Int Journal of Social Sciences Management and Entrepreneurship 4(2): 266-278, 2021

ISSN 2411-7323

© SAGE GLOBAL PUBLISHERS www.sagepublishers.com

EFFECT OF LOGISTIC MANAGEMENT ON DISTRIBUTION PERFORMANCE IN FOOTWEAR MANUFACTURING FIRMS IN KENYA

[1] Nyanumba Jared Makworo, [2] Dr. Ndeto Charles Kyalo

[1]Master Student, Jomo Kenyatta University Of Agriculture And Technology

[2]Lecturer, Jomo Kenyatta University Of Agriculture And Technology

Abstract

The study sought to examine how logistics management influences distribution performance in Kenyan footwear manufacturing firms. The study also sought to examine effect of transport management, inventory management, information flow management and order processing management on distribution performance in footwear manufacturing firms located in Kenya. The on-going study deployed descriptive research design. Moreover, the study population consisted of 326 staff in finance, supply chain, sales/distribution and operations departments in the 11 footwear manufacturing companies in Kenya. This study employed a stratified random sampling in order to select 179 staff from the study population. The study utilized primary data which was gathered using self-administered semi-structured questionnaires. Moreover, a pilot test was performed to examine the reliability as well as validity of research instrument. Questionnaires in on-going study were used to collect qualitative and also quantitative data. Further, qualitative data, which was derived from structured questions, was analyzed using thematic analysis and results presented in a narrative form. Additionally, inferential as well as descriptive statistics were employed to analyze data in the current research through application of statistical software known as SPSS version 22. Moreover, descriptive statistics comprised of frequency, percentage and mean as well as standard deviation. In this study, inferential statistics comprised of Pearson correlation as well as multivariate regression analysis. From the results, the study found that transport management had a significant influence on distribution performance in footwear manufacturing firms in Kenya. In addition, inventory management had a significant influence on distribution performance in footwear manufacturing firms in Kenya. Further, information flow management had a significant influence on distribution performance in footwear manufacturing firms in Kenya. Also, order processing management had a significant influence on distribution performance in footwear manufacturing firms in Kenya. Therefore, the study recommends that footwear manufacturing firms should adopt fleet management system, automated tracking systems and fuel management system to monitor and control firms' vehicle fuel consumption as well as movement of the firms' vehicle. Moreover the study recommends that footwear manufacturing firms should adopt inventory management practices such as vendor managed inventory, bar-coding and electronic point of sale. In addition, the managers should adopt vendor managed inventory to optimize the inventory held by the distributor and prevent stocking undesired inventories. Further, managers of the footwear manufacturing firms should adopt information sharing, communication system and communication channels so as to increase efficiency and reduce errors in the distribution process. Moreover, the management should adopt order process management practices such as order processing system, order picking and real time ordering to enable electronic collection of order data as well as accurate and timely delivery of products to distributors, wholesalers and retailers.

Introduction

Industries currently operate in extremely turbulent as well as competitive environment caused by prompt technological change, globalization and also market liberalization. Moreover, high uncertainties level within the business world has been as a result of globalization and hence business entities are subjected to dynamic changes, competition, external effects as well as non-consistent flow resources (Xiang, 2014). Further, customers are flexible, complicated as well as informed to change to competitors who are giving products of high quality due to business sectors' dynamic competition. Therefore, in order to survive in the present current competitive as well as turbulent business environment, firms must enhance appropriate distribution of products (Valentinov & Thompson, 2019).

Product distribution refers to the activity of selling and also delivering products as well as services from manufacturer to customer. As businesses that become more worldwide becomes essential to enhance distribution in order to ensure that all members in the channel of distribution are happy (Taylor, Kwasnica & Ravindran, 2019). Distribution is an essential component of operations since, a company cannot make sure the best possible service is offered without a role that improves and tracks the relationship between customers and manufacturers. If bottlenecks occur in distribution, deliveries are inadequate, suppliers, retailers and customers get angry, and trust is also lost. Consistent feedback loop require to be implemented for product distribution to be successful so as to ensure any advancement that need be done are done and everybody is contented with the process (Muggy & Heier, 2014). However, the required product distribution is not achievable without appropriate logistics management.

