

Effect of Reverse Logistics on Operational Performance of Bata Shoe Company

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Abstract: In today's world reverse logistics has been gaining more interest than ever to overcome government regulations and generate profit-making opportunities. Reverse logistics also includes processing of returned merchandise due to damage, seasonal inventory, restock, salvage, recalls and hazardous material programs, obsolete equipment disposition, and asset recovery. Kenya being a developing country faces a problem of dumping especially from the international companies. Most international electronic companies have a tendency to see the end-of-life products in developing countries as a waste stream not required to be managed. In this regard, this study seeks to determine the effect of adoption of reverse logistics on the operational performance of Bata Shoe Company. Specifically, the study sought to establish the effect of product returns, product reuse, and product repackaging as reverse logistics practices on operational performance of Bata Shoe Company. This study was based on institutional theory and the Resource-based theory. This study adopted a descriptive survey design. The target population were be the all the employees working at Bata Shoe Company. The study used a stratified sampling technique to select 61 employees in logistics, procurement and supply chain department in Bata Shoe Company. The study used primary data. Primary data was collected using a close-ended questionnaire. A drop and pick later method was employed to collect data. To ensure reliability and validity of the instrument, a pilot study was conducted. The researcher will edit the completed questionnaires for completeness and consistency. The data was then be analyzed using descriptive statistics. The descriptive statistical tools (SPSS Version 20 and Excel) helped the researcher to describe the data. Inferential statistics (Correlation and regression) were employed for analysis to test for a relationship between variables. The study concluded product returns, product reuse and product repackaging influenced operational performance of Bata Shoe Company to a very great extent. In addition, the correlation analysis showed that three variables; product returns, product reuse and product repackaging were highly correlated and therefore had the most significant influence on operational performance both independently and as a result of their interaction.

Keywords: Effects, Operational and Performance.

1. BACKGROUND OF THE STUDY

Purchasing has for a long time been considered primarily as an operational function without any strategic importance, (Baily, Farmer Jessop & Jones, 2010). However, a good reverse logistics strategy is needed to cope with this return to gain the most benefits. Reverse logistics involves redesigning packaging to use less material, or reducing the energy and pollution from transportation are important activities, but they might be secondary to the real importance of overall reverse logistics, (Reverse Logistics Magazine, 2006). Reverse logistics also includes processing returned merchandise due to damage, seasonal inventory, restock salvage, recalls and hazardous material programs, obsolete equipment disposition, and asset recovery.

In today's world reverse logistics has been gaining more interest than ever to overcome government regulations and generate profit-making opportunities. An effective and standardized reverse logistics process can give a firm the

necessary competitive advantage to move above peers and competitors, and possibly capture larger market share within their industry because of their superior process and being able to meet the demands of the customers, (El-Nakib, 2012). Reverse logistics is the term often used to refer to the role of logistics in recycling, waste disposal, and management of hazardous materials; a broader perspective includes all issues relating to logistics activities to be carried out in source reduction, recycling, substitution, reuse of materials and disposal. Increased competition due to globalization and technological advancement has driven organizations to make efforts to improve efficiency in their supply chain, (Huscroft, 2010). This has led to an increasing efficiency of reverse logistics processes as the way in which firms attempt to maintain and increase competitiveness and market share.

CONCEPT OF REVERSE LOGISTICS:

The term reverse logistics has attained many definitions. American Production and Inventory Control Society (APICS) currently called Association for Operations Management Dictionary, (2005) defines Reverse Logistics as: "A complete supply chain dedicated to the reverse flow of products and materials for the purpose of returns, repair, remanufacture, and recycling." Reverse logistics has also been defined by Greeff and Ghoshal (2004), in commercial terms as the process of moving products from their usual final destination to another point, with the objective of capturing value otherwise unavailable, or for the appropriate disposal of the products.

2003 saw the formation of the Reverse Logistics Association whose main function was to help the industry focus on returns and recycling of materials and transform reverse logistics processes into a profit making venture. The association defined Reverse Logistics as all the activities that are associated with a service or a product after its sold with the ultimate goal of optimizing the efficiency of aftermarket activity and therefore saving money and environmental resources. The president of the Association succinctly defines Reverse Logistics as, "... anytime money taken from a company's Warranty Reserve or Service Logistics budget that is a Reverse Logistics operation"

MANUFACTURING INDUSTRY IN KENYA:

