



**ROLE OF SUPPLIER RELATIONS MANAGEMENT ON THE PERFORMANCE OF HOSPITALS IN NAIROBI COUNTY,
KENYA**

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ABSTRACT

The main purpose of study was to explore the role of supplier relations management on the performance of selected hospitals in Nairobi County Kenya. The methodology of the study was purely qualitative. A census survey approach was taken in which the target population comprising all the 115 registered hospitals in Nairobi county. Descriptive and inferential statistics were used to analyze the data collected. Descriptive statistics revealed that a majority of practitioners in supplier relations management across the institutions surveyed put significant consideration both in the supplier's organizational and financial stability and product quality thereof. There was 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. This could be attributed to the fact that spending less in procurement leads to minimized logistical expenditure and a higher profit margin. 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 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

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). However, since hospital buying agents were only expected to attain the best price for the needed goods in the recent past, the trust between the buyer and the supplier is weak and the relationship is antagonistic. Therefore, and in contrast to industries with intense competition like for example the automotive or the consumer electronics industry, SRM is not paid much attention to in health care academia and practice yet. Although the adoption of electronic services saves the costs of the preparation and transmission of paper requests and invoices and eliminates costly, time-consuming errors from manual data entry by connecting ordering systems with production systems (Giannakis, 2010), only 38 percent of German hospitals implemented an electronic purchasing order and 35 percent an electronic invoice (Forker et al., 2012).

Supplier Relationship Management (SRM) permits the growth and preservation of strategic relationships with important suppliers and empowers organizations to assume a fresh way of thought about the supply chain and its transparency. Suppliers and their customer pursue to work collectively in close collaboration for Long-term mutual advantage, rather than looking for the highest short-term advantage in each transaction (Shin, Collier & Wilson, 2013). In the past trust and commitment in these relationships was lacking unlike today (Johnston, McCutcheon, Stuart & Kerwood 2013).

In Switzerland, health care research and practice and the concept of SRM has not been 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 often times 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, 2011)

In Kenya, studies relationship management and development, concludes that supplier development strategy, supplier motivation strategy and supplier relationship strategy affects procurement performance positively though the effect is not on a very significant scale. Supplier evaluation and rating strategy and 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 Nairobi Hospital has a better approach to supplier development

compared to Kenyatta National Hospital (Korir, et al., 2015)

The government of Kenya is committed to the improvement of the health and welfare of all its citizens. Strengthening the health system is at the core of the Government of Kenya's reform agenda. Over the years, the government has taken important steps towards the fulfillment of this goal by providing health services within easy reach of Kenyans. The "beyond zero mobile clinics" is one such initiative of bringing health services close to the citizens. It has also placed considerable emphasis on preventive, promotive and rehabilitative health services without ignoring curative services. Among the initiative/actions taken is the development of the Kenya health policy framework (KHPF 1994-2010), the launch of vision 2030, and the enactment of a new constitution in 2010 which devolved health into the county governments. These have greatly influenced the health status of Kenyans and the structure in which health services are provided. In particular, the new constitution creates a devolved system of governance with 47 counties, each of which is responsible for providing and delivering health care services to its citizens. The devolved system is intended to make the realization of the right to health by all Kenyans a reality (Government of Kenya, 2010).

Statement of the Problem

Despite the extensive law provisions that guide the procedures of procurement among public hospitals in Kenya, there has been a myriad of issues arising based on the delay 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)

Kenyan government losses close to ksh. 71 billion about 17 percent of the national budget due to poor supplier relations used as inflated procurement quotations annually (KISM 2014). According to Victor (2012), procurement expenditure could be minimized through proper supplier relations management

From the empirical standpoint, Apiyo and Mburu (2014) identified that there has been limited research carried out with the aim of determining the actual reasons why the public hospitals have not been able to achieve their streamlined supply chain objectives. Researchers have concentration on procurement aspects such as; procurement planning and delivery in public entities (Wogube, 2011), allocation of budgets for public hospitals (Nyumu, 2010), and management of devolved funds for procurement (Owalla, 2012). Additionally, while striving to achieve their performance problem, Apiyo and Mburu (2014) addressed the general factors affecting the procurement planning shows a relatively underdeveloped information system structure and therefore poor relations management (Parente, 2010).