With the evolving fashion and aesthetics trends, the styles and quality of footwear have considerably changed to provide consumers with maximum comfort (Kenneth, Whitten & Inman, 2018). Increasing demand, quality footwear together with product innovation symbolizes some of the major factors which are driving the market (Ristovska, Kozuharov & Petkovski, 2017). Manufacturers are emphasizing on unique designs development while giving significance to comfort. However, despite the innovations in the industry, without appropriate logistics management these products cannot be distributed appropriately (Vijayaraghavan & Raju, 2018).

Various authors have shown that logistics management has an effect on distribution performance. In the United States, Kenneth, Whitten and Inman (2018) indicate that logistics management in terms of transport management, inventory management, information flow management and order processing management has an influence on distribution of products. Xiang (2014) indicate that logistics refers to the management of flow of goods between the source and point of consumption so as to meet some needs, for instance, of corporations or customers in China. In logistics, the resources managed comprise tangible items, like food, equipment, animals as well as liquids and also intangible items including time, information, energy as well as particles. The physical items' logistics usually include the incorporation of material handling, information flow, production, inventory, transportation, packaging, warehousing and security.

Out of the 10 fastest-developing economies around the globe are in Africa. Africa has the greatest proportion of the youth in the world, and it has a growing urban population with increasing demand for several goods which are not yet readily available. Therefore, provision of

these products on time and in right quantity is key to the performance of manufacturing firms. In Egypt, Youssef and El-Nakib (2015) found that logistic management influences distribution performance of textile companies. Transport management possesses the ability of influencing the performance of supply chain positively and distribution in Textile industries and hence recognizes significance of transport management within the supply chain. In South Africa, Vogt, and Pienaar, (2016) indicated that to gain superior performance, the logistics management or supply chain management must have the ability to meet customer satisfaction, respond to customer complaints, deliver on timely basis, have a fill rate, stock-out probability and accuracy.

In Kenya, Kahia and Iravo, (2014) revealed that customer, product, distribution structure and technology are factors that influence distribution logistics performance. Moreover, the study further indicated that, number of customers, requirements of customer, ordered quantities, and customers' location are customer features that influence the distribution logistics performance. Mwangi (2016) indicates that predictors of firm performance include transport management, order process management, inventory management as well as information flow management with the most essential predictor being inventory management. Mwendwa and Ochiri (2019) found that the relationship between dimensions of logistics management and performance of manufacturing firm in Kenya are positively as well as significantly moderated by logistics information system. In firms' management, management of information flow has become a significant component that signifies cooperation in logistics management.

Kirui and Nondi (2017) found that logistics management influenced the shipping firms' organization performance in Mombasa County. It further confirmed that in most of the studied firms, components including inventory management, warehouse management, reverse logistics and transport management were highly practiced and this influenced organization performance positively. Mangala and Moronge (2019) indicate that performance of oil marketing companies in Kenya is affected by supplier management, transport management, warehouse management and information management as the major logistics management practices which mostly influence performance of oil marketing companies in Kenya.

In the last several years the Kenyan shoe industry has been facing significant development as is evidenced through the huge number of manufacturing shoe companies that have been set up in the country particularly in Nairobi. Example of these companies are acumen, C & P shoe industries, Afrolite industries, Easy shoes, Tiger shoes, Macquin shoes, Shoe wind industries, Umoja rubber and Tex palace. Generally these companies manufacture garments which are worn on the feet for export and local market. These companies manufacture products such as leather shoes, rain boots, sports shoes, shoelaces, open shoes, unit soles and PVC moulded shoes (Kenya Association of Manufacturers, 2018).

These shoes are manufactured by footwear manufacturing companies and then distribute them to other retail sellers who own shoe store or sell shoes as part of their merchandise within the country. In Kenya, there exist numerous individual shoe shops in form of individualized shops and stores bearing a proprietary name. For example 'House of Leather' situated in Nairobi which sells leather products, mainly shoes which are normally a collection of diverse brands. Boutiques as well sell shoes of different collection of brands which include imported ones (Kahia & Iravo, 2014).

Statement of the Problem

Due to the customers' diversity as well as their great spread over large geographical areas, footwear manufacturing firms must incorporate logistics management to attain an acceptable level of customer service and avoid market share reduction. This hence explains the importance of getting the correct quantity of the correct product at the right time and to the right place at the minimum cost possible (Kahia & Iravo, 2014). One of the most significant challenges is an effective coverage of some both urban and rural areas in most countries doe to high transportation cost, poor communication and infective order processing (Mwangi, 2016). Footwear manufacturing firms have been using logistic management strategies such as information flow management, order processing management, transport management and inventory management to improve distribution.

