

The Pros and Cons of Outsourcing Logistic Functions among Manufacturing Firms in Southwest, Nigeria

Iborida, Emmanuel*, Ifediora, Chuka., Ekoja Geoffrey., Mogoluwa Shedrack.

Department of Marketing, Faculty of Business Administration, University of Nigeria, Enugu Campus, Enugu, Nigeria

Abstract:- This study examined the benefits and risk involved in outsourcing logistic function among manufacturing firms in South West, Nigeria. The study was guided by two research objectives which include to; determine the organisational efficiency gained through outsourcing the logistics functions by manufacturing firms in South-West Nigeria, and to identify the challenges faced by manufacturing firms through outsourcing logistic function in South-West Nigeria. The study randomly 154 top management members from total 257 in three purposively sampled manufacturing industries in south-west Nigeria. The study used a structured questionnaire for data collection. The data were analysed using simple percentage, and the weighted average for research question while linear regression was used for hypotheses. The results of the analysis show that there is a significant influence of outsourcing on a reduction in operational and project management cost. Also, it leads to competitive advantages, the flexibility of operation, and sufficient time for process planning. Also, it was revealed that the manufacturing firms are facing associated risks during outsourcing logistics function, most especially when monitoring from manufacturing end is reduced, the challenges include; chances for losing control of product management, conflict of culture and hidden cost, chances for poor improvement in the aspect technological development and adoption of modern techniques. The study concluded that all the negativities that trail logistic outsourcing are avoidable with adequate planning and organisation monitoring. The study recommends that the management of manufacturing firms should ensure proper monitoring of the activity of sub-contractor firms handling their firms' logistics functions to ensure the quality of the products and sustain their customers nationwide. Also, manufacturing firms in south-west Nigeria should also improve on their technological application through liaising with other firms in advance nations and affording to contract all their logistics services outside the firms.

Keywords:- Logistic functions, Outsourcing, Manufacturing firm, Merit and Business Risks.

I. INTRODUCTION

Historically, the term outsourcing was first used by top manufacturing personnel in the 1970s, since then, it has been repeatedly used in the field of business. It became a prominent business strategy in the 1990s, notably in the United States at a time when businesses experienced

economic hardship and intense competition. Companies then used outsourcing to achieve flexibility in business operations and reclaim their competitive edge (Handfield, 2006). The similar trend has found its ways into Nigerian companies, where firms are now successfully implementing outsourcing plan as an imitation of foreign companies.

A good example is the UK telecommunications companies outsourcing their customer call centres to India. Nigeria-based telecoms operator, Airtel and Etisalat also has its customer call centres been operated by external companies. This enables them to concentrate their resources on providing improved telecommunication service to customers while entrusting their customer call centres to companies that can deliver the services with more efficient at a reduced cost.

A recent survey by Wan, Wang, Lin and Dong (2015) found that the CEOs of third-party logistics companies perceived growing customer interest in outsourcing as the top industry dynamics. This awareness of contract logistics' role has been instrumental in compelling the logisticians to learn to adapt to this new intrusion into their territory. Since firms can often replicate or improve on a competitor's offering with relatively little difficulty, gain. Sustainable advantage through product differentiation is rare. Also, it is harder to compete in manufacturing excellence alone. Outsourcing can contribute to profits by enabling users to gain competitive advantage, adding measurable value to products, enhancing customer service, assisting in opening new markets, and providing dedicated resources (Ho, He, Lee, and Emrouznejad, 2012). Third-party logistics providers can enhance value creation for customers leading them to become more competitive and profitable through speedy and superior customer service (Jurevicius, 2013). Value creation is also involved; when part of the business is outsourced, there is all likelihood that the firm will get ample time to understand the dynamism of interaction within the customer's supply chain. Tele-guiding the trends of business interaction become natural and objective since the firms are not involved directly.

Statement of problem

Some literature reviewed has revealed that logistics outsourcing has far-reaching consequences and effects, and hence should be carefully considered to avoid difficulties such as loss of control, employee insecurity and supplier dependence. The decision to outsource is complex and often involves the use of conflicting criteria. The recent trend toward the outsourcing of logistics has given importance to the concept of 3PL. A good logistics service will prove to be

a source of competitive advantage and prove to be a key in delivering active customer service. However, different results, findings and conclusion have been drawn regarding the merits and demerits of outsourcing logistic functions. Though, industries are persistently increasing in extending their involvement in various outsourcing logistics functions to the third party or qualified firms. It is evident from the evidence from previous empirical studies that a gap exists with regards to 3PL implementation and its success in Nigerian companies. This raises the question, “What are the associating benefits and demerits of outsourcing logistics functions for manufacturing firms in South West Nigeria?”

