1.94285

a. Predictors: (Constant), Supplier selection, Supplier development, Supplier payment, Supplier contracting

ANOVA[b]

Model		Sum of Squares	d.f	Mean Square	F	Sig.
1	Regression	402.892	4	100.723	3.1983	.000[a]
	Residual	135.888	91	31.4933		
	Total	538.780	95			

a. Predictors: (Constant), Supplier selection, Supplier development, Supplier payment, Supplier contracting

Regression Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	P-Value
1	(Constant)	8.001	.084		4.878	0.000
	Supplier selection	.735	.067	.421	4.809	.000
	Supplier development	.636	.112	.353	3.011	.003
	Supplier payment	.576	.205	.205	2.742	.005
	Supplier contracting	.510	.398	.199	2.611	.007

a. Dependent Variable: Performance

As per the SPSS generated table above, the model equation would be ($\mathbf{Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon}$) becomes: $Y= 8.001+ 0.735X_1+ 0.636X_2+ 0.576X_3 + 0.510X_4. + 0.084$. This indicates that Perfomance in hospitals = 8.001+ 0.735(Supplier selection) + 0.735(Supplier development) + 0.576(Supplier Payment) + 0.510 (Supplier Contracting) + 0.084.

CONCLUSIONS AND RECOMMENDATIONS

It can be deduced from the findings that a majority of practitioners in supplier relations management across the institutions surveyed put significant consideration both in the suppliers' organizational financial stability and product quality.

Findings, point to low adoption levels of various supplier development measures across a majority of the institutions surveyed.

It was further deduced that prices are a key consideration in supply chain performance. The study also deduced that supplier contracting has moderately to greatly impacted supply chain performance in most of the institutions reached.

The study further concluded that key supply chain areas have considerable improved with the adoption of the supplier selection criteria, supplier development measures, supply payment terms and or supplier contract terms.

The healthcare organizations should focus on innovating and developing the overall business strategy (for example investigate the applicability of new technologies and resources in SCM) to enhance competitive advantage.

In order to ensure cost reduction and improve organizational performance in SCM, organizations and suppliers in the health care sector should try to have a positive relationship and devise approaches to collaboratively solve supply chain challenges in order to improve on efficiency.

In addition, health care organizations should categorize the SC activities to standardize needed materials to ensure a lean SC which can provide the highest quality of care at the lowest possible cost

Breaking down functional barriers between supply chain stores, within health sector as well as between organizations, is a necessary condition for enhanced integration. This will ensure performance in the health care supply chain management.

Problems with communication and integration might well benefit from the nomination of care coordinators in the supply chain. The costing system should be fragmented because it is predominantly medical specialism driven.

The present study has assessed the role of supplier relations management on performance of hospitals in Kisii County. The same has revealed the need for further studies in other facets not tackled in the study. Future studies may assess the role of top management in building supply chains in health care, effectiveness of information sharing in supply chains should also be considered as an area of future study.

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