

# **EFFECT OF GLOBAL SOURCING PRACTICES ON OPERATIONAL PERFORMANCE OF TEXTILES AND APPARELS MANUFACTURING FIRMS IN KENYA.**

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## **ABSTRACT**

*Global sourcing is regarded by many companies as an important measure to enhance competitive advantages particularly in today's globalized economy. The objectives of the study are to determine the global sourcing practices adopted by Textiles and Apparels manufacturing firms in Kenya, to find out the effect of global sourcing practices on operational performance of Textiles and Apparels manufacturing companies in Kenya and to establish the challenges of adopting global sourcing practices by Textiles and Apparels manufacturing companies in Kenya. The study is anchored on three theories namely resource based theory, resource dependency theory and the theory of comparative advantage. The global sourcing practices under study are contract manufacturing, off shoring, global sourcing, dual sourcing and E-procurement. The study adopted a cross-sectional census survey design. The population of this study comprised of 63 Textiles and Apparels manufacturing firms. This study used primary data collected by the use of a structured questionnaire. The questionnaire was administered using drop-and- pick-later method. The data collected was cleaned, validated, and edited for accuracy, uniformity, consistency and completeness. Descriptive statistics was used to determine the global sourcing practices adopted by Textiles and Apparels manufacturing firms and the challenges they faced in adoption. To find out the effect of global sourcing practices on operational performance of Textiles and Apparels manufacturing firms a regression analysis model was used. The study found out that dual sourcing was the most adopted practice followed by E-procurement and then global outsourcing. The least implemented global sourcing practice was off shoring. The companies however practiced at different levels all the global sourcing practices of contract manufacturing, off shoring, global outsourcing, dual sourcing and E-procurement. The study found that global outsourcing, dual sourcing, E-procurement, off shoring and contract manufacturing have a positive but not a significant effect on operational performance. This is because the P-value is not less than 0.005. The study also concludes that the capability of suppliers; the level of internet access by small suppliers and the type of international trade laws and practices are the main challenges affecting adoption of global sourcing practices. The other factors challenging adoption of global sourcing include existence of tariffs and non-tariff restrictions, culture and language differences, the nature of global logistics, the level of top management support and resistance to change. The researcher recommends that the Textiles and Apparels manufacturing firms in Kenya should*

*adopt global sourcing practices in contract manufacturing, off shoring, global sourcing, dual sourcing and E-procurement. Another recommendation is for governments to have clear cut duty and reduced charges and to put conducive policies in place that will ensure that more global sourcing for textiles and apparels manufacturing companies is more fruitful.*

**Key word:** global sourcing practices, operational performance, E-procurement

## **INTRODUCTION**

Global competition has forced companies to devise and go after international purchasing strategies that aim at reducing cost and optimizing quality (Gianluca, 2007). This has made international purchasing strategies to be of significance as a key competitive factor for companies seeking globalization. Global sourcing is a corporate strategy aimed at the worldwide use of resources and materials. Modi and Schoenher (2011) assert that global sourcing involves integrating and coordinating materials, common items, processes, designs, technologies, and suppliers across worldwide buying and operating locations. It involves the global consolidation of sourcing requirements at the global level across the organization and the use of globally dispersed sources. Global sourcing is therefore considered by many companies as an important measure to enhance competitive advantages particularly in today's globalized economy (Jin and Kang, 2013).

A number of theories widely applied in global sourcing are significant to the current research. The specific theories adopted are resource based theory, resource dependency theory and the theory of comparative advantage. Resource based theory assert that ownership and control of strategic resources and capabilities determines which organizations will receive superior returns and enjoy a position of competitive advantage (Peteraf & Barney, 2003). The main reasons why firms undertake global sourcing is so that they can gain some kind of competitive advantage. Resource dependency theory is of the view that member firms in any process of production or service provision should collaborate with each other to achieve a higher performance in the long term instead of the short-term gains at the expense of others. Finally, comparative advantage theory tries to explain why nations should still be involved in international trade and global sourcing even in circumstances where absolute advantage doesn't exist.

