INFLUENCE OF VENDOR RELATIONSHIP MANAGEMENT ON PERFORMANCE OF MANUFACTURING FIRMS IN NAIROBI COUNTY, KENYA

[1]RITA KENDI CHERUYOT, [2]DR. JULIUS MIROGA

[1]Masters student, Jomo Kenyatta University of Agriculture and Technology, Kenya

[2]Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

ABSTRACT

The manufacturing sector's contribution to Gross Domestic Product (GDP) improved marginally to 10.3 per cent in 2015 compared to 10.0 per cent in 2014. The sector grew from 3.2 per cent recorded in 2014 to 3.5 per cent in 2015. The growth was partly attributed to reduced cost of inputs such as petroleum products and electricity. This study sought to establish the influence strategic vendor relationship management practices on performance of manufacturing firms in Nairobi City County. The specific objectives of the study are to determine the influence of strategic vendor partnership on the performance of manufacturing firms in Nairobi City County, to establish the influence of strategic vendor communication on the performance of manufacturing firms in Nairobi City County. The study used a descriptive research design. The target population comprised of 499 supply chain managers in manufacturing firms in Nairobi City County while the sample size was 250 respondents. The study used structured questionnaires to collect primary data. The study entailed both descriptive and inferential statistics. While descriptive statistics aided in describing the standard features of the study sample, inferential statistics which defined prediction and correlation included multiple regression analysis. The study results were presented through use of tables and figures. The study concludes that vendor partnership has a positive and significant effect on the performance of manufacturing firms in Nairobi City County. In addition, the study concludes that vendor communication has a positive and significant effect on the performance of manufacturing firms in Nairobi City County. Further, the study concludes that vendor development has a positive and significant effect on the performance of manufacturing firms in Nairobi City County. The study concludes that vendor evaluation has a positive and significant effect on the performance of manufacturing firms in Nairobi City County. From the findings, the study recommends that the management of manufacturing firms in Nairobi City County should build strong trust with their vendors so as to ensure achievement of mutual goals. In addition, the management should ensure frequent communication as well as timely communication with vendors so as to improve organization performance.

Keywords: *Vendor Partnership, Vendor Communication, Performance*

INTRODUCTION

The understanding and practicing of vendor relationship management practices has become an essential prerequisite for staying competitive in the global race and enhancing profitably, (Gold, Seuring, & Beske, 2016). Most organizations have begun to realize that it is not only enough to improve efficiencies within an organization but rather making the vendor relationship management competitive among others will greatly improve their chances of survival. This is because competition is no longer between organizations, but among supply chains. Intensified competition and globalization of markets over the last decade has contributed to challenges associated with ensuring that goods and services that meet customer requirements are provided in an efficient and effective way (Kosgei &Gitau, 2016).

Manufacturing industries play a critical role in economic growth and development. Manufacturing provides a significant source of demand for goods and services in other sectors of the economy, and these sales to other industries are not captured in measures of manufacturing sector GDP but are counted in the broader measure of its gross output. Based on the recent statistics, manufacturing contributes £ 6.7 trillion to the global economy (Suleiman, 2016). The manufacturing sector employed 12.4 million workers in 2015 or about 8.8 percent of total U.S. employment (Sueliman, 2016). Manufacturing industries generated $2.1 trillion in GDP (12.5 percent of total U.S. gross domestic product) in 2013. In the United Kingdom, manufacturing makes up 10% of GVA and 45% of UK exports and directly employs 2.7 million people (Merozwa, 2015).

The manufacturing production in Pakistan has started growing with a slow pace. In April 2018, the manufacturing production of Pakistan increased by 4.10%. However, the manufacturing industries are facing severe issues regarding strategic vendor relationship management. Both consumers and environmental groups have been concerned about relationship practices like strategic communication, strategic evaluation and strategic vendor training.