Objectives of the Study

- To determine the organisational efficiency gained through outsourcing the logistics functions by manufacturing firms in South-West Nigeria
- Identify the challenges facing manufacturing firms through outsourcing logistic function in South-West Nigeria.

II. LITERATURE REVIEW

Outsourcing in Business Organisations

Since the 1990s, outsourcing of business activities necessary for the production of goods or provision of services to vendors with superior capabilities for their execution has become a widespread phenomenon (Wan et al., 2015). Various activities being outsourced by business organisations range from human resource function, manufacturing of components used in manufacturing operations, information technology service, logistics function, accounting function, employees feeding and procurement service (Qing, Meng and Goh, 2014). In the early 1990s, most of these activities were outsourced because organisations lack the capabilities to perform them effectively, but as time goes on outsourcing of these activities has been compelled by the motive to focus on core competence and reduce cost (Watt, 2014). For this study, outsourcing of logistics function will be discussed.

Outsourcing to Local Vendors

This occurs when an organisation sources the execution of one or more of its business functions which used to be performed in-house from an external entity within the border of the country where it operates (Varadarajan, 2009). This can be in the form of total business process outsourcing or multi-sourcing which is increasingly being utilised by organisations globally (McIvor, 2013). Multi-sourcing is less concerned with forming a strategic partnership with vendors. It aims to promote continuous innovation and bring about competitive bidding. A portfolio of services is coordinated by the firm from various vendors. Outsourcing contract is usually short-term and with the motive of retaining strategic control of the outsourced function (Urquhart, 2002).

Outsourcing to Foreign Vendors

This is a sourcing arrangement where an organisation entrusts a business function which used to be performed internally by a vendor abroad that is not part of the organisation (Varadarajan, 2009; McIvor, 2013). This is the most used type of outsourcing by firms as its risks are lower

compared to other types of outsourcing (McIvor, 2013). Organisations employ some models which are dictated by the level of control needed. External vendors can be used on a contractual basis; this is prevalent in the area of software development and customer call centres operations in the telecommunications industry (McIvor, 2013). Another model is the creation of a strategic alliance or joint venture with vendors to share risks, rewards and develop new knowledge for the client.

In most cases, organisations foster the establishment of a supplier company which they will outsource to and this way they can achieve a higher level of control more than they would if they outsource to multiple vendors (Urquhart, 2002). Another model employed by organisations is the Build-Operate-Transfer (BOT) model. This is gaining popularity in some industries as it enables leveraging vendors' capabilities to establishing operations overseas for these operations to be later transferred to the client at an agreed period for full control (McIvor, 2013).

Merits of outsourcing logistic functions

a.) Cost Reduction

Many works of literature on outsourcing have identified cost reduction has one of the key benefits of outsourcing. The motive of cost reduction has also been identified as the main reason behind companies outsourcing decision before focusing on core, better service quality, and improved performance. Outsourcing helps to reconfigure the supply chain and this result in increased process efficiency. Through supply chain reconfiguration, processes are streamlined, and costs are saved (McLennan, 2011).

b.) Higher Flexibility

Outsourcing provides firms with a higher degree of flexibility to meet increasing market competition and changing business conditions. When firms outsource, greater flexibility is also achieved in meeting changing requirements of customers. Also, outsourcing also provides access to new technologies which will help meet changing design need and changing volume need. This is possible because vendors providing outsourcing services possess the required resources to achieve the needed degree of flexibility (McLennan, 2011).

c.) Reduced Investment

Outsourcing helps organisations to free up the capital investment which ought to be invested in specific technologies and thereby enabling organisations to invest the freed up capital in developing new businesses that will fetch more revenue for the organisation (McLennan, 2011).

d.) Improved Service Quality

A survey conducted by (Somuyiwa, 2010) revealed that companies' logistics functions are better performed when outsourced to third-party logistics companies compared to performing it in-house. Outsourcing contracts also make it possible for organisations to agree with vendors in the outsourcing contracts tighter standard of performance more than possible with employees in-house or hiring employees to perform the outsourced business functions. This way,

organisations enjoy improving service quality (Urquhart, 2002). Mclvor (2013) also, adopts a similar view, he identified that vendors often provide a higher level of service compared to the level of service provided by employees in-house due to specialisation.

e.) Improved Operational Efficiency

In general, various forms of operational improvements such as improve capacity, increase capacity, improve quality, improve financial performance and improve competitiveness are achieved when companies outsource one or more of their business activities (Elmuti, 2003). A survey by IBM researchers to measure the impact of outsourcing on 56 government-owned companies over a 25 year period revealed that companies that outsource their IT records better improvement in business performance than their counterparts. Their general administrative expenses are lower, and they realise a higher Return on Assets (ROA). The survey also discovered that outsourcing does not only improve financial performance but also helps in realising more funds needed for the achievement of business transformation and innovation (McLennan, 2011).