In Kenya, the manufacturing sector is one of the largest sector. The sector has 14 (Fourteen) sub sectors namely service and consultancy; building sector, mining and construction sector; chemical and allied sector; energy sector, electricals and electronics sector; food and beverages sector; leather and footwear sector; metal and allied sector; motor vehicle and accessories sector; paper and board sector; pharmaceutical and medical equipment sector; plastic and rubber sector; fresh produce sector; textile and apparels sector and timber, wood and furniture sector (KAM, 2016). As an important division in the overall economic growth, the manufacturing sector requires a comprehensive analysis at industry and firm levels.

**Global sourcing** has been identified as one of the greatest challenges for buying units in an organization (Steinle & Schiele, 2008). Trent and Monczka (2005) are of the view that **global sourcing is a strategy** for a buying unit seeking economies of scale through corporate-wide benchmarking and

standardization. This calls for harmonization of processes, supplies, designs, technical knowledge, and suppliers across the globe.

A number of global sourcing practices can be adopted by a company. Tsuma (2014) revealed that the hotel industry practice three global sourcing strategies, being global outsourcing, contract manufacturing and international purchasing. The study by Haartman and Bengtsson (2015) identified specific practices such as supplier qualification system, supplier involvement in product design and supply chain integration. Gadde, Håkansson and Persson (2010) identified supplier involvement in product development as becoming increasingly anticipated in recent years due to a greater trend in outsourcing and focus on core competence within organizations. Matthyssens, Quintens and Faes (2003) are also of the view that intense training of employees in global purchasing influences the development of international partnership relations and their overall efficiency and longevity. Other practices include global outsourcing, contract manufacturing, offshoring and dual sourcing. The current study will focus on contract manufacturing, offshoring, global outsourcing, dual sourcing and E-procurement.

The use of geographically dispersed locations in **global sourcing** calls for inter-country and inter-continental transit of the purchased goods and services. Firms adopting global sourcing must deal with both the **operational difficulties** affecting international purchasing and the coordination of functions and locations spread across the globe (Trent & Monczka, 2005). Due to the fact that Purchasing accounts for the largest part of the overall costs in any organization, sourcing has become an important part of management (Monczka & Trent, 2003).

Firm's operational performance is measured against prescribed indicators of efficiency, effectiveness and environmental responsibility such as cycle time, productivity, regulatory compliance and waste reduction. It emphasizes the optimal use of available resources to maximize the output of the firm which results in low cost products and value to the customer because of waste reduction. The proper breakdown of the organization's cost into components impacts the total performance of the firm and this leads to continuous improvement of processes. (Prajogo & Goh, 2007) posit that measuring cost will allow the quality related activities to be demonstrated in the language of management. Operational performance also means improving on speed of service and product delivery. Improving on speed enables an organization to be able to shorten the times between the service request and delivery.

Global sourcing is the best strategy for firms to reduce the costs of labor and gain access to modern technology and resources. The growth of technological advances has made it economically advantageous and feasible for firms to source from abroad (Rajeev & Narendar, 2005). A study by Jain, Girotra and Netessine (2014) found that the benefits of global sourcing include higher inventory performance and subsequently competitive advantage.

**The textiles and apparels sector in Kenya** has the potential to move the country from low to middle income economy by solving the unemployment problem (AGOA, 2012). The sector presents an opportunity for increased value capture, trade logistics and for building careers and skills right from technicians to managers.

It is therefore a way to other manufactured goods which presents an opportunity for the country to get a share of increased global trade.

The issues that affect the manufacturing sector and by extension the specific subsectors like the textiles and apparels can best be addressed through global sourcing. ACTIF (2010) identifies the key factors to be dealt with at the national level to include low productivity levels, poor infrastructural conditions and high input costs, inefficient flow of goods and services and unfavorable business environment. This sector is appropriate for the study due to the fact that Vision 2030 has focused on textiles and apparels in the manufacturing sector to propel the economy to a growth rate of 10% and support the country's social development agenda through the creation of employment, attraction of foreign direct investment (FDI) and generation of foreign exchange.

Global sourcing is a strategic procurement concept that forms the basis of total cost of ownership and permits the optimum alignment, management and control of the Organization's overall mission (Kharvi, 2010). In the recent past, there has been changing market conditions, radical changes in technology and intensified global competition which has increased the pressure to improve in the way businesses operate (Magenda&Iravo, 2014). As a result of this, global sourcing is proving a strategic weapon in cutting costs, establishing an efficient supply chain, improving quality and inspiring innovation.