Manufacturers in the region lose over $330 million annually and the government loses $67 million in potential tax revenue due to unforeseen uncertainties (Kihara, 2017). By managing the strategic vendor relationships, companies are able to cut excess fat and provide products faster. Kaemey (2018) in South Africa indicates that vendors are equally important and integral part of supply chain management and supplier management is an important part of any organization's strategies, having the right information on suppliers and supplier's performance becomes imperative. The timely information delivered on the supplies is crucial in ensuring that the businesses remain competitive in the market. Veludo, Macbeth and Puchase (2015) also assert that effective two-way communications enriches knowledge about the products and services offered by the enterprises. The information sharing within the supply chain can be quality requirements, mutually achieve goals, responsibilities, and jointly making decision or solving problems. It should be detailed enough, frequent enough and timely enough in order to increase understanding between partners.

In Kenya, the strategic vendor relationship management has gained attention since the early 2000 (Macharia, 2019). It has been established that many manufacturing firms have embraced that having good suppliers is important. Most of the surveys show that Kenyan FMCG firms continue to struggle with buyer-supplier management issues. A study on the Ministry of Special Programs showed that it has not achieved high levels of supplier's performance necessary for delivering

competitive market advantage (G.o.K, 2016) because it did not have one system to periodically evaluate the performance of its suppliers.

In Kenya, over seventy per cent (70%) of manufacturing sector organizations experience supply chain management challenges and this negatively affects effective delivery of goods and services (Edward, 2018); most these challenges are attributable to improper relationship management along a supply chain. Facing up to the challenge of stiffer competition and having to supply the global markets, manufacturers have quickly learned the importance of improving productivity and quality through the adoption of the supplier relationship management (Erasmus, 2016).

The manufacturing sector in Nairobi City County is mainly agro-based and characterized by relatively low-value addition, employment, and capacity utilization and export volumes partly due to weak linkages to other sectors (Kenya Association of Manufacturers, 2016). Besides, 95% of Kenya's manufactured goods are basic products such as beverages, food, building materials and basic materials. Only 5% of the manufactured goods are things like pharmaceuticals which are in skill-intensive activities. The growth pattern for the manufacturing industry in Nairobi City County has not been stable. Data from the Kenya National Bureau of Statistics show the manufacturing sector grew 3.6 percent in the first quarter of 2016, down from 4.1 percent growth in the first quarter of 2015. In the third quarter of last year, the sector's growth rate was 1.9 percent compared with 3.3 percent in the same quarter in 2015 (Kenya National Bureau of Statistics, 2016). Manufacturing sector consists of firms engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products.

Statement of the Problem

Manufacturing is extremely important for the modernization of any country. It is the main activity that split the developed world from the developing one. According to an economic survey of 2016 undertaken by the Kenya National Bureau of Statistics (KNBS, 2016), The manufacturing sector's contribution to Gross Domestic Product (GDP) improved marginally to 10.3 per cent in 2015 compared to 10.0 per cent in 2016.

The sector grew from 3.2 per cent recorded in 2014 to 3.5 per cent in 2015. The growth was partly attributed to reduced cost of inputs such as petroleum products and electricity. However, this growth is significantly lower in comparison to developing countries that are more conversant with the employment of strategic vendor relationship competencies to the operations such as China, Japan, Malaysia, Korea and Singapore. According to the United Nations Industrial Development Organization (UNIDO, 2015), China's manufacturing output rose by 6.5 per cent in the fourth quarter of 2015. Among other developing countries, a strong growth of 12.4 per cent was registered by Viet Nam. Industrial production also grew by 5.3 per cent in Bosnia and Herzegovina in the fourth quarter of 2015 on a year-to-year basis. In order to succeed as a brand manufacturer, it is important to create and maintain an efficient and effective supply chain all the way to the consumer (Namusonge, Mukulu & Iravo, 2017). Therefore, the performance of a manufacturing entity is influenced by the strategic vendor relationship management practices in place.

Various studies have been conducted on the influence of strategic vendor relationship management practices on performance of manufacturing firms in Nairobi City County. For instance; Mutuku, Muturi and Abuga (2016) conducted a study on the influence of strategic vendor relationship management practices on performance of small manufacturing firms in Kisii County, Kenya. Kariithi and Kihara (2017) conducted a study on the factors affecting

performance of manufacturing firms in Kenya: a case of pharmaceutical firms in Nairobi County. Mutunga (2018) conducted a study on the influence of effect of strategic vendor relationship management practices on financial performance of manufacturing firms in Nairobi City County. However, none of these studies was conducted in Nairobi County. In addition the studies failed to show the influence of strategic vendor partnership, strategic vendor communication, strategic vendor development and strategic vendor evaluation on the performance of manufacturing firms in Nairobi City County. To fill this gap, the current study sought to establish the influence strategic vendor relationship management practices on performance of manufacturing firms in Nairobi City County.