Risks of Outsourcing

Many works of literature have identified some risks which are likely to be faced by organisations outsourcing one or more of their business activities. While outsourcing comes with many benefits, it also comes with some risks which have to be well managed; to enjoy its full benefits. Research by PA Consultants discovered that 66% of outsourcing contracts provided outsourcing firms with partial benefits while in most cases none are realised (Watt, 2014). The risk of outsourcing contracts failing has also been identified by (Watt, 2014) they state that up to 70% of outsourcing contracts are unsuccessful. The preceding indicates that there exist some risks which have to be well managed in every outsourcing contract. Some of these risks are external to the organisation, and they are less controllable. They include risks associated with selecting the most appropriate vendor, economic and political situation in the location of the vendor and much more. There are also some risks to be faced internally which are within the control of the outsourcing organisation such as risks relating to employees of the company, weak communication with vendors and poor supplier relationship management (McLennan, 2011).

a.) External Risks of Outsourcing

One of the less controllable risks of outsourcing is finding a suitable vendor that possesses all the necessary resources to service the organisation considering outsourcing one or more of its business functions (Sanchez, 2010). According to (Mclvor, 2013), some limited vendors are capable of providing firms with the desired level of service. In most cases, firms can find suitable vendors but economic conditions in their locations such as general inflation (decrease in the purchasing power of the client's currency to the vendor's currency, improvements in the standard of living of employees in vendor's location, and so on) increases the total cost of transaction (Sanchez, 2010). This risk is about offshore outsourcing (Shukla, 2010). As identified by (Shukla, 2010), outsourcing companies in most cases end up

paying 50% more than the cost budgeted on outsourcing transactions, and they achieve cost saving of between 15%-25% in the first year. Research by (Kern et al., 2002 as cited in Mclvor, 2013) discovered that many organisations whose outsourcing decisions were driven by cost reduction do not achieve cost saving in their outsourcing contract.

Political factors in the location of the vendors are also risks beyond the control of the client. Social unrest in countries like Syria, Egypt, Palestine, Ukraine, Somalia, South-Sudan and North Korea will disrupt the smooth operations of vendors operating in these countries and thereby affect the operations of their clients. The risk of vendors failing to deliver the agreed standard of service can also be experienced by any outsourcing organisation (Mclvor, 2013).

b.) Internal Risks of Outsourcing

There are some risks of outsourcing that are internal to the outsourcing organisation which is controllable compared to risks which are external to the organisation. The outsourcing organisations will face these external risks if outsourcing contracts are poorly managed by its management such as failing to establish standard performance appraisal measures to measure the performance of vendors which will likely to result in poor quality of service being rendered by vendors (Mclvor, 2013). According to (Sanchez, 2010), a poorly managed vendor relationship can also result in the disruption in the flow of communication between the client and the vendor. Sanchez (2010) also identified the problem of the language barrier which is likely to occur in offshore outsourcing arrangements. This can result in a break in communication.

When organisations outsource the performance of one or more business functions which used to be performed in-house, existing staff whose skills are employed for the performance of these functions will have to be reallocated or freed. Deciding on how these employees will be reallocated can constitute problems for the management, and when employees' contracts are terminated, the organisation is portrayed as an organisation with poor handling of employees' welfare (Sanchez, 2010). As identified by (Belcourt, 2006) employees morale and performance are affected, and they begin to have the notion of job insecurities due to their colleagues who have been fired as a result of outsourcing.

Outsourcing can cause companies to lose critical skills needed for future innovation. Many companies unknowingly outsourced their core competencies with the thought that they are reducing costs but in favour of the vendor. In the long-run, their innovative capabilities depreciate causing them to be unable to explore new opportunities in the market (Mclvor, 2013; Shukla, 2010). If the client fails to fully specify the services to be rendered by the vendor, in a case where there is a change in the client's needs, outsourcing contract will need to be changed and some new features added, thus reducing the flexibility of incorporating these new features in the contract (Mclvor, 2013).

III. THEORETICAL REVIEW

a.) Resource-Based View (RBV)

The basis of Resource-Based View is that; there can be a significant variation of resources and capabilities across business organisations, which can be substantial (Barney & Hesterly, 1996 cited in Perunovic & Pedersen, 2007). These resources and capabilities give a competitive business edge if they are well utilised. This theory is mostly used in the decision-making framework of the outsourcing process and the vendor selection stage (Perunovic & Pedersen, 2007). Helping firms achieve greater organisational performance is the significant role of this model (Jurevicius, 2013).

b.) Resource Dependency Theory (RDT)

Under the Resource Dependency Theory, a firm's environment is almost as important as the firm itself because of the resources of other firms which are held in its environment and on which it depends on (Reiss, 2012). This dependence on resources which are owned by other firms leads to external control of a firm's business by the owners of those resources such as suppliers, shareholders and competitors (Reiss, 2012). There is an inter-organisational relationship between businesses because of dependence on each other for resources which are not available in one organisation; but which another possesses. To ensure survival and be at peace with the external business environment, organisations strive to maintain a more collaborative relationship with their external.

