



**THE EFFECTS OF OUTSOURCING LOGISTICS SERVICES ON OPERATIONAL EFFICIENCY IN  
MANUFACTURING INDUSTRY: CASE STUDY OF DEL MONTE KENYA LTD**

**GILBERT GICHIA MUIRURI**

**THE EFFECTS OF OUTSOURCING LOGISTICS SERVICES ON OPERATIONAL EFFICIENCY IN  
MANUFACTURING INDUSTRY: CASE STUDY OF DEL MONTE KENYA LTD**

Muiruri, G., Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya

Iravo, M., Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya

Accepted April 21, 2015

---

**ABSTRACT**

The purpose of the research was to determine the effects of outsourcing logistics services on operational efficiency, a case study of DMKL Thika Branch. In the rapidly changing business environment Logistics Services play a vital role in the Operational Efficiency of an organization. In the manufacturing industry the companies tend to focus on their core activities which are producing raw materials or finished goods for their consumers so as to ensure quality products reach their clients.

The research used a quantitative survey method on consensus of 45 employees. Data was collected using questionnaire administered through interview with the relevant employees of DMKL. Different questions were based on the objectives. The target population was the employees of DMKL, Procurement Department and other employees from those Departments which work closer with the Procurement department such as Stores and Finance. Data was analyzed using tables and simple descriptive statistics such as pie charts and graphs.

After having a detailed literature review and thorough discussion in analysis, this study concluded that outsourcing of logistics services has an encouraging impact on the operational efficiency. The findings of the study were that the outsourcing services adopted by the firms were freight logistics, customs brokerage, road transportation and distribution, packaging and removals and warehousing. The outsourcing practices being adopted by DMKL 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, and reduced lead time, improved profits and faster response to customer demands. This was an indication that the performance of the firms was influenced by the outsourcing practices adopted by the firms.

**Key Words:** *Outsourcing, Operational Efficiency, Manufacturing Industry*

---

## **INTRODUCTION**

Logistics involves the flow of goods between the point of origin and the point of consumption. Logistics services include activities such as freight logistics, customs brokerage, road transportation and distribution, packaging and removals and warehousing (D'Aveni, 2002). The study was based on the concepts related to the outsourcing of logistic services on the operational efficiency in the manufacturing industry. In the current dynamic era which is described by market volatility, cycle times, constant change, and demand to reduce costs and attached with the globalization trend has driven the rising need to outsource the business operations (Doyle, 2003). The return on assets of user's firm can be improved by outsourcing.

The process of controlling and implementing the cost effective and efficient storage and flow of in process stock, raw materials, finished goods and related knowledge for the purpose of confirming to customer necessities from origin point to utilization point is called logistics (Van Goor et al., 2003).

### **Statement of the problem**

Most organizations across the world have realized that in the rapidly changing environment, logistics services play a vital role in the operational efficiency of an organization. Logistics services involve activities such as freight logistics, customs brokerage, road transportation and distribution, packaging and removals and warehousing. In the manufacturing industry the companies tend to focus on their core activities which are producing raw materials or finished goods for their consumers so as to ensure quality products reach their clients.

The logistics service in the manufacturing sector is not efficient to meet their objective of operational excellence since it is not their core activity. It is therefore very necessary to outsource logistics services to improve operational efficiency. Outsourcing may become a value added activity. However, costs savings are major reasons for companies outsourcing. This research proposal will enable the researcher outline the reasons and impact of outsourcing logistics services on improve operational efficiency.

### **Objectives of the study**

The general objective of the study was to determine the effects of outsourcing logistics services on operational efficiency in the manufacturing industry. This was supported by specific objective which are outsourcing freight logistics, brokerage, road transportation and distribution and warehousing on operational efficiency in the manufacturing industry.

### **Research questions**

- i. To what extent does outsourcing of freight logistics affect operational efficiency in the manufacturing industry?
- ii. To what extent does outsourcing of customs brokerage affect operational efficiency in the manufacturing industry?
- iii. To what extent does outsourcing of road transportation and distribution affect operational efficiency in the manufacturing industry?
- iv. To what extent does outsourcing of warehousing affect operational efficiency in the manufacturing industry?

## **Scope of the study**

The study was limited to manufacturing industries, with a particular focus on the one of the major manufacturing company in Kenya, Del Monte Kenya limited. It's was intended to find out the effects of outsourcing logistics services on operational efficiency in the manufacturing industry the study was carried out within DMKL in Thika, Kenya.

## **LITERATURE REVIEW**

### **Theoretical Literature**

A theory is a set of statements or principles devised to explain a group of facts or phenomena, especially one that has been repeatedly tested or is widely accepted and can be used to make predictions about natural phenomena (Serekan,2003). A theoretical framework is a collection of interrelated statements or principles (Orodho, 2009).

### **Traditional Logistics Model**

Many companies now outsource all or part of their supply chain to logistics specialists when it's not a core business (Power et al., 2006). For logistics providers, the value proposition rests on three key pillars: optimizing logistics costs for customers, shortening the length of the order completion cycle and reducing the number of fixed assets.

The Traditional Logistics Model suggests integration of separate units in the delivery supply chain into a unified system of direct management of material and information flows targeting the accomplishment of the desired result with a minimum loss of time and resources.

The implementation of an up-to-date logistics management in companies provides more effectiveness. This means to use outsourcing. Logistics outsourcing brings to the reduction of

stocks, order-to-delivery lead-time reductions and an increase of quality, expansion of production flexibility, lowering the cost of production, accelerated capital turnover (Juriado, 2004). This guarantees lower production costs and better quality of deliveries, which is a decisive competitive advantage. The application of logistics outsourcing helps the rational allocation of resources to those types of business, which are worth competing and where the company has distinctive advantages.

So this work debates the application of logistics outsourcing as a means for ensuring competitive advantages for an organization(Power et al., 2006).

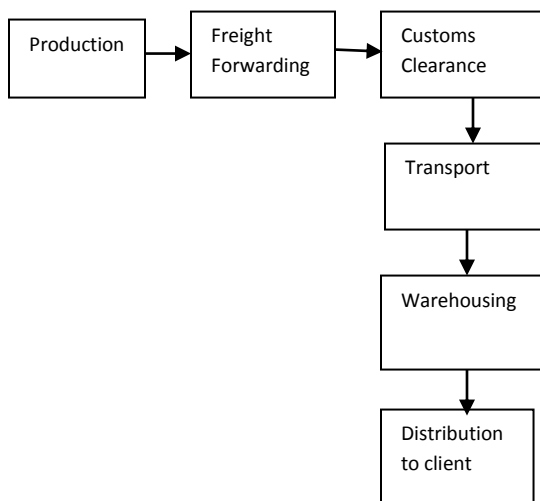
The logistics approach, unlike the traditional one, suggests integration (technical, technological, information and economic) of separate units in the delivery supply chain into a unified system of direct management of material and information flows targeting the accomplishment of the desired result with a minimum loss of time and resources.

The implementation of an up-to-date logistics management in companies provides reduction of stocks, high predisposition of merchandise towards deliveries, order-to-delivery lead-time reductions and an increase of quality, expansion of production flexibility, lowering the cost of production, accelerated capital turnover. This guarantees lower production costs and better quality of deliveries, which is a decisive competitive advantage (Vaidyanathan, 2005).

