EFFECT OF LOGISTICS OUTSOURCING MANAGEMENT ON COST REDUCTION AND COMPANIES PROFITABILITY OF CONSUMER GOODS INDUSTRIES

Omolola Gegeleso

Ladoke Akintola University of Technology, Nigeria E-mail: fomamoo@gmail.com

Adebambo Somuyiwa

Ladoke Akintola University of Technology, Nigeria E-mail: oasomuyiwa@lautech.edu.ng

Benedict Ayantoyinbo

Ladoke Akintola University of Technology, Nigeria E-mail: bbayantoyinbo@lautech.edu.ng

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Abstract

Thousands of new products and services have been introduced over recent decades and are sold and distributed to consumers all over the world. In view of these, market has thus become increasingly competitive over the last two decades, in particular, companies have found it increasingly difficult to maintain traditional profit level and growth rates. These companies have not only had to increase in complexity to meet the challenges of demand and expanding markets, products and services but must constantly be investigating new strategies for improving their competitive advantage and profitability. This paper examines the effect of logistics outsourcing management on cost reduction and companies' profitability of consumer goods industries. The study was carried out in six states within the six geopolitical zones in Nigeria. Twelve (12) manufacturing companies with 12,054 staff strengths were selected from the list of quoted consumer goods companies (Nigerian Stock Exchange, 2019). Multistage sampling procedures such as cluster sampling was used to pool the manufacturing firms within the study area; stratified sampling was used to group the firms into sectors; and purposive sampling was used to select twelve (12) consumer goods companies. Total of 12 consumer goods industries were selected out of 21 consumer goods industries. This also cut across the six geopolitical zones in Nigeria. The respondents for the study were chosen from senior staff and directors from the logistics department, financial department and procurement department of the industries due to their involvement in decision making for the smooth operations of the industry. The sample size represents 15% of the staff strength of each department under study; 81 respondents were sampled from logistics department of the 12 companies, 49 respondents from the finance department form 12 companies, 61 respondents from procurement department from 12 companies and 36 directors (1 director from each department) from 12 companies, this makes 227 respondents. 227 questionnaires were therefore administered and 200 were returned (88.1percent) and used for the analysis. and secondary data sourced from the financial records of the companies were used for the study. Regression model postulated for the findings showed that logistics outsourcing has positive significant effect at 0.05 level of significance on cost reduction and companies' profitability. It is therefore important that Companies should recognise the importance of logistics management outsourcing in a competitive business environment.

Keywords: Cost Reduction, Outsourcing, Logistics Management, Profitability, Consumer Goods Industry

1. INTRODUCTION

Over the years, services and products have improved in complexity and variety, as have the needs of customers so is also the logistics services which have superior as countrywide and global markets of products and services have expanded. Thousands of the latest services and products had been added over many years and are offered and distributed to customers all around the world. In view of these, the marketplace has, for this reason, grow to be more and more aggressive over the past decades, in particular, organizations have observed it an increasing number of hard to keep conventional profit level and growth rates.

These organizations have now no longer only needed to grow in complexity to atisfy the demanding situations of demand and increasing markets, services, and products, however, have to continuously be investigating new techniques for enhancing their aggressive benefit and profitability. Logistics Management affords the main supply of aggressive benefit to groups through making sure that they are able to usually reply quicker and effectively than the competition to their customers' necessities on an international basis.

Outsourcing of logistics requirements holds the potential to optimize the role of logistics of a company, which may therefore lead to many improvements and other possibilities for the organization. It increases customer service level, reduces supply chain costs, reduces capital requirements, increases competitive advantage and profitability. Outsourcing is a sensitive issue for employees as it is accompanied by the consciousness of retrenchment that leads to unemployment (Kujuwa, 2010). It can also result in the loss of certain skills and knowledge and loss of morale and dedication of employees. Another problem with regard to outsourcing is the degree to which there is perceived and/or actual loss of control, over the outsourced activity. Furthermore, the service provider may also be unable to reduce costs or comply with the set standards. They may provide inadequate skills, knowledge and technology, and fail to provide improvements in service and a reduction in time and effort spent on the outsourced activity. Other problems also arise due to companies' serching for 494

shortcuts to handle incompetence, financial pressures or technological weakness. In order to ensure success, outsourcing must be a strategic decision, planned, and executed initiative. Therefore, it is important to verify how manufacturing resolves the issue of operational cost. Based on this premise, the objective of the study study is to analyze the effect of logistics Outsourcing Management on Cost Reduction and Companies Profitability of Consumer Goods Industries.