Empirical Review

Somuyiwa, Odepitan and Dosunmu (2016), in a bid to study the Analysis of Outsourcing Logistics Service And Customers Satisfaction In Manufacturing Companies in the southwest. In their study, they investigated Outsourcing as a growing aspect of supply chain management and is receiving much attention from manufacturing companies globally. This is because there are stiff competition and the need to satisfy customers demand variability, reduced lead-time and improve market share. The study established the extent manufacturing companies outsourced services and the influence on customer fulfilment. The research was carried out within manufacturing companies in southwestern Nigeria. The population of the study consists of top management staff; this includes logistics, procurement and marketing managers. The sample of this study consisted 10 Manufacturing companies from the list of fifty (50) quoted companies on the Nigerian Stock Exchange modified by Manufacturing Association of Nigeria in 2005. The data collected was analysed using regression analysis. The study indicates that manufacturing companies outsource Transportation and Distribution to a considerable extent. Procurement, Warehousing, inventory controls are also outsourced. The investigation also reveals that outsourcing has a significant effect on customer satisfaction. Generally, outsourcing seems not only to show positive benefits for cost reduction but also in service performance. Thus, the study suggests that by outsourcing logistics activities companies can provide better service performance to their customers.

Adegoke and Henrietta (2013), "Outsourcing, subcontracting-in and radical innovativeness: The moderating effect of manufacturing strategy", *Journal of Manufacturing Technology Management*. The researchers aim to develop and test hypotheses that link outsourcing and subcontracting in activities of small high-tech firms to their radical innovativeness. Also, they seek to investigate how a firm's strategy moderates the associations between their outsourcing and subcontracting in activities and radical innovativeness. They utilised regression analysis technique and categorical moderation analytical technique to test their hypotheses on survey data from 579 firms. Their result shows that outsourcing has a positive association with radical innovativeness.

In contrast, subcontracting-in shows a negative association with radical innovativeness. Finally, the influence of both outsourcing and subcontracting in activities on radical innovativeness are contingent upon a firm's manufacturing strategy. According to their study, there are potential limitations relating to the researchers' use of secondary data. There is a need to investigate the processes through which outsourcing and subcontracting about innovation performance.

Somuyiwa (2010), in their paper titled 'Firm's Competitiveness through Supply Chain Responsiveness and Supply Chain Management Practices in Nigeria, expressed that Supply Chain Management (SCM) is the management of material, money, men, and information within and through the supply chain to maximise customer satisfaction and to enhance competitive advantage. They stated that however, the characterisation of the current business practices of variation in demands and differences in customer requirements had motivated many firms to be responsive. In the light of that, the paper examined how these firms respond to these changes so as sustain and further create competitive advantages. One hundred and fifteen (115) manufacturing companies, basically medium/large companies formed the sample of the study and data was analysed using multiple regression analysis. The result revealed a positive association between Supply Chain Responsiveness (SCR), SCM practices and Competitive Advantage. Finally, the study provides a suitable recommendation on the scope for improvement based on current levels of various predominant SCM practices and SCR criteria that directly impact competitive advantage of a firm, to make the organisations more competitive.

Bloem and Bean (2015) in the *Journal of Transport and Supply Chain Management* carried out an empirical study titled "The application of outsourcing decision-making methods in a logistics context in South Africa". The study-specific objectives include determining how fast moving consumer good industry are competent in using various decision-making strategies to overcome logistics outsourcing problem. The study initially was based on the fact that in most cases logistics outsourcing always brings the problem of a make-or-buy decision as well as a supplier selection process. Thus, the study purposively focused on determining how firms are arriving at the most suitable method in the case

of logistics outsourcing. The study applied various decision-making methods to a South African case study within the fast moving consumer goods (FMCG) industry. The logistics functions considered in the case study included secondary distribution and warehousing of finished goods. Each method considered the same evaluation criteria and the results were analysed and compared using Linear Programming (LP). The study found that the method developed by Platts, Probert and Canez (2000) on decisions making on, revealed that that the logistics functions be insourced. However, the decision-tree method suggested outsourcing both functions, with a unit rate cost model. The results from the linear programming (LP) method indicated that the secondary distribution function should be insourced and the warehousing function outsourced, with a fixed and variable cost model pending further analysis of the demand trends. They concluded that outsourcing decision-making methods, such as the method developed by Platts et al. (2000), the LP method and the decision tree method traditionally applied to a manufacturing outsourcing decision problem, can be adapted and applied to a logistics outsourcing decision problem of a South African FMCG company.

