



INFLUENCE OF STRATEGIC SUPPLIER MANAGEMENT ON SUPPLY CHAIN PERFORMANCE OF NON-GOVERNMENTAL ORGANIZATION: A CASE STUDY OF ONE ACRE FUND, KENYA

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ABSTRACT

Large budgets are being spent on supply chain related activities, with more than sixty percent of most organizational budgets going to procurement. Most Non-Governmental Organizations (NGOs) like One Acre Fund are yet to appreciate the important role of suppliers in improving the supply chain performance as depicted by late deliveries, user complains, low quality supplies, among other issues. Many organizations have not taken interest to manage and enhance supplier relationship, the result of which is poor quality supplies, high prices, delivery delays and ultimately unhappy end user and stakeholders' discomfort. NGOs mostly serve the vulnerable in the society and inefficient supply chain would worsen their situation instead of helping them. The study sought to investigate the influence of strategic supplier management on supply chain performance of NGOs, A case study of One Acre Fund by looking at supplier sourcing and supplier development. The study targeted management staffs comprising of three hundred and forty management members at One Acre Fund in Kenya. The study used both stratified and purposive sampling to come up with a sample size of one hundred and eighty one respondents. Simple random sampling was used to select individuals that participated in the study. Questionnaires were used as instruments of data collection. The study concluded that the strategic supplier management has a great impact on supply chain performance at One Acre Fund. The study concluded that supplier sourcing and supplier development have a significant influence on the performance of supply chain. The study recommended that the NGOs update vendor list frequently with competent suppliers, embrace category management and supplier collaboration. This study recommended that the NGOs should organize supplier trainings and workshops to train them on supply chain systems and expectations, set goals with incentives attached as part of supplier development strategies for key suppliers. This would increase the level of accountability, efficiency and competitiveness in non-governmental organizations.

Key Words: Strategic Supplier Sourcing Strategic Supplier Development, Supply Chain

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INTRODUCTION

Today's economic environment is characterized by fierce competition and swift technological development, resulting in both price pressures and compressed product life cycles (Lee, Olson & Trimi, 2012). For firms, the implications of these developments are that competitiveness based solely on low prices is insufficient, and increasingly the cost focus must be complemented with an emphasis on value creation, where innovations and new product developments are crucial. Due to these factors, many companies have found that internal efficiency improvements are no longer enough (Henke, Parameswaran, & Pisharodi, 2008). Rather, larger gains can be achieved by enhancing the performance of the entire supply chain (Christopher, 2005). This is further reinforced by the fact that many companies today can attribute over 50 per cent of their costs to supplier inputs. This indicates that cooperative collaborations with key suppliers can generate significant benefits, resulting in competitive advantages and value enhancements (Henke, *et al.*, 2008).

Organizations attach significance to procurement since the procurement of services and goods can impact the accomplishment of the organization's primary objectives and targets (Prasad, Zakaria & Altay, 2016). Supplier selection is one of the most significant strides in the procurement procedure and this progression is a premise of many continuing exercises (Sarkis & Talluri, 2002). According to Bergman and Lunberg (2013) procurement is viewed as one of the primary government exercises, which can represent fifteen percent of the GDP. In EU, the most minimal price win technique is less utilized and rather, both cost and quality are viewed as more frequently during the time spent on selecting supplier to upgrade the public procurement effectiveness (Chen, 2011). The entire procedure of selecting and assessing supplier in public procurement is a sensitive and exceptionally managed procedure, guaranteeing

reasonable competition while limiting the danger of discrimination (Schapper, Veiga & Gilbert, 2006). The Department of procurement ought to pursue thorough and clear systems that help the improvement of explicit goals and maintain a strategic distance from abstract decisions on suppliers (Falagario, Sciancalepore, Costantino & Pietroforte, 2012).

Kenya hosts many Non-Governmental Organizations (NGOs) of different sizes. Dorine (2017) posed a question referring to the NGOs; *'who are these people accountable to? How do we know that they are in any way representing or serving their clients?'* NGOs are voluntary organizations registered under the Non-governmental Organization Co-ordination (NGOC) act in Kenya and are for non-profit and non-commercial. As at 1988, Kenya had 267 registered NGOs. This grew tremendously to 2,511 NGOs by 2013 (Moore, 2012). As at 2017 there were about 7,000 registered NGOs. NGOs are considered to offer solutions to the poor and vulnerable and therefore their operations and performance are crucial for any government (Agwata & Magutu, 2014).