2. LITERATURE REVIEW, METHODOLOGY AND FINDINGS

2.1 Logistics Outsourcing

Outsourcing is the subcontracting of an organization's non- core function including including the product layout of a production company to a third- party agent Logistics outsourcing is a technique that includes the usage of outside logistics businesses to carry out activities that have historically been done within a company, wherein the shipper and logistics company enter a settlement for deliverindelivering services at particular charges over a few identifiable time horizons. The choice to outsource is frequently made in the interest of reducing a firm's cost and conserving strength directed towards the core functions of the firm, to make extra use of labor, capital, technology, and resources (Vallespir et al., 2001, Quinn et al., 1994). The choice to outsource is likewise made at a strategic level, the company going into outsourcing and the provider enters into a contractual agreement that defines the transferred services (Weele, 2005).

According to Sohail et al,(2003), as far back as the early 1990s, the global practices of outsourcing logistics activities had been at the upward push ensuing in an annual 10% increase. This is corroborated through the "Cap Gemini Ernst & Young" survey (2002), that the costs of resorting to logistics providers have reached 94% in Europe, 78% in North America, and 92% in Pacific Asia.

According to Harrison et al. (2002), the significance of outsourcing is is specifically obvious whilst organizations look significantly at their internal structure and resources. Outsourcing offers organizations more capability, for flexibility particularly in the acquisition of swiftly developing new technologies. Firms can save on capital investment, and as a result, reduce economic risks through outsourcinglogistics activities. Investment in logistics assets, which includes physical distributioncenters or information networks, usually needs a big sum of money, which involved high financial risk.

Outsourcing can also be seen as the transfer of the management of the day to - day execution of an entire business or organizational function to a third-party service provider. In the agreement, the supplier takes over the means of production in the form of a transfer of people, assets, and other resources from the contracting partner while the contracting partner agrees to procure the services from the supplier for the term of the contract. Business segments typically outsourced include logistics and distribution services. The process begins with the client identifying what is to be

outsourced and building a business case to justify the decision, often called a "make or buy" decision (Selviaridis & Spring, 2007).

In business, logistics includes handling the flow of materials and services between the point of origin and intake to satisfy the demand for consumers or organizations. Several sources-controlled ranges within movable items consisting of foods, materials, animals and equipment's; summary objects, which include information. The logistics of movable items involve integrating the flow of information, coping with substances, transportation, packaging, inventory, warehousing and security. Logistics outsourcing and 3PL commenced within the 1980s as a vital approach to enhance the effectiveness within the principal delivery chain. Further, Khairu (2011) argued that outsourcing has grown as a powerful approach for plenty of businesses in pursuit of an awesome operation to satisfy the demanding situations of the globally aggressive market.

2.2 Outsourcing in Organizations

Outsourcing is described as the procurement of services or products from sources that can be outside of the company (Rundquist, 2007, Ono & Stango, 2005)Thus, outsourcing is basically called a technique wherein an agency delegates in-residence operations or procedures or services to a 3rd party. The organizational overall performance is additionally referred to as cost efficiency, productivity, and sustainable funding. According to Chaffey (2008), judgments of performance are primarily based totally on a few concepts of 'wastage'. Houseman (2006) additionally described productivity as the volume to which a quantity of output in a corporation is produced with a positive quantity of input and the volume to which cost is created through a corporation in contrast to the time required to create that cost.

Rundquist (2007), considered that in the commercial revolution, outsourcing was not officially recognized as a commercial enterprise method for enhancing organizational overall performance till 1989. Development of unique services brought about improved outsourcing as a method for enhancing organizational overall performance throughout the second one commercial revolution withinside the overdue nineteenth century, as agencies commenced to focus greater on price-saving measures (Rundquist, 2007; Slack, 2003; Piore & Sabel, 1990).

