# Journal of **Business and Strategic Management** (JBSM)

CLEARING AND FORWARDING MANAGEMENT SYSTEMS ON SUPPLY CHA PERFORMANCE OF FMCG MANUFACTURERS IN KENYA

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# CLEARING AND FORWARDING MANAGEMENT SYSTEMS ON SUPPLY CHAIN PERFORMANCE OF FMCG MANUFACTURERS IN KENYA

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#### Abstract

**Purpose:** The purpose of this study was to determine the influence of clearing and forwarding management systems on supply chain performance of FMCG manufacturers in Kenya

**Methodology:** The study adopted descriptive research design. The unit of observation was the operations manager of the 51 FMCG manufacturers located in Nairobi. The sampling frame of the current study consisted of operations managers in the manufacturers of the FMCGs in Nairobi. The study used the census method to select 51 manufacturers of the FMCGs in Nairobi, thus the sample of the study was 51 respondents. Primary data was used in the study. The study used questionnaires to collect data. Mixed methods technique of analyzing data was used where both descriptive and inferential analysis were used. The data collected from the field was analyzed using SPSS 23 program. The questionnaires were referenced and the items in them coded for easier data entry. The presentation of the findings was done using tables.

**Results:** The study found that inventory management systems positively and significantly influences Supply chain performance of FMCG in Kenya. The study also established that there are challenges faced by use of clearing and forwarding in logistics management systems. There is the challenge of cost forwarding; the most common currency used is US dollar which changes at any particular time and therefore affecting the freight cost. This also affects the price of customer goods and the charges by the bank. Another challenge is with service charges and fees.

Unique contribution to theory, practice and policy: The study recommended that the government to adjust regulations and create a business environment that allows the process of clearing and forwarding to be efficient, straight forward and quick. here is also need for the government to develop systems and software that allows transparency and ease in submission of documents and therefore reduce the clearing time. It is also important for the government to ensure that there are clear regulations by custom department and ensure that the employees in this department are well knowledgeable of their task and are well organized and motivated to conduct their duties.

**Key words:** Clearing and Forwarding Management Systems, Supply Chain Performance, Fast-Moving Consumer Goods



# **1.0 INTRODUCTION**

In the entire world, customs are in the front line in different agencies intervening in the international trade of goods. Customs is involved deeply in the control of goods crossing the border, determine the nomenclature of goods and their origin and collect revenue and also administer polices on trade (Kafeero, 2014). Lysons *et al.* (2016) agreed that all the merchandise, whether they are used or new, imports are liable of oblige to custom duty which involves VAT, import tax depending on what has been indicated by their economic value and categorization of import charge.

The obligations of import duties are determined to annually premise outlined in the tariffs of the custom duty. Through the tariffs, general information on tax levies tat influence imports are provided, exports and merchandise transportation, valuation of products for obligation of import duty figuring purposes, VAT and extra obligations or payment obligation payable to specific products for instance wines, spirits and tobacco not withstanding obligations of import duty. There is fluctuation in the rate of import obligation relating to the type of merchandise that is being imported and the nation that it has originated from (Subramani, 2010). Typically, calculation of import obligation depends on estimated percentage of value of products in addition to carriage and expense of the insurance to the nation that it is destined to and may also incorporate expenses like for the device, work plan, molds, and charges on permits. VAT is also included which changes across different nations (Kurien & Qureshi, 2011).

Kalpage (2010) did a study on cost benefit analysis regarding the clearing and forwarding businesss in Ceylon shipping corporation Ltd. The study sought to examine the clearing and forwarding activities towards a better investment for the Ceylon Shipping Corporation Limited (CSCL), with a view to identifying the freight forwarding environment in Sri Lanka. The study established that the success of CSCL freight forwarding to a great extent depends on government involvement in the provision and development of the basic infrastructure, establishment of good legal framework to control the freight forwarders activities and establishment of strong regional and international relationships.

Boateng-Manu (2015) evaluated the factors that influence loyalty of customer in the freight forwarding industry in Ghana. The study was an evaluation of the effects of trust, quality of service, price and client satisfaction on loyalty of customers in Ghana's freight forwarding service sector. The study selected a sample of 60 respondents who were surveyed and data collected with the use of questionnaire. The sample used in the study was selected from various strata of importers and exporters who have been clearing their goods at Tema port. It was found that loyalty of customers is significantly influenced by quality of service, client satisfaction, trust, and price satisfaction. It was also found that loyalty of customers was negatively and significantly influenced by price while client/customer satisfaction had positive and significant effect on their level of loyalty. Therefore, from the findings it can be said that when customers feel satisfied with the service then they will be loyal to the industry of freight forwarding. It was further revealed that trust doesn't have mediating effect on the association between client satisfaction and their loyalty levels.