IV. METHODOLOGY

Research Design

The study adopted a survey research design, which based on primary data for both qualitative and quantitative research findings

Area of the Study

The south-western part of Nigeria lies between latitude 60N and 8½0N of the equator and longitude 30E and 50E of Greenwich Meridian Time (GMT). The zone consists of Six States. These are Lagos State that stretches along the seaboard, Ogun, Oyo, Osun, Ondo and the Ekiti States. The South-Western Geopolitical Zone occupies an area of 79,048 Square Kilometers, with about 25 million population about one-fifth of Nigeria population.

The population of the Study

The research population for this study is made up of all the 257 top management staff since the outsourcing of logistics is majorly a strategic decision for a manufacturing company that takes places at the top management level.

Sample Size

The sample size for this study is total 154 top management staff sampled from three consists of three firms which were purposively selected due to their globalised brand recognition. These firms are Guinness Nigeria Plc (GNPLC), Nigerian Bottling Company Limited, Cadbury Nigeria PLC)

which are companies with globally recognised brands. Thus, the total 154 top management staff were randomly sampled from three firms. Above all, the sample size was determined using

$$n = \frac{z^2 Npq}{Ne^2 + z^2 pq}$$

Where:

n = the sample size

Z = Standard score corresponding to a given level which this study given as 96% i.e. 1.96

p = the estimated proportion of an attribute that is present in the population or % of the success rate = 50%

q = the estimated proportion of an attribute that is not present in the population or % of the failure rate = 1-50%

e = Proportion of sampling error in a given situation i.e. 5% or 0.05.

N = population size (established at 257). Substituting in the formula, we obtain

Research Instrument and Administration

The primary data collection instruments employed in this study was a questionnaire. One type of questionnaire (structured) was designed and used for this study.

The validity of the Instrument

the instrument was validated for content and surface validity; the initial draft questionnaire was given to a panel of judges comprising of six management experts who examined the items in line with the objectives of the study. The structure and language of the questionnaire were modified in light of their corrections.

Reliability of the Research Instrument

To ensure the reliability of the instrument, care was taken by the researcher to group questions on the instrument that measure the same concept (internal consistency). The instrument was checked for reliability using the test-retest method, using Pearson Product Moment Correlation; the result yielded a coefficient of 0.87 indicating a high degree of consistency.

Method of Data Analysis

Data were analysed using simple percentage and the weighted average for the research question, while linear regression analysis was used for research hypotheses

V. RESULTS

a.) Distribution of Respondents by Manufacturing Industries

Table 1: Distribution of Respondents by Organisations

Company	Management Staff	
	Frequency	Percentage
Guinness Nigeria PLC	55	36%
Nigerian Bottling Company Limited	46	30%
Cadbury Nigeria Limited	53	34%
Grand Total	154	100%

Fx: frequency, (%): percentage in the parenthesis.

Table 4.2.1 presents the percentage of staff participating in the study from three selected manufacturing firms. The results showed that 36% of respondents were top management from Guinness Nigeria PLC (GNP). Also, 30% of respondents were top management from Nigerian Bottling Company Limited (NBC), while remaining 34% were management staff from Cadbury Nigeria Limited.

B.) Results from answered research questions

Research Question 1: What are the organisational process efficiency gained from outsourcing the logistics functions?

Table 2: Efficiency Gained by Manufacturing Firms From Outsourcing the Logistics Functions

S/n	Items	Agree Fx (%)	Undecided Fx (%)	Disagree Fx (%)	Average	Rmk
1	Production process efficiency is one area that has improved when logistics function is outsourced	112(73%)	20(13%)	22(14%)	2.59	Agree
2	Cost efficiency and related charges has been improved upon when logistics function is outsourced	137(89%)	0(0%)	17(11%)	2.78	Agree
3	There is a better brand repositioning of our products as a result of outsourcing distribution logistics	97(63%)	15(10%)	42(27%)	2.36	Agree
4	There is an increase in the technological process since the company is using component outsourcing strategies	25(16%)	25(16%)	104(68%)	1.48	Disagree
5	There is an improvement in efficiency of customers relations and experience because customers' receive more firm attention	84(55%)	22(14%)	48(31%)	2.24	Agree
6	My company saves cost when logistics is outsourcing to a subcontractor through freeing up capital in acquiring trucks & lorries.	118(77%)	14(9%)	22(14%)	2.63	Agree
7.	My company has more time to be used for the core activities of providing quality products as a result of outsourcing various logistic functions	113(73%)	11(7%)	30(20%)	2.56	Agree
8.	It is profitable to outsource logistics function, the rest tasks are lesser & manageable workers	116(75%)	0(0%)	38(25%)	2.50	Agree

