

Strategic Sourcing an Antecedent of Supply Chain Resilience in Manufacturing Firms in Kenya

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ABSTRACT

Supply chain resilience can enable manufacturing firms to overcome disruptions and continually transform them to meet the changing needs and expectations of its customers, shareholders and other stakeholders. Therefore, the objective of this study was to investigate the influence of strategic sourcing on supply chain resilience in manufacturing firms in Kenya. The study adopted cross-sectional survey design using both quantitative and qualitative approaches. The target population was 613 manufacturing firms in Nairobi and its surroundings, who were members of Kenya Association of Manufacturers (KAM) in 2015. The study used stratified random sampling to pick a sample size of 62 manufacturing firms which represented 14 industrial sectors in manufacturing firms. Data was collected using questionnaire. Descriptive and inferential statistics was used aided by Statistical Packages for Social Sciences version 24 to compute percentages of respondents' answers. The study found out that strategic sourcing was significant predictor of supply chain resilience. The study recommends that it would be appropriate for management to adopt strategic sourcing approach when procuring strategic or

critical items as strategic sourcing this would create supply chain resilience in the manufacturing firms. Likewise, the study recommends managers for manufacturing firms to adopt multiple sourcing in order to create reliable delivery and various criteria of selecting suppliers like financial strength, quality of products, past performance, capacity production requirements and technology.

Key words: Strategic sourcing, supply chain resilience, manufacturing firms

INTRODUCTION

Supply chain disruptions can be very severe to the productivity of manufacturing firms. This complicates working business environment and hence calling for lean and flexible global operations in any manufacturing firms. Skipper and Hanna (2009); Scholten and Fynes (2014) asserted that the growing complexity of managing global supply chains and meeting exacerbating customer requirements has made organizations more aware of their operational and economic vulnerability to threats from the macro environment. Supply chain resilience can help to reduce and overcome exposure to risks through developing strategies that enable the supply chain to recover to its original functional state following a disruption (Juttner & Maklan, 2011). Therefore, manufacturing firms can use supply chain resilience to prevent and overcome disruptions in case it occurs.

In today's inter-connected world, most organizations recognize the potential risk of experiencing a supply chain disruption. This can be caused by, for example, a workforce strike, extreme weather conditions or a truck breaking down (Blackhurst, Dunn & Craighead, 2011). Such disruption can be related to any unplanned and unanticipated event that impacts the normal flow of goods, material and/or services (Craighead, Blackhurst, Rungtusanatham & Handfield, 2007). The vulnerability of supply chains to disruptions is evidenced by major events in the past; for example, the earthquake in Japan in 2012 not only impacted the Japanese and Asian economies, but led to shortages in the automobile and technology industry supply chains in Europe (Scholten, Scott, & Fynes, 2014).

Kenya's economic growth remains vulnerable to external shocks, especially developments in the global economy, regional stability and security, and weather-related supply shocks. On the domestic front, political stability and national cohesion are essential for improved business confidence and policy predictability. Kenyan authorities should develop mechanisms to respond flexibly to macroeconomic risks and shocks (Republic of Kenya, 2013). For example, in the Kenyan context oil and gas supply chains, many of the security threats identified are attacks perpetrated while oil and gas are transported by sea (for example sea piracy, hijacking), in pipelines (for example theft, sabotage and vandalism) or while it is being extracted from platforms or stored in facilities. For instance, the entire offshore areas of Yemen and Somalia extending to Oman and Kenya have been frequently associated with endemic piracy. Attacks on ships increased by 10 per cent in 2010, mostly by Somali based pirates (Luciani, 2011). This has increased vulnerability of Kenya's supply chain in various sectors.

