

The Effect of Logistics Outsourcing Practices on the Performance of Large Manufacturing Firms in Nairobi, Kenya

Peterson Obara Magutu^{1,a}, Michael K. Chirchir^{2,b,*} and Oliver A. Mulama^{3,c}

¹Lectuer, University of Nairobi, School of Business – Department of Management Science; Nairobi - Kenya

² Lecturer, University of Nairobi, School of Business – Department of Management Science; Nairobi - Kenya

³MBA Student, Lecturer, University of Nairobi, School of Business – Department of Management Science; Nairobi - Kenya

^amagutumop@yahoo.com, ^b chirchir@vision.co.ke, ^c omulama04@yahoo.com;

*Corresponding author

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Abstract. Outsourcing of services has become a common practice among large manufacturing firms worldwide and this is due to the various benefits that accrue to a firm as a result of outsourcing. Contracting out production of goods and services to a firm with competitive advantages in terms of reliability, quality and cost was found out to be the main driver of outsourcing. However the various studies covered have not extensively delved into logistics outsourcing practices in relation to the performance of large scale manufacturing firms. As a result, this study explored outsourcing practices viz a viz the performance of large manufacturing firms Nairobi, Kenya. The population of the study in this research was all the large scale manufacturing companies that are based in Nairobi. Stratified random sampling method was applied to come up with the sample size, since the population in different large manufacturing firms is considered heterogeneous, implying that a simple random sample would have been unrepresentative. The response rate was 83%. The results established that the firms were outsourcing transportation management, warehouse management and material handling management. The firms opted to outsource their services due to its advantages and its possible influence on organizational performance, as it enables the firms to focus on its core competencies. The outsourcing practices adopted by the large manufacturing firms will in the long run determine their survival as they would seek to reduce operating costs, improved customer satisfaction and timely delivery of services to clients which in turn increase productivity and reduce lead time and improved profits. The study confined itself to large manufacturing firms in Nairobi and the findings may not be applicable in other sectors as a result of uniqueness of the manufacturing firms. It is therefore recommended that the study is replicated in other service sectors to establish the logistics outsourcing services and performance.

1. Introduction

In globalised and highly competitive markets, organizations strive to be innovative and agile to meet customer demands. Competitiveness, based on organizational capabilities and production strategies, may lead to quality, efficiency and flexibility (Momme, 2002). In the pursuit of ‘mass customization’, flexibility and scale, economies are followed simultaneously and a such for a

system's flexibility, responsiveness and reliability on the one hand, and low costs on the other, has led to the reconfiguration of the design and production activities and thus advocated the changes in the overall supply chain management (Suri, 2008). As a result, he observes that, the reality of competing in a global supply chain environment has caused many organizations to focus on strategic renewal and creative solutions to manage and mitigate the risks of operating in today's dynamic marketplace including outsourcing of services. Outsourcing has been defined by Chase et al., (2004, p. 372) as an "act of moving some of a firm's internal activities and decision responsibilities to outside providers".

The outsourcing of logistics functions has become the obvious choice with companies eyeing for cost reduction and value enhancement while distributing and transporting products. As a result, outsourcing all or part of logistics function in a logistical supply chain to logistics service providers (LSPs) has now become the norm across the industry. As per Muller (1991), an improvement in the delivery process, resulting from the outsourcing process, can also contribute towards competitive advantages, as contributed by the product. Further, he observes that logistics outsourcing has also been instrumental in turn around cases in many companies, wherein shippers incurred loss; hence it has taken its place in strategic boardroom agendas. Many managers view outsourcing as the only way to keep a business competitive into the twenty-first century. The highly competitive environments along with customers' demands for tailored products and services has forced companies to continuously evaluate, improve and reengineer their transport operations. These operations have a noticeable contribution in companies' efforts to meet customers' expectations. Their outcomes, such as place convenience, waiting time convenience, delivery time convenience, and after sales convenience, are easily visible and assessable by the final customer and consequently delineating its purchasing behavior. The close relationship between transportation and customer service dictate that companies handle their transport services function prudently so as to receive full potential benefits (Razzaque and Sheng, 2008).

In the past large organizations, both public and private, were able to achieve significant cost and differentiation advantages (Porter, 1980) through complex organizational structures, systems, and processes. However, this has changed and now majority of organizations outsource. A company normally keeps control over any process that is necessary and core and outsources a process that is necessary but not core. Outsourcing has become one of the major strategies that companies are adapting to remain competitive in the current dynamic environment. In Kenya, many organizations and institutions have adopted outsourcing of services and goods from third parties due to the benefits resulting from this such as lower cost to the organization, satisfied customers and most important relieving the management to deal with more strategic issues by ceding the non core functions to specialized firms.