Perlman, Raz and Moshka (2012) did an evaluation on the core factors to out into consideration when selecting international freight forwarding (IFF) company. Examination was done on key considerations among business executives in Israel when they select an IFF. Based on the conceptual framework that was developed it explained the association between business



characteristics in which clients of IFF operate in and the factors that influence the selection of an IFF. In explaining the business environment of clients, there were three factors that were applied and they were: the size of the company, destination number and scope on application of IFF services. The study used a sample of 200 companies where data was collected using questionnaires.

Organization performance is described as the way in which a firm accomplishes its marketbased objectives and additionally its financial objectives (Chesire & Kombo, 2015). Performance is an ongoing process and flexible procedure which includes manager and those they manage. They take a role of partners in a system created to empower them accomplish the required outcomes. Practicing strategic management can be supported as long as it enhances the firm's performance. Performance in itself is the final product of the activities that it incorporates and the actual outcome of the strategic administration process. Organizational performance is attainment of ultimate goals of the organization as set out in the key Organizational plans (Wheelen & Hunger, 2013).

Organization performance is a multidimensional construct operationalized by a variety of financial measures (which include sales, value of net assets and profit) and non-financial measures which include number of workers, market share and overall customer satisfaction. In addition, factors such as overall satisfaction and non-financial goals of the firms are also very important in evaluating performance. Organization performance cannot be adequately determined without considering both financial and nonfinancial measures (Alder, 2012).

According to Chesire and Kombo (2015), organizational performance comprises of three distinct areas of company results: Financial performance, commodity market performance and shareholder return. Harzing (2013) noted that an organization performance may essentially be a reflection of changes in the market size or financial conditions rather than sales figures alone. A company's performance in respect to competitors can be measured by its share in the market. Firms try to build their business with respect to competitors essentially expanding their share in the market to profit from the economies of scale. Economies of scale can contribute in working up a cost advantage. Sales increase in a slow industry is the inspiration to enlarge the market share.

# Fast-Moving Consumer Goods Manufacturers (FMCG)

FMCG are the products that sell very fast without incurring a high cost. They can also be defined as the essential or nonessential goods that are purchased frequently (Mandrinos, 2014). There is a wide range of products that are classified as FMCGs, which include soaps, shaving products, toiletries, detergents, soft drinks, processed foods, consumables, glassware, batteries, cosmetics, and plastic goods among others (Wasonga, 2012). The shelf life of FMCG products is very short. There short shelf life is partly attributed to the fact that most of these products are perishable and get bad rapidly. For instance, FMCGs such as fruits, meat, baked goods, and vegetables are highly perishable. From the marketers' point of view, FMCG also has extensive distribution network (Nyaga, 2014).

The distribution chain for FMCG is the interdependent collection of processes and related resources. They include manufacturers, warehouses, suppliers, logistics service providers, wholesalers and distributors and all the other parties within the supply chain network. The Kenya's FMCG has been experiencing faster growth in the last few decades. The growth of the



industry has resulted in many companies, both local and foreign entering the industry to take a share of the market (Wasamba, 2008). Currently, there are many FMCG manufacturing companies in Kenya based in Nairobi. Some of the companies are Interconsumer Limited, Bidco Oil Refineries, Kapa Oil, Finlay, Kenya Seed Company, Kenya Nut Company, Dawa Group, Maisha Flour Mills, Melvin Marsh International, Nestle Foods Kenya, Eveready East Africa, Premier Food Industries, Proctor & Allan (E.A), Coca-Cola, PepsiCo, Ramzco, and HACO Industries (K) among many others (Njambi & Katuse, 2013). These among other companies manufacture a variety of FMCG that is sold both locally and internationally.