Problem statement

The Government of Kenya considers manufacturing firms in particular a key pillar of its growth strategy. The sector is expected to play a key role in the growth of the Kenyan economy by contributing 20 percent of Gross Domestic Product (GDP). However, the manufacturing sector in Kenya is yet to account 20 percent of the GDP as stipulated in the Kenya Vision 2030 (Bolo & Wainaina, 2011; KAM, 2012; KNBS, 2013; Waiganjo, 2013). The manufacturing sector's contribution to GDP has remained at an average of 10 percent for more than ten years (KNBS, 2015). For example, KAM, (2012); KNBS, (2013) found out that the Kenya manufacturing sector contribution to GDP worsened from 9.6 per cent in 2011 to 9.2 per cent in 2012, while the growth rate deteriorated from 3.4 per cent in 2011 to 3.1 per cent in 2012.

Transparency International (2013) asserts that organizations in the developing countries are more vulnerable to particular supply chain threats such as political turmoil, including rebel activities and post-election violence, and to bribery, corruption and other unethical business practices. Thus, these unforeseen disruptions are not only affecting manufacturing firms in Kenya but also all businesses globally. For instance, the global business environment has changed and is currently subjected to a multitude of events from a variety of sources, such as natural disasters, social conflicts, economic crises and manufacturing failures (Giunipero *et al.*, 2015). In the year 2013 alone, 75 per cent of companies experienced at least one disruption, of which 21 per cent suffered more than €1 million in costs for a single incident ranging from equipment malfunctions, unforeseen discontinuities in supply, and information technology breakdowns to natural hazards and disasters (Business Continuity Institute, 2013). Therefore, the purpose of this study is to investigate the influence of strategic sourcing on supply chain resilience in manufacturing firms in, Kenya.

Objective of the study

The objective of this study was to determine the influence of strategic sourcing on supply chain resilience in manufacturing firms in Kenya.

Hypothesis

H₀ Strategic sourcing has a positive significant influence on supply chain resilience in manufacturing firms in Kenya.

LITERATURE REVIEW

The study was anchored on strategic contingency and strategic choice theories.

Strategic Contingency Theory

This theory postulates that there is no one universally applicable set of management principles by which to manage organizations under all conditions. Organizations are individually different, face different situations (contingency variables), and require different ways of managing. Wren (2005) observes that contingency theory is a class of behavioural theory that claims that there is no best way to organize a corporation, to lead a company, or to make decisions. Thus,

contingency variables include organization size, technology, environmental uncertainty, individual differences and many others. These variables influence and shape the individual behaviour in a certain situation while managing manufacturing firms.

Thus, organizations are required to formulate different strategies in order to achieve their objectives. This is because a single strategy may not be appropriate due to the environmental influences. Rue and Byars (2004) argue that the contingency theory is an extension of humanistic theories where classical theories assumed universal view in managing enterprises; that is, whatever worked for one enterprise could work for another. This theory is important to the Kenyan manufacturing firms because it requires managers to adopt different managerial skills in order to create SCRES in manufacturing firms. For example supply chain disruptions exhibit both internal (e.g., a fire at a major manufacturing plant) and external risks (e.g., economic shocks). Not managing these risks can deteriorate operational and financial performance (Hendricks & Singhal, 2003 and 2005; Giunipero & Eltantawy, 2004). Managers in the Kenyan manufacturing firms should implement predefined contingency plans to provide a quick response with appropriate mitigation measures that enable them to recover fast by minimizing the negative disruption consequences. Likewise, they should enhance flexibility through higher supply chain visibility from effective communication and information sharing in real-time among supply chain partners (such as demand and inventory levels) in order to detect risk events early and trigger response processes to disruptions with improved speed. Chopra and Sodhi (2014) recommend managers to segment (based on volume, product variety and demand uncertainty) and regionalize supply chains to reduce costs and increase responsiveness for de-risking the supply chain.

Strategic Choice Theory

Strategic choice theory (SCT) was developed and advanced by Child in 1972. According to this theory, the goal of the organizations is to achieve high performance standards and increase the efficiency to the limits of economic constraints. Kenyan manufacturing firms need to consider contextual factors as very important if firms are to perform well. For instance, managers that make sound decisions for their organizations and adopt modern technology to analysis risks, they are likely to become more resilient.