According to the KIPPRA report (2013), manufacturing sector makes an important contribution to the Kenyan economy and currently employs 277,900 people, which represents 13% of labour force in the formal sector with an additional 1.6 million people employed in the informal side of the industry. Nearly 50% of manufacturing firms in Kenya employ 50 or more workers. The sector comprises of about 3,700 manufacturing units and is divided into several broad sub-sectors. KAM has classified manufacturing sector into categories identified as: Building, Construction & Mining, Chemical & Allied, Electrical & Electronics, Food Beverages & Tobacco, Leather & Footwear, Metal & Allied, Motor Vehicle & Accessories, Paper & Board, Pharmaceutical & Medical Equipment, Plastics & Rubber, Textiles & Apparels, Timber, Wood Products & Furniture, Consultancy & Industrial Services and SME Focal Point (KAM, 2014) The sector is mainly agro-based and characterized by relatively low value addition, employment, and capacity utilization and export volumes partly due to weak linkages to other sectors. The top three manufacturing subsectors account for 50% of the sector GDP, 50% of exports, and 60% of formal employment. Overall, manufacturing contributes 10% to GDP. The bulk of Kenya's manufactured goods (95%) are basic products such as food, beverages, building materials and basic chemicals. Only 5% of manufactured items, such as pharmaceuticals, are in skill-intensive activities (KIPPRA, 2013).

BATA SHOE COMPANY:

Bata Shoe Company was established in Limuru in 1940 as a branch of Bata Limited (Canada). The company was originally based in Czechs Republic before it moved to Canada after the nation was taken over by communism. Currently, Bata international has reverted its headquarters back to Czechs Republic in a town known as Zlín. The annual production of the company is around 31 million pairs of shoes which range from injected plastic, DIP closed, cemented shoes for school and Safari, and thongs. The installation of new machines and expansion of the sales network has increased market participation significantly, and annual production increased by 2.5 times in the last decade.

The supply chain of products in the company involves both forward and reverse logistics. The forward logistics involves the goods passing through the supply channels until they are in the shelves ready to be purchased. However, the reverse logistics in the company involve the return of shoes that overstayed on the shelves to factory for disposition through special discount outlets / mini prices. Gumboots and plastic shoes which have lost value through wear and tear are recycled to make new products. The leather left after the shoes are made is not disposed but reused to make interior cover

for motor vehicle. The company management of waste has been cited as a constant threat that lowers the mark for its support for green logistics. Although, the tannery effluents have been controlled and are no longer a threat, the other by-products of the plant need to also be appropriately managed. The current trend that the company is experiencing is in sub-contracting the production of its production to labour efficient plants who have intensively invested in new production technology. In addition, the company is aligning its production to be environmentally sustainable.

STATEMENT OF THE PROBLEM:

According to Pollock (2010), organizations have traditionally focused on improving their forward logistics activities; most have not treated the reverse logistics process with the same care and diligence afforded to traditional areas of logistics. Achieng (2011) indicated that most firms in Kenya often focus on forward logistics and as a result, they tend to overlook the importance of reverse logistics activities and its potential of improving the firm's and supply chain's performance.

The main challenge facing the manufacturing industry in Kenya is the lack of a legal framework for waste management vis-à-vis reverse logistics. Furthermore, manufacturers in Kenya have to cope with all kinds of returns, from apparel that just didn't suit the customer needs and expectations, to expired products that are no longer saleable, to recalls that endanger public safety. Also, the manufacturing industry business has to deal with damaged, unwanted, outmoded, leaking, spoiled, or counterfeit merchandise which accounts to 40 to 60 percent of the returns. It is up to manufacture's reverse logistics operations to separate the wheat from the chafe, performing triage and processing it all to reduce costs and mitigate loss, (Business Daily, 2015). The manufacturers are the worst hit as they account for 75% of the goods handled by retailers in the market. It is approximated that the manufacturing spends millions of shillings as holding cost in the event of returned products.

study on how to recover lost profit through reverse logistics. In Kenya, Kimani (2011), did a study to establish how green supply chain practices are integrated into the manufacturing sector in Kenya. Therefore, despite the massive inquiry into areas of procurements and reverse logistics, none of these studies has been conducted to assess the effect of product returns, product reuse, and product repackaging on operational performance in the manufacturing industry in Kenya. Based on these, there was sufficient evidence that a knowledge gap exists that needs to be filled through research. The study sought to help bridge this gap by determining the effect of reverse logistics on operational performance of Bata Shoe Company.

2. LITERATURE REVIEW

Institutional Theory:

The cradle of this theory can be traced to studies in political science. Initially at its advent the theory trained a lot of focus on aspects of legalism, structuralism, historical inklings, and holism and was hinged on a normative analysis, (Peters, 2005). The theory is based on the dictations of law and governance; it examined a firm's system as a whole entity, borrowed heavily from systems that were present at the time and was defined by operational values and facts that were to be adhered to. However, in the current age of business the theory and nature of organizational operations have transformed, in an organization, for instance, the institutional environment is defined as a separate entity that lies outside the operational parameters of the organization. The environment primarily affects the organizational outcomes by imposing constraints on firms' operational processes and demanding adaptation of firms' processes in order to survive.

