

Supply Chain Cost Reduction Impact on Performance of Small Scale Agricultural Enterprise

Josphat Wambugu Gachora¹, Dr. Jusuf Kibet², Dr. Douglas Musiega³

¹Student, Jomo Kenyatta University of Agriculture and Technology-Kakamega Campus, Kenya

²Lecturer, Moi University-Eldoret Kenya

³Director, Jomo Kenyatta University of Agriculture and Technology-Kakamega Campus, Kenya.

Abstract

This study aims to investigate the effect of supplier development efforts on the performance of small-scale agricultural enterprise. The study recognizes the important role small-scale agricultural enterprise plays in agrarian based economy in supplying food for domestic use as well as raw material for industrial use in agro-processing firms. As essential partners in the agri-food supply chain small scale agricultural enterprise enable agro-processing firms, the capacity to deliver the expectation of their consumer not only in satisfying their needs but also to compete competitively with respect to cost, quality timely delivery. Supplier development efforts helps the buyer establish a relationship within which they can identify and develop the performance capacity of their suppliers in order to be able to deliver superior customer value at less cost to the supply chain as whole.

Simple random sampling technique was used to collect the primary data from 142 respondents. Descriptive statistics, independent t-test and One-Way ANOVA were used to analyze the data. The results show there is a significant difference in effectiveness in cost reduction by sourcing inputs from different sources. Further the independent samples t-test results confirms that there is a significant increase in revenue generated by farmers as they adopt new farming methods as well as use of the right output enhancing inputs. It was also note there is a mutual benefits derived from trust in the relationship between the buyers and the suppliers (farmers). Farmers should be encouraged to form groups through which they can enjoy economies of scale when bulk sourcing of inputs, transporting to the farm, training and when delivering their produce to the market. Further, buyers should strengthen their relationships with the farmers to transition the rural subsistence production to market oriented production.

Introduction

Chavhan, et al (2012), defines supplier development as a long-term cooperative strategy initiated by a buying organization to enhance a supplier performance and/or capabilities so that a supplier is able to meet the buying organization supply needs in more effective and reliable way which will give additional competitive advantage to buyer to become more competitive in the market. The goal of supplier development as pointed out by Chavhan, et al (2012), and Cousin, (2005), are improving the supplier's operational performance as well as capability to improve. Operational performance development tend to be relatively short term and focused on working side-by-side with the supplier to directly improve supplier performance along dimensions such as cost, quality and delivery performance. De Crombrugge and Le Coq (2003, 1) has defined supplier development as a broad

concept aimed at strengthening the performance of subcontracting firms not only by enabling them to acquire the skills and capacities required of them by the main contracting (or client) enterprise but also by raising their awareness and assisting them in reducing their costs. It brings the supplier performance up to the buyers firm's requirement. On the other hand supplier capacity development focuses on building the supplier's capability for improvement from within the organization and further enabling the buying firms obtain materials at lowest initial purchase price that is, lower cost of material acquisition. The buyer attempts to transfer his own in-house capabilities across firm boundaries and into the supplier. This approach helps build commitment to change reduces resistance as the relationship brings the actors closer moving away from the previous traditional arm-length interaction (Grotenhuis, 2012) and facilitates the transfer of knowledge from buyer to supplier. Hartely & Choi, (1996) avers in reference to Motorola's supplier development program that it would be impossible to reach the desired results from benchmarking without including the supplier in the process. This means that it will not be possible for a firm to attain the desired standard of quality, raw material acquisition cost, and timely delivery e.t.c without constant engagement with the suppliers.