1.1.1 Logistics Outsourcing Practices

The outsourcing process is a complex structure consisting of numerous activities and sub activities, carrying many managerial dilemmas. It is no wonder that many theories have been utilized to help the academics to understand the nature of those activities, and to help practitioners successfully manage the process. It is common knowledge that each phenomenon can be described by several frameworks that are embedded in various theoretical approaches. From its occurrence, the outsourcing has been approached by different theories. This creates confusion among the researchers of the outsourcing phenomenon. Various authors identified significant number of theories that could explain the outsourcing phenomenon (Gottschalk and Solli-Saether, 2005).

Transaction cost theory is generally accepted as a useful framework for analyzing logistics and outsourcing decisions (Hobbs 1996: Andersson 1997). The transaction costs reduced by outsourcing logistics include, for example, decentralized order processing, assets, working capital, and overhead. Examples of previous logistics research that have linked transaction cost analysis with logistics strategy include Ellram (1991) with regard to supply chain and operational performance: Aertsen

(1993) with regard to physical distribution decisions; Ellram and Maltz (1995) with regard to modeling the outsourcing decision; Cox (1996) with regard to procurement strategy; Hobbs (1996) with regard to supply chain management design; Andersson (1997) with regard to third-party partnerships; Skjoett-Larsen (2000) with regard to third-party logistics; Steensma and Corley (2002) with regard to technology sourcing; Mikkola and Skjoett-Larsen (2003) with regard to supplier involvement and new product development; and Mahnke, Overby, and Vang (2005) with regard to outsourcing and information technology services. The application of agency theory provides a justification for the establishment of alliances between organizations and their service providers (Blancero and Ellram 1997; Stock 1997; Logan 2000).

Outsourcing has been defined as the transfer of the production or transfer of goods and services that have been carried out internally to an external provider (Domberger, 1998). Logistics outsourcing has grown rapidly to impact many activities of organisations and can cover many areas, including the outsourcing of manufacturing as well as services. Abraham and Taylor (2006) provide evidence of rising outsourcing of business services in 13 US industries and Helper (2008) documents the increased outsourcing of parts in the US automobile sector. A survey in 2007 of more than 600 large companies by the American Management Association finds that substantial numbers of companies are now outsourcing in many areas.

In the face of increasingly intensified competition in the emerging global economy, manufacturing firms are progressively turning to outsourcing of their logistics functions. Outsourcing is a viable business strategy because turning non-core functions over to external suppliers enables companies to leverage their resources, spread risks and concentrate on issues critical to survival and future growth. One of the most important reasons why companies outsource their logistics functions is the need to decrease the number of warehouses, vehicles and excess inventories and to reduce shrinkage, and labor costs.

The concept of logistics outsourcing practices basically focuses on inbound logistics which concentrates on purchasing and arranging inbound movement of materials, parts and or finished inventory from suppliers to manufacturing or assembly plants, warehouses or retail stores. On the other hand outbound logistics is relates to the storage and movement of the final product and the related information flows from the end of the production line to the end user. In a study by Laugen et al. (2005) on British manufacturing firms, he found a correlation between outsourcing best practice and high performing companies and this therefore goes to show that in most cases, outsourcing of logistics services increases a firms competitiveness.

Logistics outsourcing practices include information management, transportation management, warehouse management, material handling management and inventory management. Half of the manufacturing companies now outsource (part) of their production process (Bruce and Useem, 2008). One way of extending the logistics organization beyond the boundaries of the company is through the use of a third party supplier or contract logistics services (3PL).

Inventory management practices lead to firms maintaining lean inventory. Inventory should not be too much or too little. Review Inventory periodically and revise stocking patterns and norms; Inventory is dependent upon the demand as well as the supply chain delivery time. Often companies follow one stocking policy for all items. For example, all A, B & C categories may be stocking inventory of 15 days, which may not be the right thing that is required. While some items may have a longer lead-time thus affecting the inventory holding, the demand pattern and the hit frequency in terms of past data may show up differently for each of the inventory items. Therefore one standard norm does not suit all and can lead to over stocking of inventory as well as in efficiencies in the system.

When considering the level of effort involved in warehouse operations, the greatest expenditure of effort is in the picking process. To gain efficiencies in picking the labor time to pick orders needs to be reduced and this can achieved in a number of ways. Companies with the most efficient warehouses have the most frequently picked items closest to the shipping areas to minimize picking time. These

companies achieve their competitive advantage by constantly reviewing their sales data to ensure that the items are stored close to the shipping area are still the most frequently picked.