Yang and Sheu (2011), point out that institutional theory is recognized through the pressures of the social, cultural, political, and legal sector as a main factor influencing the operation of organizations. Furusten (2013) indicated that according to the institutional approach under the organizational field, there are three mechanisms of pressures by which imitations (isomorphism) in structure and processes between organizations are motivated: coercive, mimetic, and normative. Coercive isomorphism derives from formal and informal pressures carried out on organizations by other organizations upon which they depend on. Such forces can be exerted through persuasion, an invitation to join shared behavioral models, laws and regulations, and government mandates. Coercive forces are typically given to governmental authorities by issuing laws and regulations. Mimetic isomorphism is a firm's standard response to environmental uncertainty by imitating themselves as other organizations, e.g. using lean or agile manufacturing in production, Just-In-Time in sourcing, and Efficient Customer Response in distribution. Normative isomorphism arises from the high degree

of socialization and interaction that often occurs between members of the same organizational environment. When these members interact, they reinforce and spread norms of behavior among themselves, (Miles, 2012).

The transformation of the theory has seen operations of institutions now being designed to conform to the formal and informal structure of the society, environment, and policy. The theory purports that external factors play a major role in influencing the organizational strategies associated with supply chain management. On the same note, factors such as customer satisfaction and retention will influence the adoption of effective reverse logistics processes which will subsequently impact the operational performance of the organization (Ketchen & Giunipero, 2004). According to the institution theory, supply management should strive to monitor the environment for opportunities and identify emerging best practices, like reverse logistics, which affect organizational operations if it is to continue to make improvements (Scott, 2003; Movahedi et al., 2009).

RESOURCE-BASED THEORY:

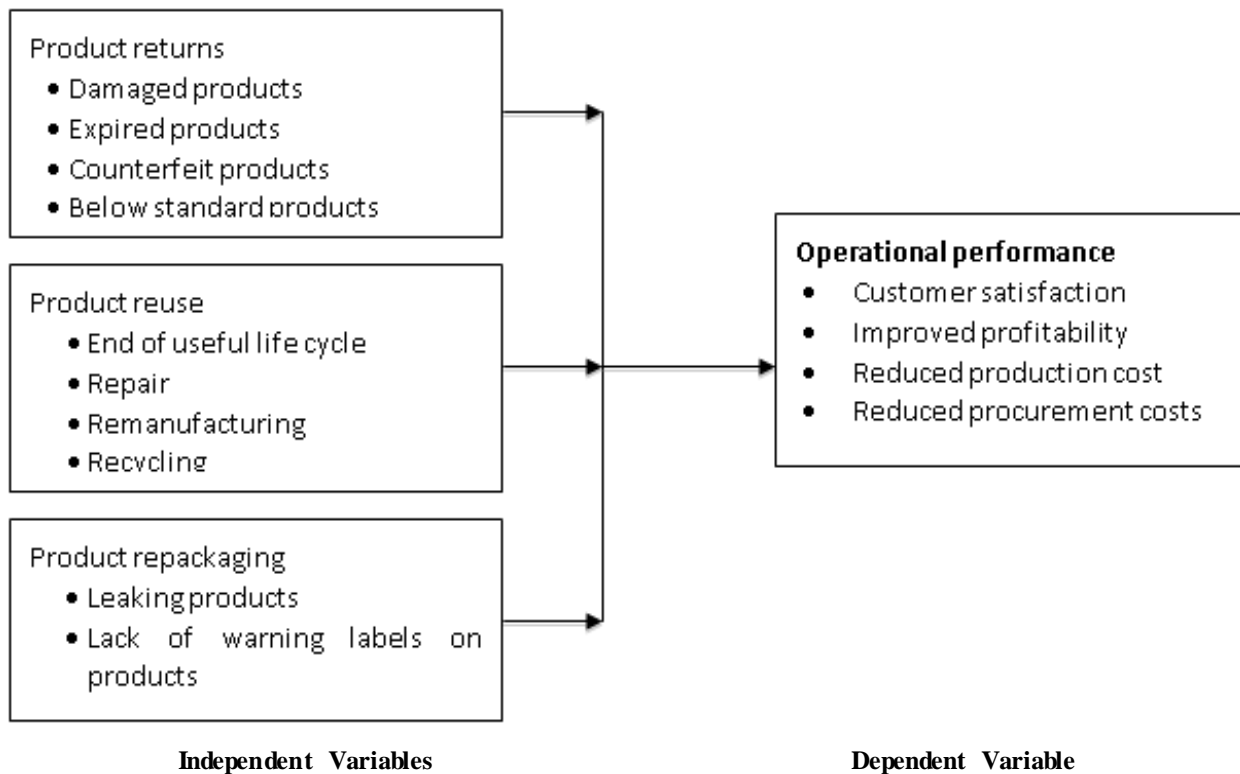
The theory seeks to provide more insight into discerning the value systems in an organization by emphasizing the imperativeness of knowledge as a factor of production in an organization. There are two main schools of thoughts that have been identified; the classical and modern school of thought (Lavassani et al., 2009). The classical school champions for the acquisition of economic resources as an avenue of achieving competitive advantage in the market. These sentiments are traced back to opinions held by David Ricardo (1817) on his works about the rent advantage of production factors. Edith Penroses (1959), is credited for commencing the conceptualization of the modern school of thought that calls for the organisation to assess the internal organization processes that lead to organizational growth as a tool to attain competitive advantage, (Rugman & Verbeke, 2002).