More recently, outsourcing as a commercial enterprise method has moved to intangible activities or knowledge extensive activities including information technology, product development or studies and development (R&D), (Quinn, 2000) and kts far an indispensable part of an organizational method of enhancing organizational performance (Behar et al). Typically, Outsourcing is completed with an eye fixed towards performance and cost saving for the organization (Houthfood, 2006). Therefore, outsourcing can be as easy as hiring a freelancer to edit an organization's e-newsletter or as large scale hiring an outsourcing company to deal with accounting and payroll functions. Besides, an outsourcing organization may send employees to its client's workplace or offer a work space. Sometime, outsourcing businesses exercise domestic shoring through hiring domestic – base

employees or they will exercise offshoring through contracting outside then client's country for the services.

2.3 The Outsourcing Decision Matrix

2.3.1 Analyzing the Make-or-Buy Decision

When considering outsourcing, many organizations start with the same question: Which activities should we outsource, and which tasks should we do inhouse? For instance, in the health care industry the question of outsourcing cleaning staff, or hire in-house cleaners arises, this decision will vary from the IT company and Airline Industry because each industry is in the dilemma of what and how to outsource. The questions are complicated and the answers will have a great effect on the organization's short-term and long-term success. Making right decisions can add significantly to the organization's bottom line in terms of cost savings and increased efficiency.

Outsourcing allows the input of fresh minds in the business, and it can also allow free time for innovation and other vital tasks. However, making the wrong decision can put the business at a competitive disadvantage. The Outsourcing Decision Matrix helps to see clearly which tasks, processes, or functions that should be kept in-house and the one that can be safely outsourced.

2.3.2 Understanding the Tool

The Outsourcing Decision Matrix in Figure 1 according to Corbett (2004), helps to consider two important factors in outsourcing a task:

- How strategically important is the task to the organization? This is due to the fact that strategically important tasks are sources of competitive advantage;
- What is the task's impact on the organization's operational performance?
 Tasks which have a high impact on operational performance are those which, if done well, contribute greatly to the smooth running of the organization or, if done badly, greatly disrupt it.

High
Form a strategic alliance Retain

Low Eliminate Outsource

Low High
Contribution to Operational Performance

Figure 1. Outsourcing Decision Matrix

Source: Corbett M.F, (2004).

The quadrants are as follows:

- Form a strategic alliance Tasks in this quadrant are high in strategic importance, but contribute little to operational performance. Although there is need to retain control of them to ensure they are done exactly as you want, or you get the quality you want, they are relatively insignificant in terms of cost or smooth running and so not worthy of full in-house focus. This means that there is the need should form a strategic alliance
- Retain Tasks in this quadrant are high in strategic importance and have a
 big impact on operational performance. These tasks should be kept in-house
 so that your organization keeps maximum control, it should be one of the
 organization's <u>core competences</u>.
- **Outsource** Tasks in this quadrant are important for successful operational performance, but are not strategically important. These tasks could safely be outsourced; they are simply not worth spending in-house time managing.
- Eliminate Tasks in this quadrant are not important to your organization's overall strategy and neither do they make a significant contribution to its day-to-day operational performance. Although you might not be able to eliminate these tasks completely, it's important to check why you're doing them.

2.4 Merits of Outsourcing Logistics Activities

Lieb et al. (2004), vies that across many industries, outsourcing logistics activities has become a rapidly expanding source of competitive advantage and logistics cost saving. He reported that some firms routinely have achieved $30-40\,\%$ reduction in logistics costs and have been able to greatly streamlined global logistics processes as a consequence of outsourcing. Logistics significantly contributes to company's competitive advantage. The most obvious reason behind outsourcing logistics activities is to provide very effective means of reducing costs by contracting with a third-party who can provide better services and high quality at a lower cost.

By reducing costs through outsourcing, you gain the ability to improve operating efficiency, increase return on assets, and improve profitability.

Outsourcing is also an effective means of generating new revenues. A firm which outsources can contract with a third-party to provide products and services which it cannot offer on a profitable basis. This form of outsourcing enables a client firm to test market demand for a services or product if it is less risky, more cost-effectively way than creating the service internally with scarce resources (Panayides et al., 2005).