Therefore, managers should establish structural reforms, manipulate environmental features, and choose relevant performance standards in achieving organizational goals. According to the SCT, managers play an important role in achieving organizational outcomes through their decision making or leading the changes in organizations (Child, 1972; Ketchen & Hult, 2007). This strategic decision making functions at three levels: Top tier or long term planning, middle tier or functional level, and bottom tier at the individual level (Kochan, Katz & McKersie, 1986). Strategic choice theory views managers as proactive agents who are down-stream decision-makers and mainly focus on directing major decisions and change processes in organizations. Change, or what Child (1972) calls "variation in organizational structure," is caused by three contextual factors: environmental conditions, technology, and size.

This theory is useful to this study because managers play an important role in achieving organizational outcomes through their decisions making. For example, managers in the Kenyan manufacturing firms must foster continuous commitment to communication and collaboration at different levels across, within, and between organizations, involving staff from different departments, supply chain members and organizational levels in strategic planning and establish risk awareness via training and education, if they are to take the first steps to becoming more resilient (Scholten *et al.*, 2014). Managers of the Kenyan manufacturing firms should be able to develop a good relationship with suppliers, and be able to make informed decisions. Strategic sourcing can help the supply chain design (or supply chain configuration or even re-engineering) to reduce complexity and enhance the alignment of the flows throughout the supply chain (Carla *et al.*, 2014).

Strategic Sourcing

Strategic sourcing is the employment of appropriate strategy which carefully considers profit potential and risk factors (Mingu & Xiaobo, 2009). Strategic sourcing is underpinned by four fundamental issues by managing them properly managers will be able to develop good relationships with suppliers' and they include: collaboration; supplier relationships; supplier selection and supplier base (Carla *et al.*, 2014). Supply chain management is essentially a network theory; the management of risk must also be examined from a network perspective (Christopher & Peck, 2004). Collaboration among organizations in a supply chain is what integrates the network as a whole and makes a holistic approach, which is needed to build supply chain resilience, possible (Sheffi, 2001); there is a consent in the literature that collaboration is an essential element of building supply chain resilience. The fundamental principle of supply chain collaboration is that the exchange of information and application of shared knowledge across the chain can decrease uncertainty (Christopher & Peck, 2004), increase visibility (Faisal *et al.*, 2006), operational effectiveness and efficiency, and enhance customer service.

Collaboration amongst supply chain members can be vertical or horizontal, and can either be an operational matter emphasizing how working together can support supply chain efficiency or can involve strategic knowledge or innovation perspectives, as ways for members to access complementary skills to improve chain performance (Jüttner & Maklan, 2011). While vertical collaboration involves different members at different value chain stages (suppliers, manufacturers, customers, etc.), horizontal collaboration takes place between different organizations working at the same level, usually in partnerships, or between different functional departments within an organization. Collaboration is not only important before and during a disruption but also after a disruption, in order to share experiences among the parties to increase the ability of the system to deal with future risks and hence creating SCRES (Jüttner & Maklan, 2011; Sheffi, 2005).

Regarding supplier relationship, Christopher (2000) and Christopher and Jüttner (2000) affirm that different structural interfaces between buyer and supplier may increase the level of connectivity between both parts. As a result, agility enhances flow of information between

buyer and supplier, and hence increases the information sharing among other functions. Because of that Christopher (2000) states that agile companies normally have a small supplier base, prioritizing strong relationships and more information sharing to increase the level of connectivity. Considering the trade-off of having a single or multiple sourcing it is recognized here that employing a balance source of suppliers would be a reasonable choice to create resilience in the supply chain. This would allow companies to skip out the risk of relying on only one supplier by having other suppliers if the need arises. It also helps to keep reasonable material quality, product cost and reliable delivery.