Information management in can be defined as "managing and controlling information handling processes optimally with respect to time (flow time and capacity), storage, distribution and presentation in such a way that it contributes to company results in concurrence with the costs of capturing (creation, searching, maintenance etc).Best practices that logistics firms would employ include the analysis of the information demanded, intelligent information storage, the optimization of the flow of information and securing technical and organizational flexibility

1.1.2 Firm Performance

Effective logistics services have become a critical issue for companies' performance. The highly competitive environment along with customers' demands for tailored products and services has forced companies to continuously evaluate, improve and reengineer their logistics operations. These operations have a noticeable contribution in companies' efforts to meet customers' expectations. Their outcomes, such as place convenience, waiting time convenience, delivery time convenience, and after sales convenience, are easily visible and assessable by the final customer and consequently delineating its purchasing behavior. The close relationship between logistics and customer service dictate that companies handle their logistics function prudently so as to receive its full potential benefits (Razzaque and Sheng, 1998).

Because of resource limitations, few firms have the ability to apply world-class resources to all areas of competition. Thus, in order to gain competitive advantage they must select areas in which they will concentrate their resources. By outsourcing to specialist organizations services not generated by core competences, companies can see an improvement in their organizational performance. Gilley and Rasheed (2000) state that there are three reasons for this, the acquisition of non-strategic services allows the organization to centre on what it really can do well, that is, on the services whose resources have a high strategic value (Gilley, et. al. 2004). Such a focusing on services not included in the core competences can increase performance and allow the company to be more flexible. Increasing the outsourcing of nonstrategic services can improve both the quality and the service, and lastly, the outsourcing of services of low strategic value enables the company to reduce costs and improve its competitive position (Gilley and Rasheed, 2000).

Logistics outsourcing is attractive to senior management because it improves some of the dimensions of organizational performance. According to Gilley et al., (2004) outsourcers who know how to manage the process can enhance their company's performance and achieve a high level of satisfaction with the results Outsourcing not only results in a shift of profitability but also exacerbates the productivity differential between outsourcing firms and vendors. Kotabe et al. (1998) identifies three types of performance measures as necessary components in any outsourcing performance measurement system: strategic measures; financial measures; and quality measures while other studies use additional dimensions of market performance such as costs savings, cycle time, customer satisfaction, and productivity to measure the effectiveness of outsourcing practices.

1.1.3 Large Manufacturing Firms in Nairobi, Kenya

Manufacturing is to make or process (a raw material) into a finished product, especially by means of a large-scale industrial operation. According to Awino (2011) manufacturing is an important sector in Kenya and it makes a substantial contribution to the country's economic development. It has the potential to generate foreign exchange earnings through exports and diversify the country's economy. This sector has grown over time both in terms of its contribution to the country's gross domestic product and employment. The average size of this sector for tropical Africa is 8 per cent. Despite the importance and size of this sector in Kenya, it is still very small when compared to that of the industrialized nations United Nations Industrial Development Organization ((UNIDO) 1987).

Kenya's manufacturing sector is going through a major transition period largely due to the structural reform process, which the Kenya Government has been implementing since the mid-eighties with a view to improving the economic and social environment of the country.

Manufacturing firms fall under the umbrella of Kenya Association of Manufacturers (2002). Kenya association of manufacturers posits that removal of price controls, foreign exchange controls and introduction of investment incentives have, however, not resulted in major changes in the overall economy, in particular, they have not improved the manufacturing performance. Therefore, to build a self-sustaining industrial sector, it is necessary to establish strategic linkages within the domestic economy. The growth in manufacturing sector has mainly been attributed to rise in output of the agro-processing industries. These included sugar, milk, grain milling, fish, tea, oils and fats processing sub-sectors. Other key sub-sectors of manufacturing that perform well are: manufacture of cigarettes, cement production, batteries (both motor vehicles and dry cells), motor vehicle assembly and production of galvanized sheets.

The Kenya Government has always been committed to developing a mixed economy where both public and private sector companies are present (Kenya Government, Development Plan 1989-1993). Public sector participation in manufacturing is much smaller than the private sector and is still decreasing due to government's change of policy; the emphasis is now being given to privatization of the industrial sector. Effective logistics services have become a critical issue for companies' performance.

2. Research Focus

Logistics outsourcing involves a relationship between a company and an LSP (Logistic Service Provider) which, compared with basic logistics services, has more customized offerings, encompasses a broad number of service activities, is characterized by a long-term orientation, and, thus, is rather strategic nature. Logistics is an emerging business area in many countries. Despite the growth in the outsourcing sector, Jiang and Qureshi (2006), point out that the results of logistics outsourcing is still vague and an unexplained puzzle hence the basis of the this study.

