A study of the effects of packaging on profitability and company reputation

BY

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CONFIDENTIALITY CLAUSE

31 July 2003

TO WHOM IT MAY CONCERN

RE: CONFIDENTIALITY CLAUSE

Due the strategic importance of this research it would be appreciated if the contents remain confidential and not circulated for a period of five years.

Sincerely

E.T. Mukungurutse
DECLARATION

This research has not been previously accepted for any degree and is not being currently submitted in candidature for any degree.

E.T. Mukunguratse

31 July 2003
DEDICATION

This work is dedicated to my family, for the love I have for them and them for me.
To all of you I say, “It is never too late to go for something that you really yearn for. At
times in life some achievements come when you and the world think you are down and
out.”

Over to you gang! I pass the torch on to you and for you to do likewise to your children
and so on.
ACKNOWLEDGEMENTS

The support and encouragement by the people and organisations listed below will forever be greatly appreciated.

My family, especially my wife, for the moral and financial support during the course of the entire programme. Thank you gang.

My friends, Sem Enekias Magombedze and Peter Garikayi Shoniwa for standing by me when the going got rough and tough.

Mavhu Commodities, especially the chairman, Charles ‘Salad’ Samuriwo for allowing me to carry out the project.

To CZI, Zimtrade, ZAP, SAZ and PRI staff for providing time and access to information.

The many people who allowed me time to speak with them on issues concerning the project.

Members of my group, for help and support from three hundred kilometres away.

Last but not least, to my supervisor, Elsa Thomson for the professional assistance. Thank you Ma’am.
ABSTRACT

The objective of the study was to show that quality of packaging impacts on company profitability and reputation.

The study looked at the company’s current market position (especially the quality aspect) and where it wanted to be, and looked at other player’s products quality.

The study also looked at costs, especially the relationship of costs to profits. In production, the study compared machine and material performances statistics of local and imported materials.

The study critically looked at internal records, especially correspondence between the company’s purchasing department and suppliers of packaging and between the company’s marketing department and customers.

Vital information on all varieties of materials was technically appraised using internationally acknowledged standards measures from Standards Association of Zimbabwe (SAZ).

Field studies (observation method) were carried out in wholesale and retail outlets to compare and confirm the differences and variances in performance of local and imported material. The observation also looked at consumer activity at point of sale (POS).

After establishing the facts, the study came up with practicable recommendations that would allow the company to overcome quality related problems; this having been the primary objective of the study.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAPTER I : INTRODUCTION</td>
<td></td>
</tr>
<tr>
<td>1.1 Introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Background of the Research</td>
<td>2</td>
</tr>
<tr>
<td>1.3 Motivation of the Research</td>
<td>4</td>
</tr>
<tr>
<td>1.4 Value of Project</td>
<td>5</td>
</tr>
<tr>
<td>1.5 Problem Statement</td>
<td>5</td>
</tr>
<tr>
<td>1.6 Objectives of Study</td>
<td>5</td>
</tr>
<tr>
<td>1.7 Limitations of Project</td>
<td>6</td>
</tr>
<tr>
<td>1.7.1 Internal Records</td>
<td>6</td>
</tr>
<tr>
<td>1.7.2 External Records</td>
<td>6</td>
</tr>
<tr>
<td>1.8 Structure of Study</td>
<td>6</td>
</tr>
<tr>
<td>1.9 Summary</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHAPTER 2 : LITERATURE REVIEW</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Introduction</td>
<td>8</td>
</tr>
<tr>
<td>2.2 Operations Management</td>
<td></td>
</tr>
<tr>
<td>2.2.1 Manufacturing Resource Planning</td>
<td>8</td>
</tr>
<tr>
<td>2.2.2 Theory of Constraints</td>
<td>9</td>
</tr>
<tr>
<td>2.2.3 Just In Time (JIT) Philosophy</td>
<td>10</td>
</tr>
<tr>
<td>2.3 Economics Theories</td>
<td>10</td>
</tr>
<tr>
<td>2.3.1 Scarcity</td>
<td>11</td>
</tr>
<tr>
<td>2.3.2 Opportunity Costs</td>
<td>11</td>
</tr>
<tr>
<td>2.4 Demand and Capacity</td>
<td>12</td>
</tr>
<tr>
<td>2.5 Value Chain Linkages</td>
<td>12</td>
</tr>
<tr>
<td>2.5.1 Internal Linkages</td>
<td>12</td>
</tr>
</tbody>
</table>
2.6 Quality Management 13
  2.6.1 Definitions of Quality 14
    2.6.1.1 Definitions of Quality Management 14
  2.6.2 General Requirements of Quality Management 15
  2.6.3 Management Commitment 15
  2.6.4 Customer Focus 16
  2.6.5 Quality Objectives 16
  2.6.6 Resource Management 17
  2.6.7 Product Realisation 17
  2.6.8 Design and Development 18
  2.6.9 Purchasing 18
  2.6.10 Product and Service Provision 20
  2.6.11 Improvement 20

2.7 Marketing Theories 22
  2.7.1 Marketing Mix 22
    2.7.1.1 Product and Packaging 22
      2.7.1.1.1 Brand Loyalty Through Product Quality 23
      2.7.1.1.2 Homogenisation 23
    2.7.1.2 Price 24
    2.7.1.3 Promotion 25
    2.7.1.4 Place 26
      2.7.1.4.1 Channels for Consumer Goods 26

2.8 Summary 27
3.3.2 Secondary Sources 30
3.3.3 Survey Methods Rationale 31
3.3.4 Survey Methods Disadvantage 32
3.3.5 Instruments of Collecting Data 32
   3.3.5.1 The Personal Interview 32
   3.3.5.2 The Observation Method 33
3.3.6 Personal Survey Questions Structure 33
   3.3.6.1 Wording 33
   3.3.6.2 Length of Questions 33
3.3.7 Observation Method Questions Structure 34
3.4 Secondary Data 34
   3.4.1 Secondary Data Advantages 34
   3.4.2 Secondary Data Disadvantages 35
3.5 Summary 35

CHAPTER 4 : RESULTS (OBSERVATIONS AND FINDINGS) 36
4.1 Introduction 36
4.2 Operations 37
   4.2.1 Purchasing 37
   4.2.2 Production 40
   4.2.3 Maintenance 45
4.3 Marketing 45
   4.3.1 Sales 46
   4.3.2 Merchandising 48
   4.3.3 Finished Goods and Distribution 48
4.4 Administration 49
4.5 Summary 49
5.1 Introduction 51

5.2 Conclusions 52
   5.2.1 Management Skills 52
   5.2.2 Information Technology 52
   5.2.3 Quality Management Systems 53
   5.2.4 Supply Tradition in Zimbabwe 53
   5.2.5 Customers' Reaction to Poor Quality 54

5.3 Recommendations 54
   5.3.1 Strategy Formulation 54
      5.3.1.1 Management Representative 55
      5.3.1.2 Writing of Procedures 55
      5.3.1.3 Management Review 56
      5.3.1.4 Continual Improvement 56
   5.3.2 Information Technology 58

