

MIDLANDS STATE UNIVERSITY



FACULTY OF COMMERCE

DEPARTMENT OF ACCOUNTING

**BALANCING SIGNIFICANT COST CUTTING AND MAINTAINING PROFITABLE
OPERATIONS IN A COST REDUCTION EXERCISE. A CASE OF MEGA PAK (PVT)
LTD**

BY

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS OF BACHELOR OF COMMERCE ACCOUNTING HONOURS
DEGREE, SUBMITTED TO MIDLANDS STATE UNIVERSITY, GWERU: ZIMBABWE**

MAY 2014.

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YEAR THIS DEGREE GRANTED:2014

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ACKNOWLEDGEMENTS

First and foremost I would like to thank the Almighty God for seeing me through this far. Profound thanks also go to my supervisor, MrKazembe for the time, guidance and support he gave me throughout the entire dissertation. I would also like to extend my appreciation to the people I worked with at Mega Pak for granting me the permission to carry out this study.

Furthermore I would like to thankmy parents for the financial support and my family, MrMvura and friends for the moral support they gave me during my project.

ABSTRACT

The study was carried out to find ways to balance significant cost cutting while maintaining profits in a cost reduction exercise of Mega Pak (Pvt) Ltd. The need for the research emanated from the company's total costs that were rapidly increasing as well as the projected decline in profits and increase in costs as a result of price controls that were instituted by Delta, the company's major shareholder and customer which contributed 55% of the company's revenue. The research method used was a case study and questionnaires and interviews were used as primary data gathering instruments and financial statements were used as secondary data. The sample size used consisted of 33 respondents of which 26 responded to questionnaires and 7 responded to interviews. Tables were used to present data gathered and graphs, pie charts and bar charts were used to analyse data and interviews were summarised. The major findings of the study showed that the company was not utilizing all the cost reduction strategies that were reviewed by other authors, scholars and journals. Theoretical views were used alongside findings to provide recommendations to Mega Pak (Pvt) Ltd. The research recommended the adoption of the ABC costing and lean production, continuation of energy saving through use of filters, replacement of wooden pallets with plastic pallets and collection of used plastic bottles for use in recycling as it will significantly cut costs. The research further recommended introduction of new products from the recycled material as a way of increasing revenue, hence increasing revenue base of third party customers and profits.

LIST OF TABLES

Table 1.1	Financial Statements
Table 2.1	Activities and Cost Drivers
Table 3.1	Selected Population and Sample
Table 4.1	Questionnaires Respondents Results
Table 4.2	cost reduction techniques
Table 4.3	Cost Cutting Measures
Table 4.4	Impact of Cost Drivers
Table 4.5	Profit Increasing Strategies
Table 4.6	Results: New Product Lines
Table 4.7	Collection Of Used Plastic Bottles
Table 4.8	100% Recycling
Table 4.9	MFCA
Table 4.10	Reusing Materials
Table 4.11	Reduction of Working Hours
Table 4.12	Financial Statements 2014

List of Figures

Figure 4.1	Lean Production
Figure 4.2	Total Quality Management
Figure 4.3	Activity Based Costing
Figure 4.4	Supply Chain Management
Figure 4.5	Paper Flow Elimination
Figure 4.6	Value Analysis
Figure 4.7	Target Costing
Figure 4.8	Just in Time
Figure 4.9	Kaizen
Figure 4.10	Energy Saving
Figure 4.11	Salary Reduction
Figure 4.12	Product Design changes and waste reduction at manufacturing stage
Figure 4.13	Increasing prices for third party customers
Figure 4.14	Liaising with suppliers for price reduction
Figure 4.15	Enhancing quality to reduce customer bargaining
Figure 4.16	Reduction of product costs
Figure 4.17	Reduction of distribution costs
Figure 4.18	Promotional alliances
Figure 4.19	Is the collection of plastic bottles a viable option
Figure 4.20	Reduction of working hours

Table of Contents	
Approval form.....	i
Release form	ii
Acknowledgements.....	iii
Abstract.....	iv
List of tables.....	v
List of Figures.....	vi
Chapter 1.....	1
Introduction.....	1
1.0 Introduction.....	1
1.1 Background of the study	1
1.2 Statement of the problem	2
1.3 Main research question	2
1.4 Research objectives.....	2
1.5 Sub research questions.....	3
1.6 Delimitation	3
1.7 Limitations	3
1.8 Assumptions.....	4
1.9 Definition of terms	4
1.10 Acronyms.....	4
1.11 Summary	5
CHAPTER 2	6
LITERATURE REVIEW	6
2.0 INTRODUCTION	6
2.1 Cost reduction techniques	6
2.2 Measures to cut costs and improve profits.....	10
2.2.1 How the measures can be implemented.....	10
2.3 Establishment of cost drivers	12
2.3.1 What are cost drivers?.....	12
2.3.2 Impacts of establishing cost drivers.....	14
2.4 Strategies to increase profits	16
2.4.1 Porter’s five forces strategies.....	16
2.4.2 Bargaining power of buyers.....	16
2.4.3 Various strategies.....	17

2.4.4 Pricing Strategies	18
2.5 Impacts of introducing new product lines.....	19
2.5.1 What is a product line?	19
2.5.2 Ways in which new product lines can be introduced.....	19
2.5.3 Impacts of new product lines	20
2.5.4 How to successfully introduce a new product line.....	21
2.5.5 Accounting techniques used to analyse if a product should be introduced.....	22
2.6 Summary	22
Chapter 3.....	23
Research Methodology	23
3.0 Introduction.....	23
3.1 Research Design.....	23
3.1.1 Descriptive research design	23
3.2 Case study	24
3.2.1 Advantages of case study method.....	24
3.2.2 Disadvantages of a case study method.....	24
3.3 Population	24
3.4 Sampling	25
3.4.1 Purposive sampling.....	25
3.4.2 Advantages of purposive sampling	26
3.4.3 Disadvantages of purposive sampling.....	26
3.5 Methods of data collection.....	27
3.5.1 Primary data	27
3.5.2 Secondary data	27
3.6 Research Instruments	28
3.7 Questionnaires.....	28
3.7.1 Advantages of questionnaires	28
3.7.2 Disadvantages of questionnaires.....	28
3.8 Likeart Scale	28
3.8.1 Advantages.....	29
3.8.2 Disadvantages	29
3.9 Interviews.....	29
3.9.1 Personal Interviews.....	29
3.9.2 Merits of personal interview	29
3.9.3 Demerits of personal interview	29

3.10 Telephone interviews	30
3.10.1 Advantages of telephone interviews	30
3.10.2 Disadvantages of telephone interviews.....	30
3.11 Reliability and validity of instruments.....	30
3.12 Data Presentation	30
3.13 Summary	31
CHAPTER 4	32
DATA PRESENTATION AND ANALYSIS	32
4.0 Introduction.....	32
4.1 Primary Data	32
4.2 Questionnaire Responses	32
4.13 Interviews.....	56
4.13.1 Interview responses analysis.....	57
4.14 Secondary Data	60
4.16 Summary	61
CHAPTER 5	62
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	62
5.0 Introduction.....	62
5.1 Summary	62
5.2 Major Findings.....	63
5.3 Conclusion	64
5.4 Recommendations.....	65
5.5 Areas of further study	66
REFERENCE.....	67
Appendix 1.....	75
Appendix 2.....	76
Appendix 3.....	79

Chapter 1

Introduction

1.0 Introduction

This chapter contains the background of the study, the statement of problem, the main research question. It also covers the research objectives and sub research questions, delimitations, limitations, definition of terms and the summary.

1.1 Background of the study

On 15 April 2013 the directors of Mega Pak mentioned the need to reduce costs in a meeting which had emanated from the pressure exerted by the parent company to reduce selling prices by almost 35 % (Source: Management Accountant). The parent company, (Delta Corporation), is the major customer. The reduction of selling prices had a negative impact since Delta contributed 55% of Mega Pak's revenue. It also had an impact of reducing profits in future as proven by the projected budget as stipulated in the Company Financial Reports (2013). In the previous years the company met their profit targets before the implementation of this change but during the year (1 April 2013- 31 March 2014) under review the company will continually experience increasing total costs and reduction in profits. An early sight by management also showed that they would not be able to meet their targeted profits due to the price controls instituted by Delta when they projected the 2014 budget as in table 1.1 below.

Table 1.1: Source- Financial Statements (2012 - 2013)

Year	2014	2013			2012		
	Projected	Actual	Targeted	Variance	Actual	Targeted	Variance
	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Revenue	41 356	37 600	35 000	2 600F	33 026	31 000	2 026F
Cost of sale	25 227	20 500	21 350	850F	17 134	16 740	394U
Overheads	13 778	12 000	9 150	2 850U	10 833	10 260	573U
Total costs	(39 005)	(32 500)	(30 500)	2 000U	(27 967)	(27 000)	967U
Profit	2 351	5 100	4 500	600F	5 059	4 000	1 059U

The table clearly shows that profits for the year ending 2014 will reduce by 53.9% and the total costs will also increase by 20% while in the previous period it had increased by 16.21%. Therefore there is need to maximize profits, either by increasing revenue or reducing costs or both.

The fact that there had not been changes in the purchase price of raw materials and production costs gave clear evidence that there was need to reduce costs and increase profits and maintain efficient operations. This is also further constrained by the fact that Mega Pak imports raw materials and it is normally at higher prices.

Had the same products sold last year were sold this year without a reduction in selling price then the sales would have gone up by \$350 000 (Source : Management Report, 2013). The other effect of the reduction of selling prices by 35% was that going forward Mega Pak would lose a considerable amount of revenue month after month effectively resulting in loss of operating profits. At the beginning of July 2013 management deemed it fit to initiate the process of curtailing costs down as it was necessary in order to improve the profit objective.

1.2 Statement of the problem

Mega Pak will be experiencing an increase in overheads and a decline in operating profits according to the projected budget. This is due to price controls instituted by Delta, the major shareholder, major customer contributing over 55% of Mega Pak's revenue. Therefore maximising profit requires either increasing revenue from other customers who generated 45% revenue or reducing costs or both. Cost cutting however poses challenges in that there is need to achieve a trade-off between significant cost cutting and maintenance of profitable operations.

1.3 Main research question

How can Mega Pak achieve a trade-off between significant cost cutting and maintaining profitable operations?

1.4 Research objectives

In carrying out this research objectives will be explored. These are:

- To analyse the cost reduction techniques currently in use by Mega Pak.
- To suggest other cost cutting measures to improve profits.

- To identify effects of operating cost drivers for all products.
- To suggest strategies to increase profits from current clients.
- To identify new product lines that are not affected by price controls from Delta.

1.5 Sub research questions

The research will seek to answer the following questions:

- Which cost reduction techniques can be adopted?
- What measures can be implemented to reduce the overheads to improve profits?
- What will be the impact of establishing operating cost drivers?
- What strategies can be used to increase profits from clients?
- What impacts do the new product lines have on increasing profits?

1.6 Delimitation

- The research will focus on Mega Pak (Pvt) Ltd Company which is located in Ruwa, Harare.
- The research covers the period 1 August 2012 – 31 July 2013.
- The study will be focused on identifying the cost reduction opportunities on Mega Pak due to increase in total costs.
- The study will involve management and employees of Mega Pak in enhancing the research.

1.7 Limitations

The researcher may face challenges which include

- The period of research might be short but the researcher will make use of emails, Internet, telephone in conducting the research.
- Access to information may be limited since management considers some information as confidential and withhold it. However the student will have to obtain a letter from school

and assure management that the information disclosed will be confidential and will be meant for academic purposes.

- Power- cuts- the researcher will utilise all free time and make use of day light.
- Collaboration from the targeted people especially management may be a limitation because of the nature of their jobs which keeps them busy. However the researcher will make use of questionnaires to obtain a reasonable number of responses, for example through e-mails.

1.8 Assumptions

- The researcher will access financial information from Mega Pak's financial statement
- The other information will be accessed from management's reports

1.9 Definition of terms

Cost

The amount of expenditure incurred on goods and services used by the company.

Cost reduction

'Conducting some innovations in the way of working in a new style, so that excess of cost of production and operations could be eliminated' (<http://accountlearning.blogspot.com> 14.02.2014; 5.18pm).

Cost drivers

According to Walther and Skousen (2009) a cost driver is a cause factor of costs incurred within the company.

Profit

According to Barro (2008) profit is an amount obtained when cost of acquiring input and cost of labour and capital are deducted from revenue.

1.10 Acronyms

- **ABC** Activity Based Costing

- **ABM** Activity Based Management
- **CZI** Confederation of Zimbabwe Industries
- **EOQ** Economic Order Quantity
- **IRR** Internal Rate of Return
- **ISO** International Organisation of Standardisation
- **JIT** Just In Time
- **MFCA** Material Flow Cost Accounting
- **NPV** Net Present Value
- **TQM** Total Quality Management

1.11 Summary

This chapter contained the background of study, statement of the problem, main research question, research objectives, sub research questions, delimitations, limitations, assumptions, acronyms and definition of terms. The next chapter will be the literature review.

CHAPTER 2

LITERATURE REVIEW

2.0 INTRODUCTION

In the previous chapter the author was introducing the area of research. This chapter will focus on literature review, which is reviewing opinions and views of other authors and researchers on how to reduce costs in a company while maintaining profitability. The researcher will gather information from different sources such as journals, research papers and websites.

2.1 Cost reduction techniques

The most vital factors that should be considered in a cost reduction exercise are reducing operating and supply costs. 'The aim of cost reduction is to see whether there is any possibility of bringing about a saving in the costs incurred on materials, labor, overheads etc.'<http://accountlearning.blogspot.com> 21.03.2014; 5.20pm).

The cost reduction techniques widely used are TQM, Kaizen costing, target costing, JIT system, ABM, life cycle costing, bench marketing, value chain, and management audits ((Poudel at <http://accountlearning.blogspot.com> 21.03.2014; 5.20pm). Further noted are the following reduction techniques: employee involvement, reduction in costs of paper work and cycle time, MRP in purchasing, energy reduction and management of inventory, applying ABC, quality assurance and value analysis (<http://www.utexas.edu> 20.03.2014; 17:48hrs). Iyer (2012) added the following cost reduction techniques: supply chain management, EOQ, technological forecasting and market research.

Tatsana-iam and Ngaoprasertwong (2013) defined lean approach as an approach used to get rid of waste and unnecessary processes done in between the manufacturing of products. In addition lean production is a cost reduction system used to reduce costs thereby realizing benefits. They also added that lean approach reduces the processing time in the manufacturing stations from the case study they cited as an example. Anderson (2014) postulated that lean manufacturing can scrap and cut errors leading to reduction of costs significantly raising labour productivity and eliminating waste. Walther (2009) also affirmed that lean is an approach in which each and every

process is assessed by accountants, company advisors and other business experts in order to improve efficiency while trimming waste and ensuring quality and speedy production.

According to Walther (2009:96), 'TQM is a key driver of customer satisfaction and business success.' Iyer (2012) postulated that TQM trims down costs when products are properly manufactured the first time than misusing resources producing substandard products which may increase cost on inspection, reperformance and scrapping. According to Tatsana-iam and Ngaoprasertwong (2013:3), "the objective of implementing TQM is reducing cost and improving product quality, being able to respond to customer needs, developing quality of life of employees and leading to perfect quality organization and learning organization."

However Tatsana-iam and Ngaoprasertwong (2013) viewed TQM as a more effective method than lean approach since it have a feature of involving employees in cost reduction and has much impact on improvement. Employee involvement is viewed as a key to cost cutting (www.utexas.edu 20.03.2014; 0700hrs). Tatsana-iam and Ngaoprasertwong (2013) carried out a research in trying to compare the lean approach against TQM-Lean approach. The research proved that TQM-Lean approach would be a better approach since organisational improvement can be done in a short time frame because TQM takes a long time frame on its own rather than lean. They concluded that organization improvement can be attained since it focuses on waste elimination, analyzing processes and it incorporates employee's ideas.

