Relationship between Reverse Logistics Activities and Performance of Kisii Bottlers Ltd

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Abstract: Reverse logistics is a set of operational processes aimed at planning, implementing and controlling the efficient, cost effective flow of raw materials, in-process inventory, finished goods and related information from the point of consumption to the point of origin for the purpose of recapturing or creating value or for proper disposal. It is a system for the recovery of used materials and products. The disposal of products is no longer a responsibility undertaken solely by its consumers. This is mainly due to a number of legislative, environmental, and economic reasons. Stringent packaging and environmental regulations are driving companies to be more accountable for residual products and also the final products, even after product sale. However, arguments and studies on the subject of reverse logistics are deficient and inconclusive. They focus more on the developed countries and those done in Kenya have looked at other aspects of performance like supply chain performance, organizational effectiveness ignoring the general organizational performance. Further, the studies are inconclusive in the way they address the content of reverse logistics activities and their joint relationship with elements of organizational performance. The reverse logistics activities practiced by Kisii Bottlers have not been established by any previous study making it a green area requiring investigation. Moreover, the extent to which application of reverse logistics activities contribute to performance of manufacturing firms in Kenya is an area that past studies have failed to address. At the same time, no known study has tried to relate the extent to which re-use as a reverse logistics activity contributes to cost reduction. This remains unclear in Kisii Bottlers Ltd. The overall objective of the study will be to determine relationship between reverse logistics activities and organizational performance of Kisii Bottlers Ltd. Specifically the study seeks to determine the reverse logistics activities practiced, establish the extent to which application of reverse logistics activities contribute to performance and to determine the extent to which re-use activity contribute to cost reduction. The study will adopt a cross sectional survey design with population drawn from top management, procurement department, and sales/marketing departments totaling to 152 respondents. The data will be collected from respondents using structured and semi structured questionnaire tested for validity by exposure to experts in the subject and by piloting. Reliability test will be done using Cronbach’s Alpha test. The objectives will be analyzed using descriptive statistics and the results presented in tables, percentages and graphs. The study findings may provide valuable insight into how reverse logistics helps in environmental conservation and make management of manufacturing companies understand the benefits that accrue to an organization as a result of practicing reverse logistics activities.

Key Words: Relationship, Reverse Logistics, Performance

1.0 Introduction

1.1 Background of the Study

Reverse logistics can be viewed holistically to include the “process of planning, implementing, and controlling the efficient, cost effective flow of raw materials, in-process inventory, finished goods, and related information from the point of consumption to the point of origin for the purpose of recapturing or creating value or proper disposal”. (Rogers and Tibben-Lembke, 2001). Becoming proficient at handling returned goods not only improve relationships along the supply chain, the reduced costs improve profits and higher recovery rates are reached as efficiency is improved. (Stock, et. al. 2002). Reverse logistics is increasingly becoming an area of organizational competitive advantage, making the pursuit of this function a strategic decision. The disposal of products is no longer a responsibility undertaken solely by an organization’s consumers. This is mainly due to a number of legislative, environmental, and economic reasons. Stringent packaging and environmental regulations are driving companies to be more accountable for residual products and also the final products, even after product sale. When firms investigate the re-manufacturability, reusability, and recyclability of their products then there will be fewer disposals.
1.2 The specific objectives of the study

i. To determine the reverse logistics activities practiced by Kisii bottlers Kenya Limited.

ii. To establish application of reverse logistics activities by Kisii bottlers contribute to performance.

iii. To determine how re-use activity contribute to cost reduction by Kisii bottlers Kenya Limited.

1.3 Research Questions

The study will be guided by the following research questions:

i. What are the reverse logistics activities practiced by Kisii bottlers Kenya Limited.

ii. How does application of reverse logistics activities by Kisii bottlers contribute to performance?

iii. How does re-use activity contribute to cost reduction by Kisii bottlers Kenya limited?

2.0 Literature Review

2.1 Theoretical Foundations of the Study

This study is anchored on two organizational theories that have been used to understand how companies adopt and develop reverse logistics practices. The two theories are the stakeholder theory and the Resource based view.