In Kenya, the footwear manufacturing firms have been performing poorly for the past five years (Mulu, 2019). Specifically, the footwear manufacturing firms are losing sales of up to 4% annually from inefficient implementation of essential daily processes in the store originating from stock outs and poor communication between the organization and its suppliers (Kenya Association of Manufacturers, 2021). As a result, footwear distributors in Kenya have been importing shoes preferably from China, Turkey and India among other countries. In addition, customer satisfaction with the local products has been increasing. For instance, customer satisfaction index in Bata Limited decreased from 76 percent in 2017 to 63 percent in 2019 (Mulu, 2019). In addition, footwear manufacturing firm risks losing its market shares, leaving Kenya with an option imports and heavy job losses. Further, footwear manufacturing firms have been experiencing stock outs in their raw materials including raw leather (Okello, 2020). According to the Kenya Association of Manufacturers (2021) report, footwear manufacturing firms were under-stocked and there was a decline in stock levels between 2016 and 2017 by 14%. The present study therefore seeks to examine how logistics management influences distribution performance.

Various researches have been conducted on the influence of logistic management on distribution performance. For instance, Mwendwa and Ochiri (2019) examined the effect of contract management on performance of Kenyan state corporations; Kitsao (2017) examined the association between logistics management and performance of state owned firms in energy sector in Kenya. However, these studies were not conducted in footwear manufacturing firms and did not show how logistics management affects distribution of products. Therefore, this research seeks to assess the effect of logistic management on distribution performance in footwear manufacturing firms located in Kenya.

Study Objectives

i. To examine the effect of transport management on distribution performance in footwear manufacturing firms in Kenya
ii. To determine how inventory management affects distribution performance in footwear manufacturing firms in Kenya

Theoretical Review

Game Theory

John von Neumann as well as Oskar Morgenstern invented game theory in the year 1944. It is the study of decision-making where choices that affect other players' interests must be made by several players; it refers to the official study of cooperation and conflict (Taylor, Kwasnica & Ravindran, 2019). Concepts of game theoretic usually apply every time actions of numerous agents are mutually dependent. Moreover, the agents may perhaps be companies, groups, individuals or a grouping of these. Further, game theory notions give a language to develop structure, analyze as well as understand strategic situations (Bala & Kumar, 2011).

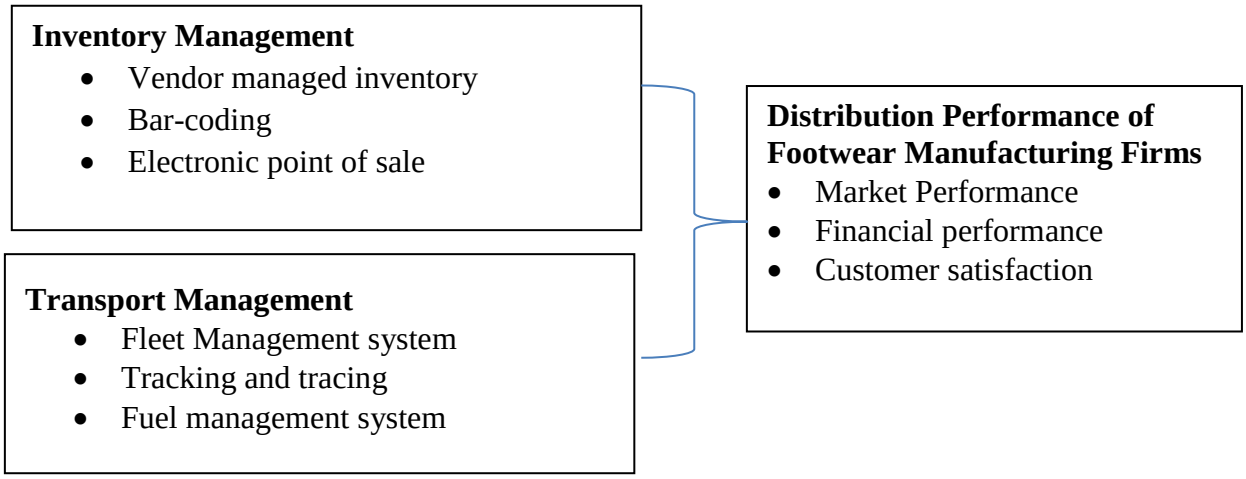
Game theory is categorized into 2 major approaches i.e. non-cooperative as well as the CGT. Moreover, CGT is applied in the situation where participants can attain more benefit through cooperating rather than isolating themselves (Muggy & Heier, 2014). Gain sharing was studied in CGT; hence this study deployed cooperative-game-theoretic method in supporting the argument that transport management influenced distribution performance.