5.4 Summary 59
   5.4.1 Closing Remarks 59
   5.4.2 Further Research 60

BIBLIOGRAPHY 61

APPENDICES 63
   Appendix 1 63
   Appendix 2 66
   Appendix 3 69
<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>38</td>
</tr>
<tr>
<td>4.2</td>
<td>39</td>
</tr>
<tr>
<td>4.3</td>
<td>40</td>
</tr>
<tr>
<td>4.4</td>
<td>41</td>
</tr>
<tr>
<td>4.5</td>
<td>41</td>
</tr>
<tr>
<td>4.6</td>
<td>43</td>
</tr>
<tr>
<td>4.7</td>
<td>43</td>
</tr>
<tr>
<td>4.8</td>
<td>44</td>
</tr>
<tr>
<td>4.9</td>
<td>44</td>
</tr>
<tr>
<td>4.10</td>
<td>46</td>
</tr>
<tr>
<td>4.11</td>
<td>47</td>
</tr>
<tr>
<td>4.12</td>
<td>47</td>
</tr>
<tr>
<td>5.1</td>
<td>57</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>ACT</td>
<td>Actual</td>
</tr>
<tr>
<td>BOPP</td>
<td>Biaxial Oriented Polypropylene</td>
</tr>
<tr>
<td>BG</td>
<td>Bag</td>
</tr>
<tr>
<td>BL</td>
<td>Bale</td>
</tr>
<tr>
<td>BPH</td>
<td>Bags/Bales/Bundles/Boxes Per Hour</td>
</tr>
<tr>
<td>CZI</td>
<td>Confederation of Zimbabwe Industries</td>
</tr>
<tr>
<td>CCZ</td>
<td>Consumer Council of Zimbabwe</td>
</tr>
<tr>
<td>DRC</td>
<td>The Democratic Republic of Congo</td>
</tr>
<tr>
<td>EA</td>
<td>Each</td>
</tr>
<tr>
<td>EPZ</td>
<td>Export Processing Zone</td>
</tr>
<tr>
<td>FAO</td>
<td>Food Aid Organisation</td>
</tr>
<tr>
<td>FDIS</td>
<td>Food and Drink Industry Standard</td>
</tr>
<tr>
<td>FFS</td>
<td>Form Fill and Seal</td>
</tr>
<tr>
<td>FMCG'S</td>
<td>Fast Moving Consumer Goods</td>
</tr>
<tr>
<td>GSM</td>
<td>Grams per Square Metre</td>
</tr>
<tr>
<td>HS</td>
<td>Hand Sealer</td>
</tr>
<tr>
<td>HR</td>
<td>Human Resources (Management)</td>
</tr>
<tr>
<td>ISO</td>
<td>The International Organisation of Standardisation</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>JIT</td>
<td>Just In Time</td>
</tr>
<tr>
<td>MAT</td>
<td>Material</td>
</tr>
<tr>
<td>MF</td>
<td>Manual Feed Machine</td>
</tr>
<tr>
<td>MR</td>
<td>Management Representative</td>
</tr>
<tr>
<td>MRP</td>
<td>Material/Manufacturing Resource Planning</td>
</tr>
<tr>
<td>OPT</td>
<td>Optimised Production Technology</td>
</tr>
</tbody>
</table>
PE - Polyethylene
PLT - Pallet/Palletizer
PRI - Plastics and Rubber Institute
SABS - South African Bureau of Standards
SAZ - Standards Association of Zimbabwe
STD - Standard
SW - Shrink Wrap/Wrapper
TQM - Total Quality Management
UDI - Unilateral Declaration of Independence
VAR - Variance
WI - Work Instruction/s
WS - Wholesaler/s
ZNCC - Zimbabwe National Chamber of Commerce
ZIMTRADE - Zimbabwe Trade Development Organisation
ZAP - Zimbabwe Association of Packaging
1.1 INTRODUCTION

The question very often asked by many a Zimbabwean is, "why and how can two packets of the same product and size made by the same company look so different from each other, never mind when compared to an imported finished product of the same category?"

Before the Unilateral Declaration of Independence (UDI), the quality of locally packed goods matched world standards. (British standards were used as the yardstick.)

From the UDI era of the mid-60’s, through independence, Zimbabwean consumers have had to endure seemingly endless frustration when it comes to quality of goods, especially goods packed using local packaging material.

The causes of the decline in quality are multi-fold. It all started with the scarcity of foreign currency during UDI as the Ian Smith led government grappled with the demands of an expensive war, a war that used up most of the country’s foreign currency to purchase military arsenal and fuel at the expense of the wide and vast variety of industry and commerce’s needs of technologically advanced machinery, local research and development and human resource training.

The post UDI era did not see the situation improve at all as the new government’s socio-political priorities were biased towards the uplifting of the standard of living of the majority by way of providing more and better roads and bridges, schools and colleges, hospitals and clinics, water, electricity and urban housing.

After a few years in office, the new government started to experience foreign currency shortages. An export drive to promote the marketing of Zimbabwean manufactured goods was promulgated by government together with the private sector in an effort to earn foreign
currency and create employment. While in some parts of the sub-continent exports boomed, in other markets they struggled. In the case of Fast Moving Consumer Goods (FMCG’S), one of the main reasons for goods of Zimbabwean origin not doing well was reported to be the poor quality of packaging (perceived and actual).

During the mid-80’s the Confederation of Zimbabwe Industries (CZI) addressed, among other issues, the plight of the packaging industry and the down stream effects. The emphasis was on how to improve the image of Zimbabwean packaged products. This saw the birth of the Zimbabwe Association of Packaging (ZAP), an association that was tasked with the responsibility of assisting companies by providing generic and specific programmes that helped them overcome technical and human resource problems that hindered the production of quality goods. Even as we write, there are quite a number of local manufacturers who are using near outdated equipment to produce packaging material. The uses of such equipment renders suspect the finished product that comes out of them. In some companies the situation is so grave in that the policing of standards is heavily compromised by the fact that most of the testing equipment is also outdated and suspect.

In addressing the problems of quality of local packaging, analysis of past history of the country, the industry, the customer and consumer is of paramount importance.

1.2 BACKGROUND OF THE RESEARCH

Mavhu Commodities (Private) Limited (the company) is a food processing and packaging company based in the border city of Mutare, in the Manicaland province of Zimbabwe. The company (Mavhu) uses a wide spectrum of packaging materials ranging from paper and foil to board and laminates of all the mentioned materials.

The product portfolio comprises of dried foods such as beans, rice, mopani worms, popcorn, groundnuts and fish; foods that are regarded as traditional in the whole sub region and do fall
in the FMCG’s category of goods. Similar to Heinz, all products processed and packed by the company are marketed under the corporate brand name Mavhu.

The company runs two factories, one in Bulawayo, Zimbabwe’s second largest city and the other in the city of Mutare. The factories were strategically located in order to minimise the cost of transporting produce from primary sources. The Mutare factory, which is where the headquarters is, processes and packs beans, rice, popcorn and groundnuts, while the Bulawayo factory does mopani worms and fish.

Manicaland is a farming province with a good annual average rainfall pattern. The province has the most sophisticated and diverse agricultural operations in Zimbabwe. Primary products produced in this province include maize, tobacco, wheat, fruits, vegetables, beans, nuts, meat, milk, flowers, coffee, tea and timber. As a result, The Mavhu factory in Mutare draws the bulk of its product inputs from Manicaland province. The long-term strategy is to vertically integrate backwards into agriculture and acquire Export Processing Zone (EPZ) status for the Mutare factory. EPZ status will allow the company more flexibility and autonomy on foreign earnings.

The drier part of the country, Matebeleland, which is where Bulawayo is situated, is endowed with an abundance of mopani trees and parts of the mighty Zambezi River. These two natural resources are the sources of mopani worms and kapenta fish respectively. Such is so the reason why the Bulawayo factory was located there.

Key machinery found in the both factories includes weighing machines, dust extractors, sealing machines, labeling machines, coding machines conveyor systems and palletising machines and laboratory equipment for testing moisture content, stretch strength, turnstile strength, punch strength, adhesion strength and abrasion resistance.
The company draws its custom from nearly all leading Zimbabwean, Mozambican and Zambian markets. Business is solicited by physically calling on the bulk of the wholesalers and retailers. The Botswana and Namibia markets are hardly developed, while Angola and Democratic Republic of Congo (DRC), which have remained out of reach mainly because of the wars in those countries, poor transport network systems and traditional trade paradigms, are viewed as having great potential.

Despite the competition being fierce, the company has established itself as a key player in the food industry by building strong marketing and production infrastructures.

The major weakness in the organisation has been its inability to prove to its supplier public that the inherent market problems were mainly packaging quality related. The company also requires to review its information technology base, in line with modern day business management trends and demands.

The focus of the study therefore will be directed towards the problems caused by sub-standard packaging. The research will cover all the departments of the organisation and will expose how each one of the departments is, in one way or the other affected by the problem. Some departments though, will be key in the implementation of corrective action and recommendations.