A supplier development program in the context of UNDP intends to improve the competitiveness of small sale suppliers in supplying their products to lead firms/ large buying companies. The main point is to develop a mutually beneficial relationship between buying and supplying firms so that both parties can compete more effectively in their market places. Supplier development therefore seeks to develop a beneficial relationship that moves away from adversarial where each side try to gain maximum advantage and leverage over the other. Loader (1997) asserts that these relationships lead to a reduced political, social or economic risk, reduced transaction cost and access to economies of scale as well as closely specified vertical linkages or vertical coordination by members of supply chain (Hobbs and Young 2000) by by-passing traditional market arrangements. Chavhan, et al 2012 observes that there are some problems faced by buyer from suppliers like current suppliers is not providing product that was demanded by buyer, suppliers are either not performing up to expectations or requirements, quality provided by supplier is not making buyer competitive, buyer is facing problem due to non availability of capable suppliers in market. For such problems he provides three solutions as follows:

Supplier switching - Buyer can search another supplier which is more capable, Vertical integration – Bringing the needed product in-house by acquiring the supplier or setting up manufacturing capacities internally,

Supplier development - Here buyer has to support the suppliers and help to enhance the product i.e. by providing helping hand to supplier buyer can give chance to supplier for improvement in his capabilities. He therefore affirms supplier development as the emerging and feasible solution to the aforesaid buyers' problems Chavhan et al (2012) cited by Amad Che et al (2008).

Problem Statement

There is a continued decline of the land available to secure sustainable food production. The reduction in size of land holding has resulted to small scale agricultural enterprise. This has in effect resulted to reduced agricultural output. Diminished agricultural output implies reduced farmers income since much of what is produced is used to meet household needs. The extra produce offloaded into the market comes with higher price due inability to enjoy the economies of scale resulting to higher average cost per unit of goods produced. This, with increasing urban population, higher incomes and changes in consumption patterns put more pressure on the available land to produce sufficient food that will meet both subsistence need and extra for sale. Further, the quality and traceability standards established by private importing firms in developed countries constitute an important barrier to market access particularly for small and medium firms (UNIDO,

2007). Lack of technical production skill/agronomic skill in use of fertilizers has resulted farmers to applying very low amount implying a need for efforts to promote farmers access to productivity-enhancing inputs e.g. fertilizers, improved seed and information as well as the knowledge about to how to use them if yield increase are to be realised especially for food crops (Jaffe, Henson and Diaz Rios, 2011). This therefore underscores the need to support local production and distribution in order to overcome the challenge of inadequate supply and transition the farmers from subsistence farming to market-driven production that will satisfy the commodity needs for lead firms. By empowering farmers through adoption of various approaches geared to enhancing their performance, the above challenges can be overcome. Efforts to support/empower farmers to enhance their productivity have been applied in different ways and settings (Jaffe, Henson and Diaz Rios, 2011) by government's institutions and other agencies i.e. NGOs e.g. UNIDO, FOA, UNDP etc; but there is still limited empirical evidence on the impact of supplier development efforts on the performance of small scale agricultural enterprise.

Objectives of the Study

The aim of the study is to evaluate the effects of supplier development efforts on performance of small-scale agricultural enterprise.

Specific Objectives

1. To evaluate how supply chain cost reduction impact on performance of small scale agricultural enterprise.
2. To evaluate the effect of capacity building on performance of small scale agricultural enterprise.
3. To identify how product quality improvement affect performance of small scale agricultural enterprise.
4. To evaluate how trust moderates the relationship between supplier development and performance.

Research questions

The research seeks to answer the following research questions

1. How does supply chain cost reduction impact on performance of small scale agricultural enterprise?
2. What is the effect of capacity building on performance of small scale agricultural enterprise?
3. How does product quality improvement affect performance of small scale agricultural enterprise?
4. How does trust moderate the relationship between supplier development and performance?

Justification of the study

Kenya's economy is largely agrarian with agriculture contributing about 25% of the country's GDP. Incidentally the small scale producers contribute about 70% of agricultural output. This output forms part of export, domestic food supply as well as primary raw material for the agro-processing industries. One crop that can effectively serve that purpose is soya bean being consumed at household level, industrial level and in making of animal feeds. However, in spite of the huge potential to produce enough to meet the country's need, the country relies on import to bridge the deficit. According to FAO (2008) the current requirements for soybean and soybean-related products (mainly soybean meal and soybean cake) are in the range of 70,000–100,000 MT (18-26% of the vegetable oils is obtained soybean oil) as compared to between 1,000 and 5,000 MT produced locally by farmers. As an alternative source of income to the farmers it has the potential for employment creation, poverty reduction and livelihood security (Osho, 1995). In order to

effectively improve the productivity of the small scale farmers, from subsistence production to market oriented production that can help plug the deficit efforts should be geared in developing their capacity, quality improvement along the supply chain and establishing clear value chains that will help reduce cost thus enhancing their market competitiveness.