The core business of large manufacturing firms is basically to manufacture though they still need to procure materials for production, warehouse, manage inventory and transports manufactured products to the end users. In the researchers view, all this logistics functions are non core and can be outsourced so that large manufacturing firms are left to handle their core function which is manufacturing. This study hence wishes to establish logistics outsourcing practices and their impact on the performance of private large manufacturing firms in Nairobi.

A number of studies have been done in the area of outsourcing: Wambui (2010) who researched on the analysis of logistics outsourcing at Kenya Armed forces found out that the concept of outsourcing in the Kenyan armed forces is so much limited due to the secretive nature of their work such that adoption of the strategy is on supply of non essential services such as stationery. She observed that in the developed world maintenance of military hardware is in some cases outsourced. On his part Kamuri (2010) undertook a research on challenges facing the implementation of logistics outsourcing strategy at the Kenyatta National Hospital and found out among others for an organization to realize the competitiveness resulting from logistics outsourcing, then it should be able to develop a cordial relationship with all the supplier of goods and services which will facilitate efficient and effective delivery of services.

Bosire (2011) researched on the Impact of logistics outsourcing on lead time and customer service among supermarkets in Nairobi. He found out that outsourcing of logistics services in supermarkets has a direct effect with the lead times of product delivery and that among those supermarkets that have outsourced procurement of products from the suppliers, time taken to deliver the same products to their warehouses has tremendously reduced. Kangaru (2011) while researching on challenges of business outsourcing at the Kenya Power found out that third party logistics providers are ahead of

manufacturing companies that operate logistics departments on quality implementation and improvement issues in logistics services. From above studies there has been no research on how logistics outsourcing practices affect the performance of large manufacturing firms in Kenya hence the gap this study intends to fill.

The concept of outsourcing of services has been expounded both in the literature as well as from the empirical studies done on the subject area. It was found out that outsourcing of services has become a common practice among large manufacturing firms worldwide and this is due to the various benefits that accrue to a firm as a result of outsourcing. Firms evaluate outsourcing to determine if current operation costs can be reduced and if saved resources can be reinvested in more competitive processes. Contracting out production of goods and services to a firm with competitive advantages in terms of reliability, quality and cost was found out to be the main driver of outsourcing. However the various studies covered have not extensively delved into logistics outsourcing practices in relation to the performance of large scale manufacturing firms. As a result, this study will wish to explore outsourcing practices viz a viz the performance of large manufacturing firms Nairobi, Kenya.

This study therefore seeks to answer the following research questions: what are the logistics outsourcing practices employed by large manufacturing firms in Nairobi, Kenya? Does logistics outsourcing practices affect the performance of large manufacturing firms in Kenya?

The study objectives include:

- i. To establish the logistics outsourcing practices employed by large manufacturing firms in Nairobi, Kenya
- ii. To establish the effect of logistics outsourcing practices on the performance of large manufacturing firms in Nairobi, Kenya.

3. Research Methodology

This research used a cross sectional survey of the large manufacturing companies operating in Kenya. The study adopted a descriptive approach in trying focus on large manufacturing firms in Nairobi. According to Emory (1995), a survey is feasible when the population is small and variable and hence the researchers were able to cover all the elements of the population. Therefore a survey is considered to be more efficient and economical.

The population of the study in this research was all the large scale manufacturing companies that are based in Nairobi. According to the Kenya Association of Manufacturers, there are a total of 455 large scale manufacturing companies operating in Nairobi. The 455 large scale manufacturing companies represented the study population due to their high numbers; they were sampled according to various sectors under which they operate.

Stratified random sampling method was applied to come up with the sample size, since the population in different large manufacturing firms is considered heterogeneous, implying that a simple random sample would have been unrepresentative. This according to Cooper and Schindler (2006) ensured that each manufacturing subsector is represented. According to Mugenda and Mugenda (2003) at least 10% of the target population is important for the study. The study therefore involved 46 large manufacturing companies Nairobi. Table 1 shows how the sample size is arrived at. The study picked head of logistics department from each of the manufacturing firms to take part in the study.

Table 1: Sample Size

Sector	No. of Firms	%	Respondents
Building	6	1.3	1
Food, Beverages	100	22	10
Chemical	62	13.6	6
Energy	42	9.2	4
Plastics	54	11.9	5
Textile	38	8.4	4
Wood Products	22	4.8	2
Pharmaceutical	20	4.4	2
Metal and Allied	38	8.4	4
Leather	8	1.8	1
Motor	17	3.7	2
Paper	48	10.5	5
Total	455	100	46

Source: Authors, 2013

The study used primary data that was collected through a self-administered questionnaire that consisted of both open and closed ended questions that were designed to elicit specific responses for qualitative and quantitative analysis respectively. The questionnaires had three sections. The first section contained questions on the general data of the manufacturing firms, the second part; on the other hand, answered questions on objective one while the third answered questions on objective two. The questionnaires was administered by drop and pick method. The data will be analyzed by the use of descriptive statistics.