Muhwezi, (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 public 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 specifically in Nairobi, county. Therefore it is against this background that this study sought to establish the role of supplier relations management on performance of hospitals in Nairobi County, Kenya.

Study Objectives

The general objective of the study was to assess the role of supplier relations management on performance of public hospitals in Nairobi County, Kenya. The specific objectives were:-

- To establish the effect of supplier selection on the performance of hospitals in Nairobi County
- To ascertain how supplier contracting influences performance of hospitals in Nairobi County
- To establish how supplier development affect performance of hospitals in Nairobi County
- To determine how supplier payment influence performance of hospitals in Nairobi County

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, 2014). 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 2010). However ,transaction costs do not depend duly on the quantity or variety of the products but also the supplier ability in fulfilling the buyer expectations (Hsu et al.,2010).It is found that opportunism will not be a concern over highly specific assets if there is mutual beneficial relationship between the buyer and suppliers (Irwin et al., 2010)

System 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, 2013).

The term originates from Bertalanffy's general system theory (GST) and is used in later efforts in other fields, such as the theory of Talcott Parsons and the social systems theory of Niklas Luhmann. A central topic of systems theory is self –regulating systems, that is systems self-correcting through feedback. Self-regulating systems are found in nature, including the physiological systems of our body, in local and global ecosystems, and in climate and in human learning processes from the individual and upwards through international organizations like the UN (Bertalanffy, 2011). A system in this frame of reference can contain regularly interacting or interrelating groups of activities. For example, in Noting the influence in organizational psychology as the field evolved from “an individually oriented industrial psychology to a system and developmentally oriented organizational psychology”. Some theorists recognize that organizations have complex social system; separating the parts from the whole reduces the overall effectiveness of organizations (Diageo, 2011).

Empowerment Theory

According to Tones & Tilford (2001), Empowerment theory has been identified as a principal theory across various disciplines. Adapted from Zimmerman's (1984) work, Rappaport (1987) adapted it to community psychology studies. Ever since, the theory has found its way into social studies as a key concept in remedying inequalities and towards achieving better and fairer distribution of resources for communities (Chavhan 2012)

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 enable 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 2012).

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 firms’ disposal. To transform a short –run competitive advantage into a sustainable 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 above average returns (Crook et al., 2013). Resources are the inputs or the factors available to a company which helps to perform its operations or carry out its activities (Black and Boal 2008, Ghrant 2008 cited by Ordaz et al 2012). Also, those authors state that resources, if considered as isolated factors do not result in productivity; hence, coordination of resources is important. The ways a firm can create a barrier to imitation are known as ‘isolating mechanisms’, and are reflected in the aspects of corporate culture, managerial capabilities, information asymmetries and property rights (Hooley & Greenlay 2011). Further, they mention that except for legislative restrictions created through property rights, the other three aspects are direct or indirect results of managerial practices.