1.3 MOTIVATION OF THE RESEARCH

The purpose of the research was to show management:

a. how the quality of packaging supplied has a direct impact on the quality of finished product from a production point of view.

b. To highlight the importance of packaging, a sub element of Product in the Marketing Mix, in determining the performance of finished product right through the distribution chain and consumer perception at point of sale.
c. To expose inherent in-house and external problems, which compound the problems of sub-standard packaging.

d. To show how poor quality packaging impacts on profitability as a result of re-work, returns, waste, storage and transit damages, machine and material inefficiencies.

1.4 **VALUE OF THE PROJECT**

Based on the recommendations that will accompany the findings of the research, the company will benefit in terms of reduced costs that relate to waste, returns, storage and transit damages, machine and man-hours. This will improve profitability and most importantly customer satisfaction.

Mavhu Commodities have reached a critical stage in their development and their marketing strategies, that include regional expansion, will benefit tremendously from the facts of the study. Facts that will prove that sales have been hampered by poor appearance of goods at point of sale. Improved packaging will enhance the chances of improving sales.

1.5 **PROBLEM STATEMENT**

Companies (like Mavhu Commodities) that use locally manufactured packaging are losing business and profit due to the poor quality of packaging supplied which fails to meet standards in terms of finish, processability, and post production durability and presentation.

As a result, service and customer satisfaction along the entire chain of distribution is heavily compromised.

1.6 **OBJECTIVES OF THE STUDY**

At the conclusion of the study it will be desirable to establish that profitability and reputation of Mavhu Commodities has been affected by the quality of the product supplied, this resulting from poor packaging quality mainly.
The findings of the study will be used to prepare and recommend actions to be taken in order to overcome problems and thus help the company achieve its desired goals.

1.7 LIMITATIONS OF THE PROJECT

1.7.1 Internal Records

Records pertaining to the frequency and the timing of orders to suppliers were either incomplete or confusing. For example two orders of an identical material would show that both orders had been part supplied and no explanation given for this apparent non-conforming procedure.

1.7.2 External Records

Access to suppliers’ operating procedures and records was limited. At times suppliers themselves did not have proper systems and procedures in place. For example a supply of a particular material could not trace when and what batch was run by which shift. In some instances records would differ from test results, for example a packet that is said to have been made from a paper laminate of 40x40gsm (grams per square metre) white kraft paper, will yield results commensurate with a 40x30gsm laminate.

1.8 STRUCTURE OF THE STUDY

Chapter 2 will review and comment on literature pertaining to Operations Management, paying special attention to Manufacturing Resource Planning. The review will also look at Quality Management Systems and the Marketing Mix theory with special focus on packaging.
Chapter 3 will cover the Methodology of Research and its justification.

Chapter 4 will cover the Results, that is, the Observations and Findings of the study.

Chapter 5 closes the study by presenting the Conclusions and Recommendations.

1.9 SUMMARY

The intended outcome of the project would be to be guided by the points presented above and come with a revelation that exposes the causes of the problem and propose solutions that will see the organisation overcome those problems.

Strategy will be the basis of the way forward. For strategy to be effected, a deep and clear understanding of the problem must be arrived at first. Research helps understand a problem and recommends solutions based on findings.
CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter will review literature and theories on Operations Management, Quality Management Systems and Marketing. The sequence of reviews will try and follow the flow chart of packaging material, i.e. from supplier to user, through the channels of distribution.

Analysis of the literature will be to relate it to packaging and its effect on product, profitability and reputation on the organisation.

It will be very important for the review to show the inter-dependence of various departments in the organisation in addressing a problem or setting strategies.

2.2 OPERATIONS MANAGEMENT

Modern day operations management focuses mainly on effectiveness and efficiency. A variety of models have been developed; models that are designed to make operations effective and efficient.

The sphere of operations engulfs most other functions in an organisation. Pycraft, Singh and Phihlela (2000) Operations Management say, “The operations function is central to the organisation because it produces the goods and services which are its reason for existing, but it is neither the only, nor necessarily the most important, function”.

2.2.1 Manufacturing Resource Planning

Manufacturing Resource Planning (MRP) is defined as “a game plan for planning and monitoring all the resources of a manufacturing company: manufacturing, marketing, finance and engineering”, (Pycraft et al, Operations Management, 2000).
MRP allows the organisation to understand the loop or the inter-departmental relationships and their link in effective planning and control of operations. The purported founders of modern MRP, Oliver Wright and Joseph Orlicky propound this concept.

While MRP is information technology (IT) based, it still depends on people making decisions. It follows to say that such systems as MRP aid management not only to make today's decisions, but also to strategise for the future. Arguments for or against an issue (especially in an operational environment) sometimes require proven facts in order to convince other members of the management team who may not be well versed with the goings on of a particular department.

2.2.2 Theory of Constraints

The Theory of Constraints is described as a development to focus attention on capacity constraints or bottleneck parts of the operation. By identifying the location of the constraints, working to remove them, then looking for the next constraint, an operation is always focusing on the part that critically determines the pace of output. (Pycraft et al, 2000).

This theory is used in a concept called Optimised Production Technology (OPT). OPT's is an IT based concept designed to help production scheduling by focusing on bottleneck areas.

It therefore follows that if an input resource, packaging in this instance, is in one way or the other impeding production operations and the subsequent effective functioning of other departments, the overall objectives of the organisation are negatively affected. Thus, a bottleneck or constraint affects profitability immediately and reputation in the long run.
2.2.3 **Just in Time (JIT) Philosophy**

JIT, a Japanese developed philosophy, is an operations management technique that focuses on producing goods only when needed, low capacity utilisation, cutting out surplus production, low inventory, fewer stoppages. JIT therefore, aims at elimination of waste, staff involvement in operations decisions and continual improvement.

Poor quality packaging makes it near impossible for the JIT philosophy to be effective as high inventories are kept in order to cater for waste while production and capacity scheduling will be skewed as excesses are produced in order to cover up for potential rejects or returns that emanate from the poor material quality.

### 2.3 ECONOMICS THEORIES

Bradley R. Schiller, in his book *The Economy Today*, describes the economy as, “simply an abstraction referring to the sum of all our individual production and consumption activities, in other words the economy reflects the collective behaviour of the millions of individuals who participate in the economy.” He goes on to say, “we may not be happy with the output of the economy, but we cannot ignore the link between individual action and collective outcomes.” “However, people have the option of reallocating resources, which can create a different outcome the next day, or month or year.” (Schiller, *The Economy Today*, 2000).

The said production and consumption activities that reflect or shape the behaviour of the economy do affect the positions of individual organisations as well. How organisations participate in an economy is also dependent on the preparedness of it to meet the very basic ethos of consumer behaviour and supply and demand. All things being equal, products of poor quality (packaging) will face low demand from consumers and if the quality is not improved, company reputation is eventually affected. Such are the marketing implications of a poorly packaged product.
2.3.1 Scarcity

At the centre of most economic problems is the issue of scarcity. It is fact that available resources cannot match the desired purpose of use. As a result, scarce resource choice means that the decision made compromises something else.

When consumers use their scarce funds, they want best returns for them and quality is a major part of the desired return.

2.3.1.1 Opportunity Costs

The theory of opportunity costs clearly states that we forgo or give up one thing to get something else. This theory translates itself in a variety of forms, for example, in a production environment, the decision to use one type of material against another will result will alter output results in/at a given time. This can be referred to as the Production Possibilities.

Production possibilities are usually based on maximum efficiency assumptions, all things being equal, and yet the real life situation always reminds us that ‘ceteris paribus’ is a rare situation.

Scarcity of factors of production means that efficiencies are greatly compromised before one is even started.

The objective of management of resources therefore, must be to eliminate the constraints that impact negatively on the already scarce resources.
2.4 DEMAND AND CAPACITY

(Pycraft et al, 2000) say that capacity planning and control is the task of setting the effective capacity of the operation so that it can respond to the demands placed upon it. He goes on to state that this usually means deciding how the operation should react to fluctuations in demand.