The Resource-based View (RBV) is considered as one of the most influential theories concerned with the economic aspect of operations in an organization. The term “resource” is broad in nature, in that it refers to not only physical (tangible) assets, such as equipment, plants, and location, but also to intangible assets, such as management skill, knowledge, and organizational assets, (Dietrich & Krafft, 2012). Resource-based theory views the firm as a bundle of idiosyncratic resources and assets, which emphasizes the use of the rare, valuable, inimitable and un-substitutable resources to gain sustainable competitive advantage. Sehgal (2010), noted that resource-based view investigates the importance of internal resources in determining firm actions to create and maintain a competitive advantage and improve performance.

Firms that are able to correctly match resources to specific programs and events or to environmental opportunities are more likely to develop capabilities that result in better performance, (Sehgal, 2010). There are always problems with the lack of management information that does not provide a complete view of resources of a firm to make allocation and exploitation. The effective and efficient allocations and management of resources are asserted to be a key factor influencing firm performance, (Zacharia et al., 2011).

Capabilities are complex bundles of skills, assets, and accumulated knowledge exercised through organizational processes, which enable firms to coordinate activities and make use of their resources. During the past decade, more attention has been paid to the application of resource-based view in organizational supply chain management. Morash and Lynch (2002), employed resource-based view in their study of global supply chain capability and performance. In another study Wu, Yenyurt, Kim and Cavusgil (2005), illustrated the application of resource-based view in the impact of IT on organizational supply chain capabilities and performance. Gold, Seuring, and Beske (2009) extended the application of resource-based view to inter-organizational relations of businesses. The application of the theory to this study will be to assess the impacts of reverse logistics as organization operations that have the potential to influence an important metric of performance highlighted by organizational growth.

In relation to the study, a firm should develop logistics strategy among its core competencies in order to reduce costs and maximize the value they offer, (Wong & Karia, 2010; Ramírez Morales & Jesús, 2011). Reverse logistics strategy is of critical importance in managing the reverse direction in supply chains—from consumer to producer. The volume of return goods is hard to predict, therefore a reverse logistics strategy needs to dictate return policies and procedures and integrate them with forward logistics operations. Manufacturers in Kenya thus strive to ensure that they have an elaborate return policy to ensure that they win confidence of the customers for enhanced performance.

Conceptual Framework:**3. RESEARCH METHODOLOGY****Research Design:**

A research design is defined as an overall plan for research undertaking, (Saunders, Lewis & Thornhill, 2009). This study adopted a descriptive survey design. Descriptive survey research designs are used in preliminary and exploratory studies to allow researchers to gather information and summarize, present and interpret data for the purpose of clarification, (Orodho, 2003). According to Mugenda and Mugenda (2008), the purpose of descriptive research is to determine and report the way things are, and it helps in establishing the current status of the population under study. Gay (1992), says that surveys are a self-report study that requires the collection of quantifiable information from the sample. They are useful for describing, explaining or exploring the existing status of two or more variables, (Mugenda & Mugenda, 2008).

Target Population of the Study:

The target population of this study were all the 121 employees working Bata Shoe Company working in the across relevant departments including Purchasing, Warehousing, Design, Production, Depot, Sales/Merchandising in Bata Shoe Company. The respondents' designations include senior, middle and junior cadres' officers. The focus on this population was based on the fact that these people are the ones in a better position give the information that the study seeks to collect since they work in the said institution and the department the study is interested in. Mugenda and Mugenda (2003), explain that the target population should have some observable characteristics, to which the researcher intends to generalize the results of the study. This is as shown on the table 3.1 below.