Following this line of thought, one of the criteria to select suppliers is their financial situation. Thus, Zsidisin *et al.* (2000, 188) state that “if a supplier is not profitable, it may not stay in business for very long”, recognizing that it can be a risk for the buyer company. For this reason, financial strength is highlighted here as a resilient enabler which impacts on procurement activities. Furthermore, collaboration is found to be a good way to achieve effectiveness of the supplier’s management team, while velocity and acceleration is normally related to suppliers’ location (Tang, 2006a; Zsidisin & Wagner, 2010). Therefore, Managers should be able to develop a good relationship with suppliers, and hence find beneficial ways to make strategic and effective decisions in order to create SCRES. Strategic sourcing can help the supply chain design (or supply chain configuration or even re-engineering) to reduce complexity and enhance the alignment of the flows throughout the supply chain (Carla *et al.*, 2014). One of the objectives of the study is to determine the influence of strategic sourcing on supply chain resilience in manufacturing firms in Kenya.

Supply Chain Resilience

Resilience is defined as the capacity of a system to survive, adapt and grow in the face of turbulent change (Fiksel 2006; Scholten *et al.*, 2014). Business systems face technological change, financial risk, political turbulence and mounting regulatory pressures; industrial growth does not proceed smoothly. The traditional tool to manage uncertainty is risk management, which is especially challenging when threats are unpredictable. Deliberate threats such as theft or terrorism can even adapt to new security measures. At the same time, corporations are accepting broader responsibility for the social and environmental impacts of their supply chains. The entire enterprise has a role to play in creating and maintaining supply chain resilience (Pettit *et al.*, 2010).

Despite the increase in supply chain resilience (SCRES) publications, few focus on assessing and measuring SCRES. Referring to the different SCRES phases, Sheffi and Rice (2005) outline a plot demonstrating that economic turbulences will have a fluctuating effect on performance measures such as sales, production levels, profits or customer service. Pettit *et al.* (2010) present an agent-based framework aiming to strengthen supply chain flexibility and SCRES by studying multi-product, multi-country supply chains subject to demand variability, production and distribution capacity constraints. The SCRES level is assessed by four measures: customer service level, production change over time, average inventory at each distribution center and total average network inventory across all distribution centers.

Giunipero *et al.* (2015) used sand cone model to illustrate the different Supply Chain Resilience (SCRES) phases and their relative importance to performance. They came up with four SCRES phases namely; readiness, responsiveness, recovery and growth phases. Thus, they examined SCRES as the ability to avoid/reduce the probability of disruptions and to respond and recover quickly, they identified that SCRES can be quantified through three essential performance metrics that enable reporting on how severe a disruption impact is and how a firm's SCRES performs: (1) customer service (2) market share (3) financial performance. As shown by Wu *et al.* (2013), a timeline can illustrate the impact before, during and after a disruption to measure SCRES and display how quickly a firm has recovered. Therefore, this study adopted customer service, market share and profitability performance to operationalize SCRES in manufacturing firms.

RESEARCH METHODOLOGY

The study adopted cross-sectional survey design using both quantitative and qualitative approaches. The target population was 613 manufacturing firms in Nairobi and its surroundings, who were members of Kenya Association of Manufacturers (KAM) in 2015. The study used stratified random sampling to pick a sample size of 62 manufacturing firms which represented 14 industrial sectors in manufacturing firms. Data was collected using questionnaire. Descriptive and inferential statistics were used aided by Statistical Packages for Social Sciences version 24 to compute percentages of respondents' answers.

RESEARCH FINDINGS AND DISCUSSION

Response Rate

The targeted respondents in the study were supply chain managers of the manufacturing firms in Kenya and which were registered members of Kenya Association of Manufacturers (KAM) in the year 2015. A total of 59 self-administered questionnaires were filled out of the expected 62 yielding a response rate of 95%. This response rate was good and representative and confirms to Mugenda (2008) stipulation that a response rate of 50% is adequate for analysis; a rate of 60% is good and a response rate of 70% and over is excellent. This good response rate was attributed to the data collection procedure, where the researcher personally administered questionnaires to the respondents who filled them. The researcher collected the filled questionnaires later. This response rate demonstrated willingness to respond to study.