Kenya's manufacturing sector contributes 9.2% of the Gross Domestic Product (GDP) and serves both the local market and exports to the Eastern Africa Region (KIPPRA, 2013). There's great potential for growth of the sector if the Government succeeds in implementing a number proposed strategies that include stepping up power supply, opening of the East African Community Customs Union, implementing treaties under the Common Market for East and Southern Africa, duty exemption for manufacturing machinery, manufacturing under bonds and removal of restrictions on foreign capital repatriations especially for subsidiaries of multinationals. This growth would facilitate the achievement of Vision 2030. This justifies the need for an in-depth study on the best way to improve the manufacturing business especially in the sub sector of textiles and apparels.

A number of studies have been done that are of significance to this work both locally and internationally. Han, Dresner and Windle (2008) found out that importing and exporting

activities positively affect raw materials and finished goods inventory. Murray, Kotabe and Westjohn (2009) also found out that firms that strategically align sourcing strategy with knowledge-intensive business services (KIBS) features for each KIBS activity performs more effectively than firms that lack such a co-alignment. In another study, Magara, Oloko and Nyang'au (2014) found out that a well-managed global sourcing strategy is beneficial to customers and firms because it is able to deliver high quality, flexibility, lower costs, improved delivery dependability and quick response time to customer orders. All these studies point to the significance of global sourcing in one way or another. It is important to note that the manufacturing sector is ever changing and each year the industry faces new challenges including regulation and traceability; product development and innovation; the manufacturing skills gap; healthcare costs; environmental concerns and considerations and the need to balance maintenance with throughput. The current study answers the question, "What is the effect of global sourcing practices on operational performance of Textiles and Apparels manufacturing firms in Kenya?"

## **OBJECTIVES OF THE STUDY**

The objectives for this study were:

- i. To determine the global sourcing practices adopted by Textiles and Apparels manufacturing firms in Kenya.
- ii. To find out the effect of global sourcing practices on operational performance of Textile and Apparels manufacturing companies in Kenya
- iii. To establish the challenges of adopting global sourcing practices by Textile and Apparel manufacturing companies in Kenya.

## **METHODS**

The study adopted across-sectional census survey design. A cross-sectional survey collects data and makes deductions about a population of interest at one point in time. The population of this study comprised of 63 Textile and Apparel manufacturing firms as at August, 2016 under the Kenya Association of Manufacturers. This study used primary data. Drop-and-pick-later method was used to administer the questionnaire.

The following regression model was used:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Whereby In the above equation;

Y = Operational performance index (Dependent variable).

a = Constant

$\beta_1$  = Coefficient of contract manufacturing

$\beta_2$  = Coefficient of off shoring

$\beta_3$  = Coefficient of global outsourcing

$\beta_4$  = Coefficient of dual sourcing

$\beta_5$  = Coefficient of E-procurement

$X_1$  = Contract manufacturing

$X_2$  = Off shoring

$X_3$  = Global outsourcing

$X_4$  = Dual sourcing

$X_5$  = E-procurement

$\varepsilon$  = Error term.

The multiple correlation coefficient R was used to test the strength of the relationship between the independent variables and the dependent variable. The coefficient of determination  $R^2$  was used to indicate the proportion of the variance in operational performance that is explained by the linear model. Descriptive analysis was finally used to establish the challenges of adopting global sourcing practices by textiles and apparels manufacturing firms in Kenya.

## RESULTS

### Effect of global sourcing practices on operational performance of textiles and apparels manufacturing firms in kenya.

In this section the analysis is focused on the study objectives to determine the effect of global sourcing practices on operational performance of Textiles and Apparels manufacturing companies in Kenya and to establish the challenges of adopting global sourcing practices by Textiles and Apparels manufacturing companies in Kenya. **Table 1.** shows respondent's general information characterized by the name of the company, position that one occupied in the company and years of experience of the respondents

**Table 1: Years of Experience**

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 5 years	9	22.5	22.5	22.5
6 – 10 years	5	12.5	12.5	35.0
11 – 15 years	16	40.0	40.0	75.0
Above 16 years	10	25.0	25.0	100.0
Total	40	100.0	100.0	

The respondents were asked to indicate the number of years they have been in the position in the company. Majority of the respondents representing 40% responded that they had been in the company and in that position for 11-15 years, another 25% indicated that they had been there for more than 16 years. 22.5% of the respondents said they had been in the position for less than 5 years and 12.5% of the respondents said they had been in the position for 6-10 years. From the results it can be inferred that majority of the respondents had the necessary experience to give objective responses.