Objectives of the Study

i. To determine the influence of vendor partnership on the performance of manufacturing firms in Nairobi City County.

ii. To establish the influence of vendor communication on the performance of manufacturing firms in Nairobi City County.

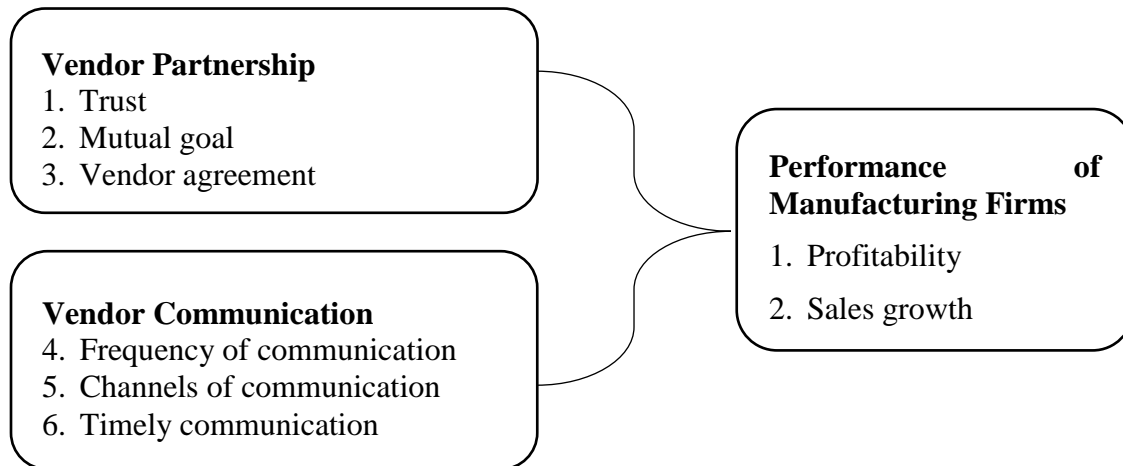## LITERATURE REVIEW
Theoretical Review
Rough Set Theory

Rough Set Theory was proposed by Pawlak in 1982 as a method which classifies objects into similarity classes (clusters) containing objects that are indiscernible with respect to previous occurrences and knowledge. According to Bai & Sarkis (2019) Rough set theory allows for distillation of a larger set of vendors into a smaller set of candidate preferred vendors, and eventually the selection of preferred supplier. Its application to supplier selection and decision making contributes through use of historical decisions integrating previous organizational knowledge and learning into the latest decision process. The major advantage is that it can generate satisfactory outcomes using a relatively small amount of data or with great variability in factors (Li *et al*, 2017).

Transaction Cost Theory

Ronald Coase, Chester Barnard, and Herbert Simon are among the early authors who describe the contributions of transaction cost theory to the existence of firms (Scott, 2003; Williamson, 2015). Whether we look at supply chain, as a network or as an integrated process, the transaction cost theory explains the vertical connection and integration of various elements of organizational supply chain, from second tier and first tier suppliers to first tier and second tier customers.

Conceptual Framework

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┌─────────────────────────────┐
│  Vendor Partnership         │
│  1. Trust                   │
│  2. Mutual goal             │──────┐
│  3. Vendor agreement        │      │      ┌─────────────────────────────┐
└─────────────────────────────┘      │      │  Performance        of      │
                                     ├──────│  Manufacturing Firms        │
┌─────────────────────────────┐      │      │  1. Profitability           │
│  Vendor Communication       │      │      │  2. Sales growth            │
│  4. Frequency of communication│────┘      └─────────────────────────────┘
│  5. Channels of communication│
│  6. Timely communication    │
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Empirical Review