Anvari, Ismail and Hojjati (2011) were of the opinion that comparison of lean manufacturing and TQM is referred to as Kaizen costing. Poudel at (<http://accountlearning.blogspot.com> 21.03.2014; 5.20pm) cited that kaizen costing is a method which reduces costs of an existing product during the manufacturing stage. According to Walther (2009) kaizen is an approach in which managerial accounting and members of strategic finance just observe and listen to employees contributing their views in focus sessions conducted to seek areas of operational improvements. He further noted that the kaizen sessions leads to greater costs and good organisation savings as it creates cost control awareness to employees and gives them a deeper understanding.

ABC management is another cost cutting technique. According to Yousof and Yousof (2011), ABC was formulated to identify and control overhead costs. Furthermore they believe the use of

ABC leads to easy allocation of costs and can easily identify reasons behind all costs. They also viewed it as a cost system that assists in identifying how to trim down costs and maximize shareholder value. UNISA MAC 4861/102 (2012) asserted that ABC is advantageous if it is used to cut costs and change prices. Nassar et al. (2009) carried out a research in Jordanian industries to find out the implementation of activity based costing in developing countries. From their results they deduced that most companies that adopted this system would have experienced increases in overhead and growing costs, production and administration costs. They also observed that it met their cost reduction efforts.

Nassar et al. (2013) also conducted a research in Jordan in order to view why companies would get disappointed if ABC was mentioned. The results from their research showed that those who were non-adopters viewed the implementation and the system itself as very costly (Nassar et al., 2009). However Iyer (2012) argued that if activities that give rise to costs are dealt with then costs will be manageable in the long run. KPMG (2009) further supported that, in the short term, rapid cost reduction measures disrupt operations.

An example cited by Iyer (2012)

A direct mail printing firm did a cost reduction exercise in which they intended to reduce idle time and lessen the entire set-up time without dismissing employees. The company was experiencing a decline in profits. The company intended to reduce the number of employees which they thought was a solution to control costs in the short run. The activities in the printing services were analysed and pointed out that 35 hours was the set up time on complex orders. The employees were idle for 25% of the time during set up. ABC revealed that the idle time was costing the company wages of US\$41000.

According to Hansen and Guan (2009) JIT is a system which stresses that products should be produced in the exact quantities needed by customers only when they are requested for. He further noted that JIT results in minimisation of inventories. Jaber (2009) asserted that JIT approach stresses that inventory is waste. This system guarantees absence of inventory, faults, failures and it eliminates non-value added activities and ensures single batch ordering thereby assisting in reduction of costs (Iyer, 2012). However DuBrin (2010:214) argued that, "the savings from JIT management can be deceptive, suppliers might simply build up inventories in their own

plants and add that cost to their prices.”According to DuBrin (2010) in manufacturing companies JIT is the most applicable inventory management system that can be used.Heisinger (2012) supported this view when he asserted that proper execution of JIT can significantly save costs within an organization. However according to <http://www.epa.gov>(14.03.2014; 12.02pm), the JIT system does not cut costs significantly.

Supply chain management is defined as a vital tool that assists management in improving profitability,productivity and the performance of their organizations (Askarany, Yazolifar andAskary, 2010). According to Iyer (2012) if the supply chain management is properly exercised it might reduce the associated costs and activities that occur in between the suppliers and customers.He added that, cost reduction results from management ensuring that a relationship exists between the suppliers and the company’s research and development department since it enhances continuous upgrading in product designs and manufacturing methods.

Heisinger (2010:32) defined target costing as “an approach that mitigates the cost efficiency problems associated with introducing new products by integrating the product design , desired price, desired profit, and desired cost into one process beginning at the product development stage.” Hansen and Guan (2009) shared the same opinion when they cited target costing is a costing system that allows management to compare life cycle of a product and costs incurred on designing the product thereby assisting management to change designs to reduce costs if product design costs outweighs the life cycle of a product.

A paperless environment saves the businesses from pumping out money, saves time and improves document security (<http://www.globalstewards.org> 02.05.2014, 1700hrs). Saving paper can refrain a company from passing on its profits to paper suppliers (<http://www.nrdc.org> 03.05.2014; 1000hrs). Every single paper used within a company gives rise to recycling costs, storage costs, printing costs, disposal costs, copying costs, postages costs and purchasing costs (<http://156.98.19.245> 15.03.2014; 0200hrs). This calls for paper flow elimination. However, the use of online material could lead to the manipulation of the system especially in the finance department or if by any chance a cyber crime happens then the company’s information may leak.

According to Iyer (2012:6), “EOQ is the quantity fixed at a point where total cost of ordering and the cost of carrying the inventory will be minimum.” However Porter (2011) is of the opinion that EOQ is used for inventory management but it opposes the just in time approach as the stock delivered on each order builds up the stock levels.

Value analysis is a technique that cuts costs at production stage since it identifies redundant costs which do not enhance the products’ use, appearance, life, quality and client satisfaction, (Iyer, 2012).

In conclusion cost reduction should be carried out more often to keep the business performing well.

2.2 Measures to cut costs and improve profits

According to Mohr, Somers, Swartz and Vantthournout (2012) to minimize costs and to increase operational stability the companies should focus on production, value recovery, production design and supply-management circle. According to Earnest at www.ibuzzle.com (20/03/2014; 1822hrs) the cost cutting measures that can be put into place by any company regardless of its size are: administration, machinery maintenance, hiring qualified personnel, saving electricity and use of mails limiting use of paper. Stan at www.billshrink.com (28/03/2014; 0300hrs) also gave his views on cost cutting measures that can be put in place without dismissing employees which are as follows: reduction of salaries and working hours for employees, audit of office supply expenses, removal or cutback of bonuses for senior managers, offering employees unpaid vacations, enforcing compulsory holidays, replacing in-person work with telecommuting, removal of unnecessary travelling and meetings, not hiring employees, salary raise freezes and scaling back of business functions.

2.2.1 How the measures can be implemented

Stan (2009) asserted that the reduction of hours can be implemented through reducing the working hours for a certain portion of employees. This is further supported in an article that was written by Seligson (2009) in which the Vera Institute company in America reduced the working hours by introducing a three day week for five employees hence reducing their salaries by 40%. This was implemented after the company had lost large sums of money from the project they had engaged into and to cut the payroll expenses. However the Vera Institute Chief operating officer

highlighted that the company could not afford to lose human capital so this was just a way of cutting costs in such a down turn.

The audit of office supply expenses should be taken into account since they may end up increasing waste because if the company is big then the unexamined office expenses can have a great impact on the employment budget (Stan, 2009).

According to Stan (2009) the removal or cut back of bonuses for senior managers is more effective since it leads to a greater cost saving as their salaries are the highly ranked and if they try to implement it on the lower ranked employees, there will be a lower chance of resistance from the employees. This can be further supported by an article that was written by Wolgermuth (2008) about Motorola Company making an announcement on cutting expenses. The following were put into action: salaries would not be increased, freezing pension funds in US benefits, other employees would not receive salaries, voluntary reduction of salaries by the co-CEOs and voluntary elimination of bonus by one of the co-CEO and the company would lay off 3000 employees towards saving \$800 million. According to Stan (2009) the reduction of employees' salaries is a measure that is not popularly used.

Mohr et al. (2012) were of the opinion that costs can be reduced if manufacturing companies reduce the energy they consume in production by 20% – 30%. Earnest (2011) shared the same view, that energy should be saved. Kachembere (2014) shared the same opinion according to the article he wrote about CZI's concern on the industries' capacity utilization having reduced from 44% to 39% from 2012 to 2013 due to factors such as electricity costs.

Schmidt and Nakajima (2013) carried out a research in which they selected 15 case studies of different industries and different companies and from these case studies they obtained that 20 – 30% resources were tied up in negative products. These companies implemented the material flow cost accounting (MFCA) which exposed hidden material losses in the production process. However Mohr et al. (2012) postulated that costs can be reduced if manufacturing companies cut back on 30% material on production. Mohanty (2010) also supported the reduction of material as it reduces waste and increases resource utilisation.

Mohr et al. (2012) asserted that, recycling material reduces product costs by half as most companies have started to venture into new business of retaining ownership of the products they

would have sold to be used in recycling. They were of the opinion that it could be done through engaging buyers into returning back the manufacturer's product after use, so that the manufacturer could add value to the product again. They further supported this when they asserted that firms which deal with waste materials whether in processing, accumulating and managing waste are supposed to optimize such processes and formulate new markets by recycling such waste. Mohanty (2010) viewed the recycling of material as an element that is eco-friendly. This can be evidenced by Ecopost (Ltd) company in Kenya which collects plastic bags and plastic bottles from dumping sites and produce products that are 100% recycled plastic waste (<http://www.ecopost.co.ke> 14.03.2014; 2:05pm). The plastic waste is used to produce plastic fencing poles, plastic planks, road signage, chain-link fencing and flower pots using the injection moulding which deters cutting down of trees (<http://www.konnectafrica.net> 14.03.2014; 2:00pm).

Mohanty (2010) stated that, the change of product designs can lead to reduction of costs if a firm incorporates the use of low-priced and renewable material. If such changes are made to a product it can be recycled, hence reducing costs in products that would have reached the end of the cycle. This also facilitates compliance with regulations. According to Schmidt and Nakajima (2013) most companies that apply the material flow cost accounting comply with ISOs.

2.3 Establishment of cost drivers

2.3.1 What are cost drivers?

According to Singh (2010:2) a cost driver is defined as an “existence of a cause-and-effect relationship between a change in the level of activity or volume and change in the level of total costs of that cost object.” Cost driver is the root cause of changes in costs to be assigned, (Cokins and Capusneanu, 2010). Cost drivers are identified in the ABC system. From the activity pools there are cost drivers, www.svtuition.org (22.03.2014; 10.51pm). Examples of activities and their cost drivers.

TABLE 2.1 ACTIVITIES AND COST DRIVERS

Activity	Cost drivers
Purchasing raw materials	Purchase requisitions
Setting up machines	Machine set ups
Running machines	Machine hours
Assembling products/ Supervising cost pools	Direct labour hours
Inspecting finished products	Inspection hours
Inspecting and testing	Number of tests

Source: Heisinger (2010) and <http://www.svtuition.org> (22.03.2014; 1137hrs)

Cost drivers allocate costs related to the output produced in the traditional costing system (Mahachi, 2012). Whereas Yousof and Yousof (2011) postulated that in an ABC system, cost drivers accurately allocate costs to overhead costs. Manufacturing overhead costs are allocated in a reasonable way when using the ABC system than when using the traditional approach since costs are assigned to activities that will be the real causes of overheads (<http://www.accountingcoach.com> 02.05.2014; 0248hrs). Yousof and Yousof (2011) identified the traditional costing system (direct costing and standard costing) and ABC system. They postulated that in traditional systems, direct costs are not allocated to cost objects and assumptions are made in identifying indirect costs, whereas the ABC system allocates overheads to activities performed to product. Heisinger (2010) cited that allocation is done on the basis of indirect manufacturing costs since they cannot be directly traced to a product Nassar et al. (2009) further supported this through the research he carried in Jordan, that in developing countries traditional costing systems were not satisfactory for managers in the modern environment, so ABC would be the answer. Wang, Du, Lei and Lin (2010) supported this idea when they stated that the use of traditional cost accounting results in product cost distortion in contemporary manufacturing environments since it employs the use of direct labour or output volume to allocate overhead costs hence leading to poor decisions.

An example cited of how the ABC costing system allocates costs associated with activities to specific product demanding the activities is shown below:

Example: There are two products, the low volume and high volume product. The low volume demands the following activities: frequent machine set-ups, special engineering and additional testing as it is supplied in small volumes. The high volume product is produced on a continuously running machine therefore it does not demand special activities and much attention. Application of ABC in such a case would then require taking into consideration all activities that cause costs. The costs will then be allocated to products that required resources. Therefore costs will be allocated to activities, of which in this case the low product consumes many resources than the high volume products since it requires many special activities (<http://www.accountingcoach.com> 02.05.2014; 0248hrs).

Steps involved in determining the product costs according to Heisinger (2010) encompasses: identification of activities that are costly in producing products; assignment of indirect costs to activities; identification of cost drivers in every single activity, computation of predetermined overhead rate for every single activity and then apportionment of overhead costs to products.

2.3.2 Impacts of establishing cost drivers

According to KPMG (2009) cost driver analysis imparts cost structure knowledge in management in such a way that they will be able to identify and prioritise savings opportunities. According to Heisinger (2012) allocation of overheads is vital because it allows management to make pricing decisions basing on product costs and resources can be efficiently used since the identification of costly activities can be utilised. He added on that it fulfills the requirements of GAAP since it entails that manufacturing costs should be apportioned to relevant products for the purpose of costing inventory. Yousof and Yousof (2011) also supported this idea when they cited that inventories are valued correctly by companies that use the ABC accounting system.

UNISA MAC 4861/102 (2012) asserted that, ABC system is a decision making tool which is viewed as an accurate method of pricing products and imparts knowledge in management on whether they should allocate or withdraw resources to cost objects. In addition it assists management in deciding whether they should continue producing products depending on the

profits generated by the product. In a study carried out by Yousof and Yousof (2011) a conclusion was made on the benefits enjoyed by companies that were ABC adopters and these included decision making in customers, products as well as business and analysis of returns. However the results of the study showed that non adopters did not opt for ABC because they concluded it had constraint factors which were implementation and maintenance of the system, failure to identify activities, unavailability of resources as well as lack of management support. However Nassar et al. (2009) observed that ABC users faced challenges in implementing ABC due to technical barriers rather than organizational barriers. However Nassar et al. (2013) recommended that adequate training for designing the system and training on how to use ABC were the requirements for implementing ABC.

Akinyomi (2014) conducted a research on how competition influences ABC adoption in the Nigerian manufacturing sector. He obtained that the firms that had implemented the ABC system intended to gain competitive advantage over other firms and he believed that increased competition called for the need to pay more attention to an accurate costing system using ABC. Matangira (2012) supported this view by asserting that ABC is the most preferably used technique for companies with a high proportion of indirect cost in its total costs. This was further supported by Pavlatos and Paggios (2009) when they asserted that the ABC adopters in hotels have a greater portion of indirect costs and high revenues than non ABC adopters.

Nassar et al. (2013) carried a research and the results showed that the Jordanian industries believed ABC was a better technique in forecasting, determining product costing and consumer profitability. Yousof and Yousof (2011) stated that firms that make use of ABC feel more secure with the outcomes since ABC includes forecasting and planning methods. In addition they viewed the use of ABC as a system that improved its performance in pricing their products, since ABC easily allocate costs to activities and identifies the reasons behind costs. Pavlatos and Paggios (2009) were in favour of this through the research they carried out in Greece regarding the use of ABC in hotels and they obtained that it was used for pricing decisions and analysis of client profitability in management accounting areas.

According to Heisinger (2012) the use of ABC may be more efficient in manufacturing companies involved in producing a wide variety of products rather than small companies because

costs may outweigh benefits. He further emphasized that ABC is guaranteed to function properly as long as management is in full support of its implementation. Nassar et.al (2009) also observed that the problems perceived from the implementation of ABC in the companies in which they undertook their research was lack of management support. Yousof and Yousof(2011) conducted a research and concluded that of the 23,5% of the companies that did not want to adopt ABC was because of lack of management interest.

In conclusion, the factors gives rise to direct and indirect costs should be known and completely understood so that management can build up and carry out an effective and sustainable cost optimization initiative (KPMG, 2009).

2.4 Strategies to increase profits

According to Kotler and Keller (2012:72), “strategy is a game plan of getting there.”Kotler and Keller(2012) goes on to say most organisations’ objectives are to obtain profits and increase sales, so to increase profitscompanies engage in ways and means of maximizing profits.