Statement of the problem

Organizations are increasingly looking for ways to remain competitive in a globalized market (Bergman & Lunberg, 2013). But the viability of all organizations is affected by the supply chain efficiency (Emmett & Crocker, 2009). The survival and growth of organizations largely depend on the ability to secure critical resources from the external environment like the suppliers (Emerson, 1962; Pfeffer & Salancik, 1978; Casciaro & Piskorski, 2005). According to Kaluki and Chirchir (2015), supply chain when strategically implemented gives NGOs an advantage and promotes good relationship with the donors due to high customer service levels experienced. Supply chain is a chain with two main critical links, the supplier and the user and when the links are weak the chain won't be strong (Hassan, Habib, & Khalid, 2014).

A study by Katheo and Mwangangi, (2018) indicated that 60% of the Kenyan revenue is spent on supply chain activities which are the same case for even the NGOs. There are two key stakeholders within supply chain; the user and the supplier without whom there is no supply chain. The routine function of the buyer has been and is still to check if there are approved requests from the user and contact the supplier (Stuart *et al.*, 2012). The role of the supplier is therefore very important in the supply chain performance (Katheo & Mwangangi, 2018).

Despite these facts most organizations, and especially NGOs are yet to appreciate the important role of suppliers in improving supply chain performance (Zhao, *et al.*, 2008). One Acre Fund has a big procurement department with staffing of over 10 members, but all of them are only dedicated to buying. The department does not have dedicated staff to supplier relationship management and as such there are many cases of poor-quality supplies, late deliveries, exaggerated prices which leads to poor customer service and many complains from the users (OAF, 2017). This is further complicated by lack of management commitment to SRM issues as highlighted in the study by Sarkis and Talluri (2002) where lack of high level management was found to be an impediment to supply chain success.

According to Mutethia and Kihara (2018), many organizations have not taken interest to manage and enhance supplier relationship. These have left suppliers as mere tools or means to acquire goods and services, as buyers do not care most on before and after the engagement with a supplier. Buyers do not consider suppliers as strategic partners and this causes continued poor quality supplies, high prices, delivery delays, and ultimate drop in customer service (Nzau, 2014). Handfield and Nicholas (2002) suggested that rather than chasing short-term profits, businesses following the principles of relationship marketing forge long-lasting bonds with their suppliers. As a result, suppliers trust these businesses,

and the mutual loyalty helps both parties fulfill their needs. This study intended to find out how strategic supplier management influences the supply chain performance specifically for NGOs.

The study was guided by the following research objectives;

- To determine the role of strategic supplier sourcing on supply chain performance.
- To examine the effect of strategic supplier development on supply chain performance.

The study sought to test the following null hypotheses:

- **H₀:** There is no significant influence of strategic supplier sourcing on supply chain performance of non-governmental organization.
- **H₀:** There is no significant influence of strategic supplier development on supply chain performance of non-governmental organization.

LITERATURE REVIEW

Social Exchange Theory

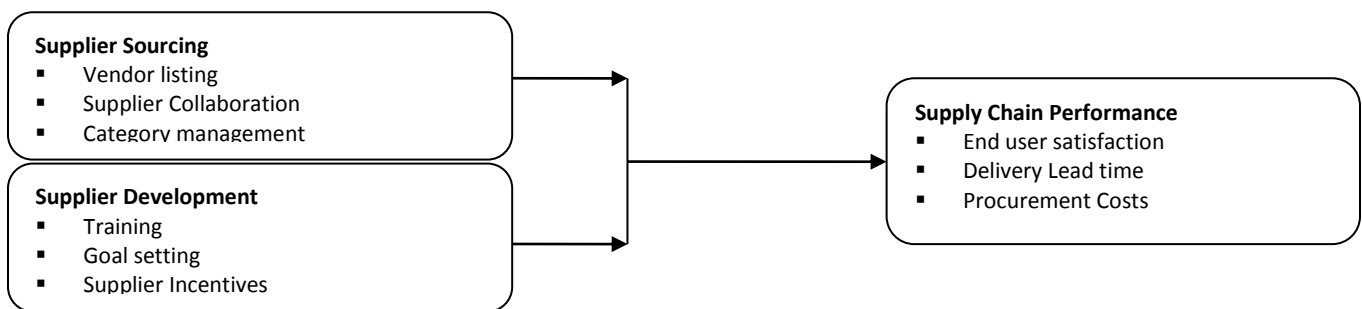
This theory was established by George Homans. It is founded on the fundamental idea that individual groupings interrelate with the desire for remunerations and the evasion of punishments or penalties (Redmond, 2015). The build of correspondence is very prevalent in the social exchange theory since the activity and conduct of one party will prompt equal activity and conduct by the other party that is engaged with the transaction. Among the key premises of the theory is the significance of having trust and responsibility to guarantee that the relationship is successful (Field & Meile, 2008). Homans defined the concept of interaction as synonymous with the concept of social behavior. That, when an action emitted by one person is rewarded or punished by the action issued by another person, then, regardless of the type of emitted behavior, it is said that these two people have interacted (Zhao *et al.*, 2008).