Impact of supply chain cost reduction on performance

Supply chain cost

Ainapur et al. (2011) are of the opinion that optimizing supply chain activities is critical to all industries since it saves money, increases throughput, decreases inventory levels and increases revenues, thereby improving the organizations financial status. Therefore different firms will attempt to realign their activities in way that will maximize revenue and minimize cost. As identified by Kaufman (2000) there are four major goals pursued by retailers through the use of supply change management: (1) lowered operating costs, (2) decreased procurement costs, (3) reducing marketing costs, and (4) lower distribution costs. All of the above will help to link smallholders to markets and therefore move upward from local to provincial, national and in the extreme to international markets. According to Shukla et al. (2011) supply chain involves the cost to convey the information, produce components, store them, transport them, and transfer funds. Krause et al. (1998) has alluded to the need to collaborate with suppliers in order to effectively manage cost:

“...this increased dependence on suppliers magnifies the need for buying firms to effectively manage and develop their supply chains.....buying firms’ representatives have reported the need for supplier improvements in the areas of quality, delivery, cost reduction, new technology adoption, financial health and product design.....” (Krause et al., 1998).

The total cost of ownership is the summation of the costs of acquiring and owning or converting an item of material, piece of equipment, or service, and post-ownership costs, including the disposal of hazardous and other manufacturing waste and the cost of lost sales because of a reputation for poor product quality caused by defective materials or purchased services that are incorporated in the end product or service.

Supply chain costing

Economic transactions do not occur in a frictionless vacuum, the buyer and seller incur a cost in conducting a transaction (Hobbs and Young, 2000). It cost money to obtain goods and services from suppliers. Any buyer will strive to reduce or buy at the minimum cost (Lalonde and Pohlen 1996). Supply chain costing is defined as a method for identifying cost-based performance measures that span multiple supply chain members, which are subsequently used to improve aggregate efficiency or effectiveness (Knipper 2010 cited in LaLonde and Pohlen 1996).

Labonde et al (1996) decomposes supply chain costing into the following; 1. Analyzing supply chain Processes (it begins with the design and manufacture of the product and extends through delivery and sale to the ultimate customer) 2. Breaking processes down into Activities (the tasks are broken down into the specific activities performed by each component of the supply chain). 3. Identifying the resources required to perform an Activity (resources include the labor, facilities, utilities, material, etc. required to perform an activity). 4. Costing the Activities (An activity’s cost is the sum of the resource costs traced to the activity. An activity cost would include the cost of the labor, material, administration, supervision, facilities, or resources consumed in performing the activity) 5. Tracing activity costs to supply other chain outputs (Consumption of the outputs determines the proportion of the activity cost traced to different products, customers, or distribution channels). 6. Analysis and simulation (Analyses can be performed to determine the causal effect

between the customer demand for specific logistics services and activity costs spanning the entire supply chain).

Effect of supply chain cost reduction

According to FAO (2010) the adoption of the following coordination strategies by farmers: horizontal coordination (entails formation of a group, association through which information, inputs, technical and quality assistance may accessed) and vertical coordination through contract farming (an agreement between farmers and processing and/or marketing companies for the production and supply of agricultural produce under forwards agreements at predetermined prices) will accrue the following advantages: for horizontal coordination they gain an improved access to credit, training, improved access to technology and equipment through shared resources, increased efficiencies and economies of scale through collaborative production and marketing, reduced transaction cost and bulk purchases of raw materials and contracted services, collective efforts to overcome obstacles etc. Accordingly, they will gain the following from vertical coordination: provision of basic inputs, production services, access to credit, appropriate technology, skills and knowledge, guaranteed and fixed pricing structures, access to reliable market etc. These approaches to doing business gives the buyer competitive advantages as transaction cost are reduced within the supply chain by removal of intermediaries/middle men, consequently, a reduced long run cost of ownership is achieved (Plambeck and Denend 2011). This in effect gives the supplier a sustainable market as the final price of the goods is relatively affordable. In addition, the shortened supply chain enables the lead firm/buyer to enforce compliance of quality and safety standards thus improving the final consumer's confidence in the commodities (ibid).