Currently, Bidco is the largest FMCG in Kenya commanding about 24% of Kenya's oil and fat products (Euromonitor, 2015). In this segment of the FMCG, they are followed by Kapa Oil Refineries that controls about 12% of the market share while Unilever Kenya comes third with 9% with the ranking done according to production capacity (Euromonitor, 2015). Like in other countries, some of the former Kenyan FMCG giants are facing hard times due to increased competition and technological advancements that have rendered some of the products obsolete (Wasonga, 2012). There is also a challenge with complex logistics management especially due to the high distribution network at a faster speed. For instance, Eveready East Africa, which was once a leader in FMCG in Kenya, collapsed and exited the Kenyan market due to high costs and poor performance (KAM, 2017).

# **1.1 Resource-Based View Theory**

This theory was first proposed by Wernerfelt in the year 1984 and later in the year 1991 it was advanced by Barney. This theory indicates that the ultimate source of competitive advantage in any organization is the resources they have, both tangible and intangible, (Tukamuhabwa, Eyaa & Derek, 2011). The theory further indicates that in order for the organization to attain its goals, it is important for the resources to be aligned properly in a way that they complement each other. It is also important for the organization to yearn for diversity and increase their resources so that they can be more beneficial.

The assumption of this theory is that each company has their unique resources and if they utilize them appropriately, they will have added advantage in regard to competitive advantage. This is however not the usual case because resources are not homogeneous because they are imitated by competitors. Therefore, to attain operational advantage it is important to have unique resources that cannot be easily copied by competitors (Karia & Wong, 2011). Businesses operations are well integrated when IT is adopted in logistics and transportation practice, (Seuring *et al.*, 2010). Those resources that are created by integrating IT in transport and logistics are more valuable than individual resources of a company.

The theory's relevance lies in its argument that organizations involved in assimilation of systems of IT are granted more benefits and effectiveness as a result of reduced costs related to operations. This theory indicates the advantage of resource re-alignment so that they can complement each other and attain the results that are desired. Thus, adopting logistics management systems is important in order to optimize SC performance of FMCG manufacturers. The theory suggests that organizations should use logistics management systems to improve their supply chain performance.

# 1.1 Statement of the Problem



Under logistical supply chains, speed is of the essence hence the time from picking to delivery of outputs to customer's point of collection is very critical when it comes to quality customer service and satisfaction. It is the responsibility of logistic managers manning supply chains to ensure that both inputs and outputs get to where they are required within the shortest time and in the right quantity in order to satisfy customer's needs. According to statistics, it is estimated that in Kenya, 90% of logistic related processes in companies are done manually (Miheso, 2013). Mitullah and Odek (2010) indicate that a significant number of firms in Kenya are still lagging behind in the use of information technology incorporation in logistics management. KAM (2017) states that it is disturbing to witness decline in performance and states that eroded competitiveness and compromise for the aspiration of the government of up to 20% of growth which could enable Kenya to be prosperous.

Kenya is Africa's second biggest formalized retail economy after South Africa; 30% of Kenyans do their shopping in retail outlets hence boosting the FMCGs. There is hence potential for the FMCGs manufacturers in Kenya, but, in the recent times, some FMCGs manufacturers like Cadbury Kenya did shut down its plant in Nairobi because of its poor performance (RoK, 2014) while others such as Eveready found it hard to cope in the Kenyan market and have seen their net profit fall by 58.7 per cent (Kandie, 2014). With Fast Moving Consumer Goods having a short lifespan which can lead to increased wastage and loss of goods on transit due to ready market there is a need for effective logistics management such as adoption of logistics management systems which can enhance supply chain performance.

This study sought to fill some of the existing knowledge gaps in studies by Wacuka (2015) who investigated the relationship between inventory management control and supply chain performance of FMCG, Wambui (2015) who focused on the relationship between lean management practices and SC performance of FMCG as well as Onyango (2017) who focused on the relationship between inventory management practices and performance of FMCG in Nairobi County. These studies have focused on FMCG but have not linked logistics management systems to its performance.

# 2.0 METHODOLOGY

The study adopted descriptive research design. The unit of observation was the operations manager of the 51 FMCG manufacturers located in Nairobi. The sampling frame of the current study consisted of operations managers in the manufacturers of the FMCGs in Nairobi. The study used the census method to select 51 manufacturers of the FMCGs in Nairobi, thus the sample of the study was 51 respondents. Primary data was used in the study. The study used questionnaires to collect data. Mixed methods technique of analyzing data was used where both descriptive and inferential analysis were used. The data collected from the field was analyzed using SPSS 23 program. The questionnaires were referenced and the items in them coded for easier data entry. The presentation of the findings was done using tables.