Economic Order Quantity (EOQ) Theory

The EOQ theory was invented by Haris (1913) in order to establish the best inventory level. Moreover, EOQ is the inventory level that can reduce the cost of inventory holding and cost of inventory ordering (Munyao *et al.* 2015). EOQ model is employed to establish the size of optimal ordering that will decrease sum of carrying as well as ordering costs (Oballah, Waiganjo & Wachiuri, 2015). Moreover, this model is based on a belief that demand is equivalent to yearly overall amount ordered (Mwangi 2016). When deciding on the amount to employ when refilling inventory items, EOQ model normally considers tradeoff between ordering cost as well as storage cost.

Frequency of ordering is normally decreased by huger amount of ordered quantity, thus declined ordering cost although enhances storage costs and also needs bigger storage space (Oballah, Waiganjo & Wachiuri 2015). Some costs increases holding costs while others reduces with holding inventory, and that overall inventory-related cost curve has the least point (Munyao *et al.* 2015). Ordering costs are those incurred when extra inventories are bought whereas carrying costs are those incurred for holding inventory. Therefore, the intersection of carrying cost line and ordering cost curve determines the EOQ. Total ordering costs as well as total carrying cost are equivalent to one another (Akande 2014).

Conceptual Framework



Inventory Management

As stated by Kahn and Mentzer (2008), inventory management is a discipline mostly about identifying percentage as well as shape of goods stocked. It is necessary at diverse places within numerous locations or a facility of supply network to go before the planned and regular production as well as the stock of materials. Balancing these necessities causes optimal inventory levels a continuous process since the business requires reaction and shift from wider environment (Minot & Benson, 2009). Inventory management encompasses vendor managed inventory, bar-coding and electronic point of sale.

Transport Management

A transportation network that is economical actually starts with change in attitude. Businesses are frequently trapped in traditional belief that transportation is an essential evil; unavoidable source of risk and cost. By far transport is the main element of cost structure of business' logistics. As stated by Musau *et al.* (2017), more than 30% of the total logistics operations cost is accounted by transport; almost more than Inventory and warehousing together.
Hedayat (2017) suggest that a fuel management system is a technology-based tool working with any pump-able gaseous or liquid fuel for unattended or attended fueling places and that the system gives real-time visibility of all fueling activities and fuel management aspects, using automation to clear drivers and acquire information that is available instantly to any employee in need of it. As stated by Cochefski (2015), fuel management systems are employed to maintain, monitor and control stock and fuel consumption in any kind of industry that utilizes transport such as rail, road, air and water as a means of carrying out business. Designing of fuel management systems is done in such a way that it effectively manages and measures the usage of fuel in transportation industry. They are normally utilized for fleets of vehicles and also any vehicle that use fuel to operate. They deploy various technologies and methods to track and monitor fuel inventories, fuel dispensed as well as fuel purchases.

Empirical Review

Transport Management and Distribution Performance

Muazu (2019) examined the influence of logistics management on the performance of manufacturing firms in selected states of Northern Nigeria. Survey research design was deployed in study. Study population included manufacturing firms in various selected states within Northern Nigeria, quoted as at March 2017 by MAN. Results acquired indicated that the association between logistics management and manufacturers performance in the model has varied outcomes; since the association between outbound logistics and performance was insignificant while between inbound logistics and performance was significant. It is therefore not definite that firm's performance can be improved by use of logistics management.

Ittmann and King (2010) conducted a research on impact of transport management on organization performance of logistic firms located in South Africa. The researcher employed descriptive survey design. Target population comprised of 124 manufacturing companies in South Africa. The study findings revealed that transport management influences performance of manufacturing companies. The study concluded that mechanisms for tackling transport are credible and ought to be maintained as well as the other systems that can enhance transport management are also introduced. From the study it could be concluded that manufacturing firms

in South Africa strive to enhance their organizational performance by ensuring profitability, reliability, flexibility, cost, responsiveness, and asset management.