Besides lowering the operative costs, together with the logistics ones, one of the basic directions of the organization strategy is concentrated on priority types of business and operations. This helps the rational allocation of resources to those types of business, which are worth competing and where the company has distinctive advantages (technology, know-how,

special equipment, and trained personnel). This approach can be defined as “core competence”. The universal practice therefore is to use “outsourcing” more and more widely.

The term “outsourcing” suggests contraction or decline of one’s own business process, usually that, which is not the core one (not the profiling one) and/or that, which is not profitable for the company and passing it to a company, which specializes in this field. The main advantage in the use of outsourcing is that it lets the organization focus on its basic activity (Power et al., 2006). Organizations can actually pass to outsourcing each of their functions or activities ranging from human resources management to logistics, information maintenance, payroll processing and even production itself.



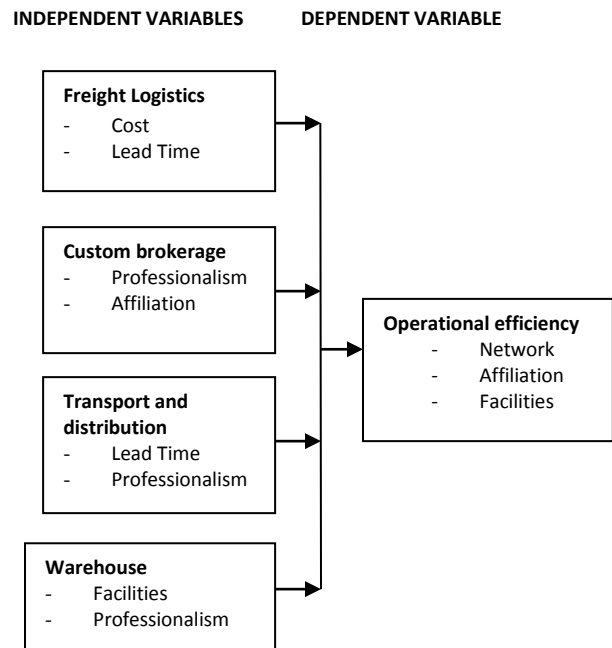
**Figure 1. Traditional Logistics Model**

**Total Cost Logistics Model**

Corporate managers traditionally have viewed logistics as a mandatory cost bucket. But top-performing companies now recognize that mastering supply chain and logistics can be more than that: It can be the source of competitive advantage (Lieb, 2002). This strategic shift opens up significant growth opportunities for logistics providers, with winners using different paths and

business models to foster growth. Total cost logistics model is focused on achieving the lowest total cost across each function of logistics A cost decision in one function should consider impact to costs of all other logistics functions. For example, Transporting material the cheapest way is slower than other choices. This requires an increase in storage cost to hold the material longer (Lieb, 2002).

**Conceptual Framework**



**Figure 2: conceptual framework**

**Empirical Review of Variables**

**a) Freight Logistics**

Freight logistics entails organizing shipments on behalf of a company or an individual to get goods from the manufacturer to the customer or final point of distribution. The company offering this services also known as the forwarder contracts with a carrier to move the goods. A forwarder does not move goods but acts as an expert in the supply chain management (Lloyd 2006).

The main parties to freight logistics are the exporter, forwarding agent and importer. Freight logistics involves commercial terms known as incoterms which are a series of commercial terms published by the International Chamber of Commerce that are widely used as guidelines in international trade. Incoterm rules are primarily intended to clearly communicate the tasks, costs and risks associated with transportation and delivery of goods (Lloyd 2006). The incoterms' rules are accepted by governments, legal authorities and practitioners worldwide for the interpretation of most commonly used terms in international trade. Freight forwarder responsibilities include; preparing documentations for export clearance, arranging for inspection, transportation of goods to the airline or shipping line and booking the consignment with the relevant carrier. In freight logistics, the forwarding agent must ensure that once the documentation is ready, they send them to the consignee prior to shipment arrival as a pre-alert so that they can be prepared to clear the goods at destination (Lloyd 2006).

Documentation is a requirement in international trade and for moving goods. Well-ordered and accurate documents are essential for a freight forwarder and are required for a successful export order and receipt of payment for delivery. Freight forwarders need to know exactly what document is required and when. When preparing to move goods, the freight forwarder must first receive clear instructions from the importer or exporter - ideally well in advance of the goods being moved. These should be in writing and can be done via email or fax. However, the shipper will often hand the paperwork over to the driver collecting the goods, which is standard practice for air freight (FIATA 2013). If any instructions are taken over the telephone, they should then be confirmed to the customer in writing to avoid any later problems.

Other documents that are provided by the importer or exporter include invoices, packing lists and licenses. Responsibility for hazardous goods declarations also lies with the shipper. Each mode of transport will have its own document of carriage, such as the: air waybill - for air; freight; bill of lading - for sea freight; consignment note - for road freight. The issuer of these documents may differ, but freight forwarders need to be familiar with them and their individual procedures (FIATA 2013). Freight forwarders should also understand documents that relate to customs clearance at import and export.

#### **b) Customs Brokerage**

Customs brokerage is a profession that involves the clearing of goods through customs barriers for importers and exporters (Jonathan 2013). Customs brokerage is done by a customs broker who is licensed by the local customs, after passing an examination that covers a broad range of knowledge including customs law, customs classification, customs tariff schedule, import and export regulations, shipping procedures, trade documentation, etc. He or she acts as a professional-agent for an importer or exporter, prepares and submits all documents for clearing goods through customs, and is paid customs-brokerage. The standard Customs procedure in Kenya involves the following steps (Jonathan 2013). Apply for an Import Declaration Form (IDF) prior to arrival of the Cargo. Obtain manifest number from the airline or shipping agents depending on the mode of transport upon arrival of the cargo.

Transmit an entry to customs through the Trade-x system (custom's online service). Pay the revenue due, to customs nominated banks (Co-operative bank or National bank). The bank will allocate the funds to the entry and validate the payment in order to reflect in the Simba system (custom's online service).

Customs officers at the document processing center will process the paid entry and issue a long room pass upon being satisfied with the details submitted to them in the entry. After the entry is passed, the clearing agent will prepare a folder and attach all the supporting documents listed above. The folder is presented to customs releasing point at the transit shed. Customs will then process the entry (C17B) and determine the level of intervention depending on the risk management indicators already picked by the trade-x system i.e. Where verification is required the agent will organize for the cargo to be moved to the verification area in order for the cargo to be verified. Other government agencies (KEBS, Port health, Police and others) will similarly determine their interest by stamping the entry (C17B). Upon release by Customs and other agencies the clearing agent will proceed to pay the port handling charges and the storage charges incurred. The clearing agent will then be allowed to bring in the truck to load and clear the cargo. Cargo transported and delivered to the owner.

### **c) Road transportation and distribution**

Road transportation involves movement of goods by road. Distribution is the process of making a product or service available for use or consumption by a consumer (Lilian, 2009). Logistics service providers offer transport services within East and Central Africa for containerized consignments (20ft and 40ft), loose cargo, cars, and other consignments that may require special handling. The fleet of commercial vehicles includes pick-ups and mini-trucks for door-to-door deliveries, light and heavy Lorries for cargo deliveries, car carriers, low loaders and also staff busses. Logistics service providers also have a fleet of motorcycles for quick and efficient door-to-door deliveries of documents within city limits. Their trailers are technologically equipped to ensure control and monitoring of clients' freight at any given time. They should have the best safety

and reliability records in the transport industry which guarantees the clients of safe and reliable cargo transportation.