**Table 2** represents the extent to which contract manufacturing has been adopted by the companies. The study investigated the extent to which the companies have adopted global sourcing practices.

**Table 4.2: Descriptive Statistics of Contract Manufacturing**

Practices	N	Mean	Std. Deviation	Rank
Reference samples of materials and finished goods	40	2.20	.414	8
Monitoring of quality assurance procedures.	40	2.65	.828	7
Rapid feedback analysis.	40	4.45	.458	1
Installation of controls concerning uniformity of content	40	3.27	.488	6
Availability of manufacturing instructions	40	4.35	.347	2
Undertaking production process validation	40	3.55	.446	5
Installation of stability monitoring processes.	40	4.28	.525	3
Existence of product packaging specifications.	40	4.00	.264	4
<b>Valid N (listwise)</b>	<b>40</b>	<b>3.59</b>	<b>.471</b>	

From **Table 2** above, the most commonly practiced contract manufacturing practices are rapid feedback analysis, availability of manufacturing instructions, installation of stability monitoring processes and existence of product packaging specifications with a mean of 4.45, 4.35, 4.28 and 4.00 respectively. The least practice is the use of reference samples of materials and finished goods with a mean of 2.20.

Table 4.3, represents the extent to which **off shoring** activities are practiced by the companies.

**Table 4.3: Descriptive Statistics of Off Shoring**

Variable	N	Mean	Std. Deviation	Rank
The vendor assists our company to build the service center but the actual work is performed by our company.	40	4.20	.516	1
Hiring an outside service provider in the chosen offshore market.	40	2.85	.516	4
Existence of arrangement where the service center is set up as a joint venture with the vendor.	40	3.38	.000	2
Engagement in build-operate-transfer model of business	40	3.17	.976	3
<b>Valid N (Listwise)</b>	<b>40</b>	<b>3.40</b>	<b>.502</b>	

From **Table 3**, the most commonly practiced off shoring practice is where the vendors assist the companies to build the service center but the actual work is performed by the companies with a mean of 4.20. This is followed by the existence of an arrangement where the service center is set up as a joint venture with the vendor which had a mean of 3.38 and then followed by engagement in build-operate-transfer model of business which had a mean of 3.22. The least practice is hiring of an outside service provider in the chosen offshore market which had a mean of 2.85.

Table 4, shows the adoption extent to which **global outsourcing** activities are adopted by the companies.

**Table 4.4: Descriptive Statistics of Global Outsourcing**

<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Rank</b>
Undertaking supplier selection and evaluation.	40	3.32	.955	5
The use of artificial intelligence tools.	40	4.15	.893	1
Determination of core competencies	40	3.50	.982	4
Performance of evaluation of vendors' performance.	40	3.45	.917	3
Initiation of trial contracts	40	3.82	.791	2
<b>Valid N (List wise)</b>	<b>40</b>	<b>3.65</b>	<b>.908</b>	

From the **Table 4** above, the companies mostly practice the use of artificial intelligence tools as shown by the mean of 4.15. This is followed by the initiation of trial contracts which had a mean of 3.82, then the determination of core competencies with a mean of 3.50 and then the use of performance of evaluation of vendors performance with a mean of 3.45. The least practiced application is undertaking supplier selection and evaluation which had a mean of 3.32.

**Table 5**, shows the adoption extent to which **dual sourcing** activities had been adopted by the companies.

**Table 5: Descriptive Statistics of Dual Sourcing**

<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Rank</b>
Regular negotiation with suppliers.	40	3.90	.538	2
Integrating the organization with the vendors.	40	3.85	.671	4
Measuring the impact of incidents for any activity.	40	3.90	.410	2
Service level agreements for all assignments	40	4.07	.496	1
<b>Valid N (Listwise)</b>	<b>40</b>	<b>3.93</b>	<b>.529</b>	

From the **Table 5**, the mostly applied practice is the use of service level agreements for all contracts and assignments with a mean of 4.07. This is followed by regular negotiation with suppliers and measuring the

impact of incidents for any activity which both had a mean of 3.90. The least practiced application is the integration of the organization with all the vendors with a mean of 3.85.