Inventory Management and Distribution Performance

Akande (2014) determined the influence of inventory management system on operational performance in manufacturing firms located in Nigeria. Moreover, descriptive research design as well as random sampling methods was utilized where the study sample size consisted of 60 staff who were selected randomly from May and Baker Manufacturing Company located in Lagos State. This study found that, failure to maintain an accurate, proper, and sufficient management of inventory control will lead to decline in performance and profit of May and Baker manufacturing company and vice-versa.

Atnafu and Balda (2018) assessed the effect of inventory management on organizational performance as well as firms' competitiveness in Ethiopia. Additionally, the study adopted cross-sectional survey design. Research data was gathered from 188 MSEs operating in manufacturing sub-sector. Findings indicate that greater inventory management levels can result to increased competitive advantage as well as increased organizational performance. Further, competitive advantage can influence organizational performance positively.

Gitau (2016) evaluated the effect of inventory management practices on operational performance of warehousing firms within Mombasa County. The study employed cross-sectional descriptive survey design. Further, the population size was 48 warehousing firms within Mombasa County. Findings revealed that the most embraced out of 3 inventory management practices was inventory management systems. The reason being inventory management systems ensure more efficient usage of available warehouse and also reduce inventory wastage. Findings also indicated that strategic supplier collaboration had significant association with warehousing companies' performance.

Research Methodology

The present study utilized descriptive research design. This type of design is a data collection method through dissemination of a questionnaire to particular individuals or interviewing. The present study targeted 425 staff working in in finance, supply chain, sales/distribution and operations departments in the 17 footwear manufacturing companies in Kenya. The sampling frame of the study was 425 staff working in finance, supply chain, sales/distribution and operations departments in the 17 footwear manufacturing companies in Kenya. The on-going study used a stratified random method of sampling to select 206 staff working in finance, supply chain, sales/distribution and operations departments in the 17 footwear manufacturing firms in Kenya. The present study employed self-administered questionnaires in order to collect primary data; the questionnaire consist the structured as well as unstructured questions. Hair (2011) suggests that, a questionnaire defines the specific study objectives and problem of the research. The questionnaires may be open ended or closed ended type The study adopted drop off and pick up method, where the respondents were given three days to fill the research tool, after which they were collected. The data collection process took approximately two weeks. Descriptive as well as inferential statistics was employed to analyze data in current research through application of statistical software: SPSS version 22.

Research Findings and Discussion

Response Rate

The researcher administered 206 questionnaires among the respondents. Out of the total, 179 participants completely filled their questionnaires and returned them to the researcher within the stipulated time frame. Therefore, the response rate of the study was 86.89%. According to Kabeer (2001) a response rate of 75% and above is considered as excellent. Hence, the response rate (86.89) was within acceptable limit.

Aspects of Transport Management

The staffs working in finance, supply chain, sales/distribution and operations departments in the 17 footwear manufacturing firms in Kenya were asked to indicate how transport management affects the distribution performance in footwear manufacturing firms in Kenya. A 5 point Likert scale where 5 symbolize Strongly Agree, 4 symbolize agree, 3 symbolize moderately agree, 2 symbolize disagree and 1 symbolize strongly disagree was used during the study. The findings were as presented in Table 1.

Table 1: Aspects of Transport Management

	Mean	Std. Deviation
Our organization has adopted a fleet management system	3.849	0.657
The organization has a vehicle scheduling and maintenance policy	3.838	0.728
Our firm has fleet security and control system to monitor the company vehicles	4.000	0.042
The organization has a well automated and tracking systems	2.156	0.517
The organization has scheduling pickups at regional distribution centers	3.955	0.447
Our organization tracks and traces finished products with ease	1.112	0.380
The organization has well defined fuel management policy	4.045	0.207
Fuel management system provides visibility of all fueling activities in the company	4.006	0.417
Our company is able to monitor fuel usage rate from every company vehicle	1.335	0.599

Source: Research Data (2021)

According to the study findings, the staffs working in various departments in the 17 footwear manufacturing firms in Kenya agreed with a mean of 4.000 (Std. dv = 0.042) that the firm has fleet security and control system to monitor the company vehicles. In addition, they agreed that the organization has adopted a fleet management system. This is indicated by a mean of 3.849 (Std. dv = 0.657). Furthermore, with a mean of 3.838 (Std. dv = 0.728), the respondents agreed that the organization has adopted a vehicle scheduling and maintenance policy. According to Musau et al. (2017) route planning, vehicle scheduling, vehicle tracking and fleet management improves firms' performance.