Theoretical Framework

Supplier development

Hahn et al., (1990) has classified development activities into narrow and broad perspectives. The narrow perspective involved "the creation of new sources of supply when there are no adequate suppliers to meet the firm's requirements". The broader perspective involves "a long-term cooperative effort between a buying firm and its suppliers to upgrade the suppliers' technical, quality, delivery, and cost capabilities to foster ongoing improvements." Krause et al. (1998) has divided supplier development into strategic and reactive approach. In strategic approach the firm focuses on identifying critical commodities and supplier requiring development. In the reactive approach the firm is motivated by supplier non-performance that is likely to affect the buying firm's production.

Chavhan et al. (2012) categorises supplier development into result-oriented and process oriented. He argues that firms that adopt result oriented programs aim at making improvements in their supplier's product quality, delivery and cost reduction while process oriented programs aims at continuous improvement of supplier capability. This requires establishment of long run relationship between the buyer and supplier.

Wagner (2010) on the other hand, has classified supplier development into direct and indirect supplier development. He avers that indirect supplier development improves supplier's products and delivery performance (the buying firms uses communication and external market forces to achieve performance improvement) while direct supplier development improves supplier capabilities (entails transfer of knowledge and qualification into the supplier organization).

RESEARCH METHODOLOGY

Research Design

Research design is the basic plan that indicates an overview of the activities that are necessary to execute the research projects. Descriptive survey methods will be used in this study to capture the qualitative and quantitative variables that are important in explaining the relationship between supplier development efforts and performance of small scale agricultural enterprise. According to Mugenda and Mugenda (2003), descriptive research is used to obtain information concerning the current status of the phenomenon to describe “what exists” with respect to variables or conditions in a situation. Jackson (2009) defines as questioning individuals on a topic or topics the describing their responses. Singh (2006) says in survey we are concerned with conditions or relationships that exist, practices that prevail, beliefs, points of view or attitudes that are held, processes that are going on, influences that are being felt, and trends that are developing. T-test and ANOVAs were used to compare selected household and farm characteristics between the two categories of farmers (farmers with the support and those without support).

Target Population

Fredric (2010) defines target population as a universal set of the study of all members of real or hypothetical set of people, events or objects to which an investigator wishes to generalize the result. The target population were the soya bean farmers within the Butere Division of Kakamega County.

Sample Size

A total of 142 households were selected for the interview based on the formula given by Kothari (2000) as below;

$$n_i = n \cdot P_i$$

n represent the total sample size while P_i represent the proportion of population included in the stratum i .

Table 1: Sample size

Elements	Shinamwenyuli location			Ibokolo location				total
Women on program	66/100*30	19.8	20	Women on program	46/100*30	13.8	14	34
men on program	54/100*30	16.2	16	Men on program	34/100*30	10.2	10	26
Men on program	67/100*30	20.1	20	Men on program	26/100*30	7.8	8	28
Women not on program	127/100*30	38.1	38	Women not on program	54/100*30	16.2	16	54
Total		94.2	94	total		48		142

Source: Authors Computation

Data collection will be conducted in the month of March 2014. Sampling frame will involve selection per location, gender, involvement of development agencies.

The study area

The study will be conducted in Butere Division of Kakamega County, located in Western Province of Kenya. It lies in the mid-altitude range, 1489 to 2000 metres above sea level. The division has an estimated population of 135,266 persons with a density of 236 persons per square kilometers (District Agriculture Office,). The agro-ecological zone is midlands/upper midlands with relatively high potential for agriculture and altitude ranges between 1 300 and 1 500 m. Rainfall is approximately 1 700 mm per year, the mean temperature is 20 °C and the growing period is long, between 300 and 330 days (Franke et al., 2011).