4. Data Analysis, Results and Discussion

The research objective was to establish the logistics outsourcing practices and performance of large manufacturing firms in Nairobi. This chapter presents the analysis, findings and discussion of the same. A total of 46 questionnaires were issued out and only 38 were returned. This represented a response rate of 83%.

4.1 Organizational and Personal Profile

The respondents were asked to indicate their gender and of the 37 respondents, 59.5 percent were female while 40.5% were male. The respondents were asked to indicate their age bracket and the findings indicates that 44.7% of the respondents were 41 to 50 years of age, 39.5% of the respondents indicated that they were 31 to 40 years old while 10.5% of the respondents indicated that they were over 50 years old and the other 5.3% indicated that they were less than 30 years. The results indicated that majority of the respondents were above 30 years.

The respondents were also asked to indicate the duration they have continuously worked in the manufacturing firm and the results show that 55.3% of the respondents had worked in their respective organizations for 5 to 10 years, 36.8% of the respondents indicated that they had worked in the organization for over 10 years while 7.9% of the respondents said they have worked in the organization for less than 5 years. The results indicates that majority of the respondents have worked in their organization for more than 5 years an indication that they understand the effect of outsourcing logistics practices on performance.

The respondents were to indicate the duration the manufacturing companies have been in existence and it was found that 78.9% of the manufacturing companies have been in operation for over 16 years, 15.8% of the manufacturing companies have been in operation for 11 to 15 years while 5.3% of the manufacturing companies indicated that they have been in operation for a period of between 6 to 10 years. The results indicate that majority of the respondents have been in operation for a period of more than 16 years and thus the need for them to outsource some of their functions.

The respondents were to indicate whether their companies operate in other countries and it was found that 65.8% of the manufacturing companies operate in other countries while 34.2% do not operate in other countries. The result indicates that majority of the manufacturing companies operate in other countries and thus the need to outsource non-core functions in order to concentrate on the core functions.

4.2 Outsourcing Practices Adopted By Large Manufacturing Firms

Logistics outsourcing practices basically focuses on inbound logistics which concentrates on purchasing and arranging inbound movement of materials, parts and or finished inventory from suppliers to manufacturing or assembly plants, warehouses or retail stores. Logistics outsourcing practices include information management, transportation management, warehouse management, material handling management and inventory management. 78.9% of the large manufacturing firms indicated that they have outsourced transport management while 21.1% indicated that they have not outsourced. On the other hand 89.5% of the firms indicated that they have outsourced warehouse management while 10.5% of the firms have not outsourced warehouse management. 50% of the firms have outsourced information management and inventory handling management while an equal proportion (50%) has not outsourced the same. Regarding material handling management, 73.7% of the firms indicated that they have outsourced the management while 26.3% of the firms indicated that they have not outsourced material handling management. The results indicate that the logistics services outsourced by majority of the firms were transport, warehouse and material handling management.

The respondents were requested to indicate the effect of outsourcing logistic practices in a five point Likert scale. The range was ‘Not at all (1)’ to ‘very great extent’ (5). The results are shown in Table 2.

Table 2: Effect out outsourcing logistic practices

Practices	Mean	Std. Dev
<i>Transportation management practices</i>		
Improved vehicle scheduling	3.5012	.8929
Route optimization	3.8158	.6516
Increased vehicle visibility due to fleet track tools	3.8421	.8861
<i>Warehouse management practices</i>		
Good housekeeping practices	3.8216	.8005
Proper receipt procedures	3.7368	.9496
Less damages to commodities due to proper storage	3.6842	.6197
Staff welfare has been achieved due to implementation of health and safety	3.6316	.8517
<i>Information management practices</i>		
Visibility between various departments	3.7368	.7235
Paperless operation	3.7895	.9051
Availability and proper flow of information	3.6842	.7747
Coordination of activities though information technology	3.6579	.7807

<i>Inventory management practices</i>		
Proper inventory flow	3.8158	.8654
Inventory accuracy	3.7105	.9560
Good inventory turns/proper space utilization	3.5263	.8617
<i>Material handling practices</i>		
Quality checks on raw materials (quality raw material)	3.8947	.8633
Efficiency due to the use of modern material handling equipment	3.9768	.8864
Efficiency and less damage to products due to adoption of modern storage infrastructure i.e cold rooms and racking system	3.7105	.8353
Enhanced quality of products delivered	3.8421	.8550
<i>Procurement practices</i>		
Transparent sourcing of suppliers	3.7105	.8670
Maintenance of good supplier relations	3.6737	.8538
Maintenance of effective information delivery with suppliers of services and products	3.7632	.8521
Benchmarking to determine whether the company meets targets	3.6526	.8036