2.4.1 Porter’s five forces strategies

According to Hill and Jones (2009) the Porter’s five forces constitutes negotiatingclout of buyers, bargaining power of suppliers, threat of substitutes, risk of entry by potential competitors and intensity of rivalry among established firms. Whalley (2010:20) stated that, “the five forces determine industry profitability and some industries may be more attractive than others.” Ahlstrom and Bruton (2010) further supported this when they asserted that companies should be well versed with such forces so as to formulate business strategies that allow them to shield themselves from these forces hence creating a profitable environment. Whalley (2010) was of the opinion that the five forces framework is a vital guide to management as it directs them towards aspects that stand a chance of bringing about long term benefits.

2.4.2 Bargaining power of buyers

Ahlstrom and Bruton (2010) defined buyers as companies or personsthat procure the output of the industry. The buyer’s power can be determined if a customer is in the capacity to change from one supplier to the other and if the buyers contribute the greater portion of the supplier’s revenue, (Whalley, 2010; Ahlstrom and Bruton, 2010; Ritson, 2013). Level of product differentiation and the possibility of backward integration by the purchaser are also determinants

of buying power (Ritson, 2013; Whalley, 2010) and brand uniqueness (Whalley, 2010). “The crucial question in determining profitability, is how much value firms can create for their buyers, and how much of this value will be captured or competed away”, (Whalley, 2010:20).

According to Porter (2008) buyers are deemed to be influential if they have the power to pressure price reductions through negotiating with their suppliers. However Berry at articles.bplans.com(31.03.2014; 1135hrs) stated that, to lessen the buyer’s power the sellers should change suppliers and build up quality offers which cannot be declined by buyers as well as finding buyers with less bargaining power. If customers are weak, this can lead to the industry attaining profits (www.tutor2u.net 31.03.2014; 11.43am). Sud et al. (2012) also shared the same opinion, that enhancement of quality could lead to less bargaining power.

2.4.3 Various strategies

The strategies to increase profits cited on (<http://www.ecommercefuel.com> (20.03.2014; 3.50pm) are as follows: increasing prices and not obsessing about per order profits.

The ‘do not obsess about per order profits’ strategy is a strategy when, “many businesses are unwilling to lose money on an order, even if that means ending the relationship with an unhappy or dissatisfied customer”, (<http://www.ecommercefuel.com> 20.03.2014; 3.50pm). This strategy requires that the supplier tries to resolve a problem with its customer though this might be costly in the short term but it will bring benefits to the firm in the long run in form of incredible dividends resulting from the customer care which will result to a healthy bottom line.

The other strategies suggested by the Marketing Sage (2008) as strategies of increasing profits are as follows: reducing product returns, reduction of product and distribution costs, promotion of higher margin products, increase in prices, beat competitors to market, increase value, reducing marketing costs, exit low margin markets, elimination of low margin products and termination of high maintenance customers.

According to www.business.qld.gov.au (21.03.2014; 2.46am) in order for a company to increase profits it should find strategies to boost revenue, benchmark its industry to identify areas in which it will be incurring more costs and find strategies to reduce costs. Kotler and Keller (2012) viewed that promotional alliances could be an ideal form of increasing profits in that a firm can agree with other companies to carry out promotions on their behalf.

2.4.4 Pricing Strategies

Mohammed at <http://blogs.hbr.org> (22.03.2014; 2300hrs) cited that there may be an element of hidden profits if businesses do not set their prices right and viewed the increasing of prices as an approach that effectively increases profits. When the prices are raised the buyers should be tested so as to observe how they react from the different pricing (<http://www.ecommercefuel.com> 22.03.2014; 3.50pm). The Marketing Sage (2008) shared the same view that price increases also increase profits. Whalley (2010:89) argued about financial returns gained from increasing prices when he said, “such advantage is rarely, if ever, sustainable in the long term as such high returns encourage competitors.” He also argued that using the price increase strategy results in a low market share. This might also chase away customers.

Kehagias, Skourtis and Vasslikopoulou (2009) showed that there are two pricing strategies from their research, which are high price strategy and low price strategy. According to Whalley (2010) high prices are charged to increase profits and to gain a competitive advantage. However from the research that was carried out by Kehagias et al. (2009) in trying to find out how pricing affects the business objectives which are increasing profits, increasing market share and hinder new competitors from entering the market. He deduced that different pricing strategies can be employed depending on the company’s main corporate goal.

Hinterhuber and Liozu (2013) carried out a research on how pricing methods affect company performance. His conclusion showed that the pricing methods affect the company’s performance. He gave an example of when the CEO of Clariant company in Switzerland publicized that pricing was the main reason why the company had been ranked on top after having experienced negative profits in the past eight years because it has an impact of increasing profits. Hence pricing was seen as having a positive relationship with performance.

Hinterhuber and Liozu (2013) conducted a study on evaluating the pricing methods that affect the firm’s performance and competition-based pricing and value-based pricing were part of his study. Hinterhuber (2008) defined that value based pricing is when products are priced using the value it has to the customer. He carried out a survey on sales respondents, pricing respondents and management. He obtained that the sales respondents were of the opinion that value based pricing leads to increases in revenues but results in a drop in profits because of fixed expenses. Furthermore managers believed that pricing capabilities resulted in superior profitability. The

pricing respondents showed that competition-based pricing does not have a direct relationship with the financial performance of the firm.

However Hinterhuber (2008) was of the view that competition based pricing takes competition into consideration and that the customer value-based pricing approach may result in high prices being charged though it might not take long term profitability into account and that data may be difficult to obtain. Hinterhuber (2008:44) even showed that the pharmaceuticals, chemical and fast moving consumer goods industries respondents said that, “if the company itself does not know the value of its products or services to customers how does it know what to charge customers for value.” He carried his research in Germany, Austria, China and USA.

2.5 Impacts of introducing new product lines

2.5.1 What is a product line?

According to Kotler and Keller (2012:358) defined a product line as, “a group of products within a product class that are closely related because they perform a similar function, are sold to the customer groups, are marketed through the same outlets or channels or fall within given price ranges.”

2.5.2 Ways in which new product lines can be introduced

Product line width and product line depth (number of products in a product line) are extensions of a product line (<https://www.boundless.com> 22.03.2014; 2.37am). Meanwhile Vidhiartha (2009) defined the product width as the number of product lines that the company has. He defined product length as total number of items in the mix. Product lines can be lengthened into line filling and line stretching (Kotler and Keller, 2012). According to Vidhiartha (2009) product line lengths are created to increase sales and to facilitate cross selling, long product lines are used to seek market share and market growth while short product lines are used to seek profitability. However <http://brandvision2009.wordpress.com> (18.04.2014; 0111hrs) had a different opinion, “the different varieties of line extension may confuse and perhaps even frustrate consumers as to which version of the product is the “right one” for them.”

Kotler and Keller (2012) defined line filling as adding of more products or items to an existing product line to lengthen a firm’s products. The purpose of line filling is to carry on business without competitors, to work towards attaining profits, to cover up for lost sales of products that

were missing in the line and to utilize excess capacity, (Kotler and Keller, 2012). Line filling strategies rise up when the existing product line is void or it could be a void created due to competitors or customers (<https://www.boundless.com> 22.03.2014; 2.37am). However other products not contributing profits can be pruned from the product line

Product lines can be introduced in form of a down- market stretch or up- market stretch, of which in an up-market stretch products are introduced at a higher price which leads to the company gaining high margins and attaining growth and becoming full line manufacturers (Kotler and Keller, 2012).

2.5.3 Impacts of new product lines

According to Kotler and Keller (2012) product lines can be introduced on an all at once basis or on a piece meal basis, in which the piece meal basis examines customer's reactions to a new style. He adds on that this piece meal basis is favourable because it does not lead to high outflows of cash, though the new designs may give a picture of what will be transpiring to the competitors.

According to Larso, Doolen and Hacker (2009) the development of a new product is vital to the manufacturing company's financial interests. Market share may increase upon the introduction of new products on the condition that customers get attracted to the newly introduced products.

(<https://www.boundless.com>; 22.03.2014; 2.36am). According to

www.business.qld.gov.au(19.03.2014; 2350hrs), the development of new product lines was seen as a strategy to increase sales revenue.

Introduction of a new similar product may have an impact of cannibalizing the original product and reducing returns, (<https://www.boundless.com> 22.03.2014; 2.37am). Vincent (2013) argued that cannibalization had an effect of increasing profits on the entire product line or the company if the introduction of the product was properly executed. He also supported the idea of cannibalization since it enhanced a strong brand loyalty if product introduction was properly executed.

According to Kotler and Keller (2012) introduction of new products results in cost increases due to costs incurred in order processing, designing, transportation, inventory carrying, manufacturing changeover and promotion of new items and it exerts pressure on product line

managers because of the excess manufacturing capacity to produce new products. Porter (2011) shared the same view that the manufacturing costs will be high at the beginning of the introductory phase and there may be regular adjustments to design. Introduction of a new product may be costly during the research phase and by the time the product is launched the data collected in respect of the new product may be outdated because of regular changes in the market, (Williams at <http://yourbusiness.azcentral.com> 23.03.2014; 0059hrs). Matthew (2012) argued that a new product line should generate new revenue if a proper cost analysis is conducted before introducing the product line.

2.5.4 How to successfully introduce a new product line

Matthew (2012) viewed it risky to introduce a new product line, therefore he suggested six steps that should be followed in coming up with new product line. The steps are as follows: market tests should be done in which feedbacks are provided by customers and conclusions on whether customers will purchase the product or not should be deduced from observations made; on the condition that the firm decides to continue, the product is designed in such a way that quality is maintained; perform a cost analysis to analyse if the new product line will earn revenues and profits; the products should continue to be manufactured; marketing the product strategically and the costs of marketing should be controlled.

Porter (2011) supported the first step of Matthew (2012) in which he stated the need for providing product samples for evaluations by consumers and perform a market analysis to observe if the product is adequately demanded. However the research may result in biased feedback (Williams at <http://yourbusiness.azcentral.com> 23.03.2014; 0059hrs). According to Whalley (2010:85), “a strong brand gives that vulnerable new product a much better chance of success.” If a company uses the low cost leadership strategy it can enter new markets successfully (Ritson, 2013). However Porter (2011) deviated from all authors as he believed that an economic analysis and technical analysis should be done when a firm wants to introduce a new product and explained that the technical analysis involves the company ascertaining its ability to produce the product and if it has the material, equipment, expertise and workforce required.

2.5.5 Accounting techniques used to analyse if a product should be introduced

Economic analysis incorporates the projection of costs of supplies, employees and equipment using cost benefit analysis and accounting techniques such as IRR and NPV that may be used to compute the profitability of the product (Porter, 2011).

“NPV method offsets the present value of an investment’s cash inflow against present value of the cash outflows”,(Walther and Skousen, 2010:30). They went on to say that the cost of capital presumed is used to work out the present value of the company and the investment that has the greater present value of cash inflows than outflows is the most preferable one. According to Tawaniya at www.slideshare.net (19.03.2014; 1.49am), NPV is used to analyse the profitability of a project and it is used to provide a better forecast. However NPV shows the magnitude and value of a project but it does not pay attention to efficiency and yield of a project.(<https://www.boundless.com>; 23.03.2014; 2.08am).

According to Walther and Skousen (2010) IRR computes the actual discount rate which is used to compare the cash inflows and outflows of a project and projects with greatest IRR will be recommended. Tawaniya (2013) viewed the IRR as a technique that could be used to view the value of an investment to the firm. According to <https://www.boundless.com> (23.03.2014; 2.08am), “It is an indicator of the efficiency, quality, or yield of an investment.”

2.6 Summary

This chapter covered the literature review and empirical studies in relation to the cost reduction techniques, the cost cutting measures that can be implemented in an organization, the impact of establishing cost drivers, the strategies that can be used to increase profits and the impact of introducing new product lines in a cost reduction exercise.

Chapter 3

Research Methodology

3.0 Introduction

This chapter covered the research design that was used to gather data. It focused on the research plan, population samples, research tools and the procedure in which gathered data was presented and analyzed. An overview of the research population and sample size was outlined. The methods and techniques that the researcher used to ensure all objectives of the project were met were outlined. A summary then concluded this chapter.

3.1 Research Design

According to Greener (2008:38) a research design is defined as, “a grand plan of approach to a research topic.” Creswell (2009:4) defined a research design as, “a systematic step used to accomplish the purpose of the study.” The choice of a research design is based on the combination of time, the audience, research topic and other resources suitable for the research topic. Research design enhances the collection of uniform data which ensures that the researcher meets the objectives of her research through the data collected. There are three types of research designs, which are descriptive research design, explanatory research design and exploratory research design (<http://isites.harvard.edu> 28/03/2014; 1000hrs).

3.1.1 Descriptive research design

According to Mitchell and Jolley (2012:225), ‘descriptive research design looks at the relationships between two or more variables to see whether those variables correlate.’ Descriptive research emphasizes on the key variables that define the problem. Descriptive research design seeks to provide an accurate description of observations of an occurrence. When the researcher neither can direct irrelevant variables nor account for their effects descriptive method is used. Monsen and Horn (2008) cited that information used to devise hypothesis and propose associations is successfully obtained using the descriptive research. Descriptive research often illustrates a relevant but nonquantified topic involving a well- focused research question. It is also defined by Panneerselvam (2005) as a research that pertains to the determination of the nature of a situation that exists at the time of the study deduced from collection of numerical data. The researcher’s study was descriptive as it required the ways in which revenue base could

be increased and how the total costs could be reduced and how profits could be maximised in a cost reduction exercise.

3.2 Case study

A case study is an in depth study carried out in addressing a particular situation rather than a broad study (<https://explorable.com> 03.04.2014; 12:57pm). Additionally a case study method is mostly used when the research focuses on a descriptive question or an explanatory question. Most case studies gather a lot of quantitative data such as profitability and performance data for specified organization and centers on one case (<http://isites.harvard.edu> 03.04.2014; 8:47pm).

3.2.1 Advantages of case study method

The researcher chose a case study method because it resulted in more sensible responses than a general survey since the facts of the problem were known. A case study also led to innovative and unanticipated results for the case that was carried out by the researcher. The case study method also allowed the researcher to test if the data she obtained from theory could be applied to the research area. The researcher was once part of the organization therefore the situation under the study was more understandable since the researcher had observed some of the events that had caused the problem.

3.2.2 Disadvantages of a case study method

The researcher had little control over the event. The researcher sometimes faced difficulties in accessing data from the company's internal documents. In order to overcome this, the researcher reviewed the company's financial statements that were disclosed in the financial statements under its parent company's divisions.

3.3 Population

According to Singpurwalla (2013:11) population is, "a set of units that is of interest to the study." The population consists of respondents from which information is obtained to answer the research question. Population can either be selected using a census or a sample (<http://www.abs.gov.au> 04.04.2014; 5:42am). The target population for this study was the finance manager, management accountant, production manager, sales and marketing manager, purchase manager, assistant accountants, accounting clerks, human resources personnel, internal auditor, SHE manager and attachée, IT personnel and representatives from each department within the organisation. The population and sample was distributed as in table 3.1. The table also

shows the number of respondents that were interviewed (I) and those who responded using the questionnaires (Q) as well as the sample percentage of the respondents.

Table 3.1: Selected population and sample

Group	Population	Sample	Interview	Q	Sample %
Finance Department	17	10	1	9	58.8
Engineering Department	15	4	1	3	26.67
Sales & Marketing Department	10	7	1	6	70
Purchasing Department	6	3	1	2	50
Production Department	50	10	1	9	20
Audit Department	3	1	1	-	33.33
SHE Department	2	2	-	2	100
IT Department	2	2	1	1	100
HR Department	3	1	1	-	33.33
Total population	108	40	8	33	37.04

3. 4 Sampling

Greener (2008) defined sampling as a realistic way of studying people and their opinions, actions, mind-sets, abilities and relationships relating to business. It is also any group defined in relation to a research objective. There are two techniques of sampling which are: probability and non- sampling technique (www.statpac.com 4.04.2014; 0530hrs). In non- probability sampling some population members are most likely to be selected than others. In probability sampling a sample is selected using a random selection and each population member has an equal chance of being selected. The researcher used the non-probability sampling technique in selecting the respondents.