The area was selected, first, due to its agricultural richness which is facilitated by good arable soil that has the potential to support a variety of crops including the soya bean. Secondly, is due to the fact that soya bean production is largely small scale which is the main focus of the study.

Impact of supply chain cost reduction on performance of small scale agricultural enterprise.

The first research question stated, 'Where do you buy your input e.g. fertilizer, seeds and pesticides?' Farmers in the study area were noted to obtain their inputs from a variety of sources as shown in table 2.

Table 2: Farmers sources of inputs

Farmers sources of inputs	Frequency	Percentage
Agro-vet	44	31.3%
NCPB	27	19.5%
Buyer's Agent	36	25.6%
NGO	29	21.0%
Others	6	2.6%

Source: Field Data, 2014

The most utilized source of inputs to most farmers was agro-vets as represented by 31.3% of the respondents. This was closely followed by buyer's agents (25.6%) and NGOs (21.0%). It was just 19.5% of the respondents who indicated to be sourcing their inputs from NCPB. Other sources comprised about 2.6%.

In finding about how the different sources of inputs has impacted on input acquisition cost 37.3% of the respondents indicated it had reduced while 54.2% said the cost had increased. 8.5% of the respondents indicated the cost had remained the same.

Table 3: impact of source of inputs on input-acquisition cost

Effect on input-acquisition cost	Frequency	percentage
Reduced cost	53	37.3%
Increased cost	77	54.2%
Cost remained the same	12	8.5%

Source: Authors Computation

In order to analyse the effectiveness of different supply chains in cost reduction, this study used One-Way Analysis of Variance (One-Way ANOVA). The analysis results have been presented in table 2.

Table 4: One-Way ANOVA results for the difference in effectiveness in cost reduction by different sources of input

Value chain	Mean	Std. Deviation	Std. Error Mean
Agrovet	1.52	1.406	0.466
NCPB	2.80	1.909	0.485
Buyer's Agent	3.18	1.463	0.419
NGO	3.25	1.002	0.157
Others	1.36	1.909	0.255

Calculated F-Ratio = 6.637, Df (4,137), P – Value = 0.000, F – Critical = 2.438

The above results show that there is a significant difference in effectiveness in cost reduction by different sources of inputs when analyzed. This conclusion is valid because the calculated F-ratio of 6.637 is greater than the critical value of 2.438 in one-way ANOVA. Specifically, it can be noted that buying from NGOs (3.25) and buyer's agents (3.18) yields the greatest reduction in cost. This may be explained by the fact that they provide they inputs in bulk benefiting from economies of scale and hence be able to transfer the benefit of reduced cost of inputs to the farmers. This agree with Talluri et al. (2010) who found that similar results where quality improvement and cost reduction were manifested when giants of automotive industry (General Motors, Ford, Chrysler, Nissan, Honda and Toyota) followed through supplier development programs to reinforce their suppliers. Buying from NCPB (2.80) and agro vets (1.52) is however not much credited in cost reduction. Other value chains (1.36) contribute the least cost reduction in farming.

Conclusion

Buying from NGOs and buyer's agents yielded the greatest reduction in cost. This is informed by the assistance afforded to the farmer through bulk buying of inputs as well as collective marketing of their outputs. Unlike buying from NCPB and agro vets a farmer buys a single item and so not much credited in cost reduction and hence increased revenue.

Recommendations

Farmers should be encouraged to form groups through which they could use to source inputs such as seeds in bulk. This is because such avenues offer the benefit of reduction in per unit cost of input due to economies of scale as opposed to buying from private sources such as agro vets. Inputs contribute a great proportion of farmers cost and therefore good input sources may boost farmers' incomes.