Fx: frequency, (%): percentage in the parenthesis;

Source: Field Survey, 2017

The results in Table 2 revealed the perceptions of respondents on the efficiency gained by the manufacturing firms from outsourcing the logistics functions. The results showed that majority of respondents (73%) unanimously agreed that process efficiency is one of the benefits gained by the manufacturing firms from outsourcing of logistics function (average = 2.59). Likewise, 89% of respondents expressed that cost efficiency and related charges are among the benefits deriving by manufacturing firms through outsourcing logistics function (average =2.78). Also, 63% of respondents expressed that the manufacturing firms are recording better brand repositioning as a result of outsourcing distribution logistic (average = 2.36). However,

68% of respondents unanimously disagreed with the assertion that the outsourcing of logistics function does increase the technological processes in manufacturing firms. This showed that the respondents were of the opinions that outsourcing logistics function does not necessarily improve the technological acquirement and implementation since most of the logistics are already supplied by sub-contractors in the half-done process (average = 1.48). However, 55% of respondents expressed that there is an increase in better customers efficiency and experience because customers receive better attention from the firm, as a result of having fewer production activities (average = 2.24). There is also cost reduction as a result of logistics outsourcing through

freeing up capital in acquiring trucks, lorries and other heavy equipment. This fact was established by 77% of top management from sampled manufacturing firms in southwest Nigeria (average =2.63). Likewise, 74% of top management expressed strongly that their respective company has more time to use for the core activities of providing quality products due to outsourcing other logistics functions (average = 2.56). Likewise, 75% of top

management staff expressed that it is more profitable to outsource logistics to sub-contractors because it enables the firm to deal with less and manageable workers (average = 2.50).

Research Question 2: What are the areas of concern resulting from outsourcing logistics functions?

Table 3: Areas of Concern Resulting From Outsourcing Logistics Functions in Manufacturing Firms

S/n	Items	Agreed Fx (%)	Undecided Fx (%)	Disagreed	Average	Remark
1	Possibility of inefficient management	105(68%)	23(15%)	26(17%)	2.51	Agree
2	Conflict of firms culture	111(72%)	43(28%)	0(0%)	2.72	Agree
3	Latent information asymmetry	121(79%)	23(15%)	10(6%)	2.72	Agree
4	Loss of control over third party logistics provider	131(85%)	11(7%)	12(8%)	2.77	Agree
5	Hidden costs	78(51%)	51(33%)	25(16%)	2.34	Agree
6	Loss of logistics innovative capacity	121(79%)	21(14%)	12(8%)	2.71	Agree

Fx: frequency, (%): percentage in the parenthesis
Source: Field Survey, 2017

The results in Table 3 revealed the perceptions of sampled top management staff from participating manufacturing firms in south-west Nigeria on the area of concerns that are usually resulting from outsourcing logistics function by manufacturing firms. The results showed that 68% of top management staff indicated the possibility of inefficient management as one of the concerns of outsourcing logistic (average = 2.51). Also, 72% of respondents expressed that the manufacturing firms do experience a conflict of firms culture when outsourcing its logistic functions (average = 2.72). Likewise, 79% of sampled top management staff expressed that there are high chances for the firm to experience asymmetry information system when outsourcing logistic functions (average =2.72).

More also, 85% of the respondents expressed that there are high chances of losing control over third-party logistics provider (average =2.77). Likewise, 51% of sampled top management staff from participating manufacturing firms in south-west Nigeria expressed that there are always issues of hidden costs as a result of engaging the third party for logistics functions (average = 2.34). More so, 79% of sampled top management expressed that the firms might lose the innovative logistics capacity due to outsourcing logistics functions to sub-contractors firms (average =2.71).

Hypothesis One: Outsourcing order processing by manufacturing firms does not significantly influence a reduction in operational and project management costs

Table 4: Regression Analysis of the Influence of Outsourcing Order Processing by Manufacturing Firms on Reduction in Operational and Project Management Cost

Model	Unstandardized Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	8.426	.939		8.977	.000
Outsourcing Ordering Services	.386	.076	.379	5.046	.000

a. Dependent Variable: Operational & Project Management Costs

R2= .143, Adjusted R2 = .138, ANOVA (F) = 25.462, df (1, 152), p-value =0.00

Source: Field Survey, 2017

The results in Table 4 revealed the results of linear regression analysis on the influence of outsourcing warehousing by manufacturing firm in south-west Nigeria on efficiency business supply chain. The results showed adjusted R²=0.138, F =25.462, p-value =0.000. This showed that the dependent variable could explain about 14% of the variation in the reduction of operational and project management cost for the product of manufacturing firms in

south-west Nigeria. More so, the coefficients $\beta =0.379$, $t =5.046$, p-value 0.00, suggested that ordering outsourcing is significantly influencing a reduction in operational and project management cost by about 38%.