#### 4.3.4 E-Procurement

Table 4.6 shows the adoption extent to which e-procurement activities had been adopted by the companies.

**Table 6: Descriptive Statistics of E-Procurement**

Variables	N	Mean	Std. Deviation	Rank
The company uses advertising of tenders online.	40	4.10	.939	1
Encouraging on line submission of proposals	40	3.72	.027	3
Shortlisting of suppliers on line	40	3.38	.959	6
Making requisition on line for all needed materials.	40	3.48	.806	5
Call for proposals is done through the company website	40	3.90	.864	2
Posting of items specification on company website	40	3.57	.061	4
<b>Valid N (List wise)</b>	<b>40</b>	<b>3.69</b>	<b>.609</b>	

From the **Table 6**, the mostly applied practice in E-procurement is the use of advertising of tenders online with a mean of 4.10 followed by call for proposals being done through the company website having a mean of 3.90. The companies also encourage online submission of proposals with a mean of 3.72. The least practice regarding E-procurement is short listing of suppliers online with a mean of 3.38.

**Table 7** summarizes the various global sourcing practices and ranked them in order to find out which was most important to the companies. The practices are contract manufacturing, off shoring, global outsourcing, dual sourcing and E-procurement.

**Table 7: Overall Adoption of Global Sourcing Practices**

Practices	N	Mean	Std. Deviation	Rank
Contract Manufacturing	40	3.59	.366	4
Off shoring	40	3.40	.252	5
Global Outsourcing	40	3.65	.030	3
Dual Sourcing	40	3.93	.083	1
E-Procurement	40	3.69	.121	2
<b>Valid N (List wise)</b>	<b>40</b>	<b>3.65</b>	<b>.170</b>	

From **Table 7** above, the global sourcing practices were analyzed to find out which practices are important to the companies. From the results, dual sourcing which has a mean of 3.93 is viewed by the respondents as the most important practice. This is followed by E-procurement and then global outsourcing with a mean of 3.69 and 3.65 respectively. The least implemented global sourcing practices are contract manufacturing and off shoring which had a mean of 3.59 and 3.40 respectively.

In **Table 8**, regression analysis was done to determine if global sourcing practices affect operational performance. In the regression analysis, operational performance is the dependent variable. Operational performance was measured on the basis of cost reduction, flexibility of operations, product and service quality and speed of service delivery. Contract manufacturing, off shoring, global outsourcing, dual sourcing and E-procurement are the independent variables. The mean of the independent variables and the dependent variables was then used to perform regression analysis.

**Table 8: Regression Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.630 <sup>a</sup>	.397	.287	.38653232	.397	3.617	6	33	.007

From **Table 8**, adjusted  $R^2$  is 0.287 which means that there was 28.7% positive variation in operational performance index due to changes in independent variable and 71.3% is variation of the dependent variable due to other factors not in the model. The correlation coefficient tells us the strength of the relationship between the variables. The study found that the correlation coefficient was 0.630 thus there was a strong positive correlation between the global sourcing practices and operational performance.

The coefficient of correlation was subjected to a test of significance as follows:

$H_0: r = 0$  (the coefficient of correlation is not significant)

$H_1: r \neq 0$  (the of coefficient correlation is significant)

It is a one tail test at 5% level of significance  $df = n - 2 = 40 - 2 = 38$ , the decision rule would therefore be to reject  $H_0$  if computed t is greater than 1.686

Computed  $t = r\sqrt{n-2}/\sqrt{1-r^2} = 0.63\sqrt{40-2}/\sqrt{1-0.63^2} = 5.00$

Decision: Since computed t (5.00) is greater than critical t, the null hypothesis is rejected implying that the coefficient of correlation is significant.