With a mean of 3.955 (Std. dv = 0.447), the staffs working in various departments in the 17 footwear manufacturing firms in Kenya agreed that the organization has scheduling pickups at regional distribution centers. However, they disagreed with a mean of 2.156 (Std. dv = 0.517)

that the organization has a well automated and tracking systems. The respondents further strongly disagreed that the organization tracks and traces finished products with ease. This is shown by a mean of 1.112 (Std. dv = 0.380). These findings are contrary to Musau et al., (2017) arguments that automated and tracking systems helps the organization to track and trace finished products with ease by scanning both the product and the location codes to record the location data.

The respondents agreed that the organization has well defined fuel management policy. This is shown by a mean of 4.045 (Std. dv 0.207). In addition, they agreed with a mean of 4.006 (Std. dv = 0.417) that fuel management system provides visibility of all fueling activities in the company. However, the staffs strongly disagreed that the company is able to monitor fuel usage rate from every company vehicle. This is shown by a mean of 1.335 (Std. dv = 0.599). This findings are contrary to the findings of Cochefski (2015) that fuel management systems maintain, monitor and control stock and fuel consumption.

Aspects of Inventory management

The staffs working in finance, supply chain, sales/distribution and operations departments in the 17 footwear manufacturing firms in Kenya were requested to indicate how inventory management affects the distribution performance in footwear manufacturing firms in Kenya. A five point Likert Scale was used during the study where 5 symbolizes strongly agree, 4 symbolizes agree, 3 symbolizes neutral, 2 symbolizes strongly disagree and 1 symbolizes strongly disagree. The results were as shown in Table 2.

Table 2: Aspects of Inventory management

	Mean	**Std. Deviation**
Through vendor managed inventory system retailers and distributors share inventory data for use in determining the order size for supply	4.045	0.207
The use of vendor managed inventory helps the firm in obtaining data on types of shoes sold in a specific location	3.978	0.423
Vendor managed inventory optimizes the inventory held by distributors	3.771	0.770
Our distributors uses bar coding to trace the products sold and the stock remaining	3.860	0.668
Bar-coding allows data to be collected on sales from all operations in a supply chain	4.000	0.300
Bar coding helps in synchronization of inventory in an organization	3.816	0.723
Our distributors use information technology in selling products	3.771	0.770
Electronic point of sale enables inventory tracking which informs decisions on replenishment of stock	3.855	0.712
Electronic point of sale is used to exchange inventory related data between the sale point and stores	3.899	0.628

Source: Research Data (2021)

According to the results in Table 4.3, staffs working in various departments in the 17 footwear manufacturing firms in Kenya agreed with a mean of 4.045 (Std. dv = 0.207) that through vendor

managed inventory system, retailers and distributors share inventory data for use in determining the order size for supply. Moreover, as shown by a mean of 3.978 (Std. dv = 0.423), the respondents agreed that the use of vendor managed inventory helps the firm in obtaining data on types of shoes sold in a specific location. In addition, the respondents agreed with a mean of 3.771 (Std. dv = 0.770) that vendor managed inventory optimizes the inventory held by distributors. These findings are in line with Akande, (2014) findings that vendor-managed inventory enables the manufacturer to be responsible for optimizing the inventory held by a distributor hence increasing organizational performance.

With a mean of 4.000 (Std. dv 0.300), the staffs working in various departments in the 17 footwear manufacturing firms in Kenya, agreed that bar-coding allows data to be collected on sales from all operations in a supply chain. Furthermore, as shown by a mean of 3.860 (Std. dv = 0.668), the staffs agreed that distributors in the organization uses bar coding to trace the products sold and the stock remaining. These findings concur with the findings of Narashimhan and Jayaram, (2008) that barcodes helps to trace the location of a product in the firms' warehouse and also trace the products sold to prevent stock-outs. In addition, the respondents agreed that bar coding helps in synchronization of inventory in an organization as indicated by a mean of 3.816 (Std. dv = 0.723).