Hypothesis Two: Outsourcing inventory control by manufacturing firms does not significantly influence efficiency services

Table 5: Regression Analysis of the Influence of Outsourcing Inventory Control by Manufacturing Firms on Efficiency Services

Model	Unstandardized Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	5.047	.843		5.990	.000
Outsourcing inventory control	.695	.060	.629	9.967	.000

a. Dependent Variable: Efficiency Services
 $R^2 = .395$, adjusted $R^2 = .391$, ANOVA (F) = 99.345, df (1, 152), p-value = 0.00
 Source: Field Survey, 2018

The results in Table 5 revealed the results of linear regression analysis on the influence of outsourcing inventory control by manufacturing firms in south-west Nigeria on efficiency services. The results showed adjusted $R^2 = 0.391$, $F = 99.345$, p-value = 0.000. This showed that the dependent variable could explain about 39.1% of the variation in the efficiency of services in manufacturing firms in south-west Nigeria. More so, the coefficients $\beta = 0.629$, $t = 9.967$, p-value 0.00, suggested that inventory outsourcing is significantly influencing a reduction in operational and project management cost by about 62%.

VI. DISCUSSION

The findings from the first research hypothesis established that there is a significant influence of ordering outsourcing on a reduction in operational and project management cost. This agreed with the conclusion drawn by Marina (2017) that order processing is an essential link in any sales process and doing it right ensures that such a firm is one step ahead of the competition in generating new business and also strengthening existing client relationships while reducing great managerial cost. Also, Vakulich (2015) argued that whenever the ordering process is taken care of by logistic firm, then the transition can have time to diverts its attention, time and funds to some other things related to production and reduced usual excessive spending on the coordination of ordering, inventory and haulages.

The results from the second research hypothesis showed that inventory control outsourcing is significantly influencing efficiency services. This shows that inventory outsourcing by manufacturing firms enhanced the quality of services rendered to the consumers. This result is by the results made by Odepitan (2015) that majority of standard organisations in order to maintain the standard and quality of their products; they put up the agreement with sub-contractors' firms to handle their logistics functions such as inventory control. Likewise, Negi (2009) found in his study that outsourcing inventory control can keep the standard and maintained the quality of services for any organisation that monitored the activities of sub-contractors' firms. More also, the study by Adegoke et al. (2009) linked the quality, customers relationship, time delivery and image promotion with the rate of outsourcing services in any organisations.

The general findings from research hypotheses have shown that even though there are challenges and some risk while outsourcing the logistic function by organisations, the

outsourcing remaining the best way for the manufacturing firms to reach out to the customers scattered across the country at the time of their need. Thus, the aspect of outsourcing can only influence the manufacturing activities and enhance their customers' satisfaction as well as promotion competitive advantage among firms. These findings are by the submission made at the end of the study conducted by Somuyiwa et al. (2016) that manufacturing firms stand benefit of timely delivery, evenly distribution of products, image promotion, competitive advantages as well as customers satisfaction when engaged the right sub-contractors for outsourced services.

VII. CONCLUSION

This study has also established that the manufacturing firms are facing associated risks during outsourcing logistics function, most especially when monitoring from manufacturing end is weak. The study indicated the chances for losing control of product management, conflict of culture and hidden cost, most specifically, the chances for poor improvement in the aspect technological development and adoption of modern techniques due to outsourcing logistics, since manufacturing firms may end-up contracted all the logistics outside the firms.

Above all, this study has demonstrated that the all the negativities that trail logistic outsourcing are avoidable with adequate planning and organisation monitoring. Supervision allows the firms to monitor the trends of their business. Likewise, firms must deploy strategies to get adequate and independent reports on how their brand is fair in markets, to triangulate the reports sent by outsourced firms.

RECOMMENDATIONS

Based on the findings and conclusion of this study the following are the recommendations:

1. The management of manufacturing firms should also ensure proper monitoring of activity of sub-contractor firms handling their firms' logistics functions to ensure the quality of the products and sustain their customers nationwide.
2. Manufacturing firms in south-west Nigeria should also improve on their technological application through liaising with other firms in advance nations and affording to contract all their logistics services outside the firms