3.4.1 Purposive sampling

Daniel (2012) defined purposive sampling as a non probability sampling method that allows the selection of the population that is deemed fit for study purposes from the target population. The sample is selected using the researcher's opinion and it is regularly used when a small sample size is used or when carrying out case studies (Greener, 2008). According to

<http://dissertation.laerd.com> (29.03.2014; 1700hrs) purposive sampling can be referred to as judgmental sampling or subjective sampling.

The researcher used purposive sampling which is a non-probability sampling. The researcher used it because it involved selection of individuals or key informants within the accounting department, production department, SHE department, sales and marketing department and purchase department. Key informants are people with the information or the knowhow of what is being investigated. The researcher selected these people because they were in a better position to respond to the researcher's interviews and questionnaires pertaining to her research area.

3.4.2 Advantages of purposive sampling

Purposive sampling was opted for because it concentrated on the population that was of interest to the researcher and that sample population offered great assistance to the researcher by providing solutions to research questions. It provided a wide range of ideas that were of interest to the researcher since questionnaires were concentrated on the employees whereas interviews were concentrated on management. This was fully supported on(<http://dissertation.laerd.com> 29.03.2014; 1700hrs) when they asserted that an enjoyed benefit by researchers who use the purposive sampling is that they will be able to observe if a similar attribute exists on units selected.

Purposive sampling assisted the researcher in that it demonstrated different experiences, qualities, behaviors and attributes, situations and incidents. Purposive sampling allowed the researcher to identify familiar ideas that manifested from the sample. The researcher could compare findings of the study with other identical samples. The researcher was able to make academic, investigative and/or reasonable generalization from the sample under study.

3.4.3 Disadvantages of purposive sampling

It has a high level of researcher bias if the sample is not carefully chosen since the researcher makes a selection centered on an opinion unlike in probability sampling which is intended to reduce bias as random selection is made. Due to the nature of non-probability sampling and subjectivity in unit selection it may be hard to prove to the reader that the selection of the representatives was proper and that it achieved academic, analytical and reasonable generalization. (Source: <http://dissertation.laerd.com> (29.03.2014; 1700hrs))

3.5 Methods of data collection

According to Daniel and Sam (2011) there are two types of data collection which are primary and secondary data collection.

3.5.1 Primary data

According to Daniel and Sam (2011) primary data is original data collected for the first time. The methods that are mainly used to collect data are interviews, questionnaires, observation method. The tools for primary data collection used were questionnaires distributed to the target population and also key –informant interviews. The tools used under primary data are used to collect quantitative and qualitative data (<http://isites.harvard.edu> 29.03.2014; 1700hrs).

3.5.2 Secondary data

Daniel and Sam (2011) defined secondary data that passed through certain processes after being previously collected by someone. Secondary data has two different sources which are internal and external (Bax, 2013). The internal sources should be sought first. The research made use of the secondary data in the form of company financial reports (internal source) and websites of the company.

3.5.2.1 Advantages of secondary data

The researcher was able to compare the area of research with empirical studies that were carried out in other countries. (<http://isites.harvard.edu> 29.03, 2014; 1700hrs) also supported that this advantage can be enjoyed by users of secondary data when they postulated that, there is possibility of generating comparative international data sets. The researcher was able to compare data for 2012- 2014 using the company’s financial reports. The availability of the financial statements enabled the researcher to identify that there was need for a research to find ways to curtail costs and increase profits. Thus the contents of the secondary data sources showed an evidence of the problem.

3.5.2.2 Disadvantages of secondary data

In order to access some of the secondary data, the researcher had to go to the organization and this was costly. This is further supported by Bax (2013) when he mentioned that the collection of secondary data at one time requires one to travel to the source and it will bear significant costs and time.

3.6 Research Instruments

According to Bax (2013) the types of research instruments that are widely used are questionnaires and interviews. The researcher used questionnaires, face to face interviews, telephone interview and internal documents. The researcher used all these instruments to enhance triangulation of data which involved the use of three types of data (internal documents, questionnaires and interviews) and according to (<http://isites.harvard.edu> 29.03, 2014; 1700hrs) triangulation of data facilitates that the same conclusion can be drawn from the different sources used.

3.7 Questionnaires

The researcher viewed questionnaires as a good way of collecting data especially where factual information is required. In the use of questionnaire, questions were given to the specific respondents so they could answer the questions and return the questionnaires. Questionnaires were in form of a likert scale.

3.7.1 Advantages of questionnaires

It was relatively easier and less time consuming to collect information using questionnaires since the researcher distributed them all at once. The selected population responded to the same questions hence there was a high chance that the results were reliable. The questionnaire was easy to compile.

3.7.2 Disadvantages of questionnaires

Questionnaires were costly to the researcher because of the printing expenses. The questionnaire may be answered by the wrong respondent hence the research becoming biased. However in order to reduce biased results the researcher made sure that she would conduct interviews so as to triangulate the data.

3.8 Likeart Scale

According to Saunders, Lewis and Thornhill (2009) likeart scale is a scale which shows the extent to which respondents agree or disagree to given questions. Bertram (2014:1) defined likeart scale as, “a psychometric response scale primarily used in questionnaires to obtain participant’s preferences or degree of agreement with a statement or set of statements.” He added that respondents use an ordinal scale to express their level of agreement. The scale range varies

with the number of responses chosen by the researcher. The researcher used the 5-point scale with the following responses agree, strongly agree, disagree, strongly disagree and not sure.

3.8.1 Advantages

The researcher chose the likeart scale because it was easy to construct and the participants did not face any difficulties in reading and completing it. There was a high chance that the results were reliable since the respondent clearly showed their opinion. The results were easy to quantify.

3.8.2 Disadvantages

The respondents may choose responses that are favourable to their organization hence the results obtained may end up biased. The respondents may choose not to select extreme response categories (strongly agree and strongly disagree) resulting to central tendency bias. However the researcherl also conducted interviews so as to obtain data from various sources to reduce bias in the study.

3.9 Interviews

Interview method is used through use of personal interviews and telephone interviews (Daniel and Sam, 2013).

3.9.1 Personal Interviews

The researcher used interviews to obtain responses from management.

3.9.2 Merits of personal interview

The researcher used interviews because information could be obtained in greater depth. In the process of recording the verbal answers the researcher was able to observe the facial gestures especially when it came to the sensitive issues. Questions were specifically designed to let the interviewee express their own opinions resulting in more detailed findings as respondents elaborated on areas they were well versed with. Interviews were used because they allowed respondents to seek clarity where they did not fully understand the questions asked. The researcher used interview questions in the areas she wanted comprehensive responses.

3.9.3 Demerits of personal interview

It was costly to the researcher in terms of transport costs since Mega Pak is situated in Harare which is far from Gweru. The researcher had difficulties in locating other respondents as they

were not always available. It was time consuming. The other respondents withheld information that was vital to the research.

3.10 Telephone interviews

This method encompasses the contact of the respondent using telephone.

3.10.1 Advantages of telephone interviews

The researcher chose telephone interviews so that the respondents who were not available to respond to questionnaires or for face to face interviews would be interviewed using the telephone and viewed it as a flexible system and quicker way of obtaining information from the respondents. First hand information was obtained. The researcher and the respondent could communicate while exchanging ideas. It covered a wide geographical area. The researcher chose to use telephone interviews for the other respondents since she had their mobile contact numbers.

3.10.2 Disadvantages of telephone interviews

In most cases the call duration would be limited because of the high phone tariffs.

3.11 Reliability and validity of instruments

According to Abbott (2012:15) “reliability is the extent to which a research measure provides a consistent evaluation of a concept.” Clear and well established results must be produced by a reliable instrument. Reliability is directly related to the number of questions used to measure the variable interest. Reliability is considered if the questionnaires are error free for example the wording is correct and the questions are correctly formulated. Abbott (2012:15) defined validity as the, “extent to which a research measure actually captures the meaning of the concept it is intended to measure.”

3.12 Data Presentation

After receiving the questionnaires from respondents, the results were analysed to ensure that all questions had been answered correctly. Data was made ready for analysis and presentation by checking and adjusting the data for omissions, legibility and consistency of responses. The researcher summarized the feedback she had obtained from the interviews. The researcher also compiled the questionnaires and grouped the questions according to responses that had been made depending with the degree of agreement and calculated percentage rates. She tabulated frequency of the events. The data was presented using methods such as graphs, pie charts,

percentage calculations and tabulations. The researcher also made use of the MS-Excel. Therefore the researcher would use the quantified research method from the data obtained from the questionnaires and interviews which were analysed using statistics and summarized respectively.

3.13 Summary

This chapter contained the sampling technique, data collection methods and research instruments that were employed by the researcher in carrying out her study. The following chapter will focus on data presentations and the interpretations of data findings.

CHAPTER 4

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

The previous chapter dealt with the methods that were used to gather data. In this chapter the researcher presented and analysed primary data that was collected from respondents using questionnaires and interviews as well as the secondary data. The data obtained from questionnaires was presented on tables, bar graphs, pie charts and the interviews were summarized.

4.1 Primary Data

4.2 Questionnaire Responses

Table 4.1 shows the number of questionnaires that were distributed by the researcher and the number of questionnaires that were returned. The researcher could not get everyone to respond because the other respondents were focusing on year end audits and some were occupied within their work stations.

Table 4.1: Questionnaires Respondent Results

Group	Questionnaires sent	Returned questionnaires	Sample %
Finance Department	9	6	66.67
Engineering Department	3	3	100
Sales & Marketing Department	6	5	83.33
Purchasing Department	2	2	100
Production Department	9	8	88.89
SHE Department	2	1	50
IT Department	1	1	100
Total sample	33	26	78.79

The response rate of 78.79% showed good results as the researcher was able to draw conclusions. The questionnaires and the responses that were brought out are as follows:

4.3 The following cost reduction techniques were suitably adopted by Mega Pak:

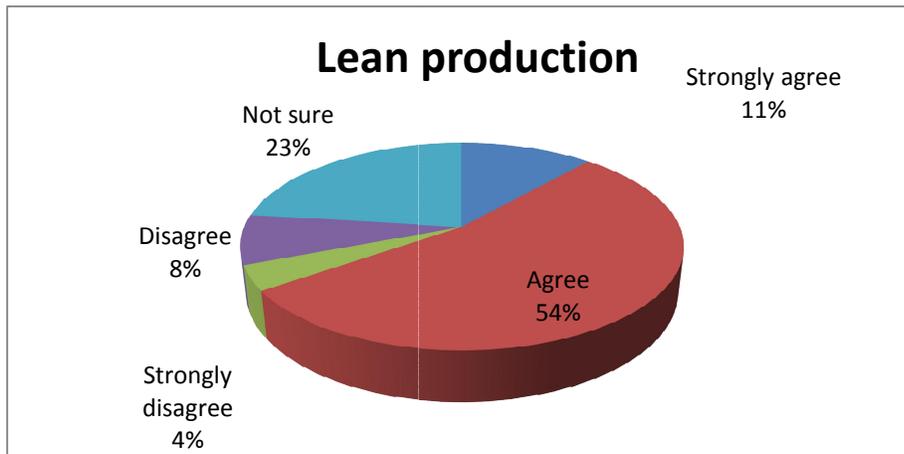
Table 4.2: Cost Reduction Techniques

	Strongly agree	Agree	Strongly disagree	Disagree	Not sure	Total
a) Lean production	3	14	1	2	6	26
b) Total Quality Management	4	17	-	-	5	26
c) Activity Based Costing	2	2	2	16	4	26
d) Supply Chain Management	1	18	3	-	4	26
e) Paper flow elimination	-	1	2	23	-	26
f) Value Analysis	2	15	2	2	5	26
g) Target Costing	4	7	2	2	11	26
h) Just In Time	2	17	2	1	4	26
i) Kaizen	1	8	3	2	12	26

4.3.1 Lean production

According to the results shown above 65% of the respondents agreed that the lean production technique was used by the company to reduce costs while 12% disagreed that lean production was used. Those who were unsure constituted of 23% of the population. The overall percentage of the respondents who disagreed was 35%. Majority of the respondents agreed that lean production was implemented as a cost reduction technique. Anderson (2014) even postulated that if lean manufacturing is used, costs can be reduced significantly resulting in increased labour productivity and eradication of waste through scrapping and cutting of errors. Walther (2009) also supported this when he highlighted that lean manufacturing improves efficiency while trimming waste and ensuring quality and speedy production.

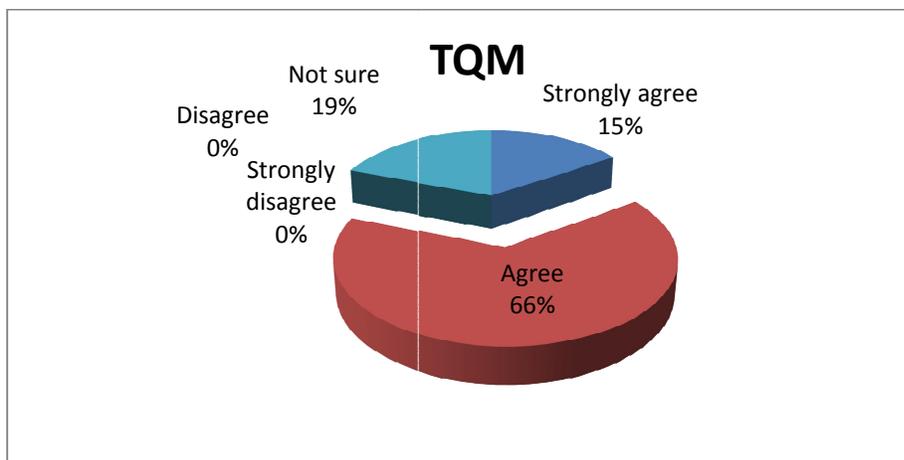
Figure 4.1



4.3.2 Total Quality Management

The respondents that agreed that TQM was one of the techniques that was used by Mega Pak constituted of 81% of the employees. None of the respondents disagreed that TQM was not used and 19% of the respondents were not sure. The total of those who disagreed was 19%. Overall, those who agreed constituted of a greater % than those who disagreed. The results are as presented in the pie chart on figure 4.2. The managers mentioned that they had employed TQM on interview question 1 and Tatsana-iam and Ngaoprasertwong (2013) viewed TQM as an effective method that incorporates employee involvement in cost reduction and have much impact on improvement.

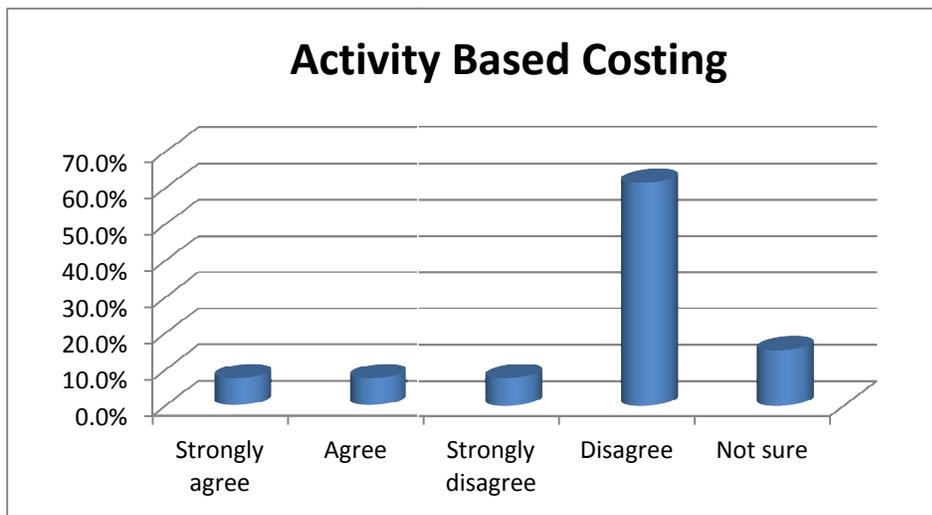
Figure 4.2



4.3.3 Activity Based Costing

The respondent rates showed that those who agreed that the ABC was implemented as a technique was 15.4% (4/26) and those who disagreed that it was adopted by the company was 69.2% (18/26) and 15.4% (4/26) represented the respondents that were not sure. The total rate for those who did not agree was 84.6%. The results are as shown in figure 4.3 below.