The nature of road transportation of goods depends, apart from the degree of development of the local infrastructure, on the distance the goods are transported by road, the weight and volume of the individual shipment, and the type of goods transported. For short distances and light, small shipments a van or pickup truck may be used. For large shipments even if less than a full truckload a truck is more appropriate.

Distribution of products takes place by means of channels. Channels are sets of interdependent organizations (called intermediaries) involved in making the product available for consumption to end-user. Merchants are intermediaries that buy and resell products. Agents and brokers are intermediaries that act on behalf of the producer but do not take title to the products.

The mantra for all transportation professionals is simple: reduce costs and increase customer satisfaction levels. However, market forces such as higher fuel costs and decreased capacity work to undermine these goals.

There are three primary segments of motor freight, or modes—less-than-truckload (LTL), full truckload (FTL) and small package or parcel modes. Certainly time and service requirements dictate that some freight moves via an expedited or time-definite ground move. However, the largest percentage of ground transportation shipments move via one of the three primary modes. The goal of managing shipments in each of these designated modes is maximizing asset utilization. This is accomplished by shifting from one mode to a more cost effective mode, building larger, more economical shipments within any of the three modes etc.

Transport managements practices optimize freight and in turn, achieve cost savings without reducing service levels to customers. Some of the best practices are straight Pooling whereby shippers that use LTL as a primary mode have a significant number of LTL sized orders that are destined for the same geographic area. Using a pooling strategy, shipments can be combined to create a full truckload shipment out to a pool distribution facility that serves the geographic area. Shipment Aggregation on the other hand creates a single shipment of multiple orders, originating from the same shipper to the same destination on the same day that would have otherwise have been released as separate shipments. Shipment Consolidation is an option when multiple LTL orders can be combined with a truckload sized order that is not at full capacity, if they can be part of a stop-off in route to the final truckload destination. Continuous Moves solutions allow for minimizing empty miles. To deploy this strategy, individual shipments are combined into legs of a continuous move.

#### **d) Warehousing**

A warehouse is a commercial building for storage of goods. Warehouses are used by manufacturers, importers, exporters, wholesalers, transport businesses, and customs. Warehouses can be either general warehouses or bonded warehouses. General warehouses, offer temporary storage where the importer has paid duties whereas Bonded warehouses offer temporary storage where the importer has not paid the duties. The functions of a warehouse include;

**Storage of Goods:** One of the traditional requirements of a warehouse has been for storing goods. The warehouse provides the space required for such storage and it is one of the important functions of a warehouse.

**Movement of Goods:** Movement of goods consist of inbound activity (unloading of goods brought to

warehouse), transfer to storage (transferring the goods from the inbound area to the storage area), order selecting (selecting the good in the storage as per order to be shipped and transferring it to shipment area) and outbound activity (checking and loading the goods for shipment).

**Information Management:** Keeping a track of information regarding goods that have come into the warehouse, stored and that are shipped out of the warehouse. Also any other information pertaining to the warehouse is stored. The data captured by the information system in the warehouse is then passed on to the higher management in order to take better decisions.

**Protection of goods-** A warehouse provides protection to goods from loss or damage due to heat, dust, wind and moisture, etc. It makes special arrangements for different products according to their nature. It cuts down losses due to spoilage and wastage during storage.

**Risk bearing;** Warehouses take over the risks incidental to storage of goods. Once goods are handed over to the warehouse-keeper for storage, the responsibility of, these goods passes on to the warehouse-keeper. Thus, the risk of loss or damage to goods in storage is borne by the warehouse keeper. Since it is bound to return the goods in good condition, the warehouse becomes responsible for any loss, theft or damage etc., thus, it takes all precautions to prevent any mishap.

**Financing-** When goods are deposited in any Warehouse, the depositor gets a receipt, which acts as a proof about the deposit of goods. The Warehouses can also issue a document in favor of the owner of the goods, which is called warehouse-keeper's warrant. This warrant is a document of title and can be transferred by simple endorsement and delivery. So while the goods are in custody of the warehouse-keeper, the businessmen can obtain loans from banks and other financial institutions



keeping this warrant as security. In some cases, warehouses also give advances of money to the depositors for a short period keeping their goods as security.

Processing – Certain Commodities are not consumed in the form they are produced. Processing is required to make them consumable. For example, paddy is polished, timber is seasoned, and fruits are ripened, etc. Sometimes warehouses also undertake these activities on behalf of the owners.

Grading and branding- On request warehouses also perform the functions of grading and branding of goods on behalf of the manufacturer, wholesaler or the importer of goods. It also provides facilities for mixing, blending and packaging of goods for the convenience of handling and sale.

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 be 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.

Warehouse layout is also important in achieve greater efficiencies. Minimizing travel time between picking locations can greatly improve productivity. However, to achieve this increase in efficiency, companies must develop processes to regularly monitor picking travel times and storage locations. Warehouse operations that still use hard copy pick tickets find that it is not very efficient and prone to human errors. To combat this and to maximize efficiency, world class warehouse operations have adopted hand-held RF readers and printers.

Companies are also introducing pick-to-light and voice recognition technology.

### **Research Gaps**

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

## **RESEARCH METHODOLOGY**

### **Research Design**

The researcher used both qualitative and quantitative designs in the study. Quantitative approach involved the use of structured questions where the response options were predetermined. The researcher used this approach because it was more objective and it helped in achieving high levels of reliability and higher degree objectivity. There was the use of qualitative approach i.e. through open ended questions. Qualitative design is the use of non-quantifiable methods to collect, evaluate and analyze data. The reason for this approach was to permit the researcher to study selected issues, cases, or events in depth and in detail.

The researcher used a case study. This method was adopted to collect information about the experiences of the top and other senior level managers at Del Monte Kenya LTD concerning the effects of outsourcing logistics services on operational efficiency in the manufacturing industry.

### Target Population

According to the DMKL website (2014), the organization had a strong work force of 6000 employees. The study targeted a population of 150 employees.

### Sample Size and Sampling Technique

The researcher used stratified sampling method in the study. The researcher used the general knowledge acquired to strategize the population according to various levels of management. This was to ensure that the population was well represented. The sample size was 30 % of the target population represented. Thus the total no (45) was used. Using this method, the sample was divided into different strata at DMKL whereby the divisions were according to their working departments.

Afterwards the researcher came up with the different departments at DMKL which was to enable him to use the simple random sampling to come up with a well-represented research sample.

**Table 1: Sample Size**

Category/ Department	Target Population	Sample Size 30% of target population	% Of Sample size
Top level	10	3	7
Middle level	20	6	13
Operational Level	120	36	80
Total	150	45	100

### Instruments

The instruments for data collection in this research were questionnaires and personal interviews. The questionnaires consisted of open-ended and close-ended questions and was used in the research to collect data because the questions which were asked were straight forward, simple and well prepared to answer the research objectives.

### Data Collection Procedures

The researcher prepared questions for reference which were obtained during the face to face interviews. The questions were both open and closed ended. The researcher administered the questionnaires personally to those who were targeted.