2.1.2 Stakeholder Theory

The stakeholder theory argues that the organization has relationships with many constituent groups and that it can engender and maintain the support of these groups by considering and balancing their relevant interests (Clarkson, 1998; Freeman & Evan, 1991; Jones & Wicks, 1999). As it has been noted by many, the theory fosters both instrumental predictions and normative prescriptions (Hasnas, 1998). This has therefore proven to be a subject of interest with those interested in profits as well as those interested in issues of ethics. Stakeholder theory is a theory that looks at the relationships between an organization and its internal and external environment, how these relationships affect the organization’s mode of conducting its activities. Examples of stakeholders of a business include suppliers, customers, stockholders, employees, government, non-profit community organizations, and the local community among others. Increasingly, concerned citizens worldwide have reacted to threats of environmental depletion and urged both government and businesses to respond to these issues. This has led to increased demand for ‘green’ products and calls for more stringent regulations on environmental pollution (Delmas & Toffel, 2004).

An organization can take either a proactive or reactive approach to meet stakeholder demands. Henriques and Sadorsky (1999) support the idea that environmental proactivity is associated with higher pressures from organizational stakeholders (for instance suppliers, customers, shareholders, employees) and community stakeholders (for example NGO’s, social groups), whereas environmental reactivity is associated with higher pressures from the media and regulatory stakeholders (for instance trade associations, governments). Buysse and Verbeke (2003) introduced the distinction between internal primary stakeholders (shareholders, employees, and financial institutions) and external primary stakeholders (customers and suppliers) and made an observation that only the former group motivates environmental proactively. This was as a result of studying producers of intermediate products who had scarce consumer contact.

2.1.3 Resource Based View

The Resource-based View (RBV) is considered as one of the most influential theories in strategic management. 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 and Kraft, 2012). Resource based theory views the firm as a bundle of idiosyncratic resources and assets, which emphasizes the use of rate, valuable, in-imitable, and un-substitutable resources to gain sustainable competitive advantage.

Resource-based view was developed in the work by Barney (1986), Teece (1988), and Teece & Pisano (1994), for analyzing firm behavior and competitive strategy (Mowery, Oxley & Silverman, 1998). The RBV contends that the idiosyncratic resources and capabilities of firms are the key sources of sustained competitive advantage (Lynch, Keller & Ozment 2000). This premise appears to be supported by logistics and SCM research (such as Lynch et al., 2000).
2.2 Conceptual Framework

The above relationship shows how the independent variable; Logistics activities with the constructs; product reuse, product remanufacturing and product recycling relate with the dependent variable; Organizational performance in terms of enhancing cost reduction in production, increase market share and improving profits. The government policy and firm size act as intervening variables in this relationship.

3.0 Research Methodology

3.1 Research Design
A cross-sectional survey design was used to collect data for this study. This was appropriate because the only the respondents with the relevant information of the study were targeted.

3.2 The Target Population and Sample Size
The target population for the study was the top management composed of various unit managers, procurement staff in the procurement department, and sales and marketing team totaling to 152 employees. This population was targeted because they are directly involved with the customers from various companies who purchase soft drinks for daily consumption.

The sample population for this study was 45, purposively sampled from top management, procurement department, and sales/marketing departments.

4.0 Research Findings and Discussion

4.1 Response rate

The study targeted 45 employees from the top management, procurement department, and the sales/marketing department. Questionnaires were administered to all of them and 2 of them were not returned. The data analysis is based on 43 questionnaires which is a 96% return rate. The high return rate is due to the fact that the questionnaires were personally administered by the researcher and he took time to explain to them the purpose of conducting the research.
4.2 Socio-demographic characteristics of the respondents

Socio-demographic characteristics are summarized in table 4.1

Table 4.1: Distribution of the socio-demographic characteristics of respondents in Kisii bottlers limited

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>30</td>
<td>69.77</td>
</tr>
<tr>
<td>Female</td>
<td>13</td>
<td>30.23</td>
</tr>
<tr>
<td>Level of education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Masters</td>
<td>8</td>
<td>18.60</td>
</tr>
<tr>
<td>Graduate</td>
<td>30</td>
<td>69.77</td>
</tr>
<tr>
<td>Secondary level</td>
<td>5</td>
<td>11.63</td>
</tr>
</tbody>
</table>

As shown in the table there were both male 30 (69.77%) and female respondents 13 (30.23%), it implies that both of them are very relevant in the process of reverse logistics implementation. The respondents from all the departments play a great role in ensuring various processes are carried out effectively within the firm. 8 (18.60%) of the respondents had a master degree, 30 (69.77%) had undergraduate and certificates from the midlevel colleges, while 5 (11.63) of them had attained secondary level education. It was indication that the respondents were equipped with the skills that could enable them to clearly understand the impact of reverse logistics to the organization.