Table 3.1: Population of the Study

	Population	Percentage
Level I Management	17	14.0
Level II Management	43	35.5
Level III Management	61	50.4
Total	121	100

Source: Bata HRD 2016

Sampling Technique:

From the population 121 employees, the study picked a sample through stratified random sampling technique. According to Cooper and Schindler (2003), stratified random sampling frequently minimizes the sampling error in the population. In stratified random sampling, each item or element of the population has an equal chance of being chosen at each draw. While the study targeted all the registrars, a sample of teaching staff in the private universities was taken. To determine the sample size of the teaching staff, the researcher used formula by Saunders, Lewis, and Thornhill (2012) for sample size determination (See Appendix IV for sample size determination table). The sample size was 92 respondents. The respondents were picked from each stratum proportionately.

$$n = \frac{\chi^2 NP (1-P)}{\sigma^2 (N - 1) + \chi^2 P (1 - P)}$$

Where:

n = required sample size

σ^2 = the degree of accuracy; σ value is 0.05

N = the given population size from the sampling frame

χ^2 = Table value of chi-square for one degree of freedom, which is 3.841

P = Population proportion, assumed to be 0.50

Sample Size:

	Population	Ratio	Sample
Level I Management	16	0.76	12
Level II Management	44	0.76	34
Level III Management	61	0.76	46
Total	121	0.76	92

Source: Author 201

4. DATA ANALYSIS, PRESENTATION AND INTERPRETATION**Response Rate:**

The research target sample size was 92 respondents to be drawn from projects managers and project officers of the organization. The study gave out 92 questionnaires to the respondents, however, only 87 questionnaires were returned duly filled. This translated to 95.6% response rate. This response rate was adequate for data analysis and conformed to Mugenda and Mugenda's (2003) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent.

GENDER CATEGORY

The study sought to establish the gender of the respondents. The results are shown in the table below:

TABLE GENDER OF THE RESPONDENTS

Gender	Frequency	Percentage
Male	37	42.1
Female	50	57.9
Total	87	100

According to the table above, majority of the respondents (42.1 %) were male. Also, 57.9% of the respondents were females.

AGE DISTRIBUTION OF THE RESPONDENTS:

The study also sought to establish the age of the respondents. The results are shown in the table below:

TABLE DISTRIBUTION OF RESPONDENTS

Age category	Frequency	Percentage
18-25 years	24	28.1
26-35 years	17	19.3
36-45 years	21	24.6
46-55 years	15	17.5
56 and above	9	10.5
Total	87	100

The table above presents the age categories of the respondents. According to the figure, most of the respondents, 57.4%, belonged to the age bracket of 18-25 years and 26-35 years. Also, 24.6% were aged between 36-45 years while 17.5% were aged between 46-55 years. 10.5% of the respondents were aged 56 years and above. This therefore shows that majority of the respondent in the respondents interviewed at Bata are youthful and therefore capable to handle the work demands.

LENGTH OF STAY AT THE ORGANIZATION:

The study further sought to establish the number of years the respondents had worked at the company. The results are shown in the table below:

TABLE DURATION OF WORK AT THE ORGANIZATION

Work Duration	Frequency	Percentage
1-12 months	17	19.4
1-3 years	26	30.67
4-7 years	20	22.22
8-12 years	14	16.31
13 and above	11	11.4
Total	87	100

The study also sought to establish the duration of work in the organization. From the responses by the respondents, majority of the respondents, 30.67%, had stayed in the organization between 3-7 years while 22.22% had stayed for a period between 4-7 years. 19.4% of the respondents had stayed in the organization for 1-12 months while 16.31% have stayed in the organization for 4-12 years. The results show that 11.4% of the respondents had stayed at the organization for 13 years and above.

JOB DESIGNATION:

The study sought to determine the designation of the respondents in the organization. The results yielded show that most of the respondents (39.5%) were Mid-Level Management, 34.2% of the respondents were Low Level Management and 26.3% of the participants were Top Level Management. The following table represents the distribution of the designation of the participants. The results are as shown in the table below

Table: Position of the Respondents in the Organization

Designation	Frequency	Percentage
Top Level Management	23	26.3
Mid-Level Management	35	39.5
Low Level Management	29	34.2
Total	87	100.0

Product Returns and Operational Performance

The study sought to determine the extent to which product return influence the operational performance of Bata Shoe Company. The response was rated on a scale of 1-5 on which: 1= No at all, 2= Low extent, 3= Moderate extent, 4= Great extent and 5=Very Great extent. The responses are as shown in the table below:

Influence of Product Returns:

Scale	Frequency	Percentage
No at all	5	5.3
Low extent	8	7.9
Moderate extent	14	15.8
Great extent	27	31.6
Very Great extent	34	39.5
Total	87	100.0

The findings of the study show that 39.5% of the respondents indicated that product returns influence the operational performance of organization very great extent while 31.6% of the respondents indicated that product returns influence the operational performance of organization to great extent. 15.8% of the respondents indicated that product returns influence the operational performance of the organization to a moderate extent. In addition, 7.9% and 5.3% of the respondents indicated that that product returns influence the operational performance of organization to a low extent and to no extent at all respectively.