### Data Analysis

The data, which was numeric, was collected from the sample, representative samples structured questions and interviews and then analyzed using simple statistical methods whereby frequency distribution and percentages were widely used for study conclusions. The feedback collected from the questionnaire was coded and organized for analysis. The qualitative data was analyzed through content analysis where repetitive issues were identified. Statistical analysis using SPSS was then used for qualitative data analysis.

## **FINDINGS AND DISCUSSION**

### **Response rate**

The study targeted 45 respondents from Del Monte Kenya Ltd. All the questionnaires were filled but three questionnaires were found to have erroneous responses and were discarded leaving 42 properly filled questionnaires representing 93.33%.

### **Demographic Characteristics of the Respondents**

#### **Age**

The study found out that out of the total response, 11 respondents representing 26.2% lied between the age brackets of 20 – 30 years, 27 of them representing 64.3% were of the age between 31 – 40 while the remaining 4 representing 9.5% of the respondents lied within 41 years and above. This therefore meant that the age between 31 – 40 years had the highest response rate.

#### **Gender distribution**

Female was represented by 15(35.7%) respondents while male were 27(64.3%) respondents. This was evident that from the sample selected, male respondents dominated the response and since the selection was random, it shows that Del Monte Kenya Ltd is dominated by male staff and employees as opposed to female.

#### **Employment category**

The employment category of the whole response varied from top management level, middle level and finally to operational level. The research was therefore conducted from all these levels. The top level had 3(7.1%) respondents; the middle level management were 8(19%) respondents while the

operational level were 31 respondents with a 73.8% response. The operational level was the majority since they are many in any organization and perform the actual role of the organization. This was followed by the middle level management respondents and then lastly the top level.

#### **Level of education**

Education level is always associated with the management level with which one is posted in an organization. Top management level is always associated to the highest level of education. This therefore means that as you climb the ladder off management levels in an organization, you education is perceived to be increasing too. Del Monte Kenya Ltd had many respondents from the operational level of management. This has been depicted to show that majority (20) of the respondents had diploma level of education with a response percentage of 48%. This was followed by those with degree level of education who were 12(29%) respondents, and then those with certificate were 9(21%) respondents and finally had only 1 respondent with a response of 2.4%. This shows that majority of the respondents had an average level of education.

#### **Period of service**

The period of service ranged from below 1 year to even above 18 years. Majority (18) of the respondents had served the organization within a period of 6 – 11 years with a response of 43%. This was followed by those who had served the organization for a period within 0 – 5 years with 13 respondents representing 31%, then those who had been in the organization for a period above 18 years were 4(9.5%) respondents. The period of service within Del Monte Kenya Ltd seem to follow some trend. The highest number of employees in the organization seems to be between 6 – 11 years. Beyond this period, the

organization starts to reduce this number with the criterion being how efficient and productive an employee is. At this point, employees tend reduce their efficiency thus lowering individual and organizational productivity.

**Variable analysis**

**a) Outsourcing freight logistics**

This section presents the results of the data analysis of the data collected from respondents concerning Outsourcing freight logistics. Logistics is the management of the flow of goods between the point of origin and the point of consumption in order to meet some requirements of customers of corporations. Concerning outsourcing freight logistics, the researcher began with seeking to know if there was freight logistics outsourcing in the organization.

Results indicated that it was evident that there was freight logistics outsourcing in Del Monte Kenya Ltd. This was because an overwhelming majority (37, 88%) of the respondents had agreed while the remaining few (5, 12%) were of the contrary opinion. Due to this fact, the researcher sought to know when outsourcing of this important logistic was introduced to the organization. Outsourcing of freight logistics was not a new concept to the organization. Depending on the period the respondent realized the introduction of outsourcing of freight logistics to their various departments, it elicited varied responses. Results indicated that majority (19) of the respondents (45%) were of the opinion that it was introduced about 1-2 years ago. This was followed by 33% of the respondents who said that it was introduced about 0-1 years ago. Only 6 respondents making a 14% response said that it was introduced about 2-3 years ago. About 3 respondents with a response of about 7% said it was introduced at about above 3 years ago. On average, the introduction of outsourcing of freight logistics was introduced about 1-2 years ago. This

was not a long period in which one can correctly ascertain the effects that outsourcing of freight logistics has brought to the organization. This was because at this point, the effect could only be seen at a minimal extent, or could have not been totally felt. The researcher went ahead to give various statements regarding outsourcing of freight logistics to the respondents who could express their feelings on them and the extent to which they either agreed or disagreed on those statements. The response was summarized on table 4.6

**Table 2 The extent to which they agreed or disagreed with statements regarding outsourcing freight logistics**

	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		TOTAL	
	F	%	F	%	F	%	F	%	F	%	F	%
Outsourcing freight logistics is detrimental to the organization and should be discouraged	-	-	-	-	8	12	2	4	1	3	4	12
Outsourcing freight logistics services has greatly reduced the overall costs in the organization	3	7	1	2	-	-	-	-	-	-	4	12
The introduction of outsourcing freight logistics services in the organization has contributed to the operational efficiency	2	6	1	3	2	5	-	-	-	-	4	12
The employee's attitudes have been reduced due to the introduction of outsourcing freight logistics services in your organization	-	-	-	-	3	7	2	6	1	2	4	12

**Key:**

F = Frequency of respondents

% = Percentage of respondents.

Concerning the statement, outsourcing freight logistics is detrimental to the organization and should be discouraged, the response was skewed towards disagreement. Majority (20) of the respondents (48%) disagreed with this statement while the other 14(33%) respondents strongly disagreed with the statement. Only 8 (19%) were neutral to the statement and could not exactly explain if outsourcing freight logistics was detrimental or not. The results went hand in hand with the researcher's perception because if outsourcing could have been detrimental to the organization, it was to be difficult for it to practice the same.

Outsourcing freight logistics services has greatly reduced the overall costs in the organization. From this statement, the researcher sought to understand from the respondents if indeed outsourcing freight logistics had any effect to the increase or decrease of overall cost of the organization. All the respondents agreed to the statement but majority (30, 71%) of the respondents strongly agreed while the remaining 12(29%) just agreed. This was an indication that outsourcing of freight logistics was an important aspect to be looked at in the organization. It was important because it indeed contributed to increase of overall cost of the organization. Operational efficiency is inculcated by the increase of overall costs in the organization. The researcher also sought to identify the extent to which respondents agreed on the fact that the introduction of outsourcing freight logistics services in the organization has contributed to the operational efficiency. Following the same trend as the earlier statement, majority of the respondents agreed with this. Only a few (2, 5%) who were neutral to the statement. Regarding the statement that the employee's attitudes have been reduced due to the introduction of

outsourcing freight logistics services in the organization, the response also was skewed to disagreement. Majority (27, 64%) of the respondents disagreed with the statement while 12, 29% strongly disagreed. Only 3, 7% of the respondents were neutral to the statement. This was an indication that employees attitude was never reduced due to the introduction of outsourcing of freight logistics to the organization.

Outsourcing of freight logistics as any other logistic in an organization needed proper monitoring in order to be advantageous to the organization. From the findings, it can be deduced that outsourcing of freight logistics in an organization was not a bad step. This therefore elicited another reaction.

The researcher sought to examine the extent with which implementation of outsourcing freight logistics services has been monitored in the organization to ensure that it is practiced as prescribed.