# 3.0 RESULTS

# **3.1 Clearing and Forwarding Management Systems**

Respondents indicated the level to which they agree or disagree with statements on the effects of clearing and forwarding Management Systems on performance of SC in FMCG manufacturers in Kenya. Table 1 presents the findings obtained. From the findings presented in



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Table 1, the respondents agreed that clearing and forwarding management systems ensures reduction in average lodgment cost (M=3.936, SD=0.485); clearing and forwarding management systems ensures reduction in average lodgment time (M=3.936, SD=0.818); clearing and forwarding management systems ensures reduction in average clearance time (M=3.915, SD=0.620); clearing and forwarding management systems ensures efficient transportation of goods (M=3.851, SD=0.884); and that clearing and forwarding management systems ensures reduction in average clearance time (M=3.809, SD=0.741). The study findings concurred with the findings of Boateng-Manu (2015) that loyalty of customers is significantly influenced by quality of service, client satisfaction, trust, and price satisfaction. Also he found that loyalty of customers was negatively and significantly influenced by price while client/customer satisfaction had positive and significant effect on their level of loyalty. Therefore, from the findings it can be said that when customers feel satisfied with the service then they will be loyal to the industry of freight forwarding which agrees with the findings of our study.

Respondents explained the challenges faced by use of clearing and forwarding in logistics management systems. There is the challenge of cost forwarding; the most common currency used is US dollar which changes at any particular time and therefore affecting the freight cost. This also affects the price of customer goods and the charges by the bank. Another challenge is with service charges and fees. The expense that has to be paid at point of embarking and destination vary from country to country and therefore if the ship is unable to pay the service charge or docking fee, it is forced to remain at sea and since there are no standards it becomes even more challenging. There is the challenge of container capacity. The container should be full when shipping therefore if it is not full, the cost of goods being transported will increase because they will incur the cost of the empty part of the container. There are other economic challenges such as government regulations and environmental challenges.

There is the challenge of long bureaucracy procedures by officials at the port, some of the officials lack knowledge and clearing and forwarding and this takes a long time before the government releases shipments. There is challenge with the submission of documents which affects clearing time. For clearing to be effective, it depends on clear regulations by customer department and ensure that the employees in this department are well knowledgeable of their task and are well organized and motivated to conduct their duties.

 Table 1: Clearing and Forwarding Management Systems on Performance of SC



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Statement	1	2	3	4	5	Mean (M)	Std. Dev.(SD)
Clearing and forwarding management systems ensures reduction in average lodgment cost	2	1	2	35	8	3.936	0.485
Clearing and forwarding management systems ensures reduction in average lodgment time	1	1	2	40	4	3.936	0.818
Clearing and forwarding management systems ensures reduction in average clearance time	1	0	1	44	1	3.915	0.620
Clearing and forwarding management systems ensures efficient transportation of goods	2	1	3	39	2	3.851	0.884
Clearing and forwarding management systems ensures reduction in average clearance time	2	2	4	32	6	3.809	0.741

# **3.2 Regression Analysis**

#### 3.2.1 Regression Analysis for Clearing and Forwarding Management Systems

The study sought to investigate the influence of clearing and forwarding management systems on supply chain performance of FMCG manufacturers in Kenya. The regression model for this variable was  $Y = \beta o + \beta_4 X_4 + \epsilon$ .

From the fining presented in table 4.18, the value of adjusted  $R^2$  was 0.773 which implies that 77.3% of variations in supply chain performance can be attributed to changes in clearing and forwarding management systems. The remaining 22.7% variations in supply chain performance can be attributed to other factors other than clearing and forwarding management system. The findings also show that clearing and forwarding management system and supply chain performance are strongly and positively relates as indicated by a correlation coefficient (R) value of 0.882.

From the Anova findings, the p-value obtained was 0.000 which is less than 0.05, an indication that the model was significant. The findings also show that the f-calculated value was 157.947 is greater than the F-critical value ( $F_{1,45}$ =4.057). Since the f-calculated value is greater than the f-critical value it shows that clearing and forwarding management system is reliable and can be used to predict supply chain performance in fast moving consumer goods companies in Nairobi.