Figure 4.3

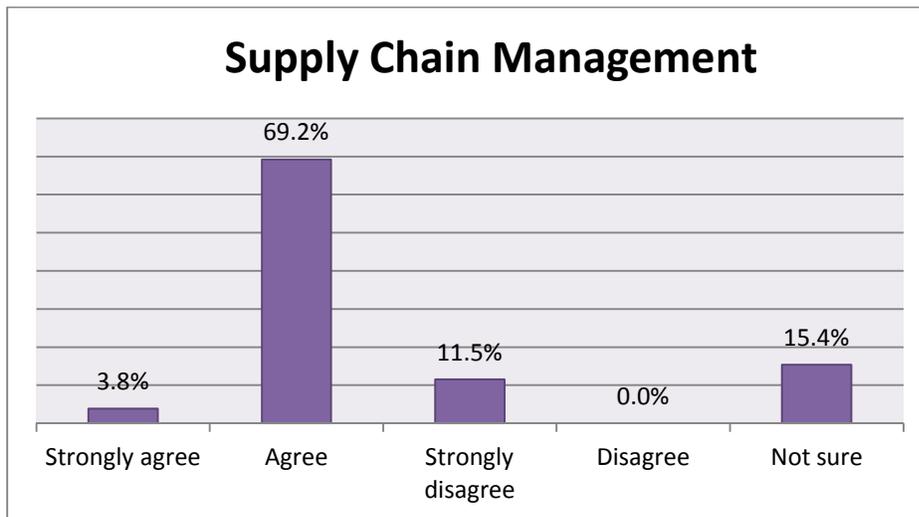


Most of the respondents showed that the ABC technique was never used by the company to cut costs. This however is against Yousof and Yousof (2011) who asserted that most companies that make use of the ABC system enjoy better budgeting and planning processes, and can easily detect where cost emanates from and the reasons behind all costs. Nassar et.al (2009) observed that problems perceived from the implementation of ABC in the companies in which they undertook their research was lack of management support. Conversely the replies from interview question 4 showed that the managers viewed it as a good system because it allows easy allocation of overhead costs leading to reduction of overhead costs. However Mega Pak never implemented this technique which could have lowered a greater portion of costs. Iyer (2012) also proved this with an example of a company that adopted the ABC technique to cut on its costs when its profits had drastically reduced and it was a success as the company managed to identify that wages of about \$41 000 were due to employees that were redundant for 25% of the time during set up.

4.3.3 Supply chain management

Figure 4.4 below shows that 73% respondents agreed that the company implemented the supply chain management where as 11.5% strongly disagreed that the company did not adopt supply chain management in the cost reduction exercise and 15.4% of the respondents were unsure. In total 26.9% disagreed that supply chain management was implemented. The majority of the respondents showed that it was adopted and according to Iyer (2012) if supply chain management is properly implemented it gets rid of costs associated with activities that occur between the company and its suppliers.

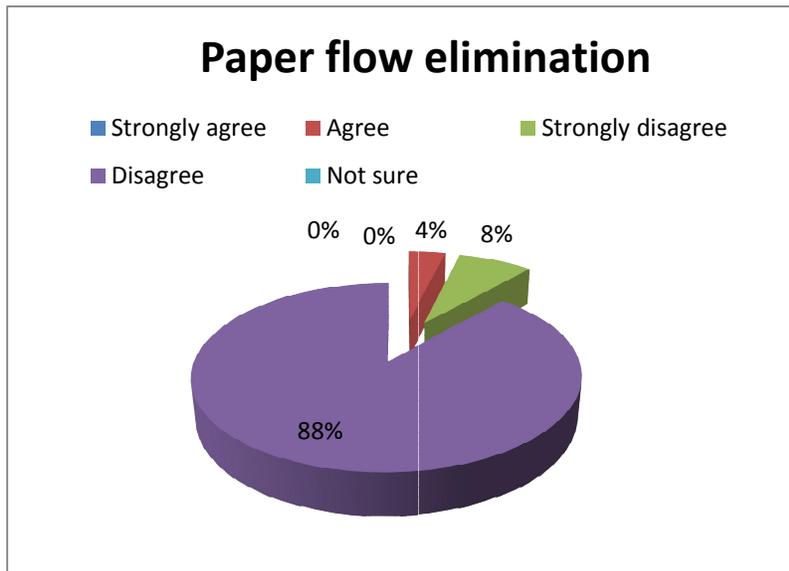
Figure 4.4



4.3.4 Paper Flow Elimination

The results from figure 4.5 below showed that 96 % of the respondents disagreed that paper flow elimination technique was used as part of reducing costs and the remaining 4% agreed that paper flow elimination was used.

Figure 4.5

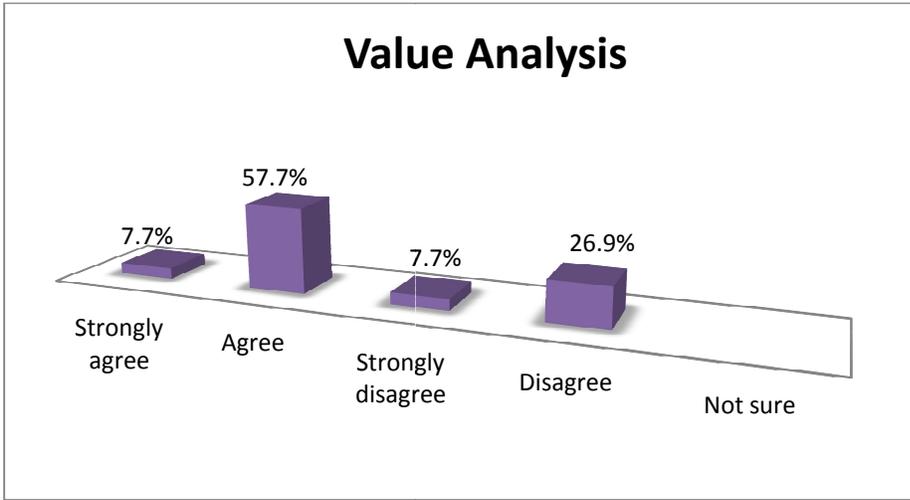


These results showed that 96% constituted of the company's majority of employees that did not see this technique being implemented and it does not coincide with <http://156.98.19.245>(15.03.2014; 0200hrs) as it is of the view that each paper used by the company incurs purchasing costs, storage costs, printing costs, postage and disposal costs. According to (<http://www.globalstewards.org> 02.05.2014, 1700hrs) a paperless environment saves the businesses from drawing out money, saves time and improves document security. Management respondents also viewed paper flow elimination as a viable way of reducing costs since the company incurs \$24000 for filing in a year which adds up on storage costs and the overall stationery costs for the year summed up to \$43 000 and had increased by 0.3% (see interview question 3). They also pointed out that the elimination of paper is eco-friendly as it saves on trees hence protecting the environment.

4.3.5 Value Analysis

The rate of the employees that agreed that the company implemented the value analysis was 65.4% (17/26); those who did not agree were 34.6% (9/26) as in figure 4.6. These results showed that the greater part of respondents observed that costs were controlled at the manufacturing stage. On interview question 1 management also pointed out that value analysis was used in the cost reduction exercise.

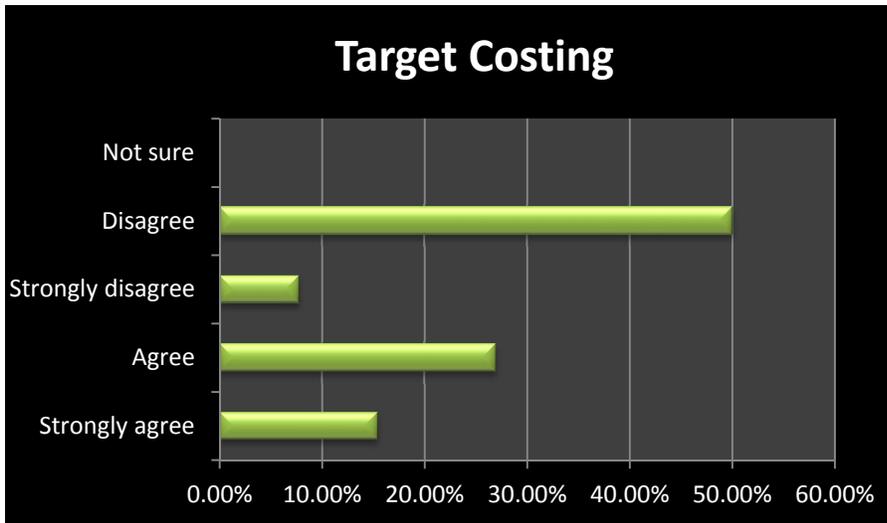
Figure 4.6



4.3.6 Target Costing

The respondents were asked to agree or disagree on whether the company had adopted target costing. The results are as shown in figure 4.7. The respondents that agreed were 42.3% (11/26) and those that disagreed were 57.7% (15/26) and none of the respondents were unsure. The respondents that agreed showed that the organisation's employees were not so familiar with whether this technique had been put in place because in interview question 1 the managers highlighted that target costing had been implemented.

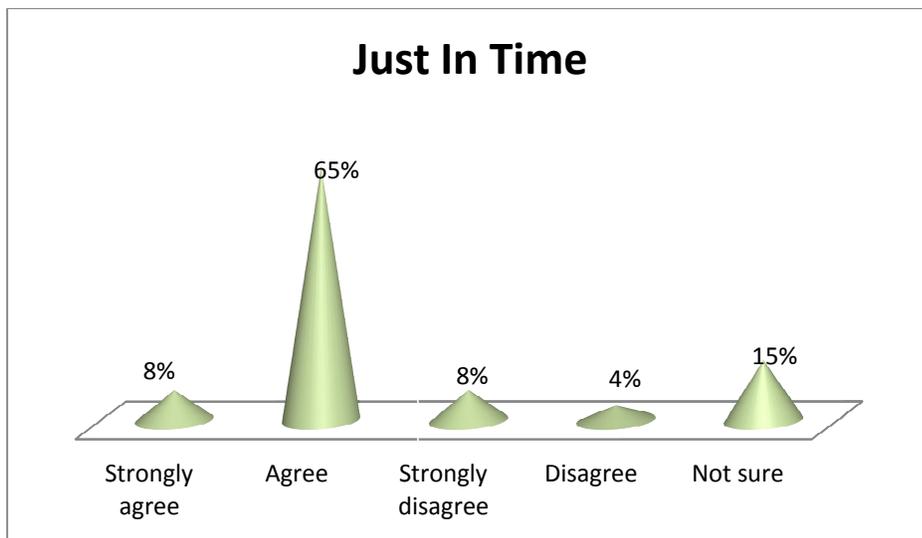
Figure 4.7



4.3.7 Just in Time

Figure 4.8 shows that 73% (19/26) agreed to the study and those that disagreed were 12% and the unsure respondents were 15% (4/26). The summation of those who disagreed was 27%. The majority of the people agreed that JIT was implemented and this concurred with Heisinger (2012) when he asserted that proper execution of JIT can significantly save costs within an organization. In interview question 1 all managers agreed that JIT was used in the cost reduction exercise.

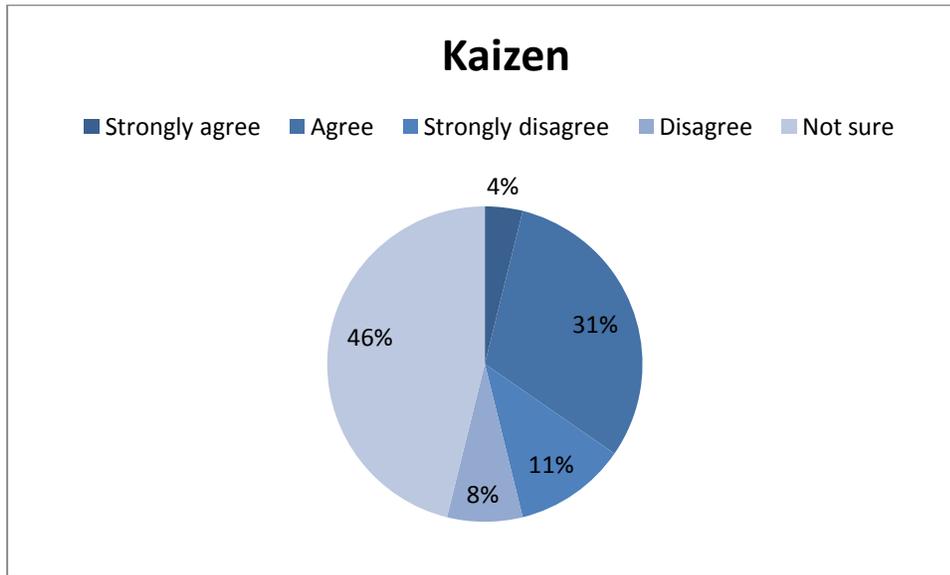
Figure 4.8



4.3.8 Kaizen

The respondent rate of those who were in agreement that the Kaizen technique was adopted was 35%, those who disagreed was 19% and for those who were unsure was 46%. Majority of the respondents at 65% disagreed that kaizen was used as a cost reduction technique. These rates showed that the employees' ideas were not fully taken. However this conflicted with Walther (2009) who was of the opinion that kaizen is a cost control approach in which members of strategic finance and managerial accounting just observe and listen to employees contributing their views in focus sessions conducted to seek areas of operational improvements. But the results proved that the employees' views were never listened to.

Figure 4.9



4.4 The following cost cutting measures were implemented to increase profits

Table 4.3 shows results from the respondents and the results were used to analyse data in section 4.4.2.

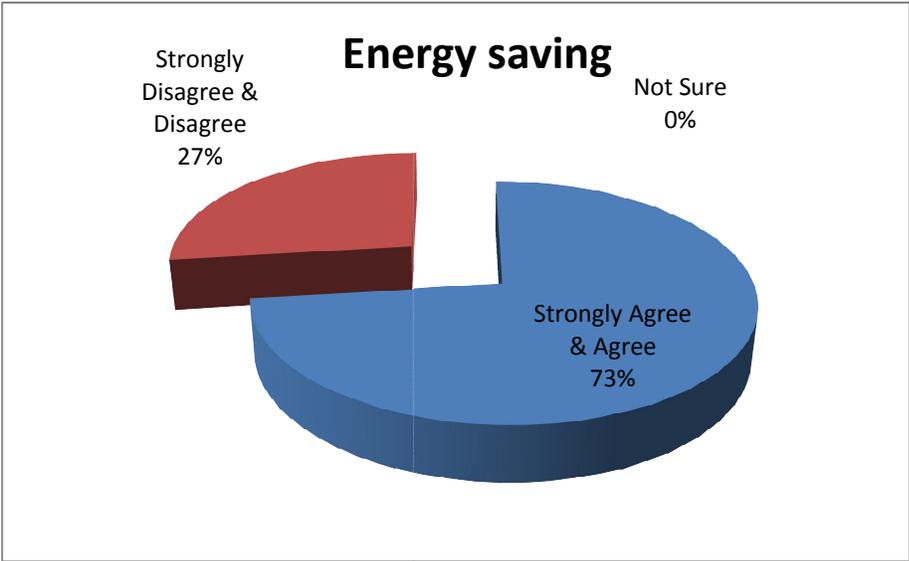
Table 4.3: Cost Cutting Measures

	Strongly Agree	Agree	Strongly Disagree	Disagree	Not Sure	Total
a) Energy saving	4	15	2	5	-	26
b) Recycling material	4	16	1	5	-	26
c) Salary reduction	-	-	5	20	1	26
d) Product design changes	5	17	2	2	-	26
e) Waste reduction at manufacturing stage	3	14	1	2	6	26

4.4.1 Energy saving

The majority of the respondents which was made up of 73.08% (19/26) were in agreement with that energy saving was implemented as a profit increasing strategy and the remaining 26.92% (7/26) were in denial that this was implemented in order to increase profits. These results showed that the company was in full agreement with Mohr et al. (2012) who stated that the reduction of energy can lead to cost reduction especially if the companies save energy by 20 – 30 % in production. However management revealed that energy saving was implemented as a cost saving measure, but it was not a success due to more power outages which led to many machine start ups being done especially to those machines that did not allow automatic running from generators due to high voltage. Secondary data presented in table 4.12 also showed that the electricity costs had declined by 0.6% only of which the company expected a decline of 5%. However the company’s consultants advised that the use of filters would contribute to reduction of the energy costs by 10%.