From Pycraft’s statement, it can be deduced that demand fluctuations are a reality of life, however one needs to look at the primary activities of the organisation, i.e. inbound logistics, operations, outbound logistics, marketing and sale and establish how they affect the effectiveness of capacity planning.

The activities of inbound logistics cover ordering, transportation, receiving, storage and stock control of materials. The operations aspect of the business will entail transforming inputs into finished goods. These upstream activities determine, to a large extent, how the downstream activities of marketing, sales and after sales service are effective.

2.5 VALUE CHAIN LINKAGES

The Michael E Porter developed and popularised value chain concept and views linkages in the value chain as activities that are interdependent and relate to other activities in terms of costs, departmental performance and competitive advantage.

Hollensen, (Global Marketing, 2001), states that the links between activities may be the basis of competitive advantage.

2.5.1 Internal Linkages

In explaining the essence of linkages Hollensen indicates the interdependence of the various levels of management and departmental relationships.
The outcome of a strategy, cost control, profitability or marketing objectives will invariably be linked to departments or managers.

The quality of material purchased will affect the transformation process and the way the finished product is marketed. Poor quality material takes up production time as it not only fails to perform well during production runs, but it results also in waste, rework and overstocking of both raw materials and finished goods as management tries to build a buffer to cater for the replacement of returns.

2.5.2  External Linkages

The fact that firms are not self-sufficient means that they have some external linkages that are critical to their operations.

Manufacturing organisations that transform a variety of materials into finished goods have external links with their suppliers. These very suppliers can directly influence the performance of their customer’s operations through the quality of their supplies and service.

The quality of upstream product and service has, therefore a great bearing on the performance and outcome of downstream activities.

2.6  QUALITY MANAGEMENT

The world over, many varied views, opinions and expressions have been debated and many a writer and speaker have added to the seemingly never ending debate on quality. At the centre of all debates on quality is the common understanding by all parties that whatever product or service that is being offered (free or charged), the receiver of the good or service expects it to fulfill his or her requirements.
In 2001 the International Organisation for Standardisation (ISO) produced the final draft termed Guidelines on the Application of ISO 9001:2000 for the Food and Drink Industry (Reference number ISO/ FDIS 15161:2001). The mentioned publication contains eight major sections and quite a number of sub-sections that provide explicit guidelines on how to implement and run an effective Quality Management System. Extracts and comments on sections that are critical to the case will be referred to.

2.6.1 Definitions of Quality

The International Organisation for Standardisation (ISO) defines quality as, “the degree to which a set of inherent characteristics fulfils requirements”. (Secretariat ISO 9001:2000, 2001).

In their Auditor/Lead Auditor Training Course Manual CBS6 (2002), Quality Strategies International say that a quality product or service should “conform to requirements, conform to specifications and be fit for purpose”.

Having defined quality generically, it is incumbent upon the organisation’s management to manage quality. Like most disciplines in a business, Quality Management must have distinct principles and procedures that govern and guide the operations of the business.

2.6.1.1 Definition of Quality Management


The key to this viewpoint is that quality must form part and parcel of the entire product life chain as it were. The organisation must develop a system that allows for a documented control of materials, procedures and be able to deal with nonconformances, while it always
strives for continual improvement. All of these and an organisation’s Quality Policy and Quality Objectives must be contained in a Quality Manual, which becomes the Bible or Quoran that guides the operations of the organisation.

The success of any quality management system is dependent upon the total commitment of senior management, which will lead to the lower level employees embracing it.

2.6.2 General Requirements of Quality Management


2.6.3 Management Commitment

ISO 9001:2000 (2001) subsection 5.1 states that, “Top management shall provide evidence of its commitment to the implementation of the quality system and continually improve its effectiveness by:

- Communicating to the organisation the importance of meeting customer as well as statutory and regulatory requirements,
- Establishing the quality policy,
- Ensuring that quality objectives are established,
- Conducting management reviews, and
- Ensuring the availability of resources.

It is also stated in the sub-section that, “Within the food industry, the requirement to produce safe food, with the required level of quality, whilst remaining economic, is of paramount importance.
Note must be made of how the standard makes it a point to be clear about the interrelatedness of profitability and quality.

2.6.4 Customer Focus

In the same ISO publication, it is said under this critical subsection that, “Top management shall ensure that customer requirements are determined and are met with the aim of enhancing customer satisfaction. The customer may be the immediate retailer, the transporter, any other intermediary of the downstream food chain, or the wider community of consumers.”

The old marketing adage “customer is queen, she reigns supreme” concretises the importance of the customer, that is from user to consumer. In order to be sure that the customer is satisfied, quality, among other things, has got to be right. When quality is not right “the queen” will pass a decree of non-compliance that will result in loss of business and reputation.

2.6.5 Quality Objectives

Under this second level subsection that falls under the first level section titled Quality Policy, ISO states that, “Top management shall ensure that quality objectives, including those needed to meet requirements for product, are established at relevant levels and functions within the organisation. The quality objectives shall be measurable and consistent with the quality policy.”

In management when policy is formulated, the lifeblood of sustaining policy will be clear-cut objectives, objectives that will assist in the diffusion of the organisation’s global strategy.
2.6.6 **Resource Management**

The ISO publication says, under this major section that, “The organisation shall determine and provide the resources needed to:

- implement and maintain the quality management system and continually improve its effectiveness, and
- to enhance customer satisfaction by meeting customer requirements.

The subsections of this section cover areas that include provision of material resources, human resources, infrastructure and work environment. Great emphasis is given to education, training, skills and experience.

2.6.7 **Product Realisation**

ISO says, “In planning product realisation, the organisation shall determine the following as appropriate:

- quality objectives and requirements for the product;
- the need to establish processes, documents and provide resources specific to the product;
- required verification, validation, monitoring, inspection and test activities specific to the product and the criteria for product acceptance;
- records needed to provide evidence that the realisation processes and the resulting product and meet requirements.

The output of this planning shall be in a form suitable for the organisation’s method of operation.” (ISO 9001:2000, 2001).

The essence of quality planning is that the results that stem from it give clear indications of the desired controls in a process. It is paramount to note that product realisation fuses...
together a whole string of processes, typically in the food industry it would include raw
delivery, through to despatch of finished goods.

If policies and objectives that an organisation aims for are to be achieved, abstract processes
such as Accounting, Administration and Human Resource Management, that may be deemed
support services, but are crucial in determining the smooth and effective operation of the
business, must be part of the planning.

2.6.8 Design and Development

The organisation shall plan and control the design and development of product.

The organisation shall manage the interfaces between different groups involved in design and
development to ensure effective communication and clear assignment of responsibility.

The intention of this clause is to ensure that the specifications of materials, processes,
packaging, product and labelling arrived at through the development process, meet the needs
of customer.

Food safety must be paramount during any new product development. (ISO 9001:2000,
2001).

2.6.9 Purchasing

Under sub-section 7.4.1 (Purchasing Process) it is said, “The organisation shall ensure that
purchased product conforms to specified purchase requirements. The type and extent of
control applied to the supplier and the purchased product shall be dependent upon the effect
of the purchased product on subsequent product realiseion or the final product.
The organisation shall evaluate and select suppliers based on their ability to supply product in accordance with the organisation’s requirements. Criteria for selection, evaluation and re-evaluation shall be established. Records of the results of evaluation and any necessary actions arising from the evaluation shall be maintained.

All materials and services used to meet customer requirements in the manufacture of product should be purchased in a controlled manner that reflects the importance of that material or service to the finished product. “(ISO 9001:2000, 2001).

In the food industry, this could include ingredients, water, maintenance materials and equipment, sub-contracted operations, primary producers, testing and laboratory services, hygiene services, pest control, training, warehousing, transport and distribution.

Part of sub-section 7.4.2 (Purchasing Information) says, “The organisation shall ensure the adequacy of specified purchase requirements prior to their communication to the supplier. Any order, however placed, should be clear and covered by a purchasing specification. The specification will clearly state the organisation’s requirements and accommodate the inherent variability of such products, and encompass the need for any special controls necessary to guarantee their conformity, including the requirement to meet the current legislation.” (ISO 9001:2000, 2001).