From the coefficients table, the following model was fitted;

#### $Y = 1.756 + 0.341 X_4 + \varepsilon$

From the equation above, when clearing and forwarding management system is held to a constant zero, performance of supply chain will be at a constant value of 1.756. The findings also show that a unit increase in clearing and forwarding management system will lead to a 0.341 increase in supply chain performance in FMCG in Nairobi. The findings also show that the t-statistic (12.568) has a p-value (0.000) which is less than the selected level of significance (0.05). Therefore we accept the second null hypothesis ( $H_{A4}$ ) and conclude that clearing and forwarding management systems positively influences supply chain performance of Fast Moving Consumer Goods manufacturers in Kenya.

#### **Table 2: Regression Analysis for Clearing and Forwarding Management Systems**

Journal of Business and Strategic Management

ISSN 2520-0402 (Online)



www.carijournals.org

Vol. 6, Issue No. 2, pp 23 – 32, 2021

			Model	Summ	ary							
Model	R	R Square	Adjusted R Square			Std. Error of the Estimate						
1	.882 <sup>a</sup>	.778		.773		.08382						
a. Predict	tors: (Con	stant), Clearing	and Forwa	arding N	/lanagem	nent System	ns					
ANOVA <sup>a</sup>												
Model	Model		quares	df	Mean	Square	F		Sig.			
Regr	ession	1.11	10	1	1.1	110	157.94	47.	000 <sup>b</sup>			
1 Resid	lual	.31	6	45	.0	07						
Total	l	1.42	26	46								
a. Depen	dent Varia	ble: Supply Ch	ain Perfor	mance								
b. Predictors: (Constant), Clearing and Forwarding Management Systems												
			Coe	fficients	a							
Model			Unstandard		zed	Standar	dized	t	Sig.			
			Co	Coefficients		Coefficients			-			
			В	Std.	Error	Beta	a					
(Const	ant)		1.756	.0	80			21.886	5.000			
	ng and For gement Sy	U	.341	.0	27	.882	2	12.568	3 .000			
C	· ·	ble: Supply Ch	ain Perfor	mance								

#### 4.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Summary

The study found that respondents agreed that clearing and forwarding management systems ensures reduction in average lodgment cost; clearing and forwarding management systems ensures reduction in average lodgment time; clearing and forwarding management systems ensures reduction in average clearance time; clearing and forwarding management systems ensures efficient transportation of goods; and that clearing and forwarding management systems ensures reduction in average clearance time. The study also established that there arechallenges faced by use of clearing and forwarding in logistics management systems. There is the challenge of cost forwarding; the most common currency used is US dollar which changes at any particular time and therefore affecting the freight cost. This also affects the price of customer goods and the charges by the bank. Another challenge is with service charges and fees. The expense that has to be paid at point of embarking and destination vary from country to country and therefore if the ship is unable to pay the service charge or docking fee, it is forced to remain at sea and since there are no standards it becomes even more challenging. There is the challenge of container capacity. The container should be full when shipping therefore if it is not full, the cost of goods being transported will increase because they will incur the cost of the empty part of the container. There are other economic challenges such as government regulations and environmental challenges.

There is also the challenge of long bureaucracy procedures by officials at the port, some of the officials lack knowledge n clearing and forwarding and this takes a long time before the government releases shipments. There is challenge with the submission of documents which affects clearing time. For clearing to be effective, it depends on clear regulations by customer



department and ensure that the employees in this department are well knowledgeable of their task and are well organized and motivated to conduct their duties.

#### Conclusion

The study also found that clearing and forwarding management systems have significant relationship with Supply chain performance. The influence of clearing and forwarding management systems on supply chain performance as further found to be positive. Therefore improvement in clearing and forwarding management systems will result to an increase in supply chain performance of fast-moving consumer goods manufacturers in Kenya. Based on the findings, the study concluded that clearing and forwarding management systems have positive significant relationship with Supply chain performance of FMCG in Kenya.

#### Recommendations

Clearing and forwarding management systems enhances performance of supply chain. The study recommends the government to adjust regulations and create a business environment that allows the process of clearing and forwarding to be efficient, straight forward and quick. here is also need for the government to develop systems and software that allows transparency and ease in submission of documents and therefore reduce the clearing time. It is also important for the government to ensure that there are clear regulations by custom department and ensure that the employees in this department are well knowledgeable of their task and are well organized and motivated to conduct their duties.

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