Theory of Constraints

The constraints theory is a general administration philosophy presented by Eliyahu Goldratt in his 1984 book titled Goal. It is inclined to help firms persistently accomplish their objectives. The constraints theory is a management hypothesis that views any reasonable system as being confined in achieving a more prominent measure of its goals by a very unassuming number of objectives (Zeynep, Noyan & Ozalp, 2014). There is reliably at any rate one imperatives, and TOC uses a focusing methodology to recognize the requirements and revamp the rest of the firm around it. TOC grasps the ordinary saying a chain is no more grounded than its weakest association (Zhao *et al*, 2008). This suggests firms, method, etc., are frail since the weakest individual or part can for the most part damage or break them or perhaps unfairly impact the outcome. The basic reason of the constraint theory is that firm can be estimated and constrained by minor departure from three measures: throughput, operational cost, and stock (Gattorna, Kampstra & Ashayeri, 2006).

Commitment Trust Theory

The theory commitment-trust in regard to the management of relationship posits that two key variables, commitment and trust, must exist for a relationship to be fruitful (Christopher, 2004). The theory was referenced by Annekie and Adele, (2004) in their book "Relationship Marketing and Customer Relationship Management". Relationship marketing includes shaping bonds with vendors by fulfilling their needs as well as fulfilling responsibilities. Handfield and Nicholas (2002) proposed that as opposed to pursuing transient profits, organizations following the relationship marketing principles produce durable bonds with their vendors. Thus, vendors trust these organizations, and the common unwaveringness enables the two parties to satisfy their needs. Heikkila (2002) characterized trust as the certainty the two parties in the relationship have that the other party won't accomplish something destructive or risky.



Independent Variable

Dependent Variable

Figure 1: Conceptual framework

METHODOLOGY

The study employed a descriptive research design. The choice of a research design was determined by a number of considerations such as; the research purpose, categories of data needed, data sources and the cost factor (Kothari, 2014). The study used both qualitative and quantitative research methods in order to enrich the content of the findings. The target

population was senior management staff members at One Acre Fund. The organization had 340 management staffs in Kenya (OAF, 2017). The study used both stratified sampling and purposive sampling. The study further used simple random sampling to select individuals that will participate in the study. The study used Krejcie and Morgan (1970) table to get a sample size of 181 respondents out of a target

population (N) of 340. The study used questionnaires as a method of data collection. Quantitative data was coded using Statistical Package for Social Science (SPSS) version 20. The multivariate regression model for this study was;

$$Y = B_0 + B_1X_1 + B_2X_2 + e$$

Where,

Y is Supply Chain Performance,

B₀ is the constant

B₁, B₂, are coefficients

X₁ is Supplier Sourcing

X₂ is Supplier Development

e is the error term

RESULTS

Supplier Sourcing

According to the first objective, the study aimed at finding out the influence of strategic supplier sourcing on supply chain performance at One Acre Fund. All the respondents indicated they understood what supplier sourcing was. The study sought to understand to what extent supplier sourcing is effective in influencing supply chain performance and analyzed the influence of strategic supplier sourcing on supply chain performance. To achieve this, the respondents were asked to indicate the extent at which supplier sourcing was used at One Acre Fund. The findings were summarized in Table 1.