Further, the study sought to establish the respondents' level of agreement on statements on the influence of product returns on the operational performance of Bata Shoe Company. The response was rated on a scale of 1-5; where 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree and 5 = Strongly Agree. The responses are as shown in the table below:

Table : Product Return and Performance

Statement	Mean	Std Deviation
Return of products affect forecasting, planning and control	4.6759	0.70576
The variation product returns affect the procurement decisions and level of stock hold	4.4231	0.71254
There is departmental collaboration, cooperation and communication in when products are returned	4.4123	0.71254
Returned products increases operational cost	4.3857	0.87315
The customers are aware of the circumstances in which they can return products and therefore product return may taint the name of the store	4.0017	0.69875
In an event of product return, we are faced with challenges such as product malfunction, missing parts, damaged packaging, and expired perishable merchandise	4.0003	0.69875
It takes time, space, and training to ensure a return is authentic; its cumbersome	3.9776	0.79213

According to the data presented in Table 4.7, the findings indicates that majority of the respondents strongly agreed that return of products affect forecasting, planning and control as shown by a mean score 4.6759, that the variation product returns affect the procurement decisions and level of stock hold as shown by a mean score 4.4231 and that there is departmental collaboration, cooperation and communication in when products are returned as shown by a mean score 4.4123.

Others agreed that returned products increases operational cost by a mean score 4.3857, that the customers are a ware of the circumstances in which they can return products and therefore product return may taint the name of the store as shown by a mean score 4.0017 and that in an event of product return, they are faced with challenges such as product malfunction, missing parts, damaged packaging, and expired perishable merchandise as shown by a mean score 4.0003. A number of the respondents agreed that it takes time, space, and training to ensure a return is authentic; its cumbersome as shown by a mean score 3.9776.

The study also wished establish how effective the following steps have been effective in mitigating product returns at Bata Shoe Company. The response were rated on a scale of 1-5 on which: 1= No at all, 2= Low extent, 3= Moderate extent, 4= Great extent and 5=Very Great extent. The responses are as shown in the table below:

Table: Control of Product Returns

Mitigation Steps	Mean	Std. Deviation
Keeping fresh product in the marketplace	4.17	1.07
We have developed appropriate gatekeeping, disposition, and avoidance policies	4.03	1.13
We have formulated operational policies and procedures to handle returns	3.91	1.08
Returns management is aligned across all functional areas in the company	3.89	.93

The findings establish that a majority of the respondents strongly agreed that keeping fresh product in the marketplace controls products returns to a great extent as shown by a mean score of 4.17 and that through developing appropriate gatekeeping, disposition, and avoidance policies products returns has been controlled to a great extent as shown by a mean score of 4.03. In addition, the study established a majority of the respondents agreed that the organization had formulated operational policies and procedures to handle returns which have led to products returns being controlled to a moderate extent as shown by a mean score of 3.91 and that returns management is aligned across all functional areas in the company and have led to products returns being controlled to a moderate extent as shown by a mean score of 3.869.

These results are in tandem with those by Zhu et al.(2008), who argued that manufacturers needed systematic ways to handle the range of returned goods to recover maximum value from damaged, unwanted, outmoded, leaking, spoiled, or counterfeit merchandise that pours back into the manufacturers warehouses and returns consolidation centers. The results are also in concurrence with those of Ramírez and Jesús (2011), who established that an effective returns management can improve a firm's profitability, enhance customer relationships, and be an essential part of an integrated supply chain management strategy.

Product Reuse and Operational Performance:

The study sought to determine the extent to which product reuse influence the operational performance of Bata Shoe Company. The response was rated on a scale of 1-5 on which: 1= No at all, 2= Low extent, 3= Moderate extent, 4= Great extent and 5=Very Great extent. The responses are as shown in the table below:

Table : Influence of Product Reuse

Scale	Frequency	Percentage
No extent at all	6	7.0
Low extent	14	15.8
Moderate extent	20	22.8
Great extent	23	26.3
Very Great extent	24	28.1
Total	87	100

The findings of the study show that 28.1% of the respondents indicated that product reuse influence the operational performance of organization to very great extent while 26.3% of the respondents indicated product reuse influence the operational performance of organization to great extent. 22.8% of the respondents indicated that product reuse influence the operational performance of organization to a moderate extent. In addition, 15.8% and 7% of the respondents indicated that product reuse influence the operational performance of organization to a low extent and to no extent at all respectively.