4.3 Reverse logistics practices

One of the main aims of the study was to determine the reverse logistics practices in Kisii bottlers Kenya limited.

4.3.1 Reverse logistics practices in the organization.

The responses are summarized in table 4.2

Table 4.2: Reverse logistics practices in the organization

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>42</td>
<td>97.67</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>2.33</td>
</tr>
</tbody>
</table>

42 (97.67%) of the respondents admitted that the company practices reverse logistics and it has proved to be very effective while 1 (2.33%) of them did not agree to the statement. 95% of them further commented on its effectiveness clearly outlined on how it has contributed to the success of the company. This clearly indicates that the reverse logistics has been very effective in optimizing the supply chain efficiency and the asset recovery rates. It has positively impacted on the company’s profits and also meeting the sustainability goals.

4.3.2 Environmental management department in the organization

The responses are summarized in Table 4.3 below

Table 4.3: Environmental management department of the organization

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>41</td>
<td>95.35</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>4.65</td>
</tr>
</tbody>
</table>

41 (95.35%) of them responded affirmatively and 2 (4.65%) of them responded negatively to the question that sought to find out whether the organization has an environmental management department. They further added that the department has been very important in ensuring that the organization complies with the environmental regulations. Apart from that most of them also stated that it has helped the organization to meet its sustainability goals, and also improve the safety and health for both the community and the employees as well. It is a clear indication that the organization has adopted the use of recycled materials in production and has also successfully developed procedures for the responsible disposal of all those products that cannot be reused or even recycled. It has implemented a system that has greatly helped in reducing its impact on the environment and also greatly improving its operating efficiency.
4.3.3 Application of reverse logistics in the organization

Figure 4.2 below represents a summary of the responses

From figure 4.2 above, 39 (90.70%) of the respondents strongly agreed to the fact that the company recycles the used bottles to be used for repackaging processes soft drinks, 2 (4.65%) of them agreed and 2 (4.65%) of neither agreed or disagreed. This indicates that so many of the company recycle the bottles to cut down the costs of producing new ones every time they want to repackaging and distribute to the customers.

19 (44.19%) of them strongly agreed to the statement that the company often engages in remanufacturing especially when defective final products have not reached the customers 13 (30.23%) of them agreed 1 (2.33%) of them were neutral 9 (20.93%) of them disagreed while 1 (2.33%) of them strongly disagreed. This is a clear indication that the company is aimed at ensuring that the customers are satisfied with the final as this will improve the overall performance of the organization.

38 (88.37%) of them strongly agreed that the company practices Re-use so as to cut down costs, 3 (6.97%) of the agreed 1 (2.33%) neither agreed nor disagreed while 1(2.33%) of them disagreed. It re-uses the repackaging products and this is a clear suggestion that the company effectively practices reverse logistics. The products are re-used so as to produce more and the costs that could have been incured in the process could be redirected to some other activities.

10 (23.26%) of the respondents strongly agreed that their products are customized to be in tandem with the needs and desires of customers 6 (13.95%) of them agreed 5 (11.63%) of them were neutral 9 (20.93%) of them disagreed while 13 (30.23%) of them strongly disagreed. This shows that customization of products has been partially embraced by the organization and it has not been able to fully meet the needs of the customers. The company still needs to put more effort in the customization aspect of their products.

From the data, 35 (81.38%) of the respondents strongly agreed that the firm relies on some other companies in order to dispose the products that cannot be used any longer. 5 (11.63%) of them agreed, 1(2.33%) of them was neutral, 1  (2.33%) strongly disagreed and 1(2.33%) agreed. This is an indication that there are some of the products that cannot be reused hence they need to be disposed. The company does also rely on other companies to make their operations successful. So they let other companies dispose some of the products that they no longer need in their day to day operations.
4.3.4 Implementation of reverse logistics practices