2.5 Transaction Cost Theory

From a transaction cost approach, make-or-buy choices are stimulated with the aid of using asset specificity, frequency, and uncertainty (Walker and Weber, 1984). From a resource-based view, the outsourcing choice is stimulated via way of means of the cap potential of an organization to put money into developing, core competencies, resources and capabilities, and maintaining an advanced overall performance role relative to competitors (McIvor, 2008). From an energy and dependence perspective, outsourcing choices are stimulated by the relative monetary value of the exchanged assets, how crucial the activity is, the need for particular technological expertise, availability of alternatives, and switching costs (Caniels and Roeleveld, 2009). In outsourcing choices, businesses also need to address problems that have an impact on costs over the years including studying the effects, possible loss of quality, in the beginning, de-motivation, or the opposite, strong motivation (Van de Water and Van Peet, 2006).

Bolumole et al. (2007), McIvor (2000), and Caniels and Roeleveld (2009) understand the constraints of viewing outsourcing from a single theoretical perspective. Bolumole et al. (2007) integrate Transaction Cost Theory with the Resourcebased View and Network Theory in an outsourcing framework. Transaction costs constitute the costs of physical and human assets incurred to finish a change of products and offerings among parties.

2.6 Methodology

2.6.1 Study Area

Nigeria is located in western Africa on the Gulf of Guinea and has a total area of 923,738km2 making it the world's 32nd largest country (after Tanzania). It is comparable in size to Venezuela and is about twice the size of the US state of California. Its borders span 4,047km and it shares borders with Benin, Niger, Chad, Cameroon, and has a coastline of at least 853km. Nigeria lies between latitudes 40 and 140 N and longitudes 20 and 150 E. Nigeria is divided into thirty -six states and one Federal Capital Territory, which are further divided into 774 Local Government Areas. The states are aggregated into six geopolitical zones, North West, North East, North Central, South East, South-South, and South West. (Constitution Amendment,

2012). Nigeria has eight cities with a population of over 1 million people according to the 2006 census, some of which are Lagos, Kano, Ibadan, Benin City, Port Harcourt, among others.

Nigeria is classified as a mixed economy emerging market. It has reached a lower-middle-income status according to the World Bank (World Bank, 2011) with its abundant supply of natural resources, well-developed financial, legal, communications, transport sectors, and stock exchange which is the second-largest in Africa. Nigeria was ranked 21st in the world in terms of GDP(PPP) in 2015 (World Bank,2017). Agriculture used to be the principal foreign exchange earner (Ake, 1996). Major crops include beans, sesame, cashew nut, cassava, cocoa beans, groundnuts, gum Arabic, etc. (Ake, 1996). Nigeria's manufacturing industry includes leather and textiles and currently has an indigenous auto manufacturing company; Innoson Vehicle Manufacturing located in Nnewi.

2.6.2 Study Population

For the purpose of this research work, the study population consists of list of quoted consumer goods Sector among the 11 sectoral groups on the Nigeria Stock Exchange. The sectors include; Agricultural Sector, Conglomerates Sector, Construction/Real Estate Sector, Financial Services Sector, Health Care Sector, ICT Sector, Industrial Goods Sector, Natural Resources Sector, Oil and Gas Sector, Services Sector. (NSE, 2019). Consumer goods sector was chosen because of its prominence (numerous sub sectors) among the sectoral group. The choice of this sectoral group was equally predicated on the fact that their products are directly consumed by most people (Somuyiwa, 2010).

Sequel to the above, the population of the study are the staffs from the twenty-one (21) manufacturing companies listed under the consumer goods sector on the Nigerian Stock Exchange.

