Effects of Cash Flow Management on Logistics Out Sourcing in Large Manufacturing Firms

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Abstract
Factors affecting logistics outsourcing in large manufacturing firms in globalized and highly competitive markets, has led to organizations striving to be innovative and agile to meet customer demands. Competitiveness, based on organizational capabilities and production strategies, may lead to quality, efficiency and flexibility. The objective of the study was to analyze the effects of cash flow management on logistics outsourcing in large manufacturing firms; and to determine the effects of distribution management on logistics outsourcing in large manufacturing firms. The study applied a descriptive research design. The target population consisted of 512 employees whereas the sample size was 166 employees. The study used primary data which was collected through self-administered questionnaires that consists of both open and closed ended questions. The data was analyzed using both descriptive and inferential statistics. The results revealed that established a positive weak correlation between cash flow management and logistics outsourcing (p = 0.247). The study concluded Cash flow management was an aspect which was investigated in the study; the findings concluded that with proper flow of cash the company is able to outsource the logistics required. The study recommended that; manufacturing firms should put more focus on core business functions and ensure reduction of overhead costs. They should take advantage of 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.

Keywords: Cash flow management, Logistics outsourcing

1.0 Introduction
In globalized 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 as 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) 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 (2001), 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 Logistics outsourcing practices
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. Logistics outsourcing has grown rapidly to impact many activities of organizations 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 Laugenet 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).

1.1.2 Manufacturing firms
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.

1.2 Statement of the Problem
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 and is characterized by a long-term orientation, and, thus, is rather strategic in nature (Laugenet, 2005). 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 study. The core business in large manufacturing firms is basically to manufacture though they still need to procure materials for production, warehouse, and 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. 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. 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 the literature, it was clearly indicated that few research have been done on factors affecting logistics outsourcing in large manufacturing firms in Kenya hence the gap this study intended to fill. The study Sought to analyse effects of cash flow management on logistics outsourcing in large manufacturing firms and to determine the effects of distribution management on logistics outsourcing in large manufacturing firms.

2.0 Effects of cash flow management on Logistics outsourcing in Large manufacturing firms.

Cash management refers to a broad area of finance involving the collection, handling, and usage of cash. It involves assessing market liquidity, cash flow, and investments. Cash management, or treasury management, is a marketing term for certain services related to cash flow offered primarily to larger business customers. It may be used to describe all bank accounts (such as checking accounts) provided to businesses of a certain size, but it is more often used to describe specific services such as cash concentration, zero balance accounting, and automated clearing house facilities. Sometimes, private banking customers are given cash management services. Financial instruments involved in cash management include money market funds, treasury bills, and certificates of deposit.

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 dependant 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.

Cycle counting practice is an inventory accuracy audit technique where inventory is counted on a cyclic schedule rather than once a year. A cycle inventory count is usually taken on a regular, defined basis (often more frequently for high-value or fast moving items and less frequently for low-value or slow moving items). Most effective cycle counting systems require the counting of a certain number of items every work day with each item counted at a prescribed frequency.

The purpose of cycle counting is to identify items in error, thus triggering research, identification, and elimination of the cause of the errors. Inventory categorization; understanding the inventory types and their specific characteristics then building inventory stocking parameters taking into account the unique characteristics of the particular inventory. Catalogue management; studying inventory demand patterns, movement patterns and cycles to build suitable inventory norms for different categories of inventory; Companies which are into retail segments and dealing with huge inventories in terms of number of parts as well as value will necessarily need to ensure they practice review of inventory list and clean-up operations on ongoing basis. Use of FIFO and LIFO should be practiced when issuing out stocks from inventory. Carry out quality checks before receiving commodities into inventory.

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. 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.

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.

2.1 Effects of distribution management affects logistics outsourcing in large manufacturing firms

Distribution refers to the transfer of goods from one business to another. It can be factory to supplier, supplier to retailer, or retailer to end customer. It is defined as a chain of intermediaries; each passing the product down the chain to the next organization, before it finally reaches the consumer or end-user. This process is known as the 'distribution chain' or the 'channel.' Each of the elements in these chains will have their own specific needs, which the producer must take into account, along with those of the all-important end-user.

The distributors also adopt frequently the developing countervailing power through dependence-balancing actions. These actions are designed to strengthen transactional bonds that are explained through the buyer-seller relationships. Such bonds often manifest themselves in anticipation of improved channel services to customers. The effect of functional performance on relationship quality in situations characterized by high relative dependence of the distributor on the customer is largely governed by the effective channel functions. The study of buyer-seller relationships is commissioned in some well-established frameworks such as transaction cost theory, political economy theory, social exchange theory and resource dependence theory (Cho et al. 2007). Accordingly, different measurements have been adopted by different researchers for measuring performance. Jiang and Qureshi (2006) measure performance as operational performance, which include cost efficiency, profitability and productivity. Morash et al. (2006) classified their measurement based on demand-oriented capabilities (i.e. delivery reliability, responsiveness to target market, and post-sale customer service) and supply-oriented capabilities (i.e. geographical coverage and reduction in total distribution cost).

Keeping track of orders, shipping, inventory and returns, along with various other supply chain functions can be extremely time-consuming and expensive for many companies. Outsourcing these processes can be the ideal solution. Logistics outsourcing helps the firm expand internationally and operate on a much larger scale. You can do business wherever the opportunity presents itself by setting up delivery operations in another country within a relatively short time frame. Logistics outsourcing reduces a firms risk when it starts doing business in new regions. Logistics outsourcing enables a firm to concentration on the basic activity (core competence) and use best methods and experiences. It also increase the firms competitiveness in that the firm can react more quickly and effectively to changing client needs. Cost-cutting and application of high technologies is also a benefit of outsourcing to many firms.