Conceptual Framework

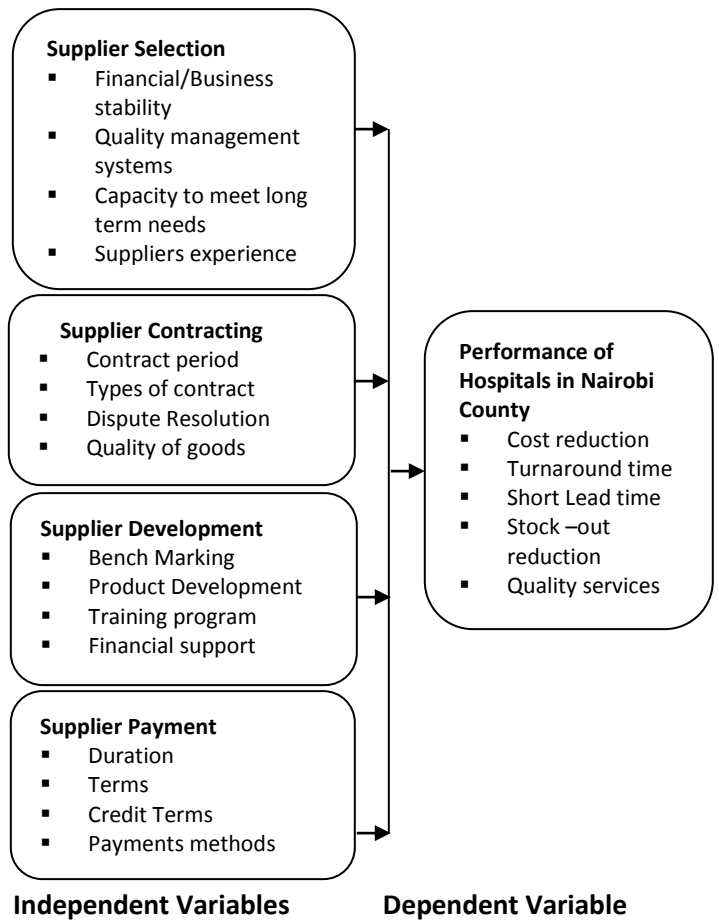


Figure 1: Conceptual Framework
Source: Author (2019)

Empirical Review

Supplier selection

According to a study by Krause (2012); 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, supplier involvement and hospital business performance. Hospitals should carefully

select their suppliers to enhance their competitive advantage and long-term needs.

According to Gichuru (2014) on supplier selection criteria and supply chain performance in non-governmental organizations in Kenya: he states that trade-offs among criteria has to be made to align the final sourcing decision with competitive priorities and business plans. Sourcing location selection is the first, and thus an important, step in the supplier selection process. Critical factors such as infrastructure, market attractiveness and cost levels are typically characteristics of regions or countries rather than of specific suppliers. Thus, suppliers within the same area share all the location specific attributes, which avoids the need to rank these suppliers on those attributes. After determining where to source, a supplier strategic and operational factors as well as tangible and intangible factors in the analysis. That's why decision maker can analyze the supplier selection decision in a systematic and scientific approach by means of utilizing the proposed model (Rotich, 2014)

Supplier Contracting

According to study by Maraka *et al* (2015) on supplier-contractor partnering impact on construction performance: a study on Malaysian construction industry, they state that for effective contracting a long term commitment between two or more organizations for the purposes of achieving specific business objectives by maximizing the effectiveness of each participant resources. This requires changing traditional relationships to a shared culture without regard and an understanding of each other's individual expectations and values.

Weston and Gibson (2012), in their study on partnering-project performance in U.S army corps of engineers, journal of management engineering, revealed that partnering enhance better risk management within both upstream and downstream relationships which in turn help to improve user satisfaction. Client-main contractor relationship is

upstream while main contractor-subcontractor relationships are downstream

Supplier payment

In January 2015, the national audit office of the United Kingdom (NAO; UK) published a report (paying government suppliers on time); in March 2010 the UK government announced that department would aim to pay 80% of undisputed invoices within 5 working days. This was a revision of the original prompt payment is intended to improve the cash flow of companies doing business with government departments, in particular the UK's 5million small and medium sized enterprises (SMEs)

The UK government believes a culture of the late payment is preventing UK business, 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 was a major factor in 1 in 5 UK corporate insolvencies National audit office (NAO) UK,2015

Supplier Development

The role of technological innovation within the business setting is considered crucial for the firms to generate various positive outcomes and sustain competitive advantage (Seleim, 2012). According to Lardenoije *et al.* (2010), acquisition of new technologies helps to improve the performance of a buying firm. While numerous studies have focused on the identification of the determinants of the acquisition of technological instrumentation, fewer studies have examined on the relationship between the strategic purchasing of the advance equipment and performance Li & collier, (2010)

Due to the rising cost of technology explained in the earlier chapter, one way hospitals have attempted to reduce cost is through the implementation of an effective sourcing procedure and purchasing decision

(Kumar *et al.*, 2013) supplier play a vital part in helping firms to sustain their competitive advantage. Thus, buying firms are encouraged to be more carefully considering the supplier development (Humphreys *et al.*, 2010). It is interested to determine the effect of supplier selection criteria and supplier involvement on the hospital's business performance while they acquiring high-technology medical equipment to stay competitive in the healthcare industry