Table 1. List of companies under the Consumer Goods Industries with their staff strength

S/N			Staff
	Name of Industry	Description	Strength
1	Cadbury Nigeria PLC.	CADBURY	700
2	Champion Brew. Plc.	CHAMPION	500
3	Dangote Flour Mills Plc	DANGFLOUR	890
4	Dangote Sugar Refinery Plc	DANGSUGAR	694
5	Dn Tyre & Rubber Plc	DUNLOP	8
6	Flour Mills Nig. Plc.	FLOURMILL	1950
7	Golden Guinea Brew. Plc.	GOLDBREW	400
8	Guinness Nig Plc	GUINNESS	1332

9	Honeywell Flour Mill Plc	HONYFLOUR	1392
10	International Breweries Plc.	INTBREW	500
11	Menichols Ple	MCNICHOLS	500
12	Multi-Trex Integrated Foods Plc	MULTITREX	221
13	N Nig. Flour Mills Plc.	NNFM	64
14	Nascon Allied Industries Plc	NASCON	593
15	Nestle Nigeria Plc.	NESTLE	1578
16	Nigerian Brew. Plc.	NB	1425
17	Nigerian Enamelware Plc.	ENAMELWA	1010
18	P Z Cussons Nigeria Plc.	PZ	3500
19	Unilever Nigeria Plc.	UNILEVER	777
20	Union Dicon Salt Plc.	UNIONDICON	250
21	Vitafoam Nig Plc.	VITAFOAM	652

Source: NSE, (2019)

2.6.3 Sampling Method and Sample Size

This study adopts multi-stage sampling procedure. This involves three sampling designs. At stage 1, industries under the consumer goods sector were clustered based on their appearance within the study area using cluster sampling. At the second stage stratified sampling technique was used to group the industries according to their staff strength. Industries with staff strength lower than 500 were not considered for the study. Purposive sampling was used at the third stage to select the industries that engaged in the production of consumer staple and food and beverages products. Total of 12 consumer goods industries were selected out of 21 consumer goods industries. This also cut across the six geopolitical zones in Nigeria. The respondents for the study were chosen from senior staff and directors from the logistics department, financial department and procurement department of the industries due to their involvement in decision making for the smooth operations of the industry. The sample size represents 15% of the staff strength of each department under study; 81 respondents were sampled from logistics department of the 12 companies, 49 respondents from the finance department form 12 companies, 61 respondents from procurement department from 12 companies and 36 directors (1 director from each department) from 12 companies, this makes 227 respondents. 227 questionnaires were therefore administered and 200 were returned (88.1 percent) and used for the analysis.

Table 2. Selected Companies for the Study

S/N	Name of Industry	State	Staff Strength	1 to Sumplea in the Department and Directors						
				No of staffs in Logistics Dept	No Sampled (15% of staff in Logistics Dept)	No of staff in Finance Dept	No Sampled (15% of staff in Finance Dept	No of staff Procure- ment Dept	No Sampled (15% of staff in Procure- ment Dept)	No of Directors for all Depts
1	Cadbury Nig. Plc.	Lagos	700	40	6	12	2	15	2	3
2	Champion Brew. Plc.	Akwa Ibom	500	20	3	15	2	25	4	3
3	Dangote Flour Mills Plc	Lagos	890	48	7	20	3	35	5	3
4	Dangote Sugar Refinery Plc	Kwar a	694	25	4	24	4	20	3	3
5	Flour Mills Nigeria. Plc.	Kano	1950	50	8	50	8	40	6	3
6	Guinness Nigeria Plc	Edo	1332	60	9	45	7	55	8	3
7	Honeywell Flour Mill Plc	Lagos	1392	76	11	32	5	42	6	3
8	International Breweries Plc.	Anam bra	500	26	4	22	3	32	5	3
9	Menichols Ple	Ogun	500	15	2	15	2	10	2	3
10	Nascon Allied Industries Plc	Lagos	593	25	4	18	3	24	4	3
11	Nestle Nigeria Plc.	Lagos	1578	100	15	38	6	54	8	3
12	Nigerian Brew. Plc.	Abia	1425	55	8	35	5	55	8	3
Total Sampled			540	81	326	49	407	61	36	

Source: Field Survey, (2020)

2.6.4 Result and Discussion

The study evaluates the effect of logistics outsourcing on cost reduction and companies' profitability. Cost reduction as it affects companies' profitability is operationalized according to running the organization as the independent variable as it relates to transport, this includes Reduction in salaries and wages (RSW), Competitive Advantage (CA), Market Share (MS), Inventory Management/Control (IM), Lesser Administrative cost (LAC).