Table 4.4 below presents a summary of the responses

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very great extent</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Small extent</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return used products and packaging to supplier</td>
<td>4 9.30</td>
<td>4 9.30</td>
<td>3 6.98</td>
<td>7 16.28</td>
<td>25 58.14</td>
</tr>
<tr>
<td>Set quality standards for re-use</td>
<td>24 55.82</td>
<td>8 18.60</td>
<td>5 11.63</td>
<td>4 9.30</td>
<td>2 4.65</td>
</tr>
<tr>
<td>Generate energy from renewable sources of energy</td>
<td>43 100</td>
<td>0 0.00</td>
<td>0 0.00</td>
<td>0 0.00</td>
<td>0 0.00</td>
</tr>
<tr>
<td>Design products for re-use</td>
<td>34 79.07</td>
<td>2 4.65</td>
<td>4 9.30</td>
<td>2 4.65</td>
<td>1 2.33</td>
</tr>
<tr>
<td>Our company has set up repair workshops</td>
<td>32 69.77</td>
<td>8 18.60</td>
<td>2 4.65</td>
<td>3 6.98</td>
<td>0 0.00</td>
</tr>
<tr>
<td>Our company train employees on repair and refurbishing</td>
<td>26 60.46</td>
<td>10 23.26</td>
<td>3 6.98</td>
<td>2 4.65</td>
<td>2 4.65</td>
</tr>
<tr>
<td>Our company has set up warehouses for storage of parts</td>
<td>41 95.35</td>
<td>0 0.00</td>
<td>0 0.00</td>
<td>2 4.65</td>
<td>0 0.00</td>
</tr>
<tr>
<td>Our firm has warranty for its products</td>
<td>43 100</td>
<td>0 0.00</td>
<td>0 0.00</td>
<td>0 0.00</td>
<td>0 0.00</td>
</tr>
<tr>
<td>Our products are used by other companies to manufacture other products</td>
<td>25 58.14</td>
<td>10 23.26</td>
<td>6 13.95</td>
<td>1 2.33</td>
<td>1 2.33</td>
</tr>
<tr>
<td>Used products such as plastic bottles are returned to the plant for recycling</td>
<td>6 13.95</td>
<td>21 48.84</td>
<td>8 18.60</td>
<td>7 16.28</td>
<td>1 2.33</td>
</tr>
<tr>
<td>Our employees are trained about recyclable products</td>
<td>19 44.19</td>
<td>17 39.53</td>
<td>6 13.95</td>
<td>1 2.33</td>
<td>0 0.00</td>
</tr>
<tr>
<td>There is a well-designed recycling policy in this company</td>
<td>30 69.77</td>
<td>6 13.95</td>
<td>4 9.30</td>
<td>1 2.33</td>
<td>2 4.65</td>
</tr>
<tr>
<td>There are structured market incentives for recycling</td>
<td>21 48.83</td>
<td>7 16.28</td>
<td>10 23.26</td>
<td>4 9.30</td>
<td>1 2.33</td>
</tr>
<tr>
<td>Recycling activity enables our company to cut costs</td>
<td>23 53.49</td>
<td>15 34.88</td>
<td>4 9.30</td>
<td>1 2.33</td>
<td>0 0.00</td>
</tr>
</tbody>
</table>

From the figure 4 (9.30%) agreed to a very great extent that the firm returns used products and packaging to supplier 4 (9.30%) of them to a great extent 3 (6.98%) were moderate, 7 (16.28%) to a small extent, and 25 (58.14%) did not agree at all. It suggests that the company re-uses most of the packaging materials hence they do not need to return it to the supplier. They find most of the materials to be useful in the firm, especially in packaging the supplies that they distribute to the customers.

24 (55.28%) agreed to a very great extent 8 (18.60%) to a great extent, 5 (11.63%) to a moderate extent 4(9.30%) 2 (4.65%) did not agree at all to the statement that the firm has set quality standard for re-use. This suggests that the company has clear guidelines that guide re-use of products. The setting of standards has helped in defining the achievement levels of re-using the packaging materials, instead of having to produce new ones.

The standards have also contributed to the success of the whole process. All of them agreed to a very great extent that the company generates energy from the renewable sources in its operations. This indicates that the organization management is concern about the health of individual workers as energy from such sources does not expose them to health hazards. It is also a cheaper source of energy as compared to using the one generated from the fossil fuels.

34 (79.07%) of the respondents agreed to a very great extent, 2 (4.65%) to a great extent 4(9.30) to a medium extent, 2 (4.65%) to a small extent and 1 (2.33%) of them did not agree to the statement that the organizations designs products for re-use. The responses clearly suggest that the company has put a lot of efforts in designing its products so that they can be re-used.