According to the respondents, monitoring of the outsourcing of freight logistics has been done differently. Majority (18, 43%) of the respondents said that it was very great while 12(29%) said it was great. This was followed by 6(14%) respondents who said that the monitoring was average. The rest 4(10%) said that it was low while the other 2(5%) were of the opinion that it was very low. In order for the outsourcing of freight logistics to be effective and perform its intended goals in the organization, its monitoring has to be effective too. This was according to the findings of this study. The researcher was curious then to know reasons why an organization has to outsource its freight logistics. Outsourcing of freight logistics are done in an organization for different reasons depending on the organizational structure. According to DMKL, outsourcing of freight logistics has its own reasons. Majority (14,

33%) of the respondents said that it was done to reduce order cycle length. This was an indication that outsourcing freight logistics reduces the order length cycle by either omitting some of the steps but achieving the same results or also reduction of costs incurred during a normal order. This was closely followed by customer service improvement which had a response of 13, 31% respondents. Freight logistics are outsourced in an organization in order to gain from it. In this case, it is done to improve customer service. In a case where customer services are improved, an organization stands a chance of getting more returns. The other reason was time saving (8, 19%) and lastly, logistic cost reduction.

**Relationship between outsourcing of freight logistics and operational efficiency.**

A correlation between outsourcing of freight logistics and operational efficiency was summarized in table 3.

**Table 3 Correlation between outsourcing freight logistics and operational efficiency**

		Are there freight logistics outsourcing in your organization	The introduction of outsourcing freight logistics services in the organization has contributed to the operational efficiency
Are there freight logistics outsourcing in your organization	Pearson Correlation	1	.257
	Sig. (2-tailed)		.101
	N	42	42
The introduction of outsourcing freight logistics services in the organization has contributed to the operational efficiency	Pearson Correlation	.257	1
	Sig. (2-tailed)	.101	
	N	42	42

The correlation reported in the table 3 is positive and the value of 0.257 is significantly different from 0 because the p-value is less than 0.10. This suggests that the company should focus more on its efforts on outsourcing of freight logistics and monitor it well since it contributes to operational efficiency.

**b) Outsourcing custom brokerage**

This section presents the results of the data analysis of the data collected from respondents concerning Outsourcing custom brokerage. Logistics is the management of the flow of goods between the point of origin and the point of consumption in order to meet some requirements of customers of corporations. Concerning outsourcing custom brokerage, the researcher began with seeking to know if there was custom

brokerage outsourcing in the organization. The respondents were tasked to either say yes or no. An overwhelming majority (38, 90%) agreed that there existed outsourcing of custom brokerage in the organization while the rest 4,10% had a contrary opinion maybe because they were not aware of the presence of outsourcing of custom brokerage or were not directly involved in the outsourcing of custom brokerage. According to the knowledge of the respondent, the researcher sought to know when outsourcing of custom brokerage were introduced to the organization. The period when the outsourcing of custom brokerage were introduced to the organization depended on the time the respondent realized the outsourcing and when he/she got involved in the same. Majority (19, 45%) of the respondents were of the opinion that outsourcing of custom brokerage was introduced within the period lasting between 1-2 years ago. This was followed by 10, 24% respondent who said that the outsourcing of custom brokerage was introduced in the period less than 1 year ago. About 8(19%) respondents said that it was introduced the period between 2-3 years ago and finally 5(12%) respondents have learnt the outsourcing of custom brokerage for a period above three years.

Outsourcing custom brokerage can be an immediate solution for organizations. Shortage of financial support to invest in building own truck fleets, organizations have no other ways than having used services from external providers. It is therefore an inevitable phenomenon. Traditional logistics activities such as customs clearance and forwarding are the most outsourced activities. The researcher posed some statements to the respondents and wanted to know the extent to which they agreed or disagreed on them. Table 4 had the results.

**Table 4: Feeling on statements regarding outsourcing of custom brokerage**

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	TOTAL						
	F	%	F	%	F	%	F	%	F	%	F	%
Outsourcing custom brokerage is detrimental to the organization and should be discouraged	-	-	-	-	4	1	2	6	1	2	4	1
Outsourcing custom brokerage services has greatly reduced the overall costs in the organization	1	3	2	5	4	1	-	-	-	-	4	1
The employee's attitudes have been reduced due to the introduction of outsourcing custom brokerage services in your organization	-	-	-	-	6	1	3	7	4	1	4	1
The introduction of outsourcing custom brokerage services in the organization has greatly contributed to the operational efficiency	1	4	1	4	6	1	-	-	-	-	4	1
Small traders benefit from the familiarity of customs brokers with the customs process and from the use of the latter's personal connections to move goods faster	9	5	7	1	4	0	-	-	-	-	2	0
There is a move to make customs brokers irrelevant in the whole customs process by the organization	2	5	1	4	4	1	-	-	-	-	4	1
	1	0	7	0	0	0	-	-	-	-	2	0
	-	-	6	1	1	2	1	3	1	2	4	1
					4	2	9	3	1	1	6	2
												0

Concerning the phrase; outsourcing custom brokerage is detrimental to the organization and should be discouraged, respondents did not at all agree. Majority (27, 64%) of the respondents just disagreed while 11(26%) of them strongly disagreed. About 4(10%) respondents were neutral to the statement. This therefore meant that respondents were for outsourcing of custom brokerage. The researcher went ahead to pose if

outsourcing custom brokerage services had greatly reduced the overall costs in the organization. The response showed that majority (22, 52%) of the respondents had agreed while 16(38%) of them strongly agreed. Only 4(10%) were neutral to the statement. This therefore meant that the outsourcing of custom brokerage contributed to the overall increase of cost in the organization.

On the other hand concerning the phrase that the employee's attitudes have been reduced due to the introduction of outsourcing custom brokerage services in your organization, the response indicated that majority (32, 76%) of the respondents disagreed while 4(10%) strongly disagreed. Only 6(14%) of the respondents were neutral to the statement. Outsourcing of custom brokerage does not kill the employee attitude but if properly done according to the stipulated rules and regulations, will boost the employee attitude. The introduction of outsourcing custom brokerage services in the organization has greatly contributed to the operational efficiency was another statement. According to the statement, the researcher wanted to understand the feelings of the respondents on what outsourcing of custom brokerage does to operational efficiency. The majority (19, 45%) of the respondents strongly agreed while 17(41%) of the respondents just agreed. Only about 6(14%) of the respondents were neutral to the statement. In summary, outsourcing of custom brokerage therefore increases operational efficiency.

Small traders benefit from the familiarity of customs brokers with the customs process and from the use of the latter's personal connections to move goods faster, was another phrase. The researcher wanted to know the understanding of the respondents on the extent to which small traders benefit from familiarity of customs brokers with the customs process. Majority (21,

50%) of the respondents strongly agreed with the statement, 17(40%) of them just agreed while 4(10%) of them were neutral. On the other hand, the researcher put a statement that There was a move to make customs brokers irrelevant in the whole customs process by the organization. Majority (13, 31%) of the respondents just disagreed, 12(29%) of them were neutral, 11(26%) of them strongly disagreed while 6(14%) just agreed. It therefore meant that there was no move to make customs brokers irrelevant in the whole customs process by the organization as depicted by the majority of the respondents.