Further, the study sought to establish the respondents' level of agreement on statements on the influence of product reuse on the operational performance of Bata Shoe Company. The response was rated on a scale of 1-5; where 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree and 5 = Strongly Agree. The responses are as shown in the table below:

Table: Product Reuse and Performance

Statements	Mean	Std. Deviation
There are technicians who repair products with warranties	4.31	0.66
The cost of repair of products has an effect on procurement decisions, growth and success of the company	4.21	0.86

Product return for repair has an effect on the costs of products and customer service standards	4.17	.89
Faulty goods are sent back to local manufacturers for remanufacturing	4.00	0.96
There exists adequate institutional policies supporting recycling of products	3.86	0.79
We have a policy for products return when they reach their end of useful life	3.76	0.74

The findings establish that a majority of the respondents strongly agreed with the statement that there are technicians who repair products with warranties as shown by a mean score of 4.31, that the cost of repair of products has an effect on procurement decisions, growth and success of the of the company as shown by a mean score of 4.21 and that product reuse for repair has an effect on the costs of products and customer service standards as shown by a mean score of 4.17.

In addition, the study established that a majority of the respondents agreed most of the faulty goods are sent back to local manufacturers for remanufacturing as shown by a mean score of 4.00 and that there exists adequate institutional policies supporting recycling of products as shown by a mean score of 3.79. Moreover, a majority of the respondents were neutral about the statement that the company having established policy for products return when they reach their end of useful life as shown by a mean score of 3.76.

The results yielded from the study are in line with those obtained from a study by Byrne and Deeb (2007) who established that the need to recycle post-consumer materials requires manufacturers to understand reverse logistics or the management of the logistics of return flows from the user to a recovery facility and finally into the production of a usable product. The results validate the finding of Melnyk et al.(2009), who suggest that firms may be motivated employ product reuse because of their own environmental awareness or because of governmental and consumer pressure. The study also found that effective product reuse techniques have an impact on increasing mix production efficiency and product route efficiency which will meet customer demands and enhance the brand image of the firm.

Product Repackaging and Operational Performance:

The study sought to determine the extent to which product repackaging influence the operational performance of Bata Shoe Company. The response was rated on a scale of 1-5 on which: 1= No at all, 2= Low extent, 3= Moderate extent, 4= Great extent and 5=Very Great extent. The responses are as shown in the table below:

Table : Influence of Resources Availability

Scale	Frequency	Percentage
No extent at all	6	7.8
Low extent	14	15.8
Moderate extent	18	21.1
Great extent	23	26.3
Very Great extent	26	28.9
Total	87	100.0

The findings of the study show that 28.9% of the respondents indicated that product repackaging influence the operational performance of organization to a very great extent while 26.3% of the respondents indicated that product repackaging influence the operational performance of organization to great extent. 21.1% of the respondents indicated that product repackaging influence the operational performance of organization to a moderate extent. In addition, 15.8% and 7.8% of the respondents indicated that product repackaging influence the operational performance of organization to a low extent and to no extent at all respectively.

Further, the study sought to establish the respondents' level of agreement on statements on the influence of product repackaging on the operational performance of Bata Shoe Company. The response was rated on a scale of 1-5; where 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree and 5 = Strongly Agree. The responses are as shown in the table below:

Table : Product Repackaging and Performance

Statements	Mean	Std Deviation
Most of the packaging materials for the products we stock are environmentally friendly	4.12	1.00
Environmentally friendly packaging improves customer service	4.11	0.76
We manufacturer products whose repackaging practices comply with National Environment Management Authority (NEMA) requirements.	4.03	1.09
Products are returned for repackaging mainly due poor labelling and if the wrappers don't meet expected safety and health standards	3.93	1.06
Penalties imposed for poor packaging has enhanced the standards of repackaging	3.83	0.94

The findings established that a majority of the respondents strongly agreed with the statement that most of the packaging materials for the products they stocked are environmentally friendly as shown by a mean score of 4.12, that environmentally friendly packaging improves customer service as shown by a mean score of 4.11 and that they manufacturer products whose repackaging practices comply with National Environment Management Authority (NEMA) requirements as shown by a mean score of 4.03. In addition, the study established that a majority of the respondents agreed that products are returned for repackaging mainly due poor labelling and if the wrappers don't meet expected safety and health standards as shown by a mean score of 3.83 and that penalties imposed for poor packaging has enhanced the standards of repackaging as shown by a mean score of 3.77.