In a manufacturing environment, the end result of all processes involved in producing a good can be ‘pear-shaped’ if the quality planning of the purchasing process is not standard and consistent. Control of procedures and the adherence to requirements is a prerequisite for many other processes. The non-conformity of purchasing processes will usually affect other downstream processes. Receiving material that does not conform to standard for example, affects Accounts, Administration and Production as they have administer the return of the material. If the (unlikely) decision is made to use the defective material, production problems relating to the nonconformance of the material will be encountered, resulting in waste, rejects
and loss of time and obviously higher costs of production which impact negatively on profitability.

2.6.10 Product and Service Provision

Sub-section 7.5.1. (Control of Production and Service Provision) says, “The organisation shall plan carry out production and service provision under controlled conditions. Controlled conditions shall include:

- the availability of information that describes the characteristics of the product,
- the availability of work instructions, as necessary,
- the use of suitable equipment,
- the availability and use of monitoring and measuring devices,
- the implementation of monitoring and measurement, and

Of essence in an operation is the ability to control, monitor and measure the quality of product and service right up to post-delivery life of the product. Here observation of the linkage between other processes and marketing is evidently critical.

2.6.11 Improvement

Sub-section 8.5.1 (Continual Improvement) says, “The organisation shall continually improve the effectiveness of the quality management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review.” (ISO9001:2000, 2001).
Sub-section 8.5.2 (Corrective Action) says, “The organisation shall take corrective action to eliminate the cause of non-conformities in order to prevent recurrence. Corrective actions shall be appropriate to the effects of non-conformities encountered.” (ISO9001:2000, 2001).

The concept of corrective action is based on searching for causes in such a way as to perpetuate the elimination of the problem at the source of the non-conformity.” (ISO9001:2000, 2001).

Sub-section 8.5.23 (Preventive Action) says, “The organisation shall determine action to eliminate the causes of potential non-conformities in order to prevent their occurrence. Causes of problems, when clearly identified, should be captured within the organisation and used to re-engineer processes an/or procedures to avoid recurrence and non-conformity.” (ISO9001:2000, 2001).

In today’s ‘Internet speed’ competitive environment, it would be folly for any organisation not to make continual improvement a permanent feature of its objectives. Maintenance of standards alone is not good enough, especially in a marketing environment that has gone global and consumers are abundantly exposed to information and/about goods.

The aim of most quality management programmes is to at least meet customer expectations and to assure continuity of quality product and service through sustenance of standards, procedures and deliberate effort to continually improve on the status quo.

Globalisation has marginalized those suppliers whose goods and services still identify with the yester world of the sellers market. Except in very few underdeveloped countries, customers and consumers have access to most quality commodities of their choice. Price variances or choice of selection of baked beans on a supermarket shelf in Zambia are not entirely a result of source of origin. Zimbabwean goods might be landed cheaper in Zambia but Kenyan goods might be perceived to be of superior quality, prices notwithstanding.
All things being equal, every customer’s wish would be to get top shelf service and goods always. Providers of poor quality goods and services are likely to be left by the wayside as competitors and ‘their’ customers continually improve.

2.7 MARKETING THEORIES

One of the most repeated marketing sayings of yester-years is the one by Adam Smith, which says, “If you make a good ploughshare, the world will beat a path to your doorstep”. During those years of production driven thinking, other elements of the Marketing Mix were given very little consideration and as the years progressed and marketing evolutions came to be, mindsets changed. However the “centrespread” of that old famous Adam Smith saying was “a good ploughshare”. It can be safely deduced that the ancient marketing founder meant a quality ploughshare.

2.7.1 Marketing Mix

The right product, at the right price, to the right people at the right place is probably the simplistic version of explaining the marketing mix theory. All things have to equal in the mix. However it can be argued that the product element of the mix, which is usually the cause for going into business, has to be right first for everything else to follow suit. If the product is not right, one is twice defeated before they have started.

2.7.1.1 Product and Packaging

“Clothes maketh man” is another old saying that speaks miles about appearance and the resultant impact on drawn opinion. Like clothing, packaging is the ‘togs’ of product; in a lot of ways it makes the good.

Packaging does not only protect, but can also educate, it announces presence, it stimulates, and it gives identity and compliments other elements of marketing.
In describing the Product Concept, Arbee and Naidu, (2001/2) Marketing Management, say, “The product concept holds the view that consumers favour those products that have unique features and offer best quality and performance. Developing high-quality products more quickly, efficiently and effectively gives a company sustainable competitive advantage.

2.7.1.1.1 Brand Loyalty Through Product Quality

Branding’s main objective is to create distinct identity to a product. Following on to giving a product distinct identity, it is usually every marketer’s wish to build brand loyalty. Hoyer, MacInnis, Consumer Behaviour (2000) say, “Brand-loyal consumers have strong brand commitment, they are more resistant to competitive efforts and switching than other consumers.” They go on to argue that a brand-loyal consumer is less likely to be influenced by price deal for some other brand. They conclude their position with the viewpoint that one of the major goals of marketing is to develop brand loyalty and as a result marketers are striving to develop consumer loyalty through product quality. It is stated in the same publication that one obvious and critical way to develop brand loyalty is to provide the consumer with a high quality product that leads to satisfaction.

One of the five levels to a product defined by Philip Kotler is ‘the expected product level’ which he says is a set of attributes or characteristics that buyers normally expect and agree to when they purchase a product. (Keller, Strategic Brand Management, 2003).

Below par quality equals below par returns, and is obviously not what consumers expect and definitely not what the firm desires.

2.7.1.1.2 Homogenisation of Markets and Tastes

Theodore Levitt in his article The Globalisation of Markets, argues that “the world needs have irrevocably homogenised”, meaning that universally, consumer tastes have become
common especially when viewing products which were originally targeted for developed countries. Examples given are of FMCG’S like soft drinks, French Fries, hamburgers, etc. In the same article, Levitt says that “the best combination of price, quality, reliability and delivery” is what customers are always looking for. (T Levitt, Havard Business Review, June 1983).

2.7.1.2 Price

In relation to the other mixes of the 4P’s, a consumer’s perception of a good is that of value for money. On many an occasion consumers who are not introduced to a product through referrals are more often than not likely to make an opinion based on the looks of the product. Yes, looks might be said to be deceiving but there are times when first impressions make lasting impact.

Quality appearance is commensurate with quality pricing. Poor quality appearance plays on the psyches of both the marketer and the buyer of that product. Nine times out of ten products that are less appealing in look because of tatty packaging are usually priced lower than their competing brands, despite them probably being of superior quality. A fitting example is that of the Zimbabwean made cordial Mazoe Crush which is packed in a clear PVC plastic, has a tear-off plastic top and a single face label that has not been changed in more than thirty years. On those selected South African supermarkets that carry the product, its rate of stockturn is primarily dependent on referrals, and those that have tried the product will probably want to repeat buy it, yet the fact that the packaging is of dismal quality still remains. When Mazoe is viewed on the shelf side by side with other glitzy packaged products, it struggles to attract those consumers that are out to try a new product. It is also because of that dull appeal that the marketers of it find themselves pegging its price at a lower station, a station that does not represent the real quality of this product, all because of the quality of the packing.

Bhowan, Hosking, Msweli-Mbanga and Naidu (2001) Marketing Management, in explaining Consumers’ Price Behaviour say, “It is important for marketers to understand how
consumers perceive prices for competing products and its resultant impact on purchase behaviour patterns. Consumers compare the value relationship of products and services on offer by assessing price and other benefits offered. In some instances, a high priced product is perceived to be of high quality. In the case of products that are not very well known, consumers buy the more expensive product to avoid the risk of poor quality.”

From the arguments presented above, it follows then to deduce that, while pricing of goods might be influenced by other marketing and company objectives, the inter-relationship between price and quality is inseparable. Thus, packaging determines perception and therefore scuffed, tatty and deformed looking products are perceived to be sub-standard, despite the fact that the ingredients might be the best in the range. Most customers are influenced by the external look of a product first.