Table 1: Extent of effectiveness of Supplier Sourcing

Supplier sourcing	Frequency	Percentage (%)
Not at all	15	9.6
Little extent	19	12.2
Moderate extent	18	11.5
Great extent	32	20.5
Very great extent	72	46.2
Total	156	100

The summary showed that 46.2% of respondents indicated that supplier sourcing was effective to a very great extent, 20.5% indicated to a great extent, 12.2% to a little extent, 11.5% to a moderate extent and 9.6% not at all. It was concluded therefore that strategic supplier sourcing at One Acre Fund was effective.

Effective supplier sourcing ensures an effective supply chain function (Tracey, 2008). High-volume purchases are normally the best candidates for strategic sourcing because they are likely to have the greatest impact on lowering cost structures (Niclas & Martin,

2015). The findings support that the company acquires goods and services on a cost-effective basis while improving value creation. There should also be continuous improvements and empowerment of the organization to take advantage of purchasing power through strategic sourcing (Chen *et al.*, 2004).

The study required respondents to indicate their level of agreement on the influence of strategic supplier sourcing on supply chain performance using a scale of 1-5 where 1= strongly disagree, 2= disagree, 3= neutral, 4=agree and 5= strongly agree. The findings were shown in Table 2.

Table 2: Influence of supplier sourcing on supply chain performance

Supplier Sourcing	SD	D	U	A	SA	Mean	Std. Dev
The vendor list is frequently updated	16.9	9.7	6.4	47.9	19.1	3.42	1.358
There is a national prequalification exercise at least annually	2.1	7.6	6.4	44.5	39.4	4.11	.972
The list of prequalified vendors is available on	8.1	11	4.7	30.5	45.8	3.95	1.294

the organization's website							
The organization uses supplier collaboration and partnership as a sourcing strategy	10.2	2.5	11	35.2	41.1	3.94	1.242
The organization considers suppliers as key partners in business	9.7	3.8	5.5	34.3	46.6	4.04	1.247
The organization does not blame the suppliers for failures in the supply chain processes	0.4	3.4	8.9	55.1	32.2	4.15	.751
Supplier collaboration is used by the organization as a sourcing strategy	11.4	0.4	7.6	39.4	41.1	4.11	1.241
Supplier partnering and collaboration supports the visions and missions of the organization and gives the organization a competitive advantage	14	0.8	3.4	43.6	38.1	3.91	1.306
The vendors are categorized as per the organizational needs and based on the nature of items they supply	0.8	0	14.8	47.9	36.4	4.19	.745
Supplier categorization is supported by the management and is considered as a strategic tool to ensuring an efficient supply chain	8.9	16.7	12.5	19.6	42.3	3.70	1.390

Key: SD=Strongly Disagree, D=Disagree, U=Undecided, A=Agree, SA=Strongly Agree,

Majority of the respondents agreed (47.9%) that the vendor list was frequently updated, 19.1% strongly agreed, 16.9% strongly disagreed, 9.7% disagreed while 6.4% were undecided. A mean of 3.42 indicated that it was not very clear whether the vendor list was frequently updated. Quite a number of respondents agreed (44.5%) that there was a national prequalification exercise at least annually, 39.4% strongly agreed, 7.6% disagreed, 6.4% were undecided while the remaining 2.1% strongly disagreed. It was clear that there was a national prequalification exercise at least annually (mean=4.11, SD=0.972). Many respondents agreed (45.8%) that the list of prequalified vendors was available on the organization's website, 30.5% agreed, 11% disagreed, 8.1% strongly disagreed and 4.7% were undecided. With a mean of 3.95 and SD=1.294 showed that the list of prequalified vendors was available on the organization's website. A total of 41.1% of the respondents strongly agreed that the organization used supplier collaboration and partnership as a sourcing strategy, 35.2% agreed, 11%

were undecided, 10.2% strongly disagreed while 2.5% disagreed. A mean of 3.94 and SD=1.242 implied that the organization used supplier collaboration and partnership as a sourcing strategy. The findings showed that OAF frequently updated vendor list which is one of the core activities of strategic sourcing as opined by Araza and Ozkarahan (2007). The study also found that prequalification exercise was done annually. This enabled annual vendor list update which is contrary to the recommendations by Sarkis and Talluri (2002) that vendor list should be updated frequently. Vendor list was published on the organization's website to promote transparency as required by the Republic of Kenya, Kenya Gazette Supplement Acts (2015). Annual prequalification is a prerequisite to an effective sourcing strategy that ensures an organization has a competent adequate vendor data base at all time with wide coverage for effective sourcing (Bergman & Lundberg, 2013).