The researcher went ahead identify the extent to which implementation of outsourcing custom brokerage services had been monitored to ensure that it is practiced as prescribed. As identified in outsourcing of freight logistics, outsourcing of custom brokerage has to be monitored in order to yield its desired outcome. according to the findings, the response ranged from very great to average. Majority (20, 48%) of the respondents said that the extent to which outsourcing of custom brokerage was monitored was great while 12(29%) said it was very great. The rest 10(24%) said that it was average. This indicated that indeed monitoring of outsourcing of custom brokerage was necessary for an organization whose aim for outsourcing custom brokerage was to increase its operational efficiency.

In some cases, outsourcing does not help to reduce cost but in reserve costs more than expected. Apart from cost reduction and monitoring, the researcher sought to know the other factors to consider when deciding to outsource custom brokerage. There were various factors to consider when outsourcing of custom brokerage. Some of these factors almost carried the same weight according to the response. The majority (8, 19%) of the respondents were of the opinion that the major factor to consider in



outsourcing custom brokerage was the experience, expertise and innovation involved. For an organization to do well in its logistics, it must outsource from companies that has experience, expertise and has room for innovation. The other factor that carried the same weight (6, 14.3%) of response was; business scope and market, culture and strategy of the company, number of services in the organization and the urge to seek continuous improvement. The remaining (4, 10%) respondents had no opinion. This forced the researcher to seek to know the reasons why an organization should practice outsourcing of custom brokerage.

From the findings, Majority (14, 33%) of the respondents said that their major reason was for service improvement. This was according to table 4.13. This was followed by 12(29%) of the respondents who said that custom clearance was too complicated and therefore had to introduce outsourcing of custom brokerage. The other 8(19%) said that it prompted easy monitoring of the organization’s performance while the same response rate also said that it helped in logistics cost reduction.

**c) Outsourcing transportation and distribution**

This section presents the results of the data analysis of the data collected from respondents concerning Outsourcing transportation and distribution. Concerning outsourcing transportation and distribution, the researcher began with seeking to know if there was transportation and distribution outsourcing in the organization. The respondents were tasked to either say yes or no.

Majority of the respondents (25, 60%) were of the opinion that there existed outsourcing of transport and distribution within their departments. The other 17, 40% said that there

was no outsourcing of transport and distribution within their departments. According to the response, these logistics were introduced to their departments at different times. Majority of the respondents (22, 52%) said that in their departments, outsourcing of transport and distribution began at about 1-2 years ago, 11(26%) of the respondents said it began between 2-3 years ago while 7, 17% said that it began in less than 1 year ago. The rest 2(5%) of the respondents said that it began at a period more than 3 years ago. The researcher then understood that there was outsourcing of transport and distribution in the organization and therefore put various statements to understand the feelings of the respondents regarding outsourcing transport and distribution. Table 4.15 had the results.

**Table 5. Feeling on statements regarding outsourcing of transport & distribution**

Statement	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		TOTAL	
	F	%	F	%	F	%	F	%	F	%	F	%
Outsourcing transport and distribution is detrimental to the organization and should be discouraged	-	-	-	-	2	5	2	5	1	4	4	1
Outsourcing custom transport and distribution services has greatly reduced the overall costs in the organization	1	3	2	5	3	7	-	-	-	-	4	1
The employee’s attitudes have been reduced due to the introduction of outsourcing transport and distribution services in your organization	2	5	7	1	1	2	1	3	9	2	4	1
The introduction of outsourcing transport and distribution services in the organization has greatly contributed to the operational efficiency	1	2	1	4	6	1	6	1	2	5	4	1

The statements elicited various reactions. Concerning the statement; outsourcing transport and distribution is detrimental to the organization and should be discouraged, majority (21, 50%) of the respondents just disagreed while 19(45%) of them strongly disagreed. The rest (2, 5%) were neutral to the statement. Since the majorities were many, it was concluded that outsourcing of transport and distribution was not detrimental to the organization. Outsourcing custom transport and distribution services has greatly reduced the overall costs in the organization, was the other statement. Concerning this, majority (24, 57%) of the respondents agreed while 15(36%) of them strongly agreed. The rest (3, 7%) were neutral to the statement. It was therefore concluded that through outsourcing of transport and distribution, if done well within the stipulated regulations, the overall cost of the organization will be reduced. Thirdly, the employee's attitudes have been reduced due to the introduction of outsourcing transport and distribution services in the organization, was another phrase. The majority (14, 33%) of respondents just disagreed, 10(24%) of them were neutral to the statement, 9(21%) of them strongly disagreed, 7(17%) just agreed while 2(5%) of them strongly agreed. As opposed to other, outsourcing transport and distribution was not good according to the response though majority took their way. It therefore means that to some extent, outsourcing of transport and distribution should be discouraged. Finally, the introduction of outsourcing transport and distribution services in the organization had greatly contributed to the operational efficiency was another statement. Majority (18, 43%) of the respondents agreed to the statement while 10(24%) of them strongly agreed. The other 6(14%) of them were neutral while the other 6(14%) just disagreed. Only 2(5%) of them strongly disagreed. This was an indication that the introduction of outsourcing of transport and

distribution contributed to operational efficiency of an organization.

The researcher also wanted to understand the extent to which the implementation of outsourcing custom brokerage services has been monitored to ensure that it is practiced as prescribed. The results were that majority of the respondents (18, 43%) said it was great while 12(29%) of them said it was very great. About 7(17%) of the respondents said that it was average while the other 4(10%) of them said it was low. Only 1(2%) of them said that it was very low. This therefore meant that outsourcing of transport and distribution were properly monitored and this led to operational efficiency of the organization. The researcher also sought to identify the factors to consider when deciding to outsource transport and distribution.

Outsourcing provides crucial benefits that allow organizations focus their efforts on selling while leaving the in the hands of the company that is dedicated only to this function. Results from table 4.17 indicated the factors to be considered when deciding to outsource transport and distribution. They indicate that majority (8, 19%) could consider the expertise and experience. This was followed by 6(14.3%) respondents who said that they will consider service quality. The same response could consider business scope and market, culture and strategy of the company and the number of services in the organization.

The other 4(10%) of them could consider continuous improvement and finally 2(5%) of them could consider number of stakeholders. Expertise in a logistics provider shows how long and experienced an organization can be in the provision of that logistic.

#### d) Outsourcing warehousing

This section presents the results of the data analysis of the data collected from respondents concerning Outsourcing warehousing. Concerning outsourcing warehousing, the researcher began with seeking to know if there was warehousing outsourcing in the organization. The respondents were tasked to either say yes or no.

An overwhelming majority (83%) agreed that there was outsourcing of warehousing in the organization while the remaining 7% had a contrary opinion. This therefore prompted the researcher to pose some statements about outsourcing of warehousing to determine the extent to which the respondents agreed or disagreed with them. Table 6 captured the results.

**Table 6: Feeling on statements regarding outsourcing warehousing**

Statement	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		TOTAL	
	F	%	F	%	F	%	F	%	F	%	F	%
Outsourcing warehousing is detrimental to the organization and should be discouraged	-	-	-	-	4	1	2	5	1	3	4	1
Outsourcing custom warehousing services has greatly reduced the overall costs in the organization	1	29	2	6	4	1	1	2	-	-	4	1
The employee's attitudes have been reduced due to the introduction of outsourcing warehousing services in your organization	1	2	2	4	1	2	2	5	8	1	4	1
The introduction of outsourcing warehousing services in the organization has greatly contributed to the operational efficiency	1	24	1	4	8	1	4	9	2	4	4	1

As captured by table 6, outsourcing warehousing is detrimental to the organization and should be discouraged was the first statement. Majority (57%) of the respondents disagreed to the statement while 33% of them strongly disagreed. Only 10% of the respondent were neutral, may be because they did not have full information on the outsourcing of warehousing.