Since price is an important element of the marketing mix that directly influences profit, it is very important that the key variables that determine price positioning are not found wanting. One such variable is quality. Poor quality forces marketers to compromise prices charged.

2.7.1.3 Promotion

Modern day marketers have effectively rubbished the Adam Smith theory of the ‘mountain coming to Mohammed’. When everything else that precedes selling has taken place, goods are likely to stay unbought if promotion of them is not undertaken vigorously and strategically. Selling is the rapier of the marketing process.

Today’s sales person, though having been ‘sold’ to the promotion philosophy (excuse the pun), is often in a quandary when volumes suffer due quality related problems. The reality and result of promoting poor quality products is creation of frustrated customers, customers who will not repeat buy, resulting in a snowball effect that will cause products to die and if no remedial action is taken, will cause company to close shop.
Kennedy and Courtenay (1995) in their book The Power of One to One, talks of the offer (promotion) that works and says, “The offer is what drives the quality and quantity of response. That is why the offer is ranked second in the relative weighting. The joy is, of course, that offers don’t have to be hit or miss. Simply testing an offer against all other known variables can control them. You soon learn what works, what doesn’t and what is likely to work best.”

It becomes pretty clear that quality pulls in quantity as customers experience delight when they encounter offers that meet their demands. The essence of quality cannot be over emphasised, it just stands out.

2.7.1.4 Place

Usually the last but by no means the least of the 4P’s, distribution is a multi-facetted element that is judged in a fusion of both the tangible and the intangible attributes of product and related service.

2.7.1.4.1 Channels for Consumer Goods

Bhowan *et al* (2001/2) categorises Distribution Channel Functions into three, i.e.

- Transactional Functions
- Logistical Functions, and
- Facilitating Functions.

Transactional functions include the gathering of information needed for planning and facilitating distribution of products and services to end-consumers. Developing a promotional mix for a marketing offering with the aim being to have their products stand out as the best in perceived value. Negotiating of price and other terms of offer through mutual interaction with channel members.
Logistical functions include physical distribution, i.e. movement of products from where they are manufactured. Carrying and maintaining sufficient inventory to match supply and demand cycles. Sorting of goods according to product type, size and quantity.

Facilitating functions would include providing credit to enable channel members to purchase the products. Purchase terms for channel members or intermediaries range from cash payment to payment due in thirty days and even more. Grading products by classifying them into categories based on quality, colour or size.

2.8 SUMMARY

The whole objective of the literature review was to expose the key operational elements and the inter-relationship of management functions when faced with a problem such as the one at hand.

The root problem (such as packaging) may be attributed to a specific department, but its manifestations become global as it directly or indirectly festers and affects other departments and at most times invariably goes beyond the borders of the organisation to those 'jewels' called customers.

Marketing, Production/Operations, Finance, Engineering and Administration all have a part to play in achieving global organisational strategies. The importance and eventual success of TQM hinges on management commitment, especially the ethos of understanding the common goal of unity of purpose. When the Procurement department does not understand the Sales department related problems, the packaging problem (quality) might take long to overcome.
CHAPTER 3: METHODOLOGY

3.1 INTRODUCTION

This chapter will present the methodology used in collecting information for this study. It will try to expose the strategic justification of the approach, i.e. the qualitative method and why and where the researcher sourced data.

The structure and design of the method will as much as possible be directed towards the problem being researched. Guidelines were drawn from models by Donald R. Cooper and by Pamela S. Schindler.

3.2 RESEARCH DESIGN AND SAMPLE

While the literature review shows the importance of quality (packaging), for the problem statement to be answered, a case study of Mavhu Commodities, a company, which uses a variety of both local and imported packaging materials had to be undertaken.

The researcher had to search and find the vital information relating to the problem from within the organisation and from other external sources.

3.3 SOURCES OF DATA

After defining which information was vital to addressing the problem, the sources to obtain the information from were identified.

Information required was drawn from the sources listed below.
3.3.1 Primary Sources

1. Internal Sources
   - Personal Interviews - All departments
   - Operating procedures - all departments
   - Quality standards - all departments
   - Production efficiencies - Production
   - Sales and Distribution efficiencies

2. Packaging Suppliers - local and international.
   - Quality Standards and Conditions of Supply
   - Post-supply services
   - Technical information relating to material and its uses

4. Customers - along the entire distribution chain.
   (Observation Method)
   - Issues affecting product performance
   - Consumers’ opinions

5. Internal Respondents.
   - Operating procedures - all departments
   - Quality standards - all departments
   - Production efficiencies - Production
   - Sales and Distribution efficiencies
   - Product Costing Efficiencies - Accounts
3.3.2 Secondary Sources

1. Internal - All departments
   - Purchasing records
   - Production Records
   - Machine maintenance records
   - Sales and Distribution records
   - Customer records
   - Accounts records

2. Standards Association of Zimbabwe
   - Material testing standards
   - Equipment calibration records
   - Food quality standards

3. Trade Organisations (CZI, ZNCC, ZAP, Zimtrade)
   - Comments and views on the research problem
   - Impact on exports

4. Ministry of Industry and International Trade
   - Government’s view on research problem
   - Impact on export

5. Packaging Suppliers - local and international
   - Flexplas
The personal and observation methods were used.

The personal survey method was used both internally and externally.

Internally the research deliberately targeted departmental managers to find out what their positions were regarding the problem as they were considered key to any possible solutions.

Externally the research targeted known portfolio holders of technical departments in the institutions that are players in trade and commerce.

The observation survey method was used only on consumers. Wholesalers and Retailers opinions and positions regarding product quality were already known and would be extracted from internal records via desk research.

3.3.3 Survey Methods' Rationale

The personal survey method was chosen, especially for internal data collection because the practicality of the situation was such that most information relating to the problem was either available in-house and/or the lead to desired information would come from employees. Personal interviews also allow for deeper probing and clarification of ambiguity between
The interviewer and respondent. The researcher also found this method to be speedy, timeous and less expensive.

The observation method was strictly adopted for consumer behaviour opinion only. The history of the products quality and consumer taste preferences known, this method was desirable in order to extract unadulterated consumer opinion. The available variety of similar and dissimilar products from both the same and different manufacturers would also confirm the importance of quality to the consumer.

3.3.4 Survey Methods' Disadvantages

Despite having communicated the objectives of the research to potential respondents prior to its undertaking, some members of staff felt threatened by the research as some of the questions, especially in the personal survey method, would inevitably ask respondents questions that would appear to imply the apportionment of blame to the interviewee.

While it eliminates consumer bias and manipulation by the researcher, the observation method has the big disadvantage of unsubstantiated conclusions by the researcher. Real reasons by a consumer to buy or not to buy are not always quality related only. The number of wholesale and retail outlets that had to be visited were widely spread such that travelling time was more than the time spent carrying out the observation research, forcing the researcher to limit the number of outlets visited.

3.3.5 Instruments for Collecting Data

3.3.5.1 The Personal Interview
The desired outcome of the research was known to the population (internal) and therefore the format of questions were fully structured. After each question the researcher afforded each responded the opportunity to comment further on the question.

3.3.5.2 The Observation Method

The researcher compiled a list of actions to be observed at every outlet visited as consumers shopped.

3.3.6 Personal Survey Questions Structure

The researcher adopted the questionnaire funnel model propounded by C McDaniel Jr and R Gates which starts from the end (what the results will be used for). This model more or less eliminates the possibility of any surprises when the final report is presented. This approach is designed to cover all critical areas of the research, plugging any possible information loopholes in the findings and analysis.

3.3.6.1 Wording

Questions were worded in a simple and easy-to-comprehend manner in order to eliminate ambiguous responses.

3.3.6.2 Length of Questions

The questions were pertinent and as a result short and very direct. In total a list of 17 questions were directed towards the internal respondents and 11 for the service organisations.
3.3.7 Observation Survey Method Questions Structure

The observation method structure was basically designed to observe how the consumer would respond to a variety of products displayed at point of sale.

At each outlet the researcher had pre-arranged with merchandising staff that products of visibly sub-standard packaging be displayed separately to those of acceptable standard quality. A total of 11 questions were prepared.