The regression line outsourcing logistics on cost reduction and companies' profitability is written thus:

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CRCP = b_0 + b_1CA + b_2MS + b_3LAC + b_4RSW + b_5IM

CRCP = 3.214 + 0.125CA + 0.030LAC + 0.047RSW
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From the above equation it shows that only competitive advantage is significant to the dependent variable as it is shown in Table 3. This assertion can be buttress that when companies outsource their non - core activities to third party agent it will reduce their cost and increase their profitability as they will be able to work more on securing the market and maintaining their customer's loyalty. By outsourcing logistics activities, firms can save on capital investment, and thus reduce financial risks. Investment on logistics assets, such as physical distribution centres or information networks, usually needs large lump sum of money, which involved high financial risk.

Regression Coefficient (R) is given has 0.852 it shows the combined effect that the independent variable has on the dependent variable. R^2 is also given has 0.699, this implies that 69.9 percent of the variance in cost reduction and companies' profitability could be predicted from the independent variables attributed to, accounted for and explained by the variance in the set of predicators variable taken as a whole. F – ratio of 2.243 which is significant at P<0.05.

Table 4 reveals that Competitive Advantage (b = 0.125; t = 1.998; p <0.05), has positive and significant influence on cost reduction and companies' profitability. This implies that cost savings together with flexibility and customer service are major motives for outsourcing. According to Attari et al, 2013; cost reduction is one of the advantages of outsourcing logistics activities. Furthermore, market share (b = 0.189; t = 1.874; p<0.062), has positive and insignificant influence on cost reduction and companies' profitability, this implies that despite the effort of companies to outsource part of their logistics activities that is the non- core activities, they are yet to attain the height of covering or owning the large market.

Lesser Administrative cost with a positive coefficient (b = 0.030) and significant at p<0.05 implies that a unit increase in administrative cost tends to a unit increase in cost reduction and companies' profitability. Transportation is essential in the distribution of finished goods it adds more to the administrative cost of running the operation, since companies has engaged in outsourcing it has helped them to leverage on their cost and increase their profit level by diverting their resources to their in house activities.

Table 3 shows that Reduction in Salaries and wages (b=0.047; t=0.642; p<0.05) has a positive significant relationship to the dependent variable, it implies that outsourcing enables companies to spend less on wages and salaries of staff as it reduces their staff strength in the area of vehicle utilization. Finally; inventory Management/ control (b = -0.041; t= -0.487; p<0.05) has a negative and insignificant influence on cost reduction and company's profitability. The higher the inventory held the higher the cost of operation and the lower the profit, since transport can also serve as inventory, managers will in no way see to it that the cost of holding cost is reduced in order to maximize companies profit level and increase her performance. According to Berger's, (2007), logistics outsourcing helps oil and gas companies put all costs under control by utilizing their supply chain to take advantage of contract expertise, working with third-party engineers and drillers to reduce overhead. Working with contractors can lower the company's overhead costs and labour cost and enable it to accommodate ebbs and flows in its production cycles.

Table 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.852ª	.699	.663	.931	

Source: Field Survey, 2020

Table 4. Regression Model of the Effect of Logistics Outsourcing on Cost Reduction and Companies Profitability

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error Beta		T	Sig.
1	(Constant)	3.214	.898		3.579	.000
	Competitive Advantage	.125	.063	.144	1.998	.047
	Market Share	.189	.101	.144	1.874	.062
	Lesser Administrative Cost	.030	.144	015	.210	.034
	Reduction in Salaries and Wages	.047	.073	047	642	.022
	Inventory Management/Control	041	.085	037	487	.627

Source: Field Survey, 2020

3. CONCLUSION

Companies as a whole often seek ways to compete in a developing and growing globalized world this has led them to outsource their logistics functions to third- party companies (3PL) in order to focus on their core competencies. From the findings, it was evident that outsourcing takes a strategic initiative that w results in far-reaching consequences that require careful consideration and a thorough process to promote changes. Logistics outsourcing has a significant effect on cost reduction and profitability of companies which overall improves companies' performance.

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