This was an indication that outsourcing warehousing to an organization is advantageous to it and if well monitored can lead to operational efficiency of that organization. The researcher also wanted to know the feelings of the respondents on the statement, outsourcing custom warehousing services has greatly reduced the overall costs in the organization. Majority (60%) of the respondents just agreed while 29% of them strongly agreed. The rest were neutral to the statement. This indicated that outsourcing custom warehousing indeed reduced the overall cost of the organization. The employee's attitudes have been reduced due to the introduction of outsourcing warehousing services in your organization was another statement. Majority (50%) of the respondents disagreed, 24% of them were neutral, 19% of them strongly disagreed while 4% agreed. Only 2% which is a minority had strongly agreed. The introduction of outsourcing warehousing services in the organization has greatly contributed to the operational efficiency was the last statement. Majority (43%) just agreed, 24% of them strongly agreed while 19% of them were neutral. This indicated that the introduction of outsourcing warehousing services in the organization has greatly contributed to the operational efficiency of the organization.

The researcher went ahead to identify to what extent the implementation of outsourcing warehousing services has been monitored to ensure that it is practiced as prescribed. The finding depicts that monitoring of outsourcing of

warehousing was up to standard to ensure operational efficiency. This was because majority of the respondents (29%) said it was very great and an equal response of 29% also said it was great. This response was above average and for any logistic outsourcing to do well in an organization; it must be monitored very well.

### **SUMMARY OF THE FINDINGS**

The study examined the effects of outsourcing logistics services on operational efficiency in the manufacturing industry. It was guided by the following objective; to evaluate the effects of outsourcing freight logistics on operational efficiency in the manufacturing industry; to determine the effects of outsourcing customs brokerage on operational efficiency in the manufacturing industry; to assess the effects of outsourcing road transportation and distribution on operational efficiency in the manufacturing industry and to examine the effects of outsourcing warehousing on operational efficiency in the manufacturing industry. Data was collected from 45 respondents divided into different strata's at DMKL whereby the divisions were according to their working departments.

Regarding outsourcing freight logistics the researcher began with seeking to know if there was freight logistics outsourcing in the organization. Majority (37, 88%) of the respondents had agreed while the remaining few (5, 12%) were of the contrary opinion. The researcher sought to know when outsourcing of this important logistic was introduced to the organization. Majority (19) of the respondents (45%) were of the opinion that it was introduced about 1-2 years ago. This was followed by 33% of the respondents who said that it was introduced about 0-1 years ago. Only 6 respondents making a 14% response said that it was introduced about 2-3 years ago. About 3 respondents with a response

of about 7% said it was introduced at about above 3 years ago.

Regarding the extent to which the respondent agreed or disagreed with statements about outsourcing of freight logistics, it was found that, majority (20) of the respondents (48%) disagreed while the other 14(33%) respondents strongly disagreed with the statement that outsourcing freight logistics is detrimental to the organization and should be discouraged. 14(33%) respondents strongly disagreed with the statement. Only 8 (19%) were neutral to the statement and could not exactly explain if outsourcing freight logistics was detrimental or not. Majority (30, 71%) of the respondents strongly agreed while the remaining 12(29%) just agreed with the statement that outsourcing freight logistics services has greatly reduced the overall costs in the organization. Regarding the phrase that introduction of outsourcing freight logistics services in the organization has contributed to the operational efficiency, majority (64%) of the respondents strongly agreed with the statement. About the employee attitude, majority of the respondents (64%) disagreed that the employee's attitudes have been reduced due to the introduction of outsourcing freight logistics services in your organization. On the extent to which outsourcing freight logistics have been monitored, majority (42%) of the respondents said it was very great while 29% of the respondents were of the opinion that it was great. The rest 4(10%) said that it was law while the other 2(5%) were of the opinion that it was very law.

The reasons why an organization preferred to outsource freight logistics had varied reactions depending on the department in the organization. Majority (14, 33%) of the respondents said that it was done to reduce order cycle length. This was closely followed by customer service improvement which had a response of 13, 31%

respondents. The other reason was time saving (8, 19%) and lastly, logistic cost reduction. The relationship between outsourcing of freight logistics and operational efficiency was determined by the use of Pearson correlation. The correlation reported is positive and the value of 0.257 is significantly different from 0 because the p-value is less than 0.10.

Regarding outsourcing custom brokerage, majority (38, 90%) agreed that there existed outsourcing of custom brokerage in the organization while the rest 4, 10% had a contrary opinion. Outsourcing custom brokerage, Majority (19, 45%) of the respondents were of the opinion that outsourcing of custom brokerage was introduced within the period lasting between 1-2 years ago. This was followed by 10, 24% respondent who said that the outsourcing of custom brokerage was introduced in the period less than 1 year ago. About 8(19%) respondents said that it was introduced the period between 2-3 years ago and finally 5(12%) respondents have learnt the outsourcing of custom brokerage for a period above three years. Majority (27, 64%) of the respondents just disagreed while 11(26%) of them strongly disagreed that outsourcing custom brokerage is detrimental to the organization and should be discouraged. About 4(10%) respondents were neutral to the statement. According to outsourcing custom brokerage services had greatly reduced the overall costs in the organization, majority (52%) just agreed while 38% of them strongly agreed. The rest (10%) were neutral. On the other hand concerning the phrase that the employee's attitudes have been reduced due to the introduction of outsourcing custom brokerage services, the response indicated that majority (32, 76%) of the respondents disagreed while 4(10%) strongly disagreed. Only 6(14%) of the respondents were neutral to the statement.

The introduction of outsourcing custom brokerage services in the organization has greatly contributed to the operational efficiency was another statement. Majority (19, 45%) of the respondents strongly agreed while 17(41%) just agreed.

Only about 6(14%) of the respondents were neutral to the statement. The Extent to which outsourcing of custom brokerage has been monitored, majority (20, 48%) of the respondents said that the extent to which outsourcing of custom brokerage was monitored was great while 12(29%) said it was very great. The rest 10(24%) said that it was average. The factors to consider when deciding to outsource custom brokerage included; Service quality (14%), experience, expertise and innovation (19%), business scope and market (14%), culture and strategy of the company (14%), Number of services in the organization (14%), and continuous improvement (14%). The other 9% of the respondents did not apply. Reasons for outsourcing custom brokerage included; Easy monitoring of the organization's performance (19%), custom clearance was too complicated (29%), service improvement (33%) and logistics cost reduction (19%).

For outsourcing transportation and distribution, majority of the respondents (25, 60%) were of the opinion that there existed outsourcing of transport and distribution within their departments. The other 17, 40% said that there was no outsourcing of transport and distribution within their departments. Majority of the respondents (50%) disagreed that outsourcing transport and distribution is detrimental to the organization and should be discouraged. The majority (57%) of them on the other hand agreed that outsourcing custom transport and distribution services had greatly reduced the overall costs in the organization. Majority (33%) of the respondents also disagreed that the

employee's attitudes have been reduced due to the introduction of outsourcing transport and distribution services in your organization. Finally, majority (43%) of the respondents agreed that the introduction of outsourcing transport and distribution services in the organization had greatly contributed to the operational efficiency. Majority (43%) of the respondents also said that the implementation of outsourcing of transport and distributions was great.