3.4 SECONDARY DATA

The area being researched made it necessary to collect secondary data from a variety of sources. These external and internal sources made it possible to substantiate the researcher's position regarding the problem at hand.

The content of information drawn from the desk research was such that it was used to support the researcher's argument in as far as the causes of the problem. Information obtained through desk research was critically analysed before drawing final conclusions.

3.4.1 Secondary Data Advantages

Secondary data, as propounded by Marketing 'gurus', Frank Jetkins (1991) and Philip Kotler (1999) is:

1. Relatively inexpensive to collect;
2. Takes relatively less time to collect; and
3. Is fairly accurate as most of it is non-opinionated.
3.4.2 Secondary Data Disadvantages

The researcher found out that some of the information obtained through desk research was:

1. Outdated and at times not appropriately relevant;
2. Some records were not updated frequently.

3.5 SUMMARY

It is felt that the method used to obtain information during the research was effective. Given the researcher's understanding of the problem, working experience with customers, suppliers, fellow industrialists, government departments and other support institutions, access to information was not a problem at all.

All targeted respondents and sources for data were easily and freely accessible, including a handful of external customers.

As the research progressed it was became apparent that the complexity of the problem was understood by a few members of staff and that no such exercise had been previously undertaken before in the organisation, hence the perceived apprehension to response by some members of staff.
CHAPTER 4: RESULTS (OBSERVATIONS AND FINDINGS)

4.1 INTRODUCTION

Based on the information gathering methods discussed in the preceding chapter, observations and findings were drawn from the exercise and the results of which will make part of the recommendations to the solving of the problem.

As the observation method was being used in the market, the response rate was 100%. Likewise, internal response to questions and discussions with all members of staff was 100% and so was the interviews with government and other institutions such as CCZ, SAZ, CZI, ZNCC, ZAP, Zimtrade.

In the immediate post independence era, the new Zimbabwean regime was obliged to enter into government to government deals with former eastern block countries as a sign of appreciation for assistance rendered to the former guerrilla movements during the Zimbabwean war. Some of the deals with countries like East Germany, China and India covered barter trade where Zimbabwe exchanged agricultural produce for industrial machinery. Desperate to re-equip, manufacturers acquired machinery, which, down the road, turned out that most of the equipment, was not as reliable as expected. The skills vacuum created by the isolation of the renegade Smith regime during UDI, a situation further compounded by the massive exodus of artisans from the country as they anticipated hostile post-war reprisal from the new regime, compounded the situation. It also meant that a brand new brand of middlemen entered the machinery and equipment trade arena, compounding the shift from the tried and tested South African and British. Hence, some new brokers were either unscrupulous or unknowledgeable or both; the result being deals that did not benefit industry at all. A case in point is the brokering of the purchase of one thousand Cournil Jeeps from France in 1983 by government in replacement of a whole fleet of Landrover Jeeps. It
turned out that the lack of experience from driver to mechanic compromised the efficiency of the new fleet.

The researcher restricted the internal records search to the period January to June 2003 mainly because it contained the most recent information and completed statistics. However, the information base covers a broader span of time based on management experience with the business.

4.2 OPERATIONS

Internal records showed training of staff on how to operate and maintain machinery.

Standards of how to use materials (supplied by suppliers) were observed.

4.2.1 Purchasing

Suppliers, despite knowing about the conditions of purchase especially regarding quality and time, periodically failed to meet both.
### Table 4.1

**Purchase Orders January to June 2003**

<table>
<thead>
<tr>
<th>Number</th>
<th>Supplier</th>
<th>Date Due</th>
<th>Design &amp; Material</th>
<th>Order Quantity</th>
<th>Delivered Quantity</th>
<th>Date Delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 007</td>
<td>Flexplas</td>
<td>03.02.03</td>
<td>Star Rice 1kg BOPP Reel</td>
<td>1 000 kg</td>
<td>600 000</td>
<td>24.03</td>
</tr>
<tr>
<td>ES 033</td>
<td>Flexplas</td>
<td>03.02.03</td>
<td>Star Rice 2kg BOPP Reel</td>
<td>500 kg</td>
<td>200 000</td>
<td>24.03</td>
</tr>
<tr>
<td>ES 033</td>
<td>Flexplas</td>
<td>03.02.03</td>
<td>Star Nuts 50g BOPP Reel</td>
<td>200 kg</td>
<td>198</td>
<td>28.03</td>
</tr>
<tr>
<td>ES 033</td>
<td>Flexplas</td>
<td>03.02.03</td>
<td>Star Nuts 20g BOPP Reel</td>
<td>500 kg</td>
<td>495</td>
<td>28.03</td>
</tr>
<tr>
<td>ES 035</td>
<td>Nespack</td>
<td>06.03.20</td>
<td>Universal Shrink Film</td>
<td>400 kg</td>
<td>500</td>
<td>19.03</td>
</tr>
<tr>
<td>ES 041</td>
<td>Kohlers</td>
<td>21.03.20</td>
<td>Star Nuts 50g BOPP Reel</td>
<td>200 kg</td>
<td>198</td>
<td>21.05</td>
</tr>
<tr>
<td>ES 041</td>
<td>Kohlers</td>
<td>21.03.20</td>
<td>Star Nuts 20g BOPP Reel</td>
<td>500 kg</td>
<td>495</td>
<td>21.05</td>
</tr>
<tr>
<td>ES 041</td>
<td>Kohlers</td>
<td>21.03.20</td>
<td>Star Rice 1kg BOPP Reel</td>
<td>1 000 kg</td>
<td>600 000</td>
<td>21.05</td>
</tr>
<tr>
<td>ES 041</td>
<td>Kohlers</td>
<td>21.03.20</td>
<td>Star Rice 2kg BOPP Reel</td>
<td>500 kg</td>
<td>200 000</td>
<td>21.05</td>
</tr>
<tr>
<td>ES 066</td>
<td>Plastech</td>
<td>16.06.26</td>
<td>Star Beans 50g PE Bag</td>
<td>2 000 000 ea</td>
<td>900 000</td>
<td>26.06</td>
</tr>
<tr>
<td>ES 076</td>
<td>Zimpack</td>
<td>23.06.30</td>
<td>Star Beans 50g PE Bag</td>
<td>1 000 000 ea</td>
<td>500 000</td>
<td>30.06</td>
</tr>
<tr>
<td>ES 081</td>
<td>Nespack</td>
<td>23.06.30</td>
<td>Star Kapenta 1kg Pouch</td>
<td>500 000 ea</td>
<td>500 000</td>
<td>30.06</td>
</tr>
</tbody>
</table>

Above is an extract of packaging material orders placed with suppliers during the first half of the calendar year 2003. The Purchasing Manager (and the extracted sample) confirmed that local suppliers always failed to meet deliveries, both in terms of quantity ordered and due delivery dates. Kohlers is an international supplier, while Nespack is a local agent for an international supplier and orders placed on them were met on time and in full or acceptable volume variances.

Failure by suppliers to meet promised delivery dates periodically upset production plans and also meant that downstream service to Mavhu's customers would inevitably be compromised. Delays in deliveries caused the Purchasing Manager to cushion supply to the factory by carrying substantial buffer. This obviously is costing Mavhu in that they are always tying down capital in stock, a practice that impacts on cash flow and liquidity.
Table 4.2
Returned Materials January to June 2003

<table>
<thead>
<tr>
<th>Number</th>
<th>Supplier</th>
<th>Return Date</th>
<th>Design &amp; Material</th>
<th>Quantity</th>
<th>Reason for Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 003</td>
<td>Flexplas</td>
<td>04.02</td>
<td>Star Rice 1kg BOPP Reel</td>
<td>100 kg</td>
<td>Colour Variation</td>
</tr>
<tr>
<td>ES 006</td>
<td>Mega Bags</td>
<td>04.02</td>
<td>Star Mopani 200g PE Bag</td>
<td>300 000 ea</td>
<td>Wrong Size</td>
</tr>
<tr>
<td>ES 012</td>
<td>Plastech</td>
<td>30.03</td>
<td>Star Beans 100g PE Bag</td>
<td>400 000 ea</td>
<td>Not Sealing</td>
</tr>
<tr>
<td>ES 033</td>
<td>Flexplas</td>
<td>10.04</td>
<td>Star Rice 2kg BOPP Reel</td>
<td>500 kg</td>
<td>Print Scuffing</td>
</tr>
</tbody>
</table>

Orders listed above were returned to supplier after having been received by and put through system only to be rejected after laboratory tests or on the production line as deficiencies were observed. As a result a lot of production time was lost and subsequently a lot of sales orders were not met. Recoveries would only cover purchase values. Handling and opportunity costs were all born by Mavhu.