Quite a number of the respondents strongly agreed (46.6%) that the organization considered suppliers as key partners in business, 34.3% agreed, 9.7% strongly

disagreed, 5.5% were undecided while 3.8% disagreed. It was therefore clear that the organization considers suppliers as key partners in business (mean=4.04, SD=1.247). More than half of the respondents agreed (55.1%) that the organization did not blame the suppliers for failures in the supply chain processes, 32.2% strongly agreed, 8.9% were undecided, 3.4% disagreed while 0.4% strongly disagreed. It is therefore clear that the organization does not blame the suppliers for failures in the supply chain processes (mean=4.04, SD=1.247).

A number of respondents strongly agreed (41.1%) that supplier collaboration was used by the organization as a sourcing strategy, 39.4% agreed, 11.4% strongly disagreed, 7.6% were undecided while 0.4% disagreed. It can thus be deduced that supplier collaboration is used by the organization as a sourcing strategy (mean =4.11, SD=1.241).

Many respondents 43.6% agreed that supplier partnering, and collaboration supported the visions and missions of the organization and gives the organization a competitive advantage, 38.1% strongly agreed, 14% strongly disagreed, 3.4% were undecided while 0.8% disagreed. A further mean and SD of 3.91 and 1.306 respectively indicates that clearly supplier partnering, and collaboration supports the visions and missions of the organization and gives the organization a competitive advantage (Amemba, Nyaboke, Osoro, & Mburu, 2013). The findings concurred with Barrat and Oliveira (2001) who explored the experiences of collaborative sourcing and determined that in the modern market,

organizations seeking to succeed must partner with suppliers and build strong long-term relationship.

A further percentage of 47.9% agreed that the vendors were categorized as per the organizational needs and based on the nature of items they supply, 36.4% strongly agreed, 14.8% were undecided while 0.8% strongly disagreed. It was thus clear that the vendors are categorized as per the organizational needs and based on the nature of items they supply (mean=4.19, SD=0.745).

A high number of the respondents strongly agreed (42.3%) that supplier categorization was supported by the management and is considered as a strategic tool to ensuring an efficient supply chain, 19.6% agreed, 12.5% neither agreed nor disagreed, 16.7% disagreed while 8.9% strongly disagreed. Thus, supplier categorization was supported by the management and is considered as a strategic tool to ensuring an efficient supply chain (mean=3.70, SD=1.390). The study findings show that OAF practices vendor categorization and that management supports it.

Supplier Development

According to the second objective, the study aimed at finding out the influence of supplier development on supply chain performance at One Acre Fund. All the respondents indicated that the organization practiced supplier development and had a supplier relationship management policy.

The study needed the respondents to indicate the extent of effectiveness of supplier development at One Acre Fund. The results were as presented in Table 3.

Table 3: Extent of effectiveness of supplier development

Supplier development	Frequency	Percentage (%)
Not at all	16	10.3
Little extent	2	1.3
Moderate extent	6	3.8
Great extent	78	50.0
Very great extent	54	34.6
Total	156	100

The summary showed that 50% of respondents indicated that supplier development was effective to a great extent, 34.6% indicated to a very great extent, 10.3% not at all, 3.8% to a moderate extent and 1.3% to a little extent. It was concluded therefore that supplier development at One Acre Fund was effective. The findings agreed with Ochieng (2014) who studied the role of supplier development in effectiveness of procurement function and concluded

that supplier development enhances procurement performance.

The study sought to examine the influence of supplier development on supply chain performance at One Acre Fund. The study required respondents to indicate their level of agreement using a scale of 1-5 where 1= strongly disagree, 2= disagree, 3= neutral, 4=agree and 5= strongly agree. The results were presented in Table 4.