Strategic sourcing

The study sought to determine the influence of strategic sourcing on supply chain resilience in manufacturing firms in Kenya. This objective was measured using the following indicators: collaborations; supplier base and criteria used in selecting suppliers in the opinion statements given. Respondents were asked to indicate the extent to which they agreed with the implementation strategic sourcing issues for supply chain resilience in their manufacturing firms. This was on a likert scale of not at all, small extent, moderate, large extent and very large

extent. Thus, in this study the scale of not all and small extent meant disagree while large and very large extent meant agreed.

Collaborations

The majority of the respondents (77%) agreed that manufacturing firms collaborated frequently through sharing information with their key supply chain partners, and 23% indicated moderate. Large number of the respondents (64%) agreed that manufacturing firms collaborated via synchronising decisions with their supply chain partners in areas like planning and operations to optimise benefits. Moderate number of respondents (31%) and a small number of respondents (5%) indicated that manufacturing firms do not collaborate via synchronising decisions with their supply chain partners. Also, 29% of the respondents agreed that manufacturing firms collaborated by aligning incentives with their supply partners in a form of co-developing systems, sharing costs, risks and benefits, 57% of the respondents indicated moderate and 14% of the respondents do not agree. Further, a small number of respondents (17%) indicated that manufacturing firms shared resources with their supply partners in a form of leveraging capabilities, resources and assets, 54% of the respondents indicated moderate and 29% of the respondents do not agree. However, majority of the respondents (84%) agreed that manufacturing firms had collaborative communication with their supply chain partners, 14% of the respondents indicated moderate and small respondents (2%) disagreed. Lastly, 57% of the respondents agreed that manufacturing firms had joint knowledge creation with their partners by better understanding of markets competitors, 33% of respondents indicated moderate and 10% of the respondents do not agree as shown in table below.

Measurement of Collaborations

Collaboration	Not at all (%)	Small Extent (%)	Moderate (%)	Large Extent (%)	Very Large Extent (%)	Mean	Std. Deviation.
We frequently share information with our supply chain partners	0	0	23	54	23	4.00	0.68
We synchronise decisions with our supply chain partners (planning ,operations that optimise benefits)	2	3	31	40	24	3.81	0.91
We align incentives with our supply partners (co-developing systems ,sharing costs , risks and benefits)	0	14	57	22	7	3.22	0.77
We share resources with our supply partners (leveraging capabilities , resources and assets)	11	18	54	12	5	2.84	0.96
We have collaborative communication with our supply chain partners	0	2	14	51	33	4.16	0.72
We have joint knowledge creation with our partners (better understanding of markets competitors)	0	10	33	38	19	3.66	0.91

In general, the study found out that manufacturing firms’ in Kenya collaborated with their suppliers through sharing information, synchronising decisions such as planning and operations to optimise benefits and joint knowledge creation with their partners for better understanding markets competitors. These findings of the study concurred with the study of Scholten, Scott, and Fynes (2014), that collaboration can facilitate the sharing of resources and other complementary skills necessary for recovery from a disruption (Scholten, Scott, & Fynes 2014). Collaboration also enhances supply chain resilience by enabling supply chain partners to support each other during a disruptive event (Jüttner & Maklan 2011) and to provide a flexible and coordinated response. The fundamental principle of supply chain collaboration is that the exchange of information and application of shared knowledge across the chain can decrease uncertainty (Christopher & Peck, 2004).