Figure 4.10



4.4.2 Recycling material

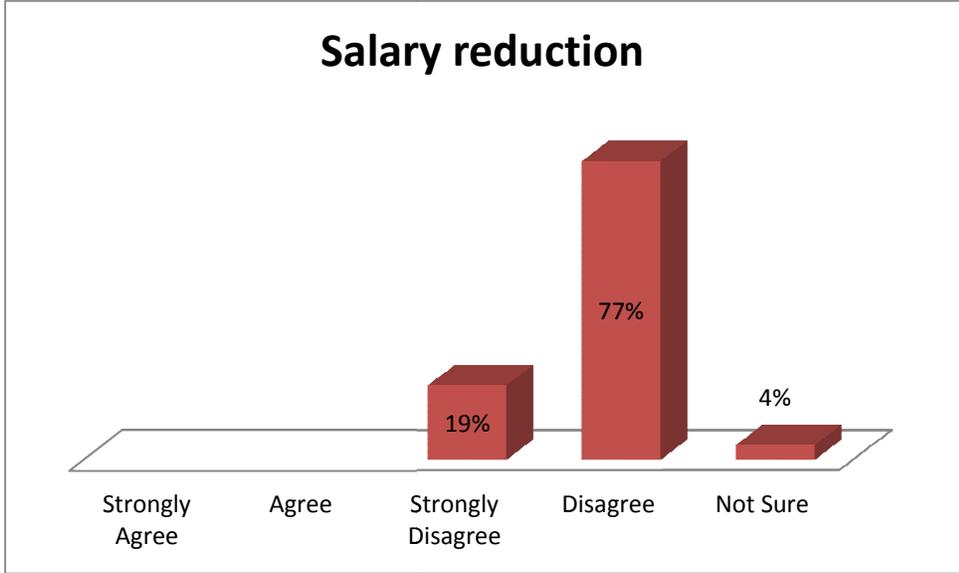
Table 4.3aboveshows that76.9 %(20/26) strongly agreed that the company had used recycling of material as a tool to increase their profits. The remaining 23.1% (6/26) strongly disagreed that recycling of material had been implemented as a cost cutting measure to increase profits. The majority of the respondents agreed that the company had recycled material. Mohanty (2010)

fully supported this idea when he stated that it is eco-friendly and Mohr et al. (2012) was of the idea that recycling material cuts product costs by half. Management also viewed the recycling of material as a way of cutting costs in such a way that it does not have an impact of increasing raw material costs and as a way of managing the environment. Recycling of material was done on scud bottles, lids, broken tanks and broken crates. They also pointed it out as a way of increasing the company’s market share.

4.4.3 Salary reduction

The representative employee’s responses confirmed that salary reduction was never implemented as a cost cutting measure. Those who disagreed were 96% and the remaining 4% respondents were not sure and none agreed. The majority of the respondents disagreed that the company reduced salaries to increase profits. This coincided with Stan (2009) when he stated that salary reduction is a measure which is not popularly used.

Figure 4.11

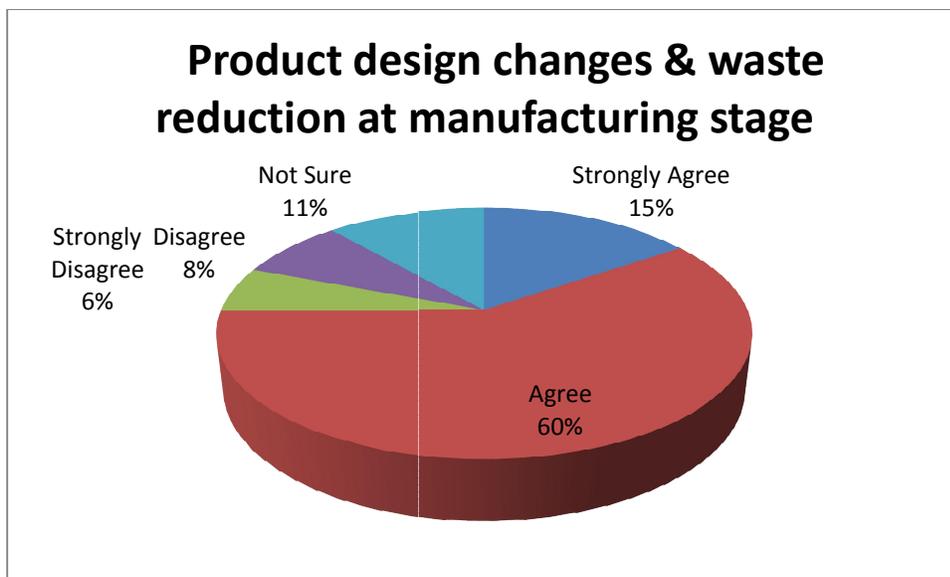


4.4.4 Product design changes and waste reduction at manufacturing stage

Figure 4.12 below shows that 75% of the respondents totally agreed that the firm had implemented the product design changes and waste reduction at manufacturing stage to increase profits. The respondents that did not agree that product design changes and waste reduction at

manufacturing stage were implemented as strategies to increase profits represented 14% and 11% of the respondents were not sure. In summation 25% of the respondents disagreed. The larger part of the respondents agreed that Mega Pak implemented product design change as a profit increasing strategy. Mohanty (2010) was of the opinion that adoption of the product design changes have positive impacts on the reduction of costs if the companies incorporate renewable and inexpensive material in product designs in such a way that they will be in a capacity to recycle such material.

Figure 4.12



4.5 The identification of cost drivers at Mega Pak had the following impacts

The following table shows the outcomes and their respective percentages

Table 4.4: Impacts of Cost Drivers

	Strongly agree	Agree	Strongly disagree	Disagree	Not sure	Total
a) Accurate product costing	-	5	11	7	3	26
% rate	-	19.23	42.31	26.92	11.5	100
b) Control of overheads	-	3	6	9	8	26
% rate	-	11.54	23.08	34.52	30.77	100
c) Accurate product pricing	-	4	4	15	3	26
% rate	-	15.38	15.38	57.69	11.54	100
d) Reducing material wastages	-	4	8	10	4	26
% rate	-	15.38	30.77	38.46	15.38	100
e) Improving the budgeting and planning process	-	5	5	12	4	26
% rate	-	19.23	19.23	46.15	15.38	100

4.5.1 Accurate product costing and accurate product pricing

Table 4.4 shows that 19.23% of the respondent agreed that the identification of cost drivers by the company had an impact on accurate product costing whereas 80.77% of the respondents disagreed. The respondent rates for the identification of cost drivers having an impact on accurate product pricing were as follows: those who agreed that the company had used cost drivers were 15.4% whereas those who disagreed constituted 73.07% of the respondents and those who were not even sure were 11.54% of the respondents. The overall rate of those who disagreed that cost drivers had an impact on accurate product pricing was 86.4% of the respondents and constituted the majority. Whereas 80.77% constituted of the majority respondents who did not agree that identification of cost drivers had an impact on accurate product costing. However Nassar et al. (2013) were of the opinion that the identification of cost drivers was a better technique in determining product costing and product pricing.

Heisinger(2012) also argued that allocation of overheads led to an accurate pricing of products being made depending with costs associated with the product.

4.5.2 Control of overheads

The respondents disagreed that identification of cost drivers had an impact on controlling overheads constituted 57.7% while 30.8% of the respondents were unsure whereas 11.5% of the respondents agreed that the identification of cost drivers had an impact on controlling overheads. The total of the respondents that disagreed was 88.5% and these results showed that the larger part of the sample disagreed that the company was not identifying cost drivers in activities involved for each product. Hence Mega Pak could have significantly cut their costs by establishing the use of cost drivers, as asserted in KPMG (2009) that the factors that gives rise to direct and indirect costs should be known and completely understood so that management can build up and carry out effective and sustainable cost optimization initiatives.

4.5.3 Reducing material wastages

Table 4.4 shows that the respondent who agreed that the cost drivers had an impact on reduction of material wastages was 15.38%; those who were in denial were 69.23% of the respondents and those who were unsure comprised of 15.38%. The majority disagreed (84.6%) that cost drivers had an impact on reducing wastages and this coincided with the response from the interviews in which management mentioned that the company never adopted the ABC system. They pointed out that it was a good approach to allocate overheads to products and manage overheads hence reducing material wastages.

4.5.4 Improving the budgeting and planning process

The above table shows that 65.23% respondents disagreed that cost drivers had an impact on improving the budgeting and planning process constituted of the majority than the 19.23% that did not agree and 15.83% that were not sure. The overall total for those who disagreed was 35.06%. However the results contravened with Yousof and Yousof (2011) who purported that, firms that make use of ABC feel more secure with the outcome since ABC includes forecasting and planning methods

4.6 The adoption of the following strategies led to increase of profits

The researcher's motive was to find out if any of the following strategies were adopted by Mega Pak in order to increase their profits. The table below shows the results that were obtained

Table 4.5: Profit Increasing Strategies

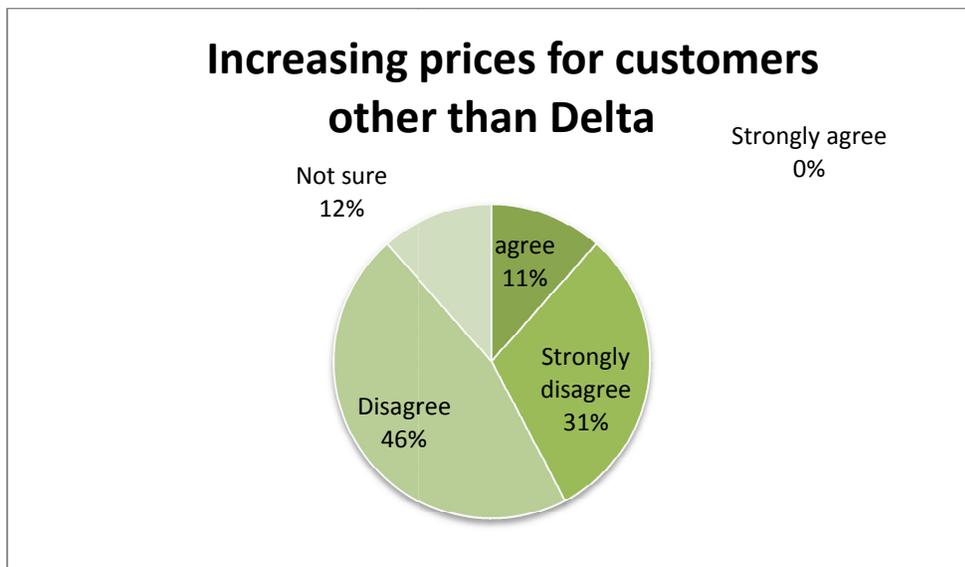
	Strongly agree	Agree	Strongly disagree	Disagree	Not sure	Total
a) Increasing prices for 3 rd party customers	-	3	8	12	3	26
% rate	-	11	31	46	12	100
b) Liaising with suppliers for price reductions	4	19	1	-	2	26
% rate	15	73	4	-	8	100
c) Enhancing quality in products to reduce customer bargaining	6	18	1	1	-	26
% rate	23	69	4	4	-	100
d) Reduction of product costs	4	10	3	1	8	26
% rate	15	38	12	4	31	100
e) Reduction of distribution costs	5	7	3	10	1	26
% rate	19	27	12	38	4	100
f) Promotional alliance	-	6	1	15	4	26
% rate	-	23	4	58	15	100

Table 4.5 was used to analyse data in section 4.6.1 to 4.6.6

4.6.1 Increasing prices for customers other than Delta

The outcome was as follows those who agreed that this strategy had been implemented were 11%, those that disagreed that this strategy was used comprised of 77% of the respondents and 12% of the respondents were unsure on whether this strategy was adopted. This was carried out to find out whether the company increased prices for the third party customers constituting of 45% of the company's revenue or it did not. The overall total of respondents that disagreed was 89% and this portion constituted of the majority. The results deduced were positive according to Whalley (2010) who asserted that the increasing of prices can promote competitors and might lead to customers being chased away to the competitors leading to a low market share.

Figure 4.13



4.6.2 Liasing with suppliers for price reductions

Respondents that agreed that Mega Pak liaised with their suppliers for price reductions was made up of 88% of the respondents, 4% disagreed and 8% of the respondents were not sure if the company liaised with their suppliers. Overallly 12% of the respondents disagreed that the company negotiated with its suppliers. The outcome from the majority of the respondents (88%) matched with Porter (2008) when he stated that if buyers are more powerful, they have the power to negotiate with their suppliers for price reductions and according to (www.tutor2u.net 31.03.2014; 11.43am) if customers are weak, this can lead to the business attaining profits.

Interview responses on question 1 showed that Mega Pak had more bargaining power to its suppliers hence it was in a position to negotiate for price reductions which is in support with Porter (2008).

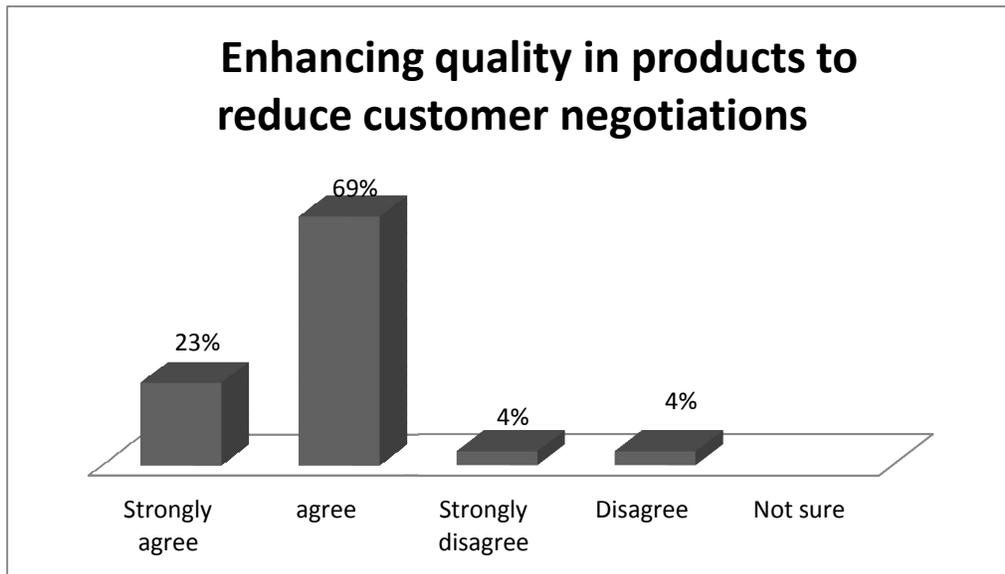
Figure 4.14



4.6.3 Enhancing quality in products to reduce customer bargaining

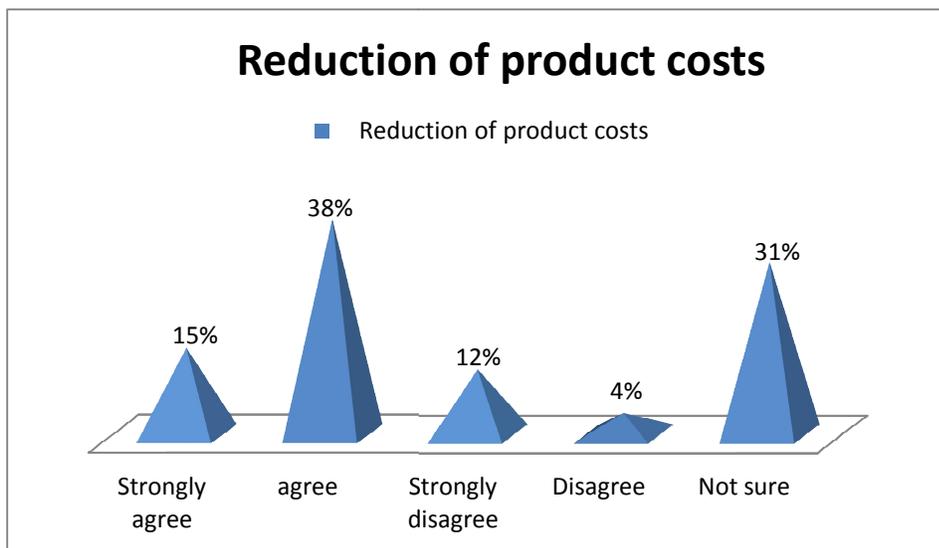
The researcher's motive was to analyse if the company had adopted this strategy as a way of increasing profits from the results. However most respondents agreed that product quality was enhanced to reduce customer negotiations and they represented 92% (24/26) and 8% (2/26) represented those who did not agree. The majority of the respondents agreed that enhancing quality in products reduced customer negotiations. The results showed a positive response according to Sudet al. (2009) who purported that enhancement of quality leads to less bargaining power. If the customers are weak it then leads to the attainment of profits by the company (www.tutor2u.net 31.03.2014; 11.43am).