Performance in Hospitals

Key performance indicators in public hospitals in Kenya, Financial Management Act (2006) and Treasury Instructions (TI)904 requires the department of health to present annual indicators of effectiveness and efficiency to parliament. The key effectiveness indicators report how well the department achieves its outcomes while efficiency indicators show accountability for funds spent on delivery of the services. The Kenya Health policy (2014-2030) indicates that the government under the Ministry of Health works closely with public hospitals to ensure that goods and services are delivered on time in order to provide quality health care services to the citizens. According to the Kenya Constitution (2010) the mandate of the Ministry of Health is to formulate policies, set standards, provide health services, create and enabling environment and regulate the provision of health service delivery. The government is responsible for government health services, pharmacies and ambulance services

METHODOLOGY

This study employed a descriptive approach on the role of supplier relations management to the performance of hospitals. According to Mugenda (2008), the purpose of descriptive research is to determine and report the way things are and it helps in establishing the current status of the population under study. The target population for this research study was all the 115 registered hospitals in Nairobi

County. This study used primary data for statistical analysis. Primary data is data collected for the first time, and thus happens to be original in character. Semi structured questionnaire was developed to address each specific objective, research question or hypothesis of the study (Mugenda & Mugenda 2003). In this case, the questionnaires were administered to the respondents by the researcher himself using the drop and pick method of questionnaire administration. Given the sensitivity of procurement information, the study relied on the university identification letter to make respondents aware that the data collected is only for academic use.

Quantitative data collected using questionnaires were analyzed by the use of descriptive statistics using statistical package for social sciences (Version 22.0). The study used inferential statistics which involve coefficient of correlation and multiple regression analysis to establish effects of supplier relations management on the performance of hospitals. The ANOVA multiple regression equation was applied as below. The regression model was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where;

Y = Role of supplier relations management on performance

β_0 = Constant

X_1 = Supplier Selection

X_2 = Supplier contracting

X_3 = Supplier development

X_4 = Supplier payment

$\beta_1, \beta_2, \beta_3, \beta_4$ = Coefficients

ϵ = Error Term

FINDINGS AND DISCUSSIONS

The study investigated four conceptualized supplier relations management that affect performance of hospitals in Nairobi County, namely supplier selection, supplier contracting, supplier development and supplier payment.

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 1 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 Suppliers 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 supplier's 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 organizations has considerably improved.

This is in agreement with Lambert (2012) 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 Shalle (2014) 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 (2010) 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. Waters (2011) also observe that to sustain effective and reliable sources of suppliers, buyer should select their supplier carefully and evaluate them regularly ensuring that the terms of contract are beneficial to all during the tender awards. Table 1 presents the findings.

Table 1: Supplier Selection

Statement	F	(%)
Capacity to meet long term needs	71	73.9
Delivery performance	63	65.6
Suppliers length of experience	39	40.6
Financial / business stability	69	71.9
Quality Management System	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 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 too low adoption levels of various supplier development measures across a majority of the institutions

surveyed. Consequently, moderate to minimal impact of the same on supply chain performance have been realized in the respective institutions. It can thus be deduced that a majority of supplier relationships management practitioners across the institutions do not adequately concern themselves with the growth and development of their suppliers. This should not be 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 Hashem (2015) 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 presents 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 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, Smith (2013) 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 of capital held in stock. Also, according to Zeithaml (2012), 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 Mahmood and Philip (2010) that supplier payment activities should focus on developing supplier future capabilities in product and technology development rather than current cost and quality issues. Table 3 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 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 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 had 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 institution

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. (2012) 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. Van (2010) 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 presented 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 requirement	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 measurers, supply payment terms and or supplier contract terms. Findings in table 5 revealed improved financial performance across the 5 year period running from the year 2014 to 2018. In procurement costs, a majority of respondents affirmed having grown incrementally from less than 10% in 2014 (41.9%), to growth by 10% in 2017 (39.0%) and 2018 (36.2%). Turnaround time also recorded positive growth with a majority affirming to less than 10% in 2016 (36.1%)

then more than 10% in 2017 (41.1%) in 2018 (37.5%). A similar trend was recorded in stock out levels ,growing from less than 10% (44.15) in 2014, to more than 10% in 2016 (36.4%) 2017

(40.4%) and 2018 (37.3%). Supply deficit further recorded positive growth with a majority affirming to less than 10% in 2014 (37.9%) and 2015 (35.9%), to 10% in 2016 (25.9%) and 2017 (35.3%) then by more than 10% in 2018 (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 dev elopement measures, supply payment terms and or supplier contrast 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.