However, the study found out that manufacturing firms in Kenya do not share resources with their supply partners in a form of leveraging capabilities, resources and assets. Also, manufacturing firms do not collaborate by aligning incentives with their supply partners in a form of co-developing systems, sharing costs, risks and benefits. Gichuru, Iravo and Arani (2015) asserted that companies should collaborate in information sharing, joint decision making areas like new product development and modifications, decisions on forecasting components requirement and many other decisions and developing incentive alignment. Thus,

manufacturing firms in Kenya should share resource with suppliers as a form of leveraging capabilities, resources and assets and aligning incentives to create supply chain resilience.

a) Supplier base

A high percentage of respondents (52%) agreed that manufacturing firms maintained smaller supplier base to be able to manage them, 30% of the respondents indicated moderate and 18% of the respondents disagreed that they do maintained smaller supplier base. Also, majority of the respondents (84%) of manufacturing firms had adopted multiple sourcing to create reliable delivery, 8% of the respondents indicated moderate and 8% of the respondents disagreed as shown in table below.

Measurement of supplier Base

supplier Base	Not at all (%)	Small Extent (%)	Moderate (%)	Large Extent (%)	Very Large Extent (%)	Mean	Std. deviation
We maintain small supplier base to be able to manage them	9	9	30	36	16	3.42	1.13
We have adopted multiple sourcing to create reliable delivery	0	8	8	55	29	4.03	0.85

The study found out that manufacturing firms maintained smaller supplier base to be able to manage them and adopted multiple sourcing as a way of creating reliable delivery. These study findings concurred with Christopher and Peck (2004) that supply base strategy has become a major issue as many companies have moved towards reducing supply base but there should be limits to which the process should be perused. Also, the findings of this study agreed with Simangunsong *et al.* (2012) that companies should consider the trade-off of having a single or multiple sourcing. This would allow companies to skip out the risk of relying on only one supplier by having other suppliers if the need arises. It also helps to keep reasonable material quality, product cost and reliable delivery and therefore, manufacturing firms would be resilient.

b) Criteria selection of suppliers

The research observed that 51% of the respondents in this study agreed that manufacturing firms selected suppliers basing on the financial strength, 41% of the respondents indicated moderate and small number of respondents disagreed. In addition, majority of respondents (98%) agreed that manufacturing firms selected suppliers basing on quality of products they offer, and a small number of respondents (2%) disagreed. Also, 83% of the respondents agreed that manufacturing firms selected suppliers basing on the past performance, 15% of the

respondents indicated moderate and 2% of the respondents disagreed. With regard to capacity production requirements, majority of respondents (84%) agreed that manufacturing firms selected suppliers basing on the capacity to production requirements and 16% of the respondents indicated moderate. However, 73% of the respondents agreed that manufacturing firms selected suppliers basing on the technology adopted by supplier, 22% of the respondents indicated moderate and 5% of the respondents disagreed as shown table below.

Measurement of criteria selection of suppliers

criteria selection of suppliers	Not at all (%)	Small Extent (%)	Moderate (%)	Large Extent (%)	Very Large Extent (%)	Mean	Std. deviation
We select suppliers basing on the financial strength	0	8	41	32	19	3.61	0.89
We select suppliers basing on quality of products they offer	0	2	0	32	66	4.63	0.58
We select suppliers basing on the past performance	0	2	15	58	25	4.07	0.69
We select suppliers basing on the capacity to production requirements	0	0	16	50	34	4.19	0.69
We select suppliers basing on the technology adopted by supplier	2	3	22	51	22	3.88	0.85

Basing on the study findings, manufacturing firms in Kenya selected suppliers basing on the financial strength, quality of products they offer, past performance, capacity to production and requirements technology adopted by supplier. These findings are in harmony with Zsidisin *et al.* (2000) that one of the criteria to select suppliers is their financial situation and alluded that suppliers who are not profitable may not stay in business for very long. Therefore, financial strength is highlighted has a resilient enabler. Also, Lysons and Farrington (2006) states that supplier should be appraised basing on financial strength, production capacity, human resources, quality, previous performance, environmental and ethical factors and information technology. Supplier appraisal may arise when a prospective vendor applies to be placed on buyer's list or in the course of negotiation when the buyer wishes to assure him/herself that supplier can meet requirements reliably. Thus, supplier selection criteria can form a very strong base in creating supply chain resilience in manufacturing firms in Kenya.