The results realised in the study are consistent with those of Rogers et al. (2013), who purport that customers who are environmentally conscious would also expect the materials to be sourced, manufactured, transported, and recycled using renewable energy and is effectively recovered and utilized in biological and industrial closed loop cycles. Repackaging as reverse logistics strives to lower costs, improve their bottom lines and answer the call for increased sustainability and according to Kroon and Vrijens (2005), it also provides an opportunity to provide a quality customer experience that may lead to customer loyalty and positive word-of-mouth exposure hence improving the organizational performance of the manufacturer.

5. SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

TO ESTABLISH HOW PRODUCT RETURNS INFLUENCE OPERATIONAL PERFORMANCE OF BATA SHOE COMPANY:

- The study sought to establish the how product returns influence operational performance of Bata Shoe Company. The study found that product returns influenced operational performance of the company to a very great extent.
- The study also determined that product returns have a significant effect on affecting the procurement decisions of the company and affects the level of stock held by Bata Shoe Company
- Keeping fresh product in the marketplace and developing appropriate gatekeeping, disposition, and avoidance policies of products returns were determined to substantially help reduce the number of products returned.

To establish how product reuse influence operational performance of Bata Shoe Company:

- The study sought to establish the how product returns influence operational performance of Bata Shoe Company. The study found that product reuse influenced to operational performance of the Bata Shoe Company to a very great extent.
- Thus Bata Shoe Company had a policy for products return when they reach their end of useful life.

To establish how product repackaging influence operational performance of Bata Shoe Company:

- The study found that product repackaging influenced to operational performance of the Bata Shoe Company to a very great extent. The study reached a determination that most of the packaging materials for the products stocked and

manufactured were environmentally friendly and that environmentally friendly packaging serves to improve customer service.

- Bata Shoe Company was found to manufacturer products whose repackaging practices comply with National Environment Management Authority (NEMA) requirements.

CONCLUSIONS:

- To this objective the study concludes product returns influence operational performance of Bata Shoe Company to a very great extent.
- The study also concluded that Bata Shoe Company needed to encourage departmental collaboration, cooperation and communication in order to create an environment where products returns influence on its operations can be minimized.
- Moreover, the study concluded that as show of good faith more information about the right of a customer to return products should be fashioned out to consumers of Bata Shoe Company products.
- Further, the study sought to investigate the influence of product reuse on the operational performance of Bata Shoe Company.
- To this objective the study concludes product reuse influence operational performance of Bata Shoe Company to a very great extent. The study reached a conclusion that the cost of repair products so that they can be used as parts of other new products had a substantive effect on procurement decisions, growth and success of the company
- In addition, the study concluded that most of products of Bata Shoe Company that are returned as faulty goods, are often sent back to for remanufacturing.
- The study also concluded that the institutional policies supporting recycling and re using of products was inadequate and needed to be bolstered.
- The study concluded that Bata Shoe Company packaging policies are environmentally friendly and most of the packaging materials for their products are environmentally friendly. Environmentally friendly packaging was established in the study to contribute to better customer service. Another important conclusion reached by the study was that repackaging practices of Bata Shoe Company comply with National Environment Management Authority (NEMA) requirements

RECOMMENDATIONS:

- The way an organization handles reverse logistics process is also important not only in determining the success of the adoption but also its influence in the supply chain. As such firms should try as much as possible to tailor make their processes to best suit their unique needs, they should address reverse logistics issues preferably with technologies they have developed and create their own systems and procedures to handle returns considering an overlap between the consumers' needs and those of the organization.
- The study also recommend that, Bata Shoe Company should establish lines for return of old and used products especially the recyclable. For the recyclable, the company will ensure that it reduces dumping and thus serve to conserve the environment. Also these lines will allow in extending the useful life of the products through repair that restores product functionality
- From the research findings it was established that that reverse logistics has a significant impact on operational performance of an organization; whether this impact is positive or negative depends on the success of its adoption and implementation. The respective organizations should therefore continually assess their reverse logistics approaches periodically and make the necessary corrective measures to ensure that they reap the maximum benefits of its adoption

RECOMMENDATION FOR FURTHER STUDIES:

- This study sought to establish the relationship that exists between reverse logistics and operational performance of Bata Shoe Company in Nairobi, Kenya.

- The study establishes that reverse logistics is adopted haphazardly and therefore the company has not achieved the full benefits. The researcher suggests that a similar study be conducted on other forms of business in different sectors for comparison of results.
- The study should also cover a larger scope as this study only concentrated on Nairobi County only.

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