Figure 4.15: Enhancing quality to reduce customer negotiations



4.6.4 Reduction of product costs

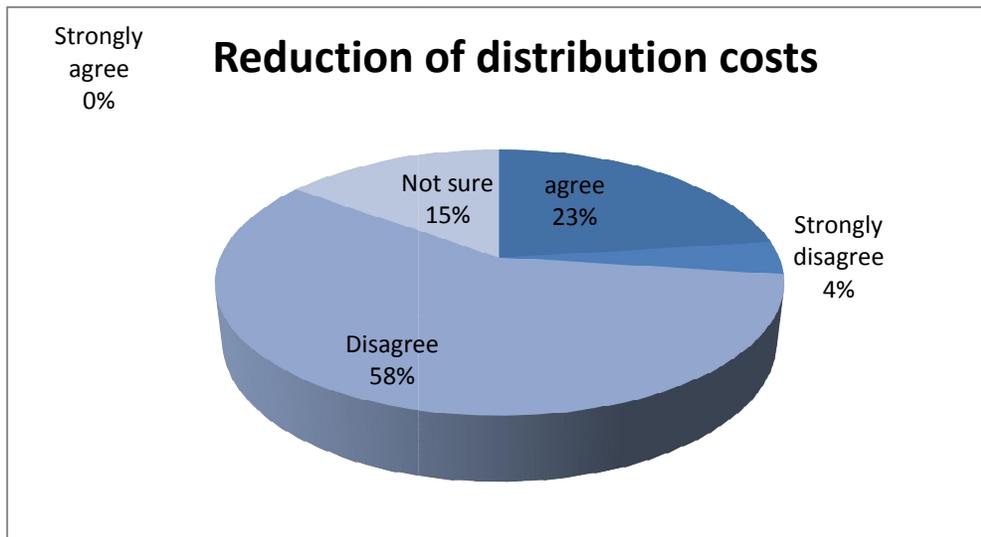
Figure 4.16 shows that 53% (14/26) of the representatives agreed that reduction of product costs led to increase of profits whereas 16% (4/26) represented those who disagreed and 31% (8/26) showed the respondents that were unsure. Therefore 47% represented respondents that disagreed that reduction of product costs was adopted by Mega Pak and led to an increase in profits. The Marketing Sage (2008) totally agrees that the reduction of product costs increases profits. **Figure 4.16**



4.6.5 Reduction of distribution costs

The results in figure 4.17 showed that 46% (12/26) of the respondents agreed that there was a reduction of distribution costs and 50% (13/26) disagreed that there was a reduction in distribution costs while 4% (1/26) were unsure. The majority was 54% and it represented the respondents that disagreed that distribution costs were reduced in order to increase profits. Therefore the majority of the respondents disagreed that reduction of distribution costs was part of strategies that were implemented to increase the companies' profits. Of which the Marketing Sage (2008) was of the opinion that the reduction of distribution costs can lead in an increase in profits.

Figure 4.17



4.6.6 Promotional Alliances

Results showed that 62% of the respondent disagreed that promotional alliances were adopted by the company as a way of increasing profits and 23% of the respondents agreed that promotional alliances were implemented whereas the remaining 15% was not sure whether the company adopted promotional alliances. Therefore 77% of the respondents disagreed that promotional alliances were used by the company, of which they represented the majority. The results showed

a negative impact according to Kotler and Keller (2012) as he was of the opinion that promotional alliances could be an ideal form of increasing profits in that a firm can agree with other companies to carry out promotions on its behalf.

Figure 4.18



4.7 The introduction of a new product line can lead to an increase in profits

The researcher sought to get what the respondents thought of introducing a new product line in the company.

Table 4.6: Results: New product line

	Strongly agree	Agree	Strongly disagree	Disagree	Not sure	total
a) In form of plastic pallets to replace wooden pallets	8	14	-	2	2	26
Respondent rate	31%	54%	-	7.5%	7.5%	100
b) In form of product line stretching , for example plastic fence poles	2	14	4	4	2	26
Respondent rate	8%	54%	15%	15%	8%	100

4.7.1 In form of plastic pallets to replace wooden pallets

Table 4.6 above shows the outcomes that were obtained and 85% of the respondents were in agreement with the introduction of the new products in form of plastic pallets to replace the wooden pallets. While those who opposed the idea comprised of 7% of the respondents and those who were unsure were 8% of the respondents. The respondents that denied the introduction of a new product line in form of plastic pallets to replace wooden pallets represented 15%.The results showed that the majority of respondents were interested in the introduction of a new product line and management also pointed out in interview question 6 that the introduction of a new product line would increase market share and it would reduce costs for the company in terms of acquiring wooden pallets from PG Timbers. Vidhiartha (2009) affirmed that product line lengths are created to seek higher profitability through short product lines with carefully chosen items.

4.7.2 In form of product line stretching, for example plastic fence poles

Table 4.6 above shows 62% (16/26) of the respondents who agreed that a new product line can be introduced in form of plastic fence poles in order to increase profits and the percentage rate of

those who opposed the idea was 30% (8/26) while those who were unsure were 8% (2/26) of the respondents. Respondents that disagreed to the introduction of a new product line in form of plastic fence poles were 38% of the respondents. The majority of the respondents were in support of the introduction of a new product in form of plastic fence poles. These results showed a positive strike with (<http://www.konnectafrica.net> 14.03.2014; 2:00pm) where new product lines were introduced in form of plastic fencing poles, plastic planks, road signage, chain-link fencing and flower pots which were produced using plastic waste. These results showed that the majority were in favour of this but it was never implemented.

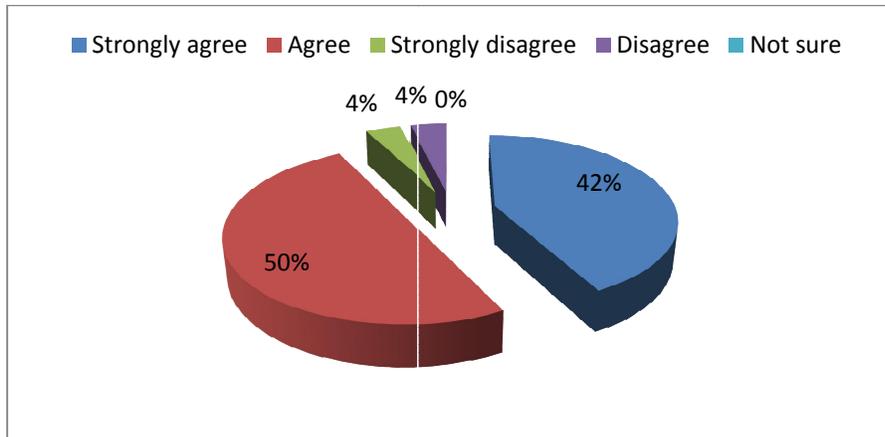
4.8 Collecting used plastic bottles or buying them back from customers for use in recycling would be a viable option for Mega Pak.

Table 4.7: Collection used plastic bottles

Strongly agree	agree	Strongly disagree	Disagree	Not sure	Total
11	13	1	1	-	26

The outcome was 92% of the respondents believed that the collection of used plastic bottles for recycling was a viable option for Mega Pak. The remaining 8% of the respondents disagreed. The results from the questionnaire responses revealed that the majority opted for the collection of plastic bottles as well as buying them back from customers so they could be used for recycling. Management also viewed the option of collecting plastic bottles as a way of eliminating waste from the environment and as a way of lowering overheads as well as increasing market share(see interview question 6).

4.19: Is the collection of plastic bottles a viable option



However the results were in agreement with Mohr et al. (2012) who affirmed that recycling materials can trim down product costs by half and can be done by engaging customers into bringing back the manufacturer’s products after use or collecting waste and formulate new markets through the use of such waste or products.

4.9 100% recycled plastic bottles can be used to make road signage and flower pots at Mega Pak using injection moulding.

Table 4.8: 100 % Recycling

	Strongly agree	Agree	Strongly disagree	Disagree	Not sure	Total
Respondents	3	11	2	4	6	26
% Rate	12	42	8	15	23	100

Table 4.8 shows that 54% (14/26) of the respondents agreed to 100% recycling of plastic bottles for road signage and flower pots production. 23% of the respondents (6/26) disagreed while the remaining 23% were not sure on whether recycled bottles could be used to make road signage and flower pots using the injection moulding. The total for the respondents that disagreed was 46%. The majority was that of respondents that agreed to the collection of plastic bottles for 100% recycling. The results were in agreement with Lorna Rutto’s business which is involved in collecting plastic bottles and other plastic waste from dumping sites and manufactures 100% recycled plastic products (<http://www.ecopost.co.ke> 14.03.2014; 2:05pm).

4.10 Introducing the manufacturing flow cost accounting detected hidden costs.

Table 4.9: MFCA

	Strongly agree	Agree	Strongly disagree	Disagree	Not sure	Total
No of respondents	-	16	3	1	6	26
% Rate	-	62%	12%	4%	23%	100

The respondent's outcome is as presented in table 4.9 of what the respondents thought of pertaining to the introduction of MFCA as a detector of hidden costs. There were as follows: those who agreed 62% (16/26); those who disagreed 16% (4/26) and 23% (6/26). Overallly those who disagreed were 39% of the respondents. MFCA is a process which Schmidt and Nakajima (2013) proved to be a detector of all hidden costs in production from the research they carried out.

4.11 Reusing materials can cut product costs by:

Table 4.10: Reusing materials

	Less than 10%	10-20%	30-40%	40%+	Total
Respondents	6	14	4	2	26
% Rate	23	54	15	8	100

Table 4.10 shows the % range of costs that can be cut if material is reused in production. According to the sample that responded to the questionnaires 23% (6/26) were of the view that reusing material reduces costs by less than 10% and 54% viewed the reduction of material can cut costs by 10-20% (14/26) while 15% (4/26) were of the opinion that costs would be cut by 30-40% and 8% (2/26) were of the opinion that costs would be cut by over 40%. The majority of the respondents were of the view that costs can be reduced by 10-20% meanwhile Mohr et al.

(2012) postulated that costs can be cut if manufacturing firm trim down 30% material on production.

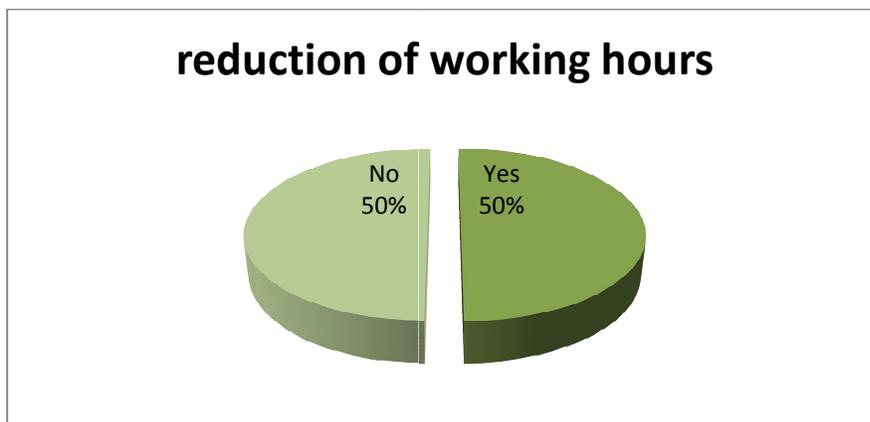
4.12 Do you think reduction of working hours can lead to reduction of costs?

Table 4.11: Reduction of working hours

	Yes	No	Total
No of Respondents	13	13	26

The respondent rates were 50% against 50% as in figure 4.20 below. These results showed that the other half of the responded were in agreement with Stan (2009) who viewed the reduction of hours as a cost cutting measure that could be implemented through reducing the working hours for a certain portion of employees. Therefore the reduction of hours may or may not be taken so well by the employees as they disagreed that reduction of salaries was implemented by the company.

Figure 4.20



4.13 Interviews

The response rate of interviews carried out was 87.5 % (7/8) for six questions. The interviews were directed to management and the managers were from the following departments: Finance, IT, Engineering, Audit, Production, Sales and Marketing and Purchasing. In the departments where the managers were unavailable the researcher managed to interview representatives, for

instance in the purchasing (the buyer), IT (administrator) and engineering department (supervisor).

4.13.1 Interview responses analysis

Question 1: How successful have been the current cost reduction techniques?

The management accountant mentioned the cost reduction techniques that were adopted by the company were supply chain management, target costing, JIT, value analysis and TQM. All the respondents interviewed said that the current cost reduction techniques put in place were a success to the company since overhead costs had reduced by 2%. Management also mentioned that the cost reduction exercise had been a success since they had more bargaining power to their suppliers. It was also mentioned to be a success as non essential expenses were stopped. The majority of management revealed from their responses, that the cost reduction techniques that were adopted by the company were a success. However from the questionnaire number 1(c), 85% disagreed to activity based costing, 65% disagreed to kaizen and 97% disagreed to paper flow elimination being implemented by the company. Whereas Walther (2009) states that kaizen sessions leads to greater costs and good organisation savings as it creates cost control awareness to employees and gives them a deeper understanding.

Question 2: Have you implemented the energy cost saving as a measure to reduce costs and with what success?

All mentioned that energy saving was implemented but it was not really a success in the operations section but it was a success in the offices. This is because when machines are switched on more electricity is used up of which it leads to maximum demand being exceeded hence calling for fines in connection with excess electricity used according to ZESA. Management mentioned that it was difficult to reduce machine start ups in instances where the machines have to be maintained and when there are power cuts especially for those machines that do not allow automatic running from generators due to high voltage since it leads to loss of cards. However the production manager mentioned that the company consultants advised that the company could even save more if it used filters though he viewed it as costly. The greater part of the interview respondents disagreed that energy saving was a success. However questionnaires results showed that 73% of the respondents agreed that energy saving was adopted by the

company as a cost cutting measure. Mohr et al. (2012) highlighted that if energy is saved by 20 to 30 % costs could be reduced significantly. Therefore the filters can be introduced as an instrument to reduce energy to a significant portion.

Question 3: What do you think of operating in a paperless environment?