REFERENCES

- [1]. Adegoke, O. & Henrietta, O. (2013). Outsourcing, subcontracting-in and radical innovativeness: The moderating effect of manufacturing strategy", *Journal of Manufacturing Technology Management*, Vol. 24 Iss: 4, p.511 - 535
- [2]. Adegoke, O., Arnold, M., & Poul, E. C. (2009). Criteria for Sourcing from Developing Countries, Strategic Outsourcing: *An International Journal of Logistics*, Vol. 2 Iss: 2, p.145 - 164
- [3]. Belcourt, M., (2006). Outsourcing- the benefits and the risks. *Human Resource Management Review*, 16(2), p. 269-279.
- [4]. Bloem, N. & Bean, W.L., (2015). The application of outsourcing decision-making methods in a logistics context in South Africa, *Journal of Transport and Supply Chain Management* 9(1):168 -194
- [5]. Elmuti, D., (2003). The perceived impact of outsourcing on organisational performance. *American Journal of Business*, 18(2), p. 33-42.
- [6]. Handfield, R., (2006). *A brief history of outsourcing*. The SCRC Articles Library. Available at: <http://scm.ncsu.edu/scm-articles/> (Accessed 15/05/2018).
- [7]. Ho, W., He, T., Lee, C. K., & Emrouznejad. M. (2012). *Strategic logistics outsourcing: an integrated QED and fuzzy AHP approach*. Expert Systems with Applications, 39(12), p. 10841-10850.
- [8]. Jurevicius, O., (2013). Resource-based view. (Online) Strategic management insight.com. Available at: <http://www.strategicmanagementinsight.com/topics/resource-basedview.html> (Accessed 5/08/2018).
- [9]. Marina, O.(2017). Logistics Outsourcing Current State Of The Market Of Outsourcing Logistics Services. Unpublished MSc Thesis South-Eastern Finland University of Applied Science
- [10]. McLennan, B., (2011). Top five benefits of supply chain outsourcing. (Online) Blog.moduslink.com. Available at: [Page=1](#)(Accessed 05/05/2018).
- [11]. Mclvor, R., (2013). *What do we know about services outsourcing?* Research Committee of the Institute of Chartered Accountants of Scotland, 1(1). Available at: scholar.google.co.uk
- [12]. Negi, R. (2009). Determining Customer Satisfaction through Perceived Service Quality: A study of Ethiopian Mobile Users, *International Journal of Mobile Marketing*, 4(1): 31-38
- [13]. Odepitan, O.M. (2015). *Impact of Logistics Outsourcing on Manufacturing Company in South Western Nigeria*. Being Unpublished M.Tech Dissertation, LAUTECH, Ogbomoso.
- [14]. Perunovic, Z., & Pedersen, J. L., (2007). *Outsourcing process and theories*. In Proceedings of the POMS 18th Annual Conference, Dallas, Texas, 3(7)
- [15]. Qing, L., Meng, F., & Goh, M., (2014). Choice of supply chain governance: self-managing or outsourcing? *International Journal of Production Economics*. Available at: scholar.google.co.uk
- [16]. Reiss, M., (2012). Resource dependence- a value net-based refinement. (Online) Complementor-rm.de. Available at: <http://www.complementor-rm.de/2012/12/prof-reiss-resource-dependence-a-value-net-based-refinement/>(Accessed 14/06/2016).
- [17]. Sanchez, C., (2010). The benefits and risks of knowledge process outsourcing. (Online) Iveybusinessjournal.com. Available at: <http://iveybusinessjcs/strategy/t>(Accessed 05/07/2018).
- [18]. Shukla, R., (2010). *The benefits and risks of outsourcing*. Canada: McMillan. Available at:<http://www.lexology.com/library/detail.aspx?g=e698d613-af77-4e34-b84e-940e14e94ce4>(Accessed 19/07/2016).
- [19]. Somuyiwa A., Odepitan O., & Dosunmu V.A. (2016). Analysis of Outsourcing Logistics Service and Customer Satisfaction in Manufacturing Companies in South Western Nigeria. *European Journal of Logistics, Purchasing and Supply chain management*. Vol. 4, No.1, p.1-10
- [20]. Somuyiwa, A.O, (2010). Impact of Inventory and Warehousing Costs in Total Logistics Cost of Manufacturing Companies in Southwestern. Nigeria (Online)*Medwells Journal*, Available at: scholar.google.co.uk
- [21]. Urquhart, C., (2002). Applications of outsourcing theory to collaborative purchasing and licensing *Vine*, 32(4), p. 63-70.
- [22]. Vakulich, N. (2015). Specificity of the development of logistics outsourcing in Belarus. *News of the Brest University*. 1(2): pp 144-149
- [23]. Varadarajan, R., (2009). Outsourcing: think more expansively. *Journal of Business Research*, 62(11), p. 1165-1172.
- [24]. Wan, S.P., Wang, F., Lin, L.L. & Dong, J.Y., (2015). An Intuitionistic Fuzzy Linear Programming Method for Logistics Outsourcing Provider Selection. *Knowledge-Based Systems* 2(27), 1–15.
- [25]. Watt, K. (2014). Strategic sourcing: make vs buy. *Operations Strategy for Industry*. The University of Warwick Handbook.