Vendor Partnership and Performance

Partnership with suppliers and customers is the fourth pillar along the pathway to building a strategy to deliver supply chain excellence (Slone Reuben 2015). Supplier collaboration means working with decision-makers at a supplier level to determine improvements that can be made that will have a measurable, positive financial impact for both organizations. An example of supplier collaboration would be jointly redesigning a product that a supplier custom manufacturers for your organization. Pacheco & Rodrigues, (2016) states that, in order to prepare a business world with rapidly changing markets and customer demands, strategically rethinking manufacturing and supply chain strategies has become standard practice in order for firms to succeed. Often, margins of manufacturers and suppliers are razor-thin due to the traditional adversarial approach from the manufacturer based on "just getting the best price" from suppliers, (Amuhaya, 2015). This approach creates short term relief and does nothing to truly improve either party's competitive position. High commodity volatility continues to create a roadblock in supply and demand and is increasing the strain on manufacturers and suppliers.

Vendor Communication and Performance

Communication is not only an essential ingredient in the internal functioning of an organization, but it is also vital in the organization's information exchange with its environment. According to Guetzkow, (2015) the communication system serves as the vehicle by which organizations are embedded in their environments. An organization might emphasize training and development of other managerial skills, but communication is often taken for granted. There is an assumption that if an individual can speak, read and writes, then he can communicate. Communication is not just reading, writing and speaking; rather it us the transfer of information and understanding from one person to another

The dimensions of communication would function together in a specific combination based on channel conditions. They coined the phrase "collaborative communication strategy," which was more likely to occur in relational structures, supportive climates and symmetrical power. As in Giannakis (2017), collaborative communication is defined in this research as a communication effort that emphasizes indirect influence strategy, formality and feedback in unison.

RESEARCH METHODOLOGY

The researcher used a descriptive research design to determine the influence strategic vendor relationship management practices on performance of manufacturing firms in Nairobi City County. The 499 supply chain managers in manufacturing firms were the population for this study. They are seen to be appropriate to provide the required information for this study and therefore was targeted as respondents for the study. The study used the questionnaire as the research instrument. This is because of its simplicity in the administration and scoring of items as well as data analysis (Gronhaug, 2018). Information was analysed using the Statistical Package for Social Sciences (SPSS Version 23.0). The quantitative data was coded to enable grouping of the responses into categories.

RESULTS AND DISCUSSION

Response Rate

The sample size of the study comprised of 250 procurement managers from manufacturing firms in Nairobi City County. The research assistants dropped the questionnaires and agreed with the managers when to return to pick them. Out of 250 questionnaires which were distributed, 241 were duly filled and returned. The drop-off and pick-up-later method yielded a response rate of 96.4%. According to Orodho (2016), response rate is the ratio of the interviewed respondents to the sample size intended to be covered by the study. According to Nulty (2015), a response rate of 75 per cent is adequate for analysis, for making conclusions and making inferences about a population. In addition, Fincham (2016) indicates that a response rate of 60% and above is acceptable for analysis. Further. This implies that the response rate of 96.4% was adequate for analysis, drawing conclusions and reporting.

Descriptive statistics

Vendor Partnership and the Performance of Manufacturing Firms

The first specific objective of the study was to determine the influence of vendor partnership on the performance of manufacturing firms in Nairobi City County. The respondents were requested to indicate their level of agreement on various statements relating to vendor partnership and the performance of manufacturing firms in Nairobi City County. A 5 point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree and 5 symbolized strongly agree. The results were as presented in Table 1.

From the results, the respondents agreed that the organization ensures that there is timely payment of the suppliers to enhance timely delivery of goods by the vendors. This is shown by a mean of 3.830 (std. dv = 0.928). In addition, with a mean of 3.817 (std. dv = 0.858), the respondents agreed that the organization uses pre-payment /deposits to enhance timely delivery of goods and services. The respondents also agreed that the use of a suppler pricing is the basis for awarding the contracts to reduce the procurement costs. This is supported by a mean of 3.755 (std. dv = 0.834). With a mean of 3.632 (std. dv = 0.974), the respondents agreed that the organization accepts the supplier bargains and discounts in order to enhance reduction of goods delivered.