32 (69.77%) of the respondents agreed to a very great extent, 8 (18.60%) to a great extent, 2
(4.65%) to a medium extent and 3 (6.98%) to a small extent to the statement that the company has set up repair workshops. This indicates that the company has ensured it has put in place all the proper measures to ensure that the final products that reach the customers are of a very high quality. 26 (60.46%) of the respondents agreed to a very great extent, 10 (23.26%) to a great extent, 3 (6.98%) to a medium extent, 2 (4.65%) to a small extent and 2 (4.65%) to the statement that the company trains the employees on repair and refurbishing. This clearly indicates that the management has ensured that the employees are aware of what is expected of them in ensuring that high quality products are packaged for supplying to the customers. 41 (95.35%) of the employees agreed to a very great extent while 2 of them to a small extent on the statement that the company has set up warehouses for storage of parts. This shows that the company is highly organized and well equipped so all carry all of its activities in the most effective manner.

All of them agreed to the statement that the firm has warranty for all its products. This is an indication that the company meets the requirements of both the customers and the law as well. The warranty enables the customers to develop a lot of confidence in them. 25 (58.14%) of respondents agreed to a very great extent, 10 (23.26%) of them to a great extent, 6 (13.95%) to a moderate extent and 1 (2.33%) of them did not agree at all to the fact that the products of the firm are used by other companies to manufacture other products. This suggests products of the company can be useful to some other firms. It helps in conserving the environment as those products that are not collected for re-use by the firm are used by some others that produce different products that are useful to the general public. 6 (13.95%) of the respondents agreed to a very great extent, 21 (48.84%) of them to a great extent, 8 (18.60%) of them to a medium extent, 7 (16.28%) to a small extent and 1 (2.33%) did not agree at all to the statement that the used products such as plastic bottles are usually returned to the plant for recycling. The responses clearly show there is a high return rate of the recyclable products and they are used by the organization, enhancing effectiveness of its operations. 19 (44.19%) of the respondents agreed to a very great extent, 17 (39.53%) of to a great extent, 6 (13.95%) of them to a medium extent, and 1 (2.33%) of them agreed to a small extent to the statement that the employees are trained about the recyclable products. This indicates that the respondents are well endowed with the knowledge that they need to have on recyclable products. 30 (69.77%) of the respondents agreed to a very great extent, 6 (13.95%) of them to a great extent, 4 (9.30%) of them to a medium extent, 1 (2.33%) to a small extent and 2 (4.65%) did not agree at all to the statement that the there is a well-designed recycling policy in the company. This suggests that the company has a working policy that has made the recycling process to be effective for the company.

21 (48.83%) of the respondents agreed to a very great extent, 7 (16.28%) of them to a great extent, 10 (23.62%) of them to a medium extent, 4 (9.30%) of them to a small extent and 1 (2.33%) of them did not agree at all to the statement that there are structured market incentives for recycling. This provides evidence to prove that the company is highly organized in the market to ensure that the recycling activity is sustainable enough. The existence of the market structured incentives supports the firm’s goal of ensuring that it is able to continue with the process in the most effective manner. 23 (53.49%) of the respondents agreed to a very great extent, 15 (34.88%) of them agreed to a great extent, 4 (9.30%) to a medium extent and 1 (2.33%) did not agree at all to the statement that the recycling activities enable the company to cut down costs. This indicates that the recycling process is effective in maximizing the profits of the company as less costs are incurred in the production process.

4.4 Effect of reverse logistics on organizational performance
The table below presents a summary of the responses
17 (39.54%) of the respondents strongly agreed, 16 (37.21%) of them agreed, 6 (20.92%) were neutral, 1 (2.33%) of them strongly disagreed, and one of them disagreed to the statement that the use of reverse logistics in the organization has led to reduced costs. This shows that reverse logistics has led the organization to greatly cut down the costs that they incur in various processes thus a great contribution to the organizational performance.

15 (34.88%) of the respondents strongly agreed, 17 (39.54%) of them agreed, 7 (16.28%) were neutral, 2 (4.65%) strongly disagreed, and 2 (4.65%) disagreed to the statement that reverse logistics practices have led to improved market share. This suggests that the application of reverse logistics has led the company to outdo its competitors and increase their market share. It also further indicates that it has led to increased revenues for the company thus improving its overage performance in the market.