Research Data (2013)

The scores of not at all and little extent have been taken to represent a variable which had a mean score of 0 to 2.5 on the continuous Likert scale; ($0 \leq S.E < 2.4$). The scores of 'moderate extent' have been taken to represent a variable with a mean score of 2.5 to 3.4 on the continuous Likert scale: ($2.5 \leq M.E. < 3.4$) and the score of both great extent and very great extent have been taken to represent a variable which had a mean score of 3.5 to 5.0 on a continuous likert scale; ($3.5 \leq L.E. < 5.0$). A standard deviation of >0.9 implies a significant difference on the impact of the variable among respondents.

On the effect of outsourcing transport management practices was that it results in increased vehicle visibility due to fleet track tools (mean 3.8421), route optimization (mean 3.8158) and improved vehicle scheduling (mean 3.5012). The results indicate that outsourcing of transport management had enabled the firms to optimize freight and in turn, achieve cost savings without reducing service levels to customers.

On the effect of outsourcing warehouse management practices, the findings was that it results in good housekeeping practices (mean 3.8216), proper receipt procedures (mean 3.7368), less damages to commodities due to proper storage (mean 3.6842) and staff welfare has been achieved due to implementation of health and safety (mean 3.6316). The result indicates that the companies will have the most efficient warehouses.

The findings on the effect of information management practices was that it results in paperless operation (mean 3.7895), visibility between various departments (mean 3.7368), availability and proper flow of information (mean 3.6842) and coordination of activities though information technology (mean 3.6579). Outsourcing of the practices would ensure that the information is available when needed and this contributes to the firms results in concurrence with the costs of capturing.

The effect of outsourcing inventory management was that it results in proper inventory flow (mean 3.8158), inventory accuracy (3.7105) and good inventory turns/proper space utilization (mean 3.5263). The results indicate that the firms would be able to maintain lean inventory. Outsourcing of material handling practices in the firms was found to have resulted in efficiency due to the use of modern material handling equipment (mean 3.9768), the quality of checks on raw materials (quality raw material) (mean 3.8947), enhanced quality of products delivered (mean 3.8421) and efficiency and less damage to products due to adoption of modern storage infrastructure i.e cold rooms and racking system (mean 3.7105).

The findings on the effect of outsourcing of procurement practices was found to be maintenance of effective information delivery with suppliers of services and products (mean 3.7632), transparent

sourcing of suppliers (mean 3.7105), maintenance of good supplier relations (mean 3.6737) and benchmarking to determine whether the company meets targets (mean 3.6526). The low variation of the standard deviation indicates that the firms were unanimous on the effect of outsourcing the practices.

4.3 Effect of Outsourcing Practices on Firm's Performance

The large manufacturing firms were to indicate the effect of outsourcing practices on performance aspects in a five point Likert scale. The range was 'very low (1)' to 'very high' (5). The scores of very low and low have been taken to represent a variable which had a mean score of 0 to 2.5 on the continuous Likert scale; ($0 \leq S.E < 2.4$). The scores of 'moderate' have been taken to represent a variable with a mean score of 2.5 to 3.4 on the continuous likert scale: ($2.5 \leq M.E. < 3.4$) and the score of both high and very high have been taken to represent a variable which had a mean score of 3.5 to 5.0 on a continuous likert scale; ($3.5 \leq L.E. < 5.0$). A standard deviation of > 1.0 implies a significant difference on the impact of the variable among respondents. The results are shown in Table 3.

Table 3: Effect of outsourcing practices on firms' performance

Effect of outsourcing practices on firms' performance	Mean	Std. Dev
Organizational effectiveness	3.9474	.9284
Increased productivity	4.0548	.9004
Increased profits	3.8158	.8335
Improved quality	3.5263	.9223
Continuous improvement	3.7368	.8600
Improved quality of work life	3.4474	1.0318
Social responsibility	3.2368	1.1953

Research Data (2013)

The findings in Table 4.5 was that outsourcing practices led to the firms performance improvement as it resulted in increased productivity (mean 4.0548), organizational effectiveness (mean 3.9474), increased profits (mean 3.8158), continuous improvement (mean 3.7368), improved quality (mean 3.5263) and improved quality of work life (mean 3.4474). The firms were however moderate on the effect of social responsibility (mean 3.2368). The results indicate that outsourcing practices has an effect on firms' performance.

The respondents were asked to indicate the effect of outsourcing practices on the firms' performance. The results are presented in Table 4.