According to Ghaith (2014) 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

responsibilities, benefits to employees and so on. Kim (2014) 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

	2014	2015	2016	2017	2018
Procurement costs					
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					
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					
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					
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

CONCLUSIONS AND RECOMMENDATIONS

The study provided two types of data analysis; descriptive and inferential. The descriptive analysis helped the study to describe the relevant aspects of the phenomenon under study. The frequencies, percentages, mean and standard deviation were determined. For the inferential analysis, the study used Pearson correlation and multivariate regression analysis techniques to establish the relationship between the independent and dependent variables.

The study sought to examine the role of supplier selection on the performance of hospitals. A majority of respondents (73.9%) considers 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.

The study sought to establish the role of supplier development on the performance of hospitals, 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.

The study sought to determine the role of supplier payment on the performance of hospitals a majority of respondents (79.2%) consider prices most important when contracting for supply needs. This was followed by 71.9% of the respondents affirming to bargaining 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

The study sought to ascertain whether supplier contracting has an effect on the performance of hospitals. A majority of respondents (84.4%) were found to consider most the involvement of affected departments when entering into a contract with a 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 vogue 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.

The study sought to determine supply chain performance among the institutions reached attributed to the adoption of the supplier selection criteria, supplier development measurers, supply payment terms and or supplier contract terms. Turnaround time has also reduced by between 10-20% in most organization (42.7%) while stock-out levels have improved by less than 10% in a majority of the institutions (58.3%). Supply deficits were found to have reduced by between 10-20% in most organization.

CONCLUSION

From the findings presented and discussions thereof, the following conclusions are drawn. It can be deduced from the findings that supplier selection positively and significantly influenced performance of hospitals in Nairobi County, Kenya. majority of practitioners in supplier relations management across the institutions surveyed put significant consideration both in the supplier's organizational financial stability and product quality. 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, improvement in supplier selection methods will lead to improvement in performance.

Findings, point there is too low adoption levels of various supplier development measurers 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 and improve performance of hospitals.

It can further 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, therefore its vital to have clear payment criteria's so as to improve performance. The study also deduces 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 as well as the provision on vague or conflicting requirements. The further concludes that key supply chain areas have considerably 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.

RECOMMENDATIONS

The results of this study have indicated that there is a positive and significant association between supplier relations management and performance of hospitals in Nairobi County. The study therefore recommends that there is a need for the hospitals to improve on supplier selection such as capacity to meet long term needs, quality management systems and business/financial stability. The study also recommends that since supplier contracting has a positive and significant influence on performance of hospitals, there is need for the institutions to increase adoption supplier contracting such as involvement of affected departments, provision of vague or conflicting requirements and documented contract review process.

The study also recommends that in order to improve performance in hospitals in Nairobi county they should increase adoption of supplier development through joint training program, product quality review and tracking delivery performance. Another recommendation by the study is that since supplier payment has a positive and significant influence on performance of hospitals, there is need of the hospitals to improve supplier payment methods like mode of payment, prices, time of payments and bargains.

In order to ensure cost reduction and improve organizational performance in SCM, organizations and suppliers in 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. As a result, the collaborative strategy will provide competitive advantage to both organizations and suppliers in the sector. To improve quality in SCM, hospitals should create good partnership with all players in the healthcare sector in order to improve supply chain management.

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. It is important to ensure that medical practitioners with experience in supply chain management participate in the material standardization efforts. Hospitals also need to analyze the impact of each supply chain management practice they put in place and the impact on supply chain management. Information gathering and processing should be improved in the supply chain. This concerns both the availability of records of customers and information on provider performance.

Problems with communication and integration might well benefit from the nomination of care coordinators in the supply chain. A related issue is the question whether general practitioners have the necessary

skills to operate as such. More generally, in the health care sector, more emphasis on supply chain coordination is required. Policy should stimulate the provision of more coordinated services. The costing system should be fragmented because it is predominantly medical specialism driven.

Suggestions for Further Studies

The present study has assessed the role of supplier relations management on performance of hospitals in Nairobi 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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