Table 4: Influence of supplier development on supply chain performance

Supplier Development	SD	D	U	A	SA	Mean	Std. Dev
Supplier development practices are well described in OAF procurement manual	1.7	2.1	6.8	37.7	51.7	4.36	.836
OAF organizes trainings for its suppliers	10.6	2.1	9.7	40.3	37.3	3.92	1.228
Suppliers who understand One Acre Fund vision and mission supports the organization much better	0.4	2.5	14.4	30.1	52.5	4.32	.843
OAF normally organizes to meet with the suppliers periodically as a way of strengthening supplier relationships	5.1	0.8	22.5	26.3	45.3	4.06	1.082
Suppliers who meet set goals are rewarded	3.4	10.6	12.3	27.1	46.6	4.03	1.150
Suppliers who are rewarded due to their good performance are more motivated and offer better services	0.4	2.5	0	31.8	65.3	4.59	.669
Suppliers are sometimes paid in advance either fully or as per agreed on percentages	6.4	6.8	13.1	26.7	47	4.01	1.205
Suppliers are paid on time without necessary waiting for credit period to lapse	4.7	4.7	12.3	52.1	26.3	3.91	.993
High level management supports and encourages supplier development activities like supplier trainings, incentives.	12.7	8.5	8.1	41.5	29.2	3.66	1.322

Key: SD=Strongly Disagree, D=Disagree, U=Undecided, A=Agree, SA=Strongly Agree

As shown in Table 4, the findings indicated that 51.7% of the respondents strongly agreed that supplier development practices were well described in oaf procurement manual, 37.7% agreed, 6.8% were undecided; another 2.1% disagreed while 1.7% strongly disagreed. Therefore, supplier development practices were well described in oaf procurement manual (mean=4.36, SD= SD=0.836). The findings

further indicated that 40.3% agreed that OAF organized trainings for its suppliers, 37.3% strongly agreed, 9.7% were undecided, 10.6% strongly disagreed while 2.1% disagreed. Thus, OAF organizes trainings for its suppliers (mean=3.92, SD=1.228).

Findings also showed that many respondents (52.5%) strongly agreed that suppliers who understood One

Acre Fund vision and mission supported the organization much better, 30.1% agreed, 14.4% were undecided while 2.5% and 0.4% disagreed and strongly disagreed respectively. This shows that suppliers who understand One Acre Fund vision and mission supports the organization much better (mean=4.32, SD=0.843). Majority of the respondents (45.3%) agreed that OAF normally organized to meet with the suppliers periodically as a way of strengthening supplier relationships, 26.3% agreed, 22.5% were undecided, 5.1% each are strongly disagreed and 0.8% disagreed. This shows that OAF normally organizes to meet with the suppliers periodically as a way of strengthening supplier relationships (mean=4.06, SD=1.082).

Findings further indicated that majority of the respondents (46.6%) strongly agreed that suppliers who met set goals were rewarded, 27.1% agreed, 12.3% were undecided, 10.6% disagreed and the remaining 3.4% strongly disagreed. Thus, suppliers who meet set goals are rewarded (mean=4.03, SD=1.150). High number of the respondents strongly agreed (65.3%) that suppliers who were rewarded due to their good performance were more motivated and offered better services, 31.8% agreed, 2.5% disagreed, 0.4% strongly disagreed while 6.4% were undecided. A further mean of 4.59 indicated that suppliers who were rewarded due to their good performance are more motivated and offer better services.

Quite a number of respondents strongly agreed (47%) that suppliers were sometimes paid in advance either fully or as per agreed on percentages, 26.7% agreed, 6.8% disagreed, 13.1% were undecided while the remaining 6.4% strongly disagreed. It's clear that suppliers are sometimes paid in advance either fully or as per agreed on percentages (mean=4.01, SD=1.205). Many respondents agreed (52.1%) that suppliers were paid on time without necessary

waiting for credit period to lapse, 26.3% strongly agreed, 12.3% were undecided, 4.7% disagreed and another 4.7% strongly disagreed. With a mean of 3.91 and SD=0.993 shows that suppliers are paid on time without necessary waiting for credit period to lapse.

A total of 41.5% of the respondents agreed that high level management supported and encouraged supplier development activities like supplier trainings, incentives, 29.2% strongly agreed, 8.1% were undecided, 12.7% strongly disagreed while 8.5% disagreed. A mean of 3.66 and SD=1.322 implied that high level management supports and encourages supplier development activities like supplier trainings, incentives. The study findings reveal that supplier development was practiced and encouraged by policy makers as a strategic supplier management tool. This was supported by a study by Ochieng (2014) and Powers and Reagan (2007) who established that supplier development through activities like trainings, incentive schemes and goal settings can improve on supply chain performance by boosting the morale and confidence of the suppliers.