A paperless environment was viewed as a viable way of reducing costs, faster way of conducting business, as an easy way of accessing documents, less time consuming especially in terms of filing and as a cheaper way of conducting business by all respondents. It was also viewed as a technique which complies with ISO 14001 as it reduces depletion of resources especially trees used for paper. The company pays \$2000 per month to a filing company and it sums up to \$ 24 000 per year, so the paperless environment would cut filing costs by \$24000 in a year and the purchase of bond is expensive for the company, that in the long run much cash would have been drawn out of the company. However other managers also viewed it as a costly technique to set up but viable in the long run. The IT department mentioned that the maintenance costs would be cheaper since maintenance will be done internally. Majority of management was of the opinion that operating in a paperless environment was a good idea. Whereas 97% questionnaire responses showed that the company never used this technique. Of which (<http://156.98.19.245> 15.03.2014; 0200hrs) viewed paper flow elimination as a technique that cuts on storage, printing, recycling, copying and purchasing costs.

Question 4: What do you think about introducing ABC as a costing system within your organisation?

The researcher had to explain the ABC system to managers who were not so familiar with it. From the explanation given all management that responded to the interviews viewed it as the best system ever as it improves efficiency, manages overheads and can be used to allocate overheads. The Audit manager viewed introduction of ABC as a very noble idea because it allows managers to effectively manage their cost and again encourages productivity within the company. He also said activities that give rise to high costs can be monitored and new methods introduced to reduce costs per activity.

Management also mentioned that it cut costs and that the system does not punish high performing lines at the expense of low performing lines. The sales and marketing manager also

mentioned that Schweppes is using the ABC system and it proves to be a success as it results in accurate product pricing, overhead controls and material wastage reduction since it identifies costs associated with each activity. Majority of the management showed that they liked the idea of introducing ABC within the organization. In questionnaire number 1(c) 85% of the respondents showed that ABC system was never introduced during the cost reduction exercise. Nevertheless Heisinger (2012) asserted that ABC is guaranteed to function properly if management completely supports its implementation and that it is more effective in companies that produce a wide range of products. .

Question 5: How do you view value based pricing as a profit increasing strategy?

All the interviewed management saw value based pricing as a good strategy if the company offered essential products which are unique in nature, which do not have substitutes to the customers and where no competition exists. This strategy leads to generation of good margins. An example of how the company used the value based pricing is when they offered Delta a preform bottle which had a double layer with the knowledge that no other companies offered such bottles. Another example of beer was given that is, castle lager and spirits are priced high and Chibuku is lowly priced as people value Castle Lager beer and Spirits with high status leading to Delta's enjoyment of profits. The majority of management viewed value based pricing as a profit increasing strategy. According to the research that was carried out by Hinterhuber and Liozu(2013) on evaluating effects of pricing on performance, he obtained that managers were of the opinion that value based pricing resulted in superior profits being made by the firm.

Question 6: How do you view the introduction of a new product line using recycled plastic bottles or waste material for example pallets, plastic poles, road signage?

The accountant and the audit manager viewed it as cheap raw material acquired at lower prices. Management also shared an opinion that market share would also be increased and recycling lowers margins because it lowers overheads and saves electricity. They also commented that it eliminates waste in the country, creates employment and that it might lead to additional money in the company. The marketing manager went on to say that PET bottles might not have the capacity to recycle. His opinion was that the company could only flake the material and that the conversion stage could be difficult for the company since it is costly in terms of the machinery,

unless if the flakes were to be send elsewhere for conversion to reusable products. Therefore all management believed introduction of a new product line in form of pallets was a viable option, though 33% of management were not sure on whether machinery was in the capacity to produce recycled material using PET bottles and that the machinery was expensive. However the company was involved in recycling scud bottles, lids, broken tanks and crates.

Majority of the employees agreed to introduction of a new product line in form of plastic pallets, plastic fence poles, road signage and flower pots produced from 100% recycled plastic bottles which would have been collected or purchased back from customers. This coincided with Mohr et al. (2012) who supported the idea of reusing material as it reduces product costs by half and that most companies had started to venture into new businesses of retaining ownership of the products they would have sold to be used in recycling. Mohanty (2010) also supported the idea when he postulated that recycling material is eco friendly.

4.14 Secondary Data

Table 4.12: Financial statements for 1 April 2013- 31 March 2014

Year	2014	2014	
	Projected	Actual	Variance
	\$000	\$000	\$000
Revenue	41 356	42 000	644 F
Cost of sales	(25 227)	(25 227)	-
Overheads	(13 778)	(13 502)	276F
Total cost	(39 005)	38 729	276F
Profit	2 351	3 271	920F

Source: Financial Statements (2013-2014)

Cost of sales did not vary with projected ones, whereas the total overhead costs varied with 2 % as a result of a decline in overheads and the profits varied with 39 %. These results showed that the company's total costs varied with the projected ones due to the cost reduction techniques that were put in place. However some other techniques were not adopted such as lean production, ABC, kaizen and paper flow elimination and the other measures such as promotional alliances. The energy saving was also not a success because their target was reducing it by 5%. Anderson

(2014) postulated that lean manufacturing can scrap and cut errors leading to reduction of costs significantly raising labour productivity and eliminating waste. Walther (2009) also stated that kaizen sessions leads to greater costs and good organisation savings as it creates cost control awareness to employees and gives them a deeper understanding. If energy saving was a success costs could have reduced as cited by Mohr et al. (2012) that costs can be reduced if energy is saved.

4.16 Summary

The chapter was made up of the presentation and analysis of data that was gathered by the researcher. The data was presented in tables, graphs, bar charts and pie charts and data gathered from interviews was summarized.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter focuses on the way forward in cutting costs in a cost reduction exercise while maintaining profitable operations suggesting various recommendations to Mega Pak. The recommendations given in this chapter have been derived from the relevant literature that was reviewed, the information gathered from the field study and from the researcher's judgments and understanding of the subject matter.

5.1 Summary

The main aim of the research was balancing significant cost cutting and maintaining profitable operations in a cost reduction exercise in a Mega Pak case.

Chapter 1 introduced the research topic and where the problem under research emanated from in the background of study. Of which the problem emanated from a continuous increase in costs and an anticipated decline in profits. The chapter also contained the statement of problem, main research question delimitations and limitations of the study, objectives and sub research questions.

Chapter 2 reviewed opinions and views of other authors, scholars and researchers on how to reduce costs in a company while maintaining profitability. The chapter also reviewed the reduction techniques and the impacts of new product lines on increasing profits as well as strategies to increase the profits. The ABC system was discussed in detail with the authors giving the benefits and challenges associated with implementing it within a company. The prominent authors in this chapter were Nassar and Nassar, Iyer, Yousof and Yousof, Kotler and Keller and Mohr.

The following chapter dealt with the research designs and instruments that were used by the researcher in conducting out her study. The merits and challenges faced with each type of data and instrument used were highlighted. The types of data that were used were primary data, secondary data, qualitative and quantitative data. The research instruments that were used in this study were questionnaires and interviews only.

In chapter 4 the researcher collected data using the research instruments, primary data and secondary data was presented and analysed. Graphs, pie charts, columns, bar graphs and tables were used to present data. Data collected in form of interviews was summarized.

5.2 Major Findings

5.2.1 Which cost reduction techniques were adopted by Mega Pak?

- The majority of the employees agreed that the lean production was adopted during the cost cutting exercise though management highlighted that the lean production was never implemented.
- Kaizen was never adopted by the company as the majority of employees and the management pointed out.
- The response rates showed that management and employees agreed that TQM, JIT, value analysis, target costing and supply management were implemented during the cost reduction exercise.
- The company had not implemented paper flow elimination as one of its techniques and all management had agreed that they never implemented this technique.
- ABC system was not employed by the company but management viewed it as a noble idea and the employees disagreed that the company used ABC.

5.2.2 What measures were implemented to reduce the overheads to improve profits?

- Energy saving was adopted by the company as a cost saving strategy and a recorded a marginal saving but it fell short of their expected saving.
- The majority of the respondents agreed that there was waste reduction at manufacturing stage, product design changes and recycling of material and disagreed that salary reduction had been used during the cost reduction exercise. All management viewed the recycling of the plastic bottles as an ideal way of acquiring cheap raw material and lowering overheads.

- The majority of the respondents also agreed that the MFCA had been adopted by the company to detect hidden costs.

5.2.3 What were the impacts of establishing operating cost drivers?

- The majority of the employees disagreed that the identification of cost drivers had had an impact on: accurate pricing of products, control of overheads, accurate product costing, reduction of material wastages and improvement of the budgeting and planning process.

5.2.4 What strategies were used to increase profits from clients?

- The company did not use promotional alliances as a strategy to increase its profits as the majority of the employees showed from their responses.
- The greater part of the employees agreed that the company had liaised with its suppliers for price reductions, enhanced quality in its products to reduce customer bargaining and had reduced product costs and distribution costs.
- The minority of the employees had agreed that the company had increased its prices for third party customers.

5.2.5 What impacts do the new product lines have on increasing profits?

- The majority of employers and employees viewed the introduction of a new product line in form of plastic pallets and plastic fence poles produced from recycled bottles as a viable way to boost profits and increase market share.
- The majority of the respondents showed that the collection and buying back of plastic bottles from customers was a feasible way of introducing a new product line to increase profits though it was never adopted.

5.3 Conclusion

The research was a success to the researcher as she was able to obtain information from the company through the questionnaires and interviews and had access to secondary data which assisted her in answering her sub research questions and identify gaps within the company. The research was a success because the researcher was able to note that the managers did not involve

its employees in the cost reduction exercise since they were not well versed with the techniques that were used by the company, in particular the lean production. The company only realized 2% on overhead costs reductions whilst they could have reduced them by more than 2% if they had managed to identify cost drivers in their products.

5.4 Recommendations

The researcher managed to deduce the following recommendations from the responses she got from the respondents.

- The company should adopt the lean production during production, which Anderson (2014) viewed as a technique that results in significant cutback of costs which leads to increased labour productivity and eradication of waste through scrapping and cutting of errors.
- The company should completely involve employees since the results from the questionnaires proved that the employees were not so familiar with the techniques that were adopted by the company. This is fully supported by Walther (2009) who cited that kaizen sessions leads to greater costs and efficient savings as it creates cost control awareness to employees and gives them a deeper understanding since they are given a chance to contribute their views in connection with operational improvements.
- The company should eliminate paper flow and try to operate in a paperless environment and circulate documents online. Website <http://156.98.19.245> (15.03.2014; 0200hrs) fully supported this idea as it viewed it as a cost reduction technique that reduces the printing and storage costs.
- The company should consider using ABC system because it leads to accurate product costing and it controls overheads within the organization. If the company costs its products accurately then it might be able to cover up costs for Delta products therefore, retaining a certain percentage of profits and reducing costs. Yousof and Yousof (2011) also supported this idea when they cited that inventories will be valued correctly by companies that use the ABC accounting system.

- Mega Pak should also continue saving energy and adopt the use of filters though it may be costly to implement but beneficial in the long run. Mohr et al. (2012) asserted that if manufacturing companies save energy then costs will be reduced. The CZI fully supported this idea from the article that was written by Kachembere(2014) concerning the reduction of capacity utilization due to electricity costs within industries.
- The recycling of material would be the best measure to adopt as it is eco-friendly of which in Zimbabwe it will comply with the requirements of ISO 14001:2004 (Environmental Management System).
- The company should consider collecting and buying back used plastic bottles (like the National Waste Company) from its customers to recycle them. Mohr et al. (2012) supported the idea when they mentioned that most companies had started to venture into new businesses of retaining ownership of the products they would have sold to be used in recycling.
- The company should also consider introducing a new product line in form of plastic pallets which will replace the wooden pallets and reduce the costs of purchasing wooden pallets as well as increase its market share for the company.
- The company should consider producing products such as road signage and plastic fence poles from 100% recycled plastic bottles. This will be a viable option since the company uses the injection moulding process or the company could be involved in flaking the bottles and then sent them to other companies for conversion to usable products. Ecopost Ltd Company in Kenya is also involved in collecting plastic bags and plastic bottles and makes use of them in manufacturing plastic products such as the road signage, fence poles (<http://www.ecopost.co.ke> 14.03.2014; 2:05pm). Mohr et al. (2012) fully supported recycling of material as they view that companies that implement this measure cut their costs by half.

5.5 Areas of further study

The research recommends that further study be carried out on the factors that affect the success of cost reduction techniques in Zimbabwe.

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Documents Reviewed

Board Minutes dated 15 April 2013

Budget for the year 2014

Financial Statements for the year ended 31 March 2012

Financial Statements for the year ended 31 March 2013

Financial Statements for the year ended 31 March 2014



Appendix 1

Midlands State University

P Bag 9055

Gweru

Zimbabwe

10 April 2014

Dear Sir/Madam

Re: Request to conduct a research

I am a student studying Bachelor of Commerce Honours Degree in Accounting at Midlands State University. I am kindly asking for your assistance in completing the questionnaire attached to the letter in connection with the research I am conducting at your company. The research topic is **‘Balancing significant cost cutting and maintaining profitable operations in a cost reduction exercise.’ A case of Mega Pak (Pvt) Ltd.**

The information obtained will be used for academic purposes only and be assured of privacy and confidentiality of your information. Your contributions will be greatly appreciated.

Yours faithfully

NyasuluMartryona

R103035M

Appendix 2 Questionnaires

Instruction

- a) Please tick the box adjacent to the response of your choice

Department of the respondent

- 1.) The following cost reduction techniques were suitably adopted by Mega Pak

	Strongly agree	Agree	Strongly disagree	Disagree	Not sure
j) Lean production					
k) Total Quality Management					
l) Activity Based Costing					
m) Supply Chain Management					
n) Paper flow elimination					
o) Value Analysis					
p) Target Costing					
q) Just In Time					
r) Kaizen					

- 2.) The following cost cutting measures were implemented to increase profits

	Strongly Agree	Agree	Strongly Disagree	Disagree	Not Sure
f) Energy saving					
g) Recycling material					
h) Salary reduction					
i) Product design changes					
j) Waste reduction at manufacturing stage					

3.) The identification of cost drivers at Mega Pak had the following impacts

	Strongly agree	Agree	Strongly disagree	Disagree	Not sure
f) Accurate product costing					
g) Control of overheads					
h) Accurate product pricing					
i) Reducing material wastages					
j) Improving the budgeting and planning process					

4.) The adoption of the following strategies led to increase of profits

	Strongly agree	Agree	Strongly disagree	Disagree	Not sure
a) Increasing prices for customers other than Delta					
b) Liaising with suppliers for price reductions					
c) Enhancing quality in products to reduce customer bargaining power					
d) Reduction of product costs					
e) Reduction of distribution costs					
f) Promotional alliances					

5.) The introduction of a new product line can lead to an increase in profits

	Strongly agree	Agree	Strongly disagree	Disagree	Not sure
c) In form of pallets to replace wooden pallets					
d) In form of product line stretching , for example plastic fence poles					

6.) Collecting used plastic bottles or buying them back from customers for use in recycling would be a viable option for Mega Pak.

Strongly agree Agree Strongly disagree Disagree Not sure

7.) 100% recycled plastic bottles can be used to make road signage and flower pots at Mega Pak using injection moulding.

Strongly agree Agree Strongly disagree Disagree Not sure

8.) Introducing the manufacturing flow cost accounting detected hidden costs.

Strongly agree Agree Strongly disagree Disagree Not sure

9.) Reusing materials can cut product costs by

Less than 10% 10-20% 30-40% 40% +

10.) Do you think reduction of working hours can lead to reduction of costs?

Yes No

Appendix 3

Interview Guide

- 1.) How successful have been the current cost reduction techniques?
- 2.) Have you implemented the energy cost saving as a measure to reduce costs and with what success?
- 3.) What do think of operating in a paperless environment?
- 4.) What do you think about introducing ABC as a costing system within your organization?
- 5.) How do you view value based pricing as a profit increasing strategy?
- 6.) How do you view the introduction of a new product line using recycled plastic bottles or waste material for example pallets, plastic poles, road signage?