REFERENCES

- Abdullah, R. & Maharjan, K.L. (2003). Critical Elements of Supplier Development in the Malaysian Automobile Industry: Parts and Components Procurement and Supplier Development Practice at Proton. *Journal of International Development and Cooperation*, Vol.9, No.2, 2003, pp. 65–87
- Ahmed, M. & Hendry, L. (2012). Supplier development Literature Review and Key Future Research Areas: *International journal of Engineering & Technology Innovation*, vol.2, No.4, pp. 293-303.
- Agus, A. (2011). Supply chain management, supply chain flexibility and business performance, *Journal of Global Strategic Management*, Vol.5 No. 1 pp. 134-145.
- Ainapur, B., Singh, R. & Vittal, P.R. (2011). TOC Approach for Supply Chain Performance Enhancement: *International Journal of Business Research and Management (IJBRM)*, Volume (2): Issue (4): 2011
- Alum, W., Roggers, K. Opondo, C., Sangira, P., Kaganzi, E., Karria, S, (2007). Mapping the market Chain for a smallholders farmers. A case of bean producer in Kibaaale District ,Uganda. *African Crop Science Society*, Vol. 8. Pp. 1313-1316
- Arroyo-Lopez, P., Holmen, E., Boer, L. (2012). How supplier development affect suppliers. Insights for supplier, buyers and governments from an empirical study in Mexico. *Business Process management journal*. Vol. 18. No. 4, 2012, pp.680-707
- Belay, A.M., Takala, J., Helo, P., Kasie, M.F. (2011). Effect of quality management practices and concurrent Engineering in Business performance. *International journal of business & management*. Vol.6. No. 3, pp. 45-62
- Boston, C. (2012). *Building in the New Economy: A mandate for minority owned Business Equant*, Atlanta
- Byeong Yong Kim (2006). The impact of supplier development on financial performance in the restaurant industry: *International journal of Hospitality & Tourism Administration*, 7:4, 81-103 DOI: 10.1300/J149VO7n04_05
- Chavhan, R., Mahgan, S.K., Joshi, S.P. (2012). Supplier Development: Theories and practices. *Journal of Mechanical and Civil Engineering*. Vol. 3, No. 3 2012, pp. 37-51
- Christopher, M. (2005) *Logistics and Supply Chain Management: Creating Value-*

- added Networks, 3rd Edition, FT Prentice Hall.
- Chopra, S. & Meindl, P. (2004). Supply Chain Management. 2 ed. Upper Saddle River: Pearson Prentice Hall, 2004.
- Dzanjal , J. et al (2013). Value Chain Analysis of Beef in Central and Southern Malawi: Case Studies of Lilongwe and Chikhwawa Districts. *International journal of Business and social Science*: Vol.4 No.6;
- FAO, (2010). Good Agricultural Practices (GAP) on horticultural production for Extention staff in Tanzania. FAO, 2010, Rome
- FAO, 2008. FAOSTAT Accessed on <http://faostat.fao.org/default.aspx> in November 2013
- Franke, A. C., M. C. Rufino. (2011). Characterisation of the impact zones and mandate areas in the N2Africa project
- Goldberg, M. & Palladin, E. (2008). Chile: A Strategy to Promote Innovative Small AndMedium Enterprises. Policy Research Working Paper 4518, World Bank, Washington DC.
- G.o.K(2005).*The Sessional Paper No.2 of 2005 on Development of Micro and Small Enterprises for Wealth and Employment Creation for Poverty Reduction*: Government Printers,Nairobi,Kenya.
- Gupta, A. & Margolis, B. (2011). Sustaining High Performance through Effective Supplier Development. www.accture.com 27/10/13, 2 am.
- Handfield R. B. & Bechtel, C. (2001). The role of trust and relationship structure in improving supply chain responsiveness: *Industrial Marketing Management* 31 (2002) 367–382
- Hahn, C.K., Watts, C.A., Kim, K.Y., 1990. The supplier development program: a conceptual model. *Int. J. Purchasing Mater. Manage.* 26 _2., 2–7.
- Hartley, J. & Choi, T., (1996) “Supplier development: Customers as a catalyst of process change”, *Business Horizons*, July-August, pp. 37-44
- Henson, S., Jaffee, S., Cranfield, J., Blandon, J. & Siegel, P. (2008). Linking African