Supply Chain Performance

The respondents were required to rate the supply chain performance of One Acre Fund. The response was as presented in Table 5 below. Majority of the respondents strongly agreed (40.5%) that the end users were satisfied and happy with delivery timelines, 35.7% agreed, 11.6% neither agreed nor disagreed, 9.2% strongly disagreed and 3% disagreed. Thus, the end users were satisfied and happy with delivery timelines (mean=3.95, SD=1.213). A total of 45.5% respondents strongly agreed that the top management is satisfied and happy with procurement costs, 33.3% agreed, 8.3% strongly disagreed 7.7% neither agreed nor disagreed and 5.1% disagreed. The top management is satisfied and happy with procurement costs (mean=4.03, SD=1.220).

Table 5: Supply chain performance

Supply Chain Performance	SD (%)	D (%)	NAD (%)	A (%)	SA (%)	Mean	Std. Dev
The end users are satisfied and happy with delivery timelines	9.2	3	11.6	35.7	40.5	3.95	1.213
The Top management is satisfied and happy with procurement costs	8.3	5.1	7.7	33.3	45.5	4.03	1.220
There are minimal user/requester complains on services provided by procurement.	0.6	4.2	10.7	52.4	32.1	4.11	.799
Delivery lead times are always well kept as there are no delays in product and service deliveries	10.1	1.8	4.5	50	33.6	3.95	1.168
In case of late delivery, the supplier notifies the organization in advance of expected delay	1.8	3	7.1	36.6	51.5	4.33	.871
Procurement Costs are well within the budget and sometimes even savings are made	9.8	2.4	7.7	44	36	3.94	1.191
Suppliers do not request frequently for cost variations of awarded contracts	0.6	1.8	14.3	32.7	50.6	4.31	.825

Quite a number of respondents agreed (52.4%) that there were minimal user/requester complains on services provided by procurement, 32.1% strongly agreed, 10.7% neither agreed nor disagreed, 4.2% disagreed while 0.6% strongly disagreed. There were minimal user/requester complains on services provided by procurement (mean=4.11, SD=0.799). Majority of the respondents agreed (50%) that delivery lead times were always well kept as there were no delays in product and service deliveries, 33.6% strongly agreed, 10.1% strongly disagreed, 4.5% neither agreed nor disagreed, 1.8% disagreed. Thus, delivery lead times were always well kept as there were no delays in product and service deliveries (mean=3.95, SD=1.168).

Respondents strongly agreed (51.5%) that in case of late delivery, the supplier notified the organization in advance of expected delay, 36.6% agreed, 7.1% neither agreed nor disagreed, 1.8% strongly disagreed

while 3% disagreed. in case of late delivery, the supplier notified the organization in advance of expected delay (mean=4.33, SD=0.871). A relatively high number of the respondents agreed (44%) that procurement costs were well within the budget and sometimes even savings were made, 36% strongly agreed, 2.4% disagreed, 7.7% neither agreed nor disagreed and 2.4% disagreed. Thus, procurement costs were well within the budget and sometimes even savings are made (mean=3.94, SD=1.191). Half the respondents strongly agreed (50.6%) that suppliers did not request frequently for cost variations of awarded contracts, 32.7% agreed, 0.6% strongly disagreed, 1.8% disagreed and 14.3% neither agreed nor disagreed. Therefore, suppliers did not request frequently for cost variations of awarded contracts (mean=4.31, SD=0.825). The respondents were further required to rate the supply chain performance of One Acre Fund. The response was as presented in Table 6.

Table 6: Supply Chain Performance

Supply Chain Performance	Frequency	Percent
Poor	8	5.1
Fair	28	17.9
Good	77	49.4
Very good	32	20.5
Excellent	11	7.1
Total	156	100.0

As presented in Table 6, majority of the respondents (49.4%) indicated that the supply chain performance was good, 20.5% said it was very good, 17.9% indicated fair, 7.1% excellent and 5.1% poor. This was to show therefore that the supply chain performance was good. The findings that the supply chain performance is good was reflected in the findings that there is effective strategic supplier sourcing, supplier development, supplier involvement and supplier evaluation. Jean *et al.* (2013) in their study on the effects of supplier involvement found that supplier relationship management has a positive effect on the overall supply chain performance. Lia *et al.* (2004)

concluded with findings that effective supplier management gives an organization a competitive advantage through a vibrant supply chain.