Outsourcing warehousing was done by 83% of the respondents while the rest (17%) had a contrary opinion. Majority of the respondents (57%) disagreed that Outsourcing warehousing is detrimental to the organization and should be discouraged. The other majority (60%) also agreed that outsourcing custom warehousing services has greatly reduced the overall costs in the organization. On the other hand, the researcher asked if the employee's attitudes have been reduced due to the introduction of outsourcing warehousing services in your organization. Majority (50%) of disagreed. Finally, the researcher also posed that the introduction of outsourcing warehousing services in the organization has greatly contributed to the operational efficiency. Majority of the respondents (43%) agreed.

### **Conclusions**

The study examined the effects of outsourcing logistics services on operational efficiency in the manufacturing industry. These services included; freight logistics, custom brokerage, transport and distribution and warehousing. According to outsourcing of freight logistics, the study affirms that there existed outsourcing of these logistics in most of the departments in the organization. This was started in the period between 1-2 years ago in most of the departments. The results indicated that outsourcing of freight logistics was not detrimental to the organization if properly

undertaken by well and qualifies personnel. Majority of the respondents also agreed that outsourcing freight logistics services has greatly reduced the overall costs in the organization. Through outsourcing of freight logistics, the organization had improved on its overall cost. It was also evident that the introduction of outsourcing freight logistics services in the organization had contributed to the operational efficiency. It was also concluded that outsourcing of freight logistics has not reduced the employee's attitude in the organization. Majority of the respondents also agreed that the monitoring of outsourcing of freight logistics was very great and this led to the organization increasing its operational efficiency. It can therefore be deduced that outsourcing of freight logistics was good to the organization. From the correlation results between the presence of outsourcing of freight logistics and operational efficiency show that there was a positive correlation, meaning that increase of outsourcing of freight logistics led to an increase in operational efficiency of the organization if well covered.

Outsourcing custom brokerage was also practiced by most of the departments in the organization. This practice was started in the period between 1-2 years ago according to the majority of the respondents. This type of outsourcing logistic is also not detrimental to the organization and was voted to be encouraged in the organization to enhance operational efficiency. The study also concluded that outsourcing custom brokerage services had greatly reduced the overall costs in the organization and this shows that the organization gains operational efficiency. The study also went ahead identify the extent to which implementation of outsourcing custom brokerage services had been monitored to ensure that it is practiced as prescribed. As identified in outsourcing of freight logistics, outsourcing of custom brokerage has to be monitored in order to

yield its desired outcome. The study concluded that the monitoring was greatly done and this enhanced operational efficiency.

According to Outsourcing transportation and distribution, Majority of the respondents were of the opinion that there existed outsourcing of transport and distribution within their departments. Majority said that in their departments, outsourcing of transport and distribution began at about 1-2 years ago. It was concluded that most of the outsourcing was started about 2 years ago. Concerning the statement; outsourcing transport and distribution is detrimental to the organization and should be discouraged, majority of the respondents just disagreed and therefore the study concluded that it was not detrimental but instead healthy to the organization if well monitored. On the other hand, the study also concluded that outsourcing of transport and distribution had reduced the overall cost of the organization and also builds up the operational efficiency.

Outsourcing warehousing was also practiced by majority of the departments and was also practiced for a period less than two years ago. The practice was not detrimental to the organization and instead had built operational efficiency in the organization. The employee attitude was also beefed up since the introduction of the same logistic. DMKL had monitored well the outsourcing of warehousing and this had enhanced operational efficiency.

### **Recommendations**

Based on the objectives, the following recommendations were made; DMKL should put more focus on core business functions and ensure reduction of overhead costs. They should take

advantage of external expertise and experience and put measures to improve internal capabilities and expertise. The firms should reduce the total overall costs and where third party logistics providers provide a better service contract them. They should also emphasize on improved customer focus put measures to enable them compete effectively in the market. The firms should operate in such a way so as to minimize loss of control in decision making and limited flexibility as a way of mitigating challenge.

They should work towards eliminating low quality work and put in place measures to curb leak of confidential information by third party logistics providers to competitors. They should minimize over reliance on the third party logistics providers and exercise selection of the right outsourcing partners. Manufacturing firms should work towards reducing high transaction costs and hidden costs. They should also put measures to address declining rate of innovation and enhance motivation loss of employees in regard to the outsourced services. They should also focus on minimizing loss of employee loyalty, potential security problems and disruption of supplies. They should identify qualified and reliable suppliers and clearly decide what to outsource and what not to

### **Areas of further research.**

The study confined itself to Del Monte Kenya Ltd as a manufacturing firm in and the findings may not be applicable in other sectors as a result of uniqueness of Del Monte Kenya Ltd. It is therefore recommended that the study is replicated in other service sectors to establish logistics outsourcing practices and performance of firms. A study should also be carried out on small manufacturing firms.

## REFERENCES

- 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.
- Barney, J.B. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No.1, pp.99-120.
- 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
- Bruce, D.J.andUseem, K (2008), "A resource-based analysis of global competition: the case of the bearings industry", *Strategic Management Journal*, Vol. 12.
- Bryce, D.J., Useem, M. (2008), "The impact of corporate outsourcing on company value", *European Management Journal*, Vol. 16 No.6, pp.635-43
- Chung, S., Meindl, P. (2010), *Supply Chain Management: Strategy, Planning and Operation*, Pearson/Prentice Hall, Upper Saddle River, NJ, .
- Chase, R.B., Jacobs, F.R., Aquilano, N.J. (2004), *Operations Management for Competitive Advantage*, 10th ed., Irwin/McGraw-Hill, Boston, MA,
- 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.
- Eisenhardt, K.M. (1985), "Control: organizational and economic approaches", *Management Science*, Vol. 31 pp.134-49. 43
- Hauser, L.M. (2003), "Risk-adjusted supply chain management", *Supply Chain Management Review*, pp.64-71
- Hussey, D., and Jenster, P., (2003), "Outsourcing: the supplier viewpoint", *Strategic Change*, Vol. 2 No.1, pp.7-20.
- 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.
- Krim, J. (2003), "Intel chairman says US is losing edge", *The Washington Post*, No. October, .
- Kulmala, H.I. (2003), "Cost management in firm networks", Publication 418, Tampere University of Technology, Tampere, .



- 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.
- 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.
- 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.
- McIvor, R. (2005). "A practical framework for understanding the outsourcing process". *Supply Chain Management: An international Journal*, 5(1), 22-36. 44
- Momme, J. (2002), "Framework for outsourcing manufacturing: strategic and operational implications", *Computers in Industry*, Vol. 49 No.1, pp.59-75.
- 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.
- 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.
- Mugenda and Mugenda. (2008). *Research Methodology*; (3rd ed.). Nairobi: Longman Publishers.
- 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.
- Saunders, C., (1994), "Achieving success in information systems outsourcing", *California Management Review*, Vol. 39 pp.63-79
- Suri A. (2008), "Meeting the challenge of outsourcing", *Engineering Management Journal*, Vol. 14 No.3, pp.34-7.
- Taylor, L. (2006), "What does evidence tell us about fragmentation and outsourcing?", *International Review of Economics & Finance*, Vol. 14 No.3, pp.305-16.