Table 4: Firms performance in relation to outsourced practices

Firms performance in relation to outsourced practices	Mean	Std. Dev
Decreased operating costs	4.1263	.71610
Increased productivity	3.9474	.83658
Reduced lead time	3.8684	.90557
Timely delivery of services to clients	3.8756	.81111
Use of modern technology in offering of services	3.5789	.82631
Improved profits	3.8573	.82286
Improved customer satisfaction	4.0789	.78436
Faster response to customer demands	3.8421	.82286

Research Data (2013)

The result in Table 4 was that outsourcing of logistics practices by the large manufacturing firms would result in decreased operating costs (mean 4.1263), improved customer satisfaction (mean

4.0789), increased productivity (mean 3.9474), timely delivery of services to clients (mean 3.8756), reduced lead time (mean 3.8684), improved profits (mean 3.8573), faster response to customer demands (mean 3.8421) and use of modern technology in offering of services (mean 3.5789). The findings indicate that outsourcing of logistic practices influences the performance of the firms'.

5. Summary, Conclusion and Recommendations

5.1 Summary

The studies found out that majority of the large manufacturing firms were outsourcing the transportation management, warehouse management and material handling management. On the other hand, half of the firms indicated that they had outsourced information management and inventory handling management. The study showed that outsourcing logistic practices resulted in increased vehicle visibility due to fleet track tools, route optimization, improved vehicle scheduling good housekeeping practices, proper receipt procedures, less damages to commodities due to proper storage, staff welfare has been achieved due to implementation of health and safety, paperless operation, visibility between various departments, availability and proper flow of information, coordination of activities through information technology, proper inventory flow, inventory accuracy, good inventory turns/proper space utilization, efficiency due to the use of modern material handling equipment, the quality of checks on raw materials (quality raw material), enhanced quality of products delivered and efficiency and less damage to products due to adoption of modern storage infrastructure i.e. cold rooms and racking system, maintenance of effective information delivery with suppliers of services and products, transparent sourcing of suppliers, maintenance of good supplier relations and benchmarking to determine whether the company meets targets.

The outsourcing practices being adopted by the large manufacturing firms resulted in increased productivity, organizational effectiveness, increased profits, continuous improvement, improved quality and improved quality of work life and thus outsourcing of these processes was an ideal solution that helps the firm expand internationally and operate on a much larger scale. At the same time, outsourcing resulted in decreased operating costs, improved customer satisfaction, increased productivity, timely delivery of services to clients, reduced lead time and improved profits, faster response to customer demands and use of modern technology in offering of services. This would spur the performance of the firms as it would enable the firm to concentrate on the basic activity (core competence) and use best methods and experiences.

5.2 Conclusion

Outsourcing of logistics services by large manufacturing firms would strengthen their resources in order to reinforce their competitive advantage. The results established that the firms were outsourcing transportation management, warehouse management and material handling management. The firms opted to outsource these services due to its advantages and its possible influence on organizational performance, as it enables the firms to focus on its core competencies.

The outsourcing practices adopted by the large manufacturing firms will in the long run determine their survival as they would seek to reduce operating costs, improved customer satisfaction and timely delivery of services to clients which in turn increase productivity and reduce lead time and improved profits. Thus, in order to gain competitive advantage they must select areas in which they will concentrate their resources. By outsourcing to specialist organizations services not generated by core competences, companies can see an improvement in their organizational performance.

5.3 Recommendation

The study found out that the large manufacturing firms had adopted transportation management, warehouse management and material handling management. It is therefore recommended that the

firms should adopt those practices that would guarantee them competitive advantage in the competitive environment and at the same time they outsource the processes to the organizations that will provide high quality services which will enable the firms achieve the desired objectives.

The study also found out that outsourcing of processes by the firms has influenced its performance and it is recommended that the manufacturing firms should continue outsourcing other services which they do not have competitive advantage over its competitors so that they can continue improving performance.

The study confined itself to large manufacturing firms in Nairobi and the findings may not be applicable in other sectors as a result of uniqueness of the manufacturing firms. It is therefore recommended that the study is replicated in other service sectors to establish the logistics outsourcing services and performance.