The staffs working in various departments in the 17 footwear manufacturing firms in Kenya agreed that electronic point of sale is used to exchange inventory related data between the sale point and stores as indicated by a mean of 3.899 (Std. dv = 0.628). Furthermore, with a mean of 3.855 (Std. dv = 0.712), the respondents agreed that electronic point of sale enables inventory tracking which informs decisions on replenishment of stock. These findings conforms to the arguments by Atnafu and Balda (2018) that electronic point of sale enables exchange of financial and inventory-related data between the store and head office, allowing automatic accounting and replenishment. Furthermore, the respondents agreed with a mean of 3.771 (Std. dv = 0.770) that distributors in their firms use information technology in selling products.

Correlation Analysis The current study used Spearman correlation analysis to examine the strength of the relationship between logistic management and the distribution performance in footwear manufacturing firms in Kenya. Spearman correlation coefficients range between zero and one. Bryman (2013) guide was used during the study where by 0.80 to 1.00 shows a very strong relationship, 0.60 to 0.79 denotes strong, 0.40 to 0.59 denotes moderate and 040 to 0.59 represents weak. The results were as shown in Table 3.

Table 3: Correlation Coefficients

		Distribution Performance	**Inventory management**	**Transport management**
Distribution Performance	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	179		
Inventory management	Pearson Correlation	.895**	1	
	Sig. (2-tailed)	.000		
	N	179	179	
Transport management	Pearson Correlation	.772**	.650**	1
	Sig. (2-tailed)	.000	.000	
	N	179	179	179

According to the findings, there was a positive association between inventory management and distribution performance in footwear manufacturing firms in Kenya (r=0.895, p-value=0.000). Since the correlation of inventory management was above 0.8, the relationship was considered very strong. Besides that the p-value was not more than the significant of 0.05 attributing to the positive association. These findings concur with Musau et al. (2017) findings that inventory management influences textile firms' performance positively.

In addition, the results showed that there was a positive association between transport management and distribution performance in footwear manufacturing firms in Kenya (r=0.772, p-value=0.000). Since the correlation coefficient of transport management was above 0.7, the relationship was considered strong. Besides that the p-value was not more than the significant of 0.05 attributing to the positive association. These findings concur with Kiraga (2014) findings that transport management practices influence logistics performance of humanitarian organizations in Kenya.

Regression Analysis

The study used multiple regression analysis to examine the weight of the relationship between the independent variables (transport management, inventory management, information flow management and order processing management) and the dependent variable (distribution performance).

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.887	0.786769	0.716	0.53934

a. Predictors: (Constant), Transport management, Inventory management, Order Processing management, Information Flow Management

The R-squared showed the variation in the dependent variable that can be explained by the independent variables being studied. The R-squared in this study was 0.787. This implied that the four independent variables (transport management, inventory management, information flow management and order processing management) could explain 78.7% of the distribution performance in footwear manufacturing firms in Kenya.

Table 5: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.302	0.292		4.459	0.017
Inventory management	0.521	0.124	0.502	4.202	0.000
Transport management	0.388	0.124	0.361	3.129	0.013

a. Dependent Variable: Distribution Performance

From the findings, inventory management has a positive and significant influence on the distribution performance in footwear manufacturing firms in Kenya as shown by a regression

coefficient of 0.521. The association was significant since the p-value (0.000) was less than the significance level (0.05). These findings agree with Chukwuma (2016) findings that inventory management practices influence the distribution performance of manufacturing firms.

The results also showed that order processing management has a positive and significant influence on the distribution performance in footwear manufacturing firms in Kenya as shown by a regression coefficient of 0.435. The association was significant because the p-value (0.004) was less than the significance level (0.05). These findings concur with Bendoly and Robert (2011) findings that order processing management has an influence on distribution performance of manufacturing firms.

Conclusion

The study concludes that transport management has a positive and significant influence on distribution performance in footwear manufacturing firms in Kenya. The study found that fleet management system, tracking and tracing and fuel management system have an effect on distribution performance in footwear manufacturing firms in Kenya. This implies that improvement in transport management (fleet management system, tracking and tracing and fuel management system) leads to improvement in distribution performance in footwear manufacturing firms in Kenya.