24 (55.81%) respondents strongly agreed to the statement that; the customers are greatly satisfied with their products as a result of reverse logistics, 14 (32.56%) of them agreed, 2 (4.65%) of them were neutral, 1 (2.33%) of them strongly disagreed, while 2 (4.65%) of them strongly disagreed. The responses clearly suggest that the application of reverse logistics in the company has increased customer satisfaction. It also an indication that customer loyalty has increased and they appreciate the products more. All this can be attributed to the proper implementation of reverse logistics. The customers are not burdened with the stress of disposing off the packaging materials but the bottling company always takes care of them. Customer satisfaction occurs when the products and services meet the expectations of the customers. They care more about having the requirements of the products met and Kisii Bottlers have succeeded in its bid to impress the clients.

12 (27.89%) respondents strongly agreed, 17 (39.54%) agreed, 10 (23.26%) were neutral, 1 (2.33%) strongly disagreed, while 3 (6.98%) disagreed to the statement that the profitability level of our company has improved as a result of implementing reverse logistics. This can be attributed to the fact that the costs of various processes have been cut down greatly. They produce more at low cost yielding more profits. It is a sign that reverse logistics has done the company a lot of good.

4.5 Recommendations
The recommendations that were given by the respondents are as shown in figure 4.3 below.
Figure 4.4: Recommendations

Figure 4.4 above shows that 32% of the respondents recommended adoption of an effective integrated approach in ensuring that the reverse logistics practices is more effective. It indicates that incorporation of all the departments in implementing the process will help generate ideas that will improve the operations within the organization. 26% of them proposed a customer focused returns approach to be implemented by the firm. The reverse logistics practices will be more effective once the customer needs and their expectations as well is the best strategy. 16% of the respondents proposed logistics optimization. It can be achieved by working with the third party service providers of logistics and employing the transport optimization techniques so as to make the supply chain to be more efficient. 14% of the respondents thought the management should give the reverse logistics practice of the organization so as to improve the performance of the organization. Managers are important decision makers of the organization and since reverse logistics are meant to improve the overall productivity of the organization. 12% recommended a go green approach to the reverse logistics. Such an initiative can ensure that the reverse logistics is part of an overall green initiative. It will be easier to also determine the plight of all the returned items. The green initiative is a priority and a lot of concern has been directed towards it.

5.0 Summary, Conclusion and Recommendations

5.1 Summary
The study was conducted among the employees of Kisii Bottlers Limited. The target group included employees from the top management, procurement department, and the sales/marketing department. An impressive response rate was attained as 43 out of the 45 questionnaires were filled and returned. It was established that the organization practices reverse logistics from the 100% affirmative response rate. This shows that the firm is aimed at improving its overall performance in the market that is becoming very competitive. The company has an environmental management department that has been so effective in reduction of its impact on the environment and also improving its operations. The company recycles the used bottles for repackaging, and it shows that the firm reduces the costs that it could incur in producing new ones. It remanufactures the final products, and it ensures that the final products that are delivered to the customers are of good quality. They also reuse products and have customized their products so as to meet the needs of the customers. It has put in place quite some measures to ensure that re-use, remanufacturing and also recycling is effective. Reverse logistics has been very effective in reducing the production costs, increasing the market share, improving the profitability of the organization and also satisfying the customers. This indicates that reverse logistics has played a central role especially in the propelling the firm to greater heights of success.
5.2 Conclusion

The study established that the application of reverse logistics practices has a significant effect on organizational performance. The application of reverse logistics in the organization has enabled the firm to significantly reduce the costs it incurs in running of various processes. It has been able to satisfy the needs of the customers and has been able to realize huge profits. The practices of recycling, re-use, and remanufacturing have proved to be very effective in elevating the firm’s performance.

5.3 Recommendations

The following recommendations may be considered based on the findings of the study;

i. There is a need for the company to establish a set of clear and also uniform policies that will govern the disposition of returns. Through very precise guidelines the company could improve its reverse logistics practices thus enhancing the overall organizational performance.

ii. The top management should ensure that there is a senior level accountability that will act as guidance to the whole reverse logistics process. The firm should set aside a separate division from the others that will be dedicated to the reverse logistics practices with a profit and loss statement so as to monitor its progress in the organization easily.

iii. There should be more quality standards set for the re-use, remanufacturing and recycling of the used packaging materials.

5.4 Areas for further study

Impediments to reverse logistics knowledge and mechanisms that can be put in place, so that is accomplished in the most efficient manner

REFERENCES