**Table 9: Analysis of Variance**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.243	6	.540	3.617	.007 <sup>a</sup>
Residual	4.930	33	.149		
<b>Total</b>	<b>8.173</b>	<b>39</b>			

From ANOVA table the significant value for the model was 0.007 which means that the model was statistically significant since it is lower than 0.05. The summary of the regression coefficients is given in the table 4.10 below:

**Table 10: Regression Coefficients**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.739	.682		1.083	.287
Contract Manufacturing (X <sub>1</sub> )	.313	.159	.368	1.968	.058
Off shoring (X <sub>2</sub> )	.110	.115	.161	.957	.345
Global Outsourcing (X <sub>3</sub> )	.048	.185	.043	.258	.798
Dual Sourcing (X <sub>4</sub> )	.185	.159	.201	1.162	.253
E-Procurement (X <sub>5</sub> )	.056	.063	.145	.891	.379

From the **Table 11** the following regression equation was established:

$$Y = 0.739 + 0.313X_1 + 0.110X_2 + 0.048X_3 + 0.185X_4 + 0.056X_5$$

From the equation the study found that holding contract manufacturing, off shoring, global sourcing, dual sourcing and E-procurement constant, operational performance index (dependent) would be 0.739. A factor increase in contract manufacturing would lead to an increase in operational performance by factor of 0.313, a unit increase in off shoring would lead to an increase in operational performance by 0.110, an increase in a unit of global outsourcing by a factor of one would lead to an increase of 0.048 in the firm’s operational performance, a unit increase in dual sourcing would lead to an increase in operational performance by 0.185. Finally, a unit increase in E-procurement would lead to a 0.056 increase in operational performance. This information shows that there’s a positive relationship between the independent variables and operational performance.

**Table 12: Significance of Correlation between Individual Variables**

		Operational performance index	Contract manufacturing	Off shoring	Global outsourcing	Dual sourcing	E-procurement
Operational performance index	Pearson Correlation	1.000	.537**	.451**	.383*	.451**	.115
	Sig. (2-tailed)		.000	.004	.015	.004	.478
Contract Manufacturing	Pearson Correlation	.537**	1.000	.517**	.464**	.434**	-.101
	Sig. (2-tailed)	.000		.001	.003	.005	.537
Off Shoring	Pearson Correlation	.451**	.517**	1.000	.459**	.416**	-.037
	Sig. (2-tailed)	.004	.001		.003	.008	.818
Global Outsourcing	Pearson Correlation	.383*	.464**	.459**	1.000	.423**	.045
	Sig. (2-tailed)	.015	.003	.003		.007	.785
Dual Sourcing	Pearson Correlation	.451**	.434**	.416**	.423**	1.000	-.020
	Sig. (2-tailed)	.004	.005	.008	.007		.904
E-procurement	Pearson Correlation	.115	-.101	-.037	.045	-.020	1.000
	Sig. (2-tailed)	.478	.537	.818	.785	.904	

From **Table 12**, the nature of the positive significant relationships between the operational performance and the independent variables can be observed. The study found that operational performance index was positively related to contract manufacturing with a correlation coefficient of 0.537. The correlation analysis revealed that operational performance index was positively related to off shoring and global outsourcing having a correlation coefficients of 0.451 and 0.383 respectively. The study also revealed

**Decision:** since computed operational performance index is positively related to dual sourcing with a positive correlation coefficient of 0.451, operational performance index was found to be positively related to E-procurement but insignificant with correlation coefficients of 0.115.

#### 4.5 Challenges of Adopting Global Sourcing Practices

Table 13 shows a list of challenges facing adoption of global sourcing practices

**Table 13: Challenges of adopting global sourcing practices**

<b>Challenges</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Rank</b>
Resistance to change	40	3.32	.309	8
The level of internet access by small suppliers	40	4.15	.864	2
The level of top management support	40	3.50	.934	7
The nature of global logistics	40	3.45	.085	6
Existence of tariffs and non-tariff restrictions	40	3.82	.174	4
Culture and language differences	40	3.70	.883	5
The capability of suppliers	40	4.20	.853	1
The type of international trade laws and practices	40	4.07	.944	3
<b>Valid N (List wise)</b>	<b>40</b>	<b>3.776</b>	<b>.631</b>	

**Table 13** above shows that the main challenges of adopting global sourcing practices in the studied companies include the capability of suppliers, followed by the level of internet access and then the type of international trade laws and practices with a mean of 4.20, 4.15 and 4.07 respectively. This is followed by existence of tariffs and non-tariff barriers with a mean of 3.82. The factor that had the least challenge in the process of adoption of global sourcing practices was resistance to change with a mean of 3.32.