3.0 Methodology

This study adopted a case study research design. Basically, a case study is an in depth study of a particular situation rather than a sweeping statistical survey with a of target population 512 employees of Pyramid Packaging Company limited. The research instruments that were used in this study are questionnaires and interview schedules. Questionnaries were administered to the employees and interviews were made with the section heads.

The data was analyzed by the use of both descriptive and inferential statistics. Two methods of data analysis were therefore adopted to enable the researcher conduct a comprehensive analysis. Statistical Packages for Social Sciences (SPSS) was used to aid the data analysis. The data were classified, tabulated and summarized using descriptive measures, percentages and frequency distribution tables, while tables and graphs were used for presentation of findings. Correlation and coefficients were used to determine the degree (strength or magnitude) and direction of association between the variables under study. Hypothesis testing was done at 0.05 confidence level based on a two tail test.

4.0. Discussion

Results from the revealed that majority 84.6% (mean=4.23) of the respondents noted that through proper flow of cash outsourcing is made possible thus speeding up the companies logistics process. 40% (mean=2.009) agreed that through proper flow of cash the company is able to outsource the logistics required. 38% (mean=1.917) strongly agreed that through proper flow of cash the company is able to get material needed on time and lastly 32% (mean=1.645).

Pearson's correlation was run to determine the relationship between the cash flow management and
logistics outsourcing. The results established a positive weak correlation between the variables \( p = 0.247, r=2.14 \). When testing for significance, the analysis in this case reported \( p = 0.247 \), which is more than 0.05, and thus the two variables (cash flow management and logistics outsourcing) are not correlated. The null hypothesis that there is a statistically no significant relationship between cash flow management and logistics outsourcing was thus accepted. This also meant that large values of cash flows are not associated with large values of logistics outsourcing.

These findings are true according to Bobitan and Mioc (2011) who emphasized the importance of cash management practices by saying that cash management embodies all incomes and payments made within a certain period, highlighting potential inconsistencies which can appear for that period.

Good cash management is necessary because too much cash is costly, as one is paying interest on cash that is not needed. Too little cash is also costly, because businesses are missing out on discounts or opportunities because of a lack of cash or silently liquidating the business by not promptly replacing inventory due to shortage of cash (McMahon 2006).

Cash management practices are the most crucial task for business managers. The business becomes insolvent when it fails to pay back the money owed time which is the primary reason for bankruptcy among small businesses. The prospect of such an implication should force businesses to efficiently manage their cash with caution. Proper cash management prevents bankruptcy, thereby increasing profitability and sustainability of businesses (Mbrom 2012). Bobitan and Mioc (2011) emphasized the importance of cash management practices by saying that cash management embodies all incomes and payments made within a certain period, highlighting potential inconsistencies which can appear for that period.

### 4.1. Effects of Distribution management on logistics outsourcing

On effects of distribution management on logistics outsourcing, the findings indicated a significant number of the respondents in agreement that distribution management helps enhance proper delivery of goods to the right destination (90%), others (80%) noted that distribution time is being saved, 75% agreed that the distribution costs are minimized and 62% noted that service delivery is enhanced. Pearson's correlation was run to determine the relationship between the distribution management and logistics outsourcing. The results established a positive weak correlation between the two variables \( p = 0.254 \). Again, when testing for significance, the analysis in this case reported \( p = 0.254 \), which is more than 0.05, and thus the two variables (distribution management and logistics outsourcing) are not correlated. The null hypothesis that there is a statistically no significant relationship between distribution management and logistics outsourcing was thus accepted.

### 5.0 Conclusion And Recommendations

On the effects of cash flow management on logistics outsourcing, the findings revealed that, 84.6% (mean=4.23) of the respondents noted that through proper flow of cash outsourcing is made possible thus speeding up the companies logistics process, 40% (mean=2.009) agreed that through proper flow of cash the company is able to outsource the logistics required, 38% (mean=1.917) strongly agreed that through proper flow of cash the company is able to get material needed on time and lastly 32% (mean=1.645). The results established a positive weak correlation between cash flow management and logistics outsourcing \( p = 0.247 \). When testing for significance, the analysis in this case reported \( p = 0.247 \), which is more than 0.05, and thus the two variables (cash flow management and logistics outsourcing) are not correlated. The null hypothesis therefore did not have significant relationship between cash flow management and logistics outsourcing was thus accepted. This also meant that large values of cash flows are not associated with large values of outsourcing.

Based on the findings made in the study, revealed that outsourcing logistics activities are affected by cash flow management and distribution management. As depicted in the study, production timing allows the organization to monitor timely operations to ensure continuity of production process. Material planning also was reported to have a positive influence on logistics outsourcing. The study revealed that material planning manages the organizational costs hence will be able to outsource its logistics appropriately. Cash flow management was an aspect which was investigated in the study, the findings concluded that proper flow of cash the company is able to outsource the logistics required.

Manufacturing firms should put more focus on core business functions and ensure reduction of overhead costs. They should take advantage of 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.

Manufacturing firms should also emphasize on improved customer focus put measures to enable them compete effectively in the market and effectively outsource. Manufacturing firms should work towards eliminating low quality work and put in place measures to enhance their provisions in which logistics providers provide to competitors. 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 delivery in regard to the...
outsourced services.

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