Correlation Analysis

All variables had a strong correlation with the dependent variable (supply chain performance) as they were either significant at 99% or 95%. However, there was little evidence of multi-collinearity among the explanatory variables since the correlations among them were not very strong hence all the variables could be incorporated into the subsequent regression analysis.

Table 7: Summary of Pearson’s Correlations

		Supply chain performance	Supplier sourcing	Supplier development
Supply chain performance	Pearson Correlation			
	Sig. (2-tailed)			
Supplier sourcing	Pearson Correlation	.255**		
	Sig. (2-tailed)	.000		
Supplier development	Pearson Correlation	.155*	.166*	
	Sig. (2-tailed)	.017	.011	

Regression Analysis

The regression model was as follows:

$$Y = B_0 + B_1X_1 + B_2X_2 + e$$

Where,

Y is Supply Chain Performance, B₀ is the constant, B₁, B₂, B₃ and B₄ are coefficients, X₁ is Supplier Sourcing and X₂ is Supplier Development

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.528 ^a	.279	.266	.346
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b. Predictors: (Constant), supplier sourcing, supplier development, supplier involvement, post tendering evaluation

R² was 0.279 indicating that the independent variables explained only 27.9% of the influencers of supply chain performance at One Acre Fund.

Table 9: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8.387	4	2.097	15.960	.000 ^b
	Residual	19.837	151	.131		
	Total	28.224	155			

a. Dependent Variable: supply chain performance

b. Predictors: (Constant), supplier sourcing, supplier development, supplier involvement, post tendering evaluation

ANOVA tests showed that the independent variables statistically significantly predict the dependent variable, $F(4, 231) = 22.316, p < .0005$.

Table 10: Regression coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.262	.183		1.428	.025
Supplier Sourcing	.169	.034	.303	4.963	.000
Supplier Development	.138	.037	.214	3.704	.000

The established multiple linear regression equation becomes:

$$Y = 0.262 + 0.169X_1 + 0.138X_2$$

Where

Constant = 0.262, B₁ = 0.169 = supplier sourcing, B₂ = 0.138 = supplier development

For X₁: B₁ = 0, since t = 4.963, p = 0.000 is less than 0.05, thus X₁ (supplier sourcing) has significant influence on Y (supply chain performance).

For X₂: B₂ = 0, since t = 3.704, p = 0.000 is less than 0.05, therefore X₂ (supplier development) has significant influence on Y (supply chain performance).

From the above, it is clear that supplier sourcing and supplier development, have a significant influence on supply chain performance.

CONCLUSION

The study concluded that the strategic management of supplier greatly affects One Acre Fund management of supply chain. The investigation concluded that sourcing of supplier affects performance of supply chain significantly. Discoveries agreed with Mugarura (2010) whose outcomes showed a critical positive connection between collaboration of supplier-buyer and relationship congruity to supply chain performance. The examination additionally concluded that development of supplier impacts on the performance of supply chain. Discoveries were in accordance with Ochieng (2014) who noticed that practices of developing supplier are significant elements in the management of supply chain. According to Nelson *et al.* (2005), investment in supplier development paid

off in multiples of three and ten- over a period of time.

RECOMMENDATIONS

The study recommended that NGOs should update the vendor list frequently. This could be done through frequent market surveys and constantly adding strategic suppliers entering the market on the vendor list. Supplier collaboration/partnership should be embraced by buyers. Category management to be able to differentiate between different levels of organization suppliers should be embraced. This will ensure that the buying organization has adequate well placed suppliers who can deliver quality cost effective goods and services on time. This also ensures that those suppliers who are blacklisted are replaced, hence seamless operations. NGOs should carry out major prequalification exercise at least

annually. The prequalification should be advertised on at least two newspapers that have national coverage. This ensures wider sensitization and more responses.

This study recommended that the NGOs should organize supplier trainings and workshops to train them on their supply chain processes, vision and mission of the organization. The training will also offer opportunity for feedback between buying organization and the supplier. This will increase supplier insight and thus contribute greatly to the efficiency in the strategic supplier management and supply chain performance. Organizations should also consider supplier developments activities like target settings with incentives attached. This would ensure suppliers work hard towards meeting the set targets hence improving supply chain performance.

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