## **Summary of Findings**

The first objective of this study was to determine the global sourcing practices adopted by Textiles and apparels manufacturing firms in Kenya. Data analysis and interpretation of questionnaire responses revealed that dual sourcing was the most adopted practice. This is followed by E-procurement, global outsourcing and then contract manufacturing. The least implemented global sourcing practice was off shoring. The companies however practiced at different levels all the global sourcing practices of contract manufacturing, off shoring, global outsourcing, dual sourcing and E-procurement.

The study also sought to find out the effect of global sourcing practices on operational performance of Textile and Apparels manufacturing firms in Kenya. The study results show a coefficient of correlation of 0.63 meaning that there is a positive relationship between the global sourcing practices and operational performance. The following regression equation was established:

$$Y = 0.739 + 0.313X_1 + 0.110X_2 + 0.48X_3 + 0.185X_4 + 0.056X_5$$

From the above equation the study found that global outsourcing, dual sourcing, E-procurement, off shoring and contract manufacturing have a positive but not a significant effect on operational performance. This is because the P-value is not less than 0.005. The coefficient of determination  $R^2$  was found to be 0.287 which means that there was 28.7% positive variation in operational performance index due to changes in independent variable and 71.3% is variation of the dependent variable due to other factors not in the model.

The third objective of the study was to establish the challenges of adopting global sourcing practices by Textile and Apparel manufacturing firms in Kenya. The study identified the capability of suppliers as the main challenge in adopting global sourcing practices by Textile and Apparels manufacturing firms. This was followed by the level of internet access by small suppliers and then the type of international trade laws and practices. The other challenges are existence of tariff and non-tariff barriers, culture and language barriers, the nature of global logistics, the level of top management support and finally resistance to change.

## **Conclusions**

This study investigated the effect of global sourcing practices on operational performance of Textiles and Apparels manufacturing firms in Kenya. It was intended to establish a linear model that relates global sourcing practices with operational performance of Textile and Apparels manufacturing firms in Kenya. The specific objectives of the study were to determine the global sourcing practices adopted by Textiles and Apparels manufacturing firms in Kenya, to find out the effect of global sourcing practices on operational performance of Textiles and Apparels manufacturing firms in Kenya and to establish the challenges of adopting global sourcing practices by Textiles and Apparels manufacturing firms in Kenya.

The study established that Textiles and Apparels manufacturing firms practiced at different levels all the global sourcing practices of contract manufacturing, off shoring, global outsourcing, dual sourcing and E-procurement. From the findings of the study, global sourcing practices have a positive effect on the operational performance of Textiles and Apparels Manufacturing firms in Kenya. This conclusion is consistent with Gadde, Hakansson and Persson (2010) who also concluded that in an industrial setting, the context of purchasing management has moved from the simple outsourcing of production and supply of resources to global sourcing.

The study also concludes that the capability of suppliers; the level of internet access by small suppliers and the type of international trade laws and practices are the main challenges affecting adoption of global sourcing practices. The other factors challenging adoption of global sourcing also include existence of tariffs and non-tariff restrictions, culture and language differences, the nature of global logistics, the level of top management support and resistance to change. This conclusion is consistent with the study by Magenda and Iravo (2014) which identified currency fluctuation, complexity of logistics, tariff and non-tariff barriers and culture differences as the four factors affecting adoption of global sourcing.

### **Recommendations**

From the findings of the study, the researcher recommends that the Textiles and Apparels manufacturing firms in Kenya should adopt global sourcing practices in contract manufacturing, off shoring, global sourcing, dual sourcing and E-procurement. The companies should adopt the need to install controls concerning uniformity of content and the availability of manufacturing instructions under contract manufacturing. The companies should also have rapid feedback analysis in contract manufacturing. In off shoring, the companies should have a partnership with vendors to assist their companies to build the service center but the actual work is performed by the company. The companies should also set up off shore service centers. Another recommendation is for governments to have clear cut duty and reduced charges and to put conducive policies in place that will ensure that more global sourcing for textile and apparel manufacturing companies is more fruitful.

Global sourcing is a customer-oriented approach, a study would be conducted to establish its significance in the other industries apart from the textiles and apparels manufacturing firms. Due to the shortcomings of regression models, other models can be used to explain the various relationships between global sourcing practices and operational performance of organization.

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