Smallholders to High-value Markets: Practitioners Perspectives on Benefits, Constraints and interventions. Working paper 4573. World Bank

- Hitt, A.M., Ireland, R.D., Hoskisson, E.R., (2007). *Strategic Management: Competitiveness and Globalization (concepts and cases)*, Mason, USA.
- Hobbs, e.J. & Young M.L., (2000). Closer vertical coordination in Agri-food supply chains. *Supply chain management: an international journal* vol. 5, No. 3, 2000, pp. 131-142
- Humphreys, P. Cadden, T. Li Wen-Li & McHugh, M. (2011). An investigation into supplier development activities and their influence on performance in the Chinese electronics industry. *Production Planning & Control: The Management of Operations*, 22:2, 137-156, DOI: 10.1080/09537281003733762
- Hurburgh, C. R. and TJ Brumm, T. J. 2004. *Grain Quality in Managing Grain after Harvest*, Bern, C. J. and Bern, T. J. B. Ed, ISU, Ames.
- Jaffee,S., Henson, S., & Diaz Rios, L.(2011). *Making the grade: Smallholder Farmers, Emerging Standards & Development Assistance programs in Africa*. World Bank Report NO. 62324, University of Guelph
- Kaufman, P.R. 2000. "Food Retailing Consolidation: Implications for Supply Chain Management Practices." *Journal of Food Distribution Research* 30(1): 5-11.
- Krause, D.R., Handfield, R.B., Scannel T.V. (1998). An empirical investigation of supplier development: reactive and strategic processes: *Journal of Operations Management* 17, 1998. 39–58
- Krause, D.R., Scannell, T.V. and Calantone, R.J.(2000). "A structural analysis of the effectiveness of buying firms' strategies to improve supplier performance," *Decision Sciences*, Vol. 31 No. 1 (2000), 33-55.
- Kothari, C.R., (2004). *Research Methodology: Methods and techniques Revised Ed.* New Age international ltd, Delhi
- Kothari, C.R., (2009). *Research Methodology: Methods and techniques*, New international Edition
- LaLonde, Bernard J. and Terrance L.Pohlen. (1996) "Issues in Supply Chain costing," *International Journal of Logistics Management*, Vol 7, No 1, 1996, pp. 1-12.

- Loader, R., (1997). Assessing Transaction costs in Agri-food systems. Supply chain management international journal. Vol. 2. No. 1, 1997, pp 23-35
- Lo, V.H.Y., Sculli, D., & Yeung, A.H.W. (2006). Supplier quality management in the Pearl River Delta. International journal of quality & Reliability management. Vol.23. No. 5,2006, pp. 513-530
- Malik, K., Lopes, C., Fukuda-parr, S. (2002). Institutional Innovation for Capacity Development in capacity for Development: New Solutions to Old Problems: Earth Scan Publications London pp 1-22
- Mangnus, E. & Piters, B. (2010). Dealing with small scale producer. Linking buyers and producers. Amsterdam, KIT publishers.
- Merriam, S. B., Caffarella, R. S. (1991). Learning in adulthood. San Francisco: Jossey-Bass.
- Mirani, R., Moore, D. and Weber, J.A. (2001), "Emerging technologies for enhancing supplier-reseller partnerships", Industrial Marketing Management, Vol. 30 No. 2,pp. 101-114.
- Mugandi, S., Conforte, D., Shadbolt, N.M. (2012). Integration of Smallholders in Modern Agri-food Chains: Lessons from the KASCOL Model in Zambia: *International Food and Agribusiness Management Review* Volume 15, Issue 3, 2012
- Murphy, S. (2012). Changing perspective: Small-scale farmers, markets and Globalization (revised edition, IIE/HIVOS, London/ The Hague.
- Nagayets, O. (2005). Small Farms: Current Status and Key Trends: Research Workshop, June 26–29, 2005, Wye College
- Nedelcovych, M. and Shiferaw, D. (2012). Private Sector Perspectives for Strengthening Agribusiness Value Chains in Africa: Case Studies from Ethiopia, Ghana, Kenya, and Mali. Research-Based Advocacy for Africa Agricultural Development.
- Ochieng, V. (2014). Role of Supplier Development In Effectiveness of Procurement Function: A Case of National Cereal And Produce Board: *International Research Journal of Business and Management*. Vol. III (2014) pp 49-62