References

- [1] Aubert, B.A., Rivard, S., and Patry, M. (1996), "A transaction cost approach to outsourcing behaviour: some empirical evidence", *Information & Management*, Vol. 30 pp.51-64.
- [2] Barney, J.B. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No.1, pp.99-120.
- [3] Bosire, G (2011), Impact of Outsourcing on Lead time and customer service among supermarkets in Nairobi, *Unpublished MBA Project*, University of Nairobi
- [4] Brown, D., and Wilson, S. (2005), *The Black Book of Outsourcing – How to Manage the Changes, Challenges, and Opportunities*, Windley, Hoboken, NJ, pp.19-43
- [5] Bruce, D.J.and Useem, K (2008), "A resource-based analysis of global competition: the case of the bearings industry", *Strategic Management Journal*, Vol. 12.
- [6] Bryce, D.J., Useem, M. (2008), "The impact of corporate outsourcing on company value", *European Management Journal*, Vol. 16 No.6, pp.635-43
- [7] Chung, S., Meindl, P. (2010), *Supply Chain Management: Strategy, Planning and Operation*, Pearson/Prentice Hall, Upper Saddle River, NJ, .
- [8] Chase, R.B., Jacobs, F.R., Aquilano, N.J. (2004), *Operations Management for Competitive Advantage*, 10th ed., Irwin/McGraw-Hill, Boston, MA,
- [9] De Boer, L., Gaytan, J., Arroyo, P. (2006), "A satisficing model of outsourcing", *Supply Chain Management: An international Journal*, Vol. 11 No.5, pp.444-55.
- [10] Eisenhardt, K.M. (1985), "Control: organizational and economic approaches", *Management Science*, Vol. 31 pp.134-49.
- [11] Hauser, L.M. (2003), "Risk-adjusted supply chain management", *Supply Chain Management Review*, pp.64-71
- [12] Hussey, D., and Jenster, P., (2003), "Outsourcing: the supplier viewpoint", *Strategic Change*, Vol. 2 No.1, pp.7-20.
- [13] Jiang, H and Qureshi, B. (2005), "A production-distribution coordinating model for third party logistics partnership", *Proceedings of the 2005 IEEE International Conference on Automation Science and Engineering*, Edmonton, Canada, August 1 & 2, pp.99-104.
- [14] Kamuri, J (2010), Challenges facing the Implementation of Outsourcing strategy at the Kenyatta National Hospital, *Unpublished MBA Project*, University of Nairobi
- [15] Kangaru, M (2011), Challenges of business outsourcing at the Kenya Power, *Unpublished MBA Project*, University of Nairobi

- [16] Krim, J. (2003), "Intel chairman says US is losing edge", *The Washington Post*, No. October, .
- [17] Kulmala, H.I. (2003), "Cost management in firm networks", Publication 418, Tampere University of Technology, Tampere, .
- [18] Laugen, L.B., Berger, P., Zeng, A., and Gerstenfeld, A. (2008), "Applying the analytic hierarchy process to the offshore outsourcing location decision", *Supply Chain Management: An International Journal*, Vol. 13 No.6, pp.435-49.
- [19] Mahoney, J.T., Pandian, R.J. (1992), "The resource based view within the conversation of strategic management", *Strategic Management Journal*, Vol. 13 No.5, pp.363-80.
- [20] Maiga, A.S., Jacobs, F.A. (2004), "The association between benchmarking and organizational performance: an empirical investigation", *Managerial Finance*, Vol. 30 No.8, pp.13-33.
- [21] McIvor, R. (2005). "A practical framework for understanding the outsourcing process". *Supply Chain Management: An international Journal*, 5(1), 22-36.
- [22] Momme, J. (2002), "Framework for outsourcing manufacturing: strategic and operational implications", *Computers in Industry*, Vol. 49 No.1, pp.59-75.
- [23] Muller, V. (1991), "Fast, global, and entrepreneurial: supply chain management, Hong Kong style – an interview with Victor Fung", *Harvard Business Review*, Vol. 76 No.5, pp.102-14.
- [24] Overby A.L. (2007), "Economic clusters and the supply chain: a case study", *Supply Chain Management: An International Journal*, Vol. 11 No.3, pp.266-70.
- [25] Porter, M. E., (1980), *Competitive Strategy: Techniques for Analyzing Industries and Competitors*, Free Press, New York, NY., .
- [26] Razzaque, M.A., Sheng, C.C. (2008), "Outsourcing of logistics functions: a literature survey", *International Journal of Physical Distribution and Logistics Management*, Vol. 28 No.2, pp.89-107.
- [27] Saunders, C., (1994), "Achieving success in information systems outsourcing", *California Management Review*, Vol. 39 pp.63-79
- [28] Suri A. (2008), "Meeting the challenge of outsourcing", *Engineering Management Journal*, Vol. 14 No.3, pp.34-7.
- [29] Taylor, L. (2006), "What does evidence tell us about fragmentation and outsourcing?", *International Review of Economics & Finance*, Vol. 14 No.3, pp.305-16.
- [30] Wambui M. (2010), *Analysis of Outsourcing at Kenya Armed Forces*, *Unpublished MBA Project*, University of Nairobi