The study concludes that inventory management has a positive and significant influence on distribution performance in footwear manufacturing firms in Kenya. The study found that vendor managed inventory, bar-coding and electronic point of sale have an effect on distribution performance in footwear manufacturing firms in Kenya. This implies that improvement in inventory management (vendor managed inventory, bar-coding and electronic point of sale) leads to improvement in distribution performance in footwear manufacturing firms in Kenya.

Recommendations

The study found that footwear manufacturing firms lack well automated and tracking systems. Therefore the study recommends that the management of footwear manufacturing firms should adopt modern tracking systems in order to enhance easy tracing of the finished products in the warehouse.

The study established that footwear manufacturing firms are not able to monitor fuel usage rate from every company vehicle. Therefore, the study recommends that the management should adopt fuel management systems to monitor and control firms' vehicle fuel consumption as well as adopt vehicle tracking to monitor the movement of the firms' vehicle.

References

Akande, L. S. (2014). Effect of inventory management system on operational performance in manufacturing firms: study of May and baker manufacturing industry Nigeria Limited, Lagos. *International Journal of Engineering and Management Research, 9*(1), 49-57.

Atnafu, D., & Balda, A. (2018). The impact of inventory management practice on firms' competitiveness and organizational performance: Empirical evidence from micro and small enterprises in Ethiopia. *Journal of Manufacturing Technology Management, 18*(7), 876-888.

Bala, M. & Kumar, D. (2011). Supply chain performance attributes for the fast moving consumer goods industry in India. *Journal of Transport and Supply Chain Management*, 3(4), 21-32.

Bhattacherjee, A. (2012). *Principles, Methods and Social Science Practices*. New York: Free Press.

Bryman, A. & Cramer, D. (2012*). Statistical Analysis of Quantitative Data Through the Aid of SPPS*. New York: Routledge.

Bryman, A. (2013). Application of Quantitative Research Technique. *Statistical Journal*, 6(1), 97 – 113.

Collis, J. & Hussey, R. (2014). *Research in Business. Practical Guide for Students*. New York: Palgrave Macmillan

Creswell, W.J. (2014). *Quantitative Research Technique*. Thousand Oaks CA: Sage.

Espino-Rodríguez, T.F. & Rodríguez-Díaz, M. (2014). Determining the core activities in the order fulfillment process: an empirical application. *Business Process Management Journal, 20*(1), 2-24.

Gitau, N. N. (2016). The effect of inventory management practices on operational performance of warehousing firms in Mombasa County. *Logistics Information Management, 4*(3), 42-47.

Greener, L.S. (2008). *Applying Business Research Technique*. Copenhagen: Ventus Publishing ApS.

Hair, J. (2011). *Application of Essential Business Research Technique*. New York: ME Sharpe.

Han, J., & Trienekens, J. H. (2009). Integrated information and logistics management, quality management and firm performance of pork processing industry in China. *British Food Journal, 111*(1), 9-25.

Hayes, A. (2020). What is Market Share. Retrieved from https://www.investopedia.com/terms/m/marketshare.asp

Ittmann, H. W., & King, D. (2010). *State of Logistics an overview of logistics in South Africa*. Retrieved from https://researchspace.csir.co.za

Jadamba, N. B. (2014). Logistics information systems and performance of international humanitarian organizations in Kenya. *Supply Chain Management, 2*(4), 158-170.

Kahia, G., & Iravo, M., (2014). Factors Affecting the Performance of Distribution Logistics among Production Firms in Kenya: A Case Study of Bata Shoe Company (K) Limited. *International Journal of Academic Research in Business and Social Sciences, 4*(10), 279-287.

Kahn, M. N. &Mentzer, P. S. (2008) *Logistic management: Processes, Partnerships, Performance,* 3rd Ed. Thousand Oaks CA: Sage.

Kamande, M. W. (2011). The Impact of Clean Production on the Performance of Kenya Manufacturing Firms. *International Journal of Business and Social Science, 3*(5), 49-57.

Kamau, F., & Mwangangi, P. (2018). Influence of inventory management on performance of the energy sector in Kenya. *International Journal of Logistics and Procurement Management 1*(8), 146-166.

Kenneth, W. G., Whitten, W., & Inman, R. A. (2018). The impact of logistics performance on organizational performance in a supply chain context. *Journal of Humanitarian Logistics and Supply Chain Management, 3*(1), 22-36.