- Osho, S.M. 1995. Soybean processing and utilization research at International Institute of Tropical Agriculture. Processing from SOYAFRICA'95: Johannesburg, South Africa, 4-5 October 1995. Association des Produits a Marche (APROMA) CEE/ACP, 52, avenue Louis Lepoutre B1060 Bruxelles, Belgique
- Plambeck, E. & Denend, L. (2011). The greening of Walmart`s supply chain: supply chain management review. [Www. scmr.com](http://www.scmr.com)
- Rajput, A. & A.H.A. Bakar., (2012). Elements, Benefits and Issues of supplier development contextualizing multiple industries. *Journals of Basic and Applied Scientific Research*, 2012 2(11) p.11186-11195
- Sako, M. (2004). Supplier development at Honda, Nissan and Toyota: Comparative case studies of organization capability enhancement. *Industrial and*
- Sako, M., 1990. Prices, quality and trust: inter-firm relations in Britain & Japan. Cambridge,UK: Cambridge University Press.
- Singh, Y. K. (2006). *Fundamentals of Research Methodology and Statistics: New Age International (P) ltd, New Delhi*
- Shokri, A., Nabhani, F. and Hodgson, S. (2009) 'Supplier development practice: Arising the problems of upstream delivery for a food distribution SME in the UK', *Robotics and Computer-Integrated Manufacturing*, 26 (6), pp. 639-646.
- Shukla, Mm, & Sharkharia, S., (2013). Agri-fresh produce supply chain management: a state-of-the-art literature review. *International journal of operations & management*. Vol. 33 no. 2, 2013 pp.114-158
- Shukla, R. K., Garg, D. & Agarwal, A. (2011). Understanding of Supply Chain: A Literature Review: *International Journal of Engineering Science and Technology (IJEST)* Vol. 3 No. 3 (2011) 2059
- Sporleder, L.T., & Boland, A.M., (2011). Exclusivity of Agri-food supply: seven fundamental economics characteristics. *International food & Agribusiness management review* vol.14. No. 5, 2011
- Surowiec, A. (2013). Costing Methods for Supply Chain Management: 1st Annual International Interdisciplinary Conference, *AIIC 2013*, 24-26 April, Azores,

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- Talluri, S., R. Narasimhan, and W. Chung, *Manufacturer Cooperation in Supplier development Under Risk*. European Journal of Operational Research, 2010. **207**: p. 165–173.
- Trent, J.R & Monczka, M.R. (2003). Cost Driven Pricing: An Innovative Approach for Managing Supply Chain Cost: Supply Chain Forum: vol. 4-N 1.
- Tomkins, C. (2001). Interdependencies, trust and information in relationships, alliances and networks. *Accounting, Organizations and Society*, 26(2), 161-191.
- UNIDO, (2009). Value chain Diagnostic for Industrial Development: Unido Working paper. Viena, 2009
- UNIDO, (2003). Guide to supplier development, Viena, 2003
- Van Weele, A.J. (2005). Purchasing and supply chain management. Analysis, strategy, planning and practice; 4th ed. London: Thomson Learning.
- Wager, L. & Zwart, G. (2011). Who will feed the world? Oxfarm Research Report, April 2011.
- Wagner, S.M., 2006. Supplier development practices: an exploratory study. *European Journal of Marketing* 40 (5/6), 554–571.
- Watts, C. and Hahn, C., 1993. Supplier development programs: an empirical analysis. *International Journal of Purchasing and Materials Management*, 29 (4), 42–54.
- Williamson OE. The economic institutions of capitalism: firms, markets, relational contracting. New York: Free Press, 1985.