Table 1: Vendor Partnership and the Performance of Manufacturing Firms

	1	2	3	4	5	Mean	Std. Deviation
We do use pre-payment /deposits to enhance timely delivery of goods and services	6.9	6.9	22.8	34.5	29.0	3.817	0.858
Use of a suppler pricing is the basis for awarding the contracts to reduce the procurement costs	14.0	12.4	13.8	3.5	27.6	3.755	0.834
We do accept the supplier bargains and discounts in order to enhance reduction of goods delivered	9.7	10.3	8.3	40.0	31.7	3.632	0.974
We do ensure that there is timely payment of the suppliers to enhance timely delivery of goods by the vendors	11.7	12.4	13.8	34.5	27.6	3.830	0.928
Aggregate						**3.789**	**0.899**

The respondents were further requested to indicate how else vendor partnership influences the performance of manufacturing firms. From the results, the respondents indicated that partnership with suppliers and customers is the fourth pillar along the pathway to building a strategy to deliver supply chain excellence. In addition, the respondents indicated that vendor partnerships such as collaboration greatly influence performance in the organization. Commitment among buyers and suppliers brings the desire to develop a stable relationship, a willingness to make short-term sacrifices to maintain the relationship, a confidence in the stability of the relationship, and investments in the relationship thus improving procurement performance. Pacheco & Rodrigues, (2016) reveals that vendor partnership influences the performance of manufacturing firms.

Vendor Communication and the Performance of Manufacturing Firms

The second specific objective of the study was to determine the influence of vendor communication on the performance of manufacturing firms in Nairobi City County. The respondents were requested to indicate their level of agreement on various statements relating to vendor communication and the performance of manufacturing firms in Nairobi City County. A 5 point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree and 5 symbolized strongly agree. The results were as presented in Table 2.

From the results, the respondents agreed that the organization has adequate communication channels of communication with our vendors. This is shown by a mean of 3.917 (std. dv = 0.805). In addition, with a mean of 3.849 (std. dv = 0.923), the respondents agreed that the organization monitors the progress of products and orders with our vendors. The respondents also agreed that there is information sharing with the organization vendors in regard to broadcasting of demand and forecast data. This is supported by a mean of 3.758 (std. dv = 0.913). With a mean of 3.655 (std. dv = 0.981), the respondents agreed that information sharing with the organization vendors involve data acquisition, processing, presentation and retrieval. In addition, the respondents agreed that the organization ensures that there is adequate communication with our vendors. This is shown by a mean of 3.544 (std. dv = 0.989).

Table 1: Vendor Communication and the Performance of Manufacturing Firms

	1	2	3	4	5	Mean	Std. Deviation
We ensure that there is adequate communication with our vendors	13.8	11.7	11.0	33.1	30.3	3.544	0.989
We have adequate communication channels of communication with our vendors	9.7	12.4	7.6	37.2	33.1	3.917	0.805
Information sharing with our vendors involve data acquisition, processing, presentation and retrieval	2.8	9.0	27.6	41.4	19.3	3.655	0.981
We monitor the progress of products and orders with our vendors	13.1	9.0	20.0	31.7	26.2	3.849	0.923
There is information sharing with our vendors in regard to broadcasting of demand and forecast data	5.5	8.3	18.6	40.0	27.6	3.758	0.913
Aggregate						**3.665**	**0.922**

The respondents were further requested to indicate how else vendor communication influences the performance of manufacturing firms. From the results, the respondents indicated that the communication system serves as the vehicle by which organizations are embedded in their environments. The respondents also revealed that the dimensions of communication would function together in a specific combination based on channel conditions. The respondents indicated that communication is very important to organizations that want to maintain good relationships with its suppliers. To maintain a good supplier relationship management an organization should always ensure adequate communication between its supply chain partners. These statements are supported by the findings of Flynn (2016) who revealed that vendor communication influences the performance of manufacturing firms

Correlation Analysis

The study used Pearson correlation analysis to determine the strength of association between independent variables (vendor partnership, vendor communication, vendor development and vendor evaluation) and the dependent variable (the performance of manufacturing firms in Nairobi City County). Pearson correlation coefficient range between zero and one, where by the strength of association increase with increase in the value of the correlation coefficients.