Test of hypothesis

The researcher conducted regression analysis so as to establish the influence of strategic sourcing on supply chain resilience in manufacturing firms in Kenya. The hypothesis tested was:

H₀ Strategic sourcing has a positive significant influence on supply chain resilience in manufacturing firms in Kenya.

The linear regression model shows R²= 0.099 which means that 9.9% change of supply chain resilience can be explained by a unit change of strategic sourcing. The result is shown in table below. Out of the results there is an indication that one unit change in strategic sourcing translates to 9.9% change in supply chain resilience in manufacturing firms in Kenya therefore, strategic sourcing has a positive influence on supply chain resilience in manufacturing firms.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.338 ^a	.114	.099	.90304

a. Predictors: (Constant), SS

Further test on ANOVA shows that the significance of the F-statistic (7.365) is less than 0.05 since p value, p=0.00, as indicated in table below. This implies that there is a positive significant relationship between strategic sourcing and supply chain resilience. Therefore, strategic sourcing creates supply chain resilience in the manufacturing firms in Kenya and managers should have sourcing strategy to assist them in designing and managing supply networks in line with the organizational performance objectives in order to create resilience. The finding of this study concurred with the study of Carla *et al.* (2014) who noted that strategic sourcing activities like collaboration, supplier relationships, supplier selection and supplier base had positive influence in achieving supply chain resilience in manufacturing firms.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.006	1	6.006	7.365	.009 ^b
	Residual	46.483	57	.815		
	Total	52.489	58			

a. Dependent Variable: BSCR

b. Predictors: (Constant), SS

Further test on the regression coefficient for supply chain re-engineering was positive and significant ($\beta = 0.338$) with a t-value=1.983 (p-value<0.001). As shown in table below. This implies that for every 1 unit increase in supply chain re-engineering, supply chain resilience in manufacturing firms in Kenya is predicted to increase by 0.338 units and therefore H₀ is accepted.

Coefficients of supply chain re-engineering

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.505	.759		1.983	.052
	SS	.534	.197	.338	2.714	.009

a. Dependent Variable: BSCR

CONCLUSION AND RECOMMENDATIONS

From the study findings, it could be concluded that strategic sourcing had a positive significant influence of supply chain resilience in manufacturing firms in Kenya. The study showed that there was a strong relationship between strategic sourcing and supply chain resilience in manufacturing firms in Kenya and hence it could be concluded that if strategic sourcing is embraced by management of manufacturing firms, it could increase supply chain resilience in the manufacturing firms in Kenya.

Also, based on the results of this study, it could be concluded that manufacturing firms in Kenya collaborate frequently with their key supply chain partners through the various platforms like sharing of information, synchronizing of decisions, aligning of incentives in a form of co-developing systems, sharing costs, risks and benefits, sharing of resources and constant communication. Likewise, it could be concluded that manufacturing firms in Kenya had adopted multiple sourcing in order to create reliable delivery and various criteria of selecting suppliers like financial strength, quality of products, past performance, capacity production requirements and technology. Therefore, collaborations, supplier base and supplier selection forms the integral part of strategic sourcing and if well executed in the manufacturing firms in Kenya, it would create supply chain resilience.

The study recommends that it would be appropriate for management to adopt strategic sourcing approach when procuring strategic or critical items as strategic sourcing this would create supply chain resilience in the manufacturing firms. Strategic sourcing can be achieved through collaborating frequently with their key supply chain partners in matters to do with sharing of information, synchronizing of decisions and aligning of incentives. Likewise, the study recommends managers for manufacturing firms to adopt multiple sourcing in order to create reliable delivery and various criteria of selecting suppliers like financial strength, quality of products, past performance, capacity production requirements and technology.

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