Table 3: Correlation Coefficients

		Organization Performance	Vendor Partnership	Vendor Communication
Organization Performance	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	241		
Vendor Partnership	Pearson Correlation	.811[**]	1	
	Sig. (2-tailed)	.001		

		N	241	241	
Vendor Communication	Pearson Correlation	.886[**]	.389	1
	Sig. (2-tailed)	.000	.061	
	N	241	241	241

From the results, there was a very strong relationship between vendor partnership and the performance of manufacturing firms in Nairobi City County (r = 0.811, p value =0.001). The relationship was significant since the p value 0.001 was less than 0.05 (significant level). The findings are in line with the findings of Pacheco and Rodrigues, (2016) who indicated that there is a very strong relationship between vendor partnership and performance of manufacturing firms.

Moreover, the results revealed that there is a very strong relationship between vendor communication and the performance of manufacturing firms in Nairobi City County (r = 0.886, p value =0.000). The relationship was significant since the p value 0.000 was less than 0.05 (significant level). The findings are in line with the findings of Giannakis (2017), who indicated that there is a very strong relationship between vendor communication and performance of manufacturing firms.

Regression Analysis

Multivariate regression analysis was used to assess the relationship between independent variables (vendor partnership, vendor communication, vendor development and vendor evaluation) and the dependent variable (the performance of manufacturing firms in Nairobi City County)

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.949	.900	.902	.10582

a. Predictors: (Constant), vendor partnership, vendor communication

The model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The r-squared for the relationship between the independent variables and the dependent variable was 0.900. This implied that 90.0% of the variation in the dependent variable (the performance of manufacturing firms in Nairobi City County) could be explained by independent variables (vendor partnership, vendor communication, vendor development and vendor evaluation).

Table 5: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	119.027	4	29.756	72.576	.000[b]
1	Residual	9.568	236	.041		
	Total	128.595	240			

a. Dependent Variable: The performance of manufacturing firms in Nairobi City County

b. Predictors: (Constant), Vendor Partnership, Vendor Communication

The ANOVA was used to determine whether the model was a good fit for the data. F calculated was 72.576 while the F critical was 2.410. The p value was 0.000. Since the F-calculated was greater than the F-critical and the p value 0.000 was less than 0.05, the model was considered as a good fit for the data. Therefore, the model can be used to predict the influence of vendor partnership, vendor communication, vendor development and vendor evaluation on the performance of manufacturing firms in Nairobi City County.

Table 6: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.331	0.079		4.190	0.001
	Vendor Partnership	0.366	0.102	0.367	3.588	0.002
	Vendor Communication	0.472	0.107	0.473	4.411	0.000

The regression model was as follows:

$$Y = 0.331 + 0.366X_1 + 0.472X_2 + 0.389X_3 + 0.415X_4 + \varepsilon$$

From the results, vendor partnership has a significant effect on the performance of manufacturing firms in Nairobi City County β_1=0.366, p value= 0.002). The relationship was considered significant since the p value 0.002 was less than the significant level of 0.05. The findings are in line with the findings of Pacheco and Rodrigues, (2016) who indicated that there is a very strong relationship between vendor partnership and performance of manufacturing firms.

The results also revealed vendor communication has a significant effect on the performance of manufacturing firms in Nairobi City County β1=0.472, p value= 0.000). The relationship was considered significant since the p value 0.000 was less than the significant level of 0.05. The findings are in line with the findings of Giannakis (2017), who indicated that there is a very strong relationship between vendor communication and performance of manufacturing firms.

Conclusions

The study concludes that vendor partnership has a positive and significant effect on the performance of manufacturing firms in Nairobi City County. Findings revealed that vendor partnership (trust, mutual goal and vendor agreement) influence the performance of manufacturing firms in Nairobi City County.

In addition, the study concludes that vendor communication has a positive and significant effect on the performance of manufacturing firms in Nairobi City County. Findings revealed that vendor communication (frequency of communication, channels of communication and timely communication) influence the performance of manufacturing firms in Nairobi City County.

Recommendations

The study found that vendor partnership influences the performance of manufacturing firms in Nairobi City County. This study therefore recommends that the management of manufacturing firms in Nairobi City County should build strong trust with their vendors so as to ensure achievement of mutual goals.

In addition, the study found that vendor communication influences the performance of manufacturing firms in Nairobi City County. This study therefore recommends that the management of manufacturing firms in Nairobi City County should ensure frequent communication as well as timely communication with vendors so as to improve organization performance.

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