The various materials run on different types of machines such as automatic form, fill and seal machines (FFS), manual feed (MF) and hand sealers (HS) and semi-automatic shrink wrappers (SW). Ancillary equipment would include dryers, mixers, weighers, conveyors and bailers.

Correspondence between Mavhu and all local suppliers confirmed the seemingly endless problems of sub-standard materials. It was also discovered that local suppliers were more or less adamant that the problems Mavhu were facing on the market were because of poor handling of material on Mavhu's production lines and as such were not very helpful in trying to help their customer. Incidentally, all local suppliers appeared to have instant change of heart when they got wind of the news that Mavhu were looking beyond Zimbabwean borders in wanting to resolve the quality problem in packaging. It is also at this juncture that in the correspondence reviewed, all local suppliers made guarded admissions to the effect that
some of their machines and processes were now not capable of producing the fine tolerances and finishes that are demanded by Mavhu.

Personal interviews with the technical heads of CZI, ZAP and SAZ confirmed that a lot of local manufacturers' skills and equipment was nearly obsolete and as a result most of them were struggling to meet local standards, never mind international levels. International customers, customers who were more exposed to other international goods of international quality standards, also echoed this position.

4.2.2 Production

The researcher observed that the pattern of efficiencies were more or less uniform for the period January to June 2003. However, May and June presented an ideal sample because local and imported materials were used during those months respectively and provided a comparison opportunity.

Table 4.3
Machine Efficiencies May 2003

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FFS 1</td>
<td>2kg Rice</td>
<td>80 bph</td>
<td>60 bph</td>
<td>-20 bph</td>
<td>-25</td>
<td>Material Slipping</td>
</tr>
<tr>
<td>FFS 2</td>
<td>1kg Rice</td>
<td>100 bph</td>
<td>80 bph</td>
<td>-20 bph</td>
<td>-20</td>
<td>Material Slipping</td>
</tr>
<tr>
<td>MF 1</td>
<td>100g Beans</td>
<td>200 bph</td>
<td>202 bph</td>
<td>+2</td>
<td>+1</td>
<td>Pre-sorting</td>
</tr>
<tr>
<td>MF 2</td>
<td>200g Mopani</td>
<td>120 bph</td>
<td>132 bph</td>
<td>+12</td>
<td>+10</td>
<td>Pre-sorting</td>
</tr>
<tr>
<td>SW 1</td>
<td>Various</td>
<td>20 bph</td>
<td>18 bph</td>
<td>-2 bph</td>
<td>-10</td>
<td>Material Burning</td>
</tr>
<tr>
<td>SW 2</td>
<td>Various</td>
<td>20 bph</td>
<td>19 bph</td>
<td>-1 bph</td>
<td>-5</td>
<td>Material Burning</td>
</tr>
</tbody>
</table>
Table 4.4

Machine Efficiencies June 2003

<table>
<thead>
<tr>
<th>Machine</th>
<th>Product</th>
<th>Std. Output</th>
<th>Act. Output</th>
<th>Variance</th>
<th>Var. %</th>
<th>Reason for Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFS 1</td>
<td>2kg Rice</td>
<td>80 bph</td>
<td>90 bph</td>
<td>+10 bph</td>
<td>+12.5</td>
<td>Material Good*</td>
</tr>
<tr>
<td>FFS 2</td>
<td>1kg Rice</td>
<td>100 bph</td>
<td>95 bph</td>
<td>-5 bph</td>
<td>-2.5</td>
<td>Jaw Sealing Heaters*</td>
</tr>
<tr>
<td>MF 1</td>
<td>100g Beans</td>
<td>200 bph</td>
<td>202 bph</td>
<td>+2</td>
<td>+1</td>
<td>Pre-sorting</td>
</tr>
<tr>
<td>MF 2</td>
<td>200g Mopani</td>
<td>120 bph</td>
<td>132 bph</td>
<td>+12</td>
<td>+10</td>
<td>Pre-sorting</td>
</tr>
<tr>
<td>SW 1</td>
<td>Various</td>
<td>20 bph</td>
<td>19 bph</td>
<td>-1 bph</td>
<td>-5</td>
<td>Material Burning</td>
</tr>
<tr>
<td>SW 2</td>
<td>Various</td>
<td>20 bph</td>
<td>19 bph</td>
<td>-1 bph</td>
<td>-5</td>
<td>Material Burning</td>
</tr>
</tbody>
</table>

Table 4.5

Production Volumes January to June 2003

<table>
<thead>
<tr>
<th>Month</th>
<th>Planned Volume</th>
<th>Actual Volume</th>
<th>Variance</th>
<th>Variance%</th>
<th>Reasons for Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>500 tons</td>
<td>490 tons</td>
<td>10 tons</td>
<td>-2</td>
<td>Material and low season</td>
</tr>
<tr>
<td>February</td>
<td>750 tons</td>
<td>735 tons</td>
<td>15 tons</td>
<td>-2</td>
<td>Mainly material problem</td>
</tr>
<tr>
<td>March</td>
<td>600 tons</td>
<td>580 tons</td>
<td>20 tons</td>
<td>-3</td>
<td>Mainly material problem</td>
</tr>
<tr>
<td>April</td>
<td>560 tons</td>
<td>540 tons</td>
<td>20 tons</td>
<td>-3</td>
<td>Mainly material problem</td>
</tr>
<tr>
<td>May</td>
<td>600 tons</td>
<td>580 tons</td>
<td>20 tons</td>
<td>-3</td>
<td>Mainly material problem</td>
</tr>
<tr>
<td>June</td>
<td>500 tons</td>
<td>495 tons</td>
<td>5 tons</td>
<td>-1</td>
<td>Mainly machine problem</td>
</tr>
</tbody>
</table>

In the above tables, the major reasons for failing to achieve standard output levels are all material related. (The palletisation of finished product was not included in the above analysis as it has no bearing on production efficiencies and was not a bottleneck at all.)

In May, machines FFS 1 and FFS 2 fail to achieve target or standard output because of the BOPP material slipping as it drawn from the feeder rollers on to the forming mandrels. The material not containing enough ant-slip agent, an agent that is applied by the manufacturer, causes this slipping. Standards Association of Zimbabwe also confirmed the lack of sufficient anti-slip agent can also compound static electricity. Materials used in April on the
mentioned two machines were from a local supplier. In June, the same machines ran the same products using imported material and the efficiencies improved significantly. Problems that relate directly to material were hardly experienced. Meanwhile, variations in efficiencies of locally supplied materials that ran on other machines were insignificant.

The researcher took cognisance of the fact that recorded statistics do not rule out that other variables such machine settings could have a bearing on results. It was confirmed and accepted that such variables were catered for in the costing system, which budgeted for allowable waste, both material and time wise. To rigorously pursue the intricate causes of overall waste would have caused the study to deviate from the core problem; that of sub-standard packaging material and not sub-standard practices per se. Though not up to first world or even second world standards, the researcher was convinced that the current operational systems standards were less contributory to the problem as compared to the quality problem of the material.

Machine SW 1 fails to achieve target due to SW film burning excessively and crinking as it goes through the SW tunnel. The cause for the crinking is the SW film not being made to the right micron gauge by the supplier.

Mavhu works on a cost plus pricing system, which, when one considers the above production scenario, the material recovery rate is overstated by between 10% and 25%, thus meaning either the customers pay for the inefficiencies or Mavhu's margins are reduced. Either way, Mavhu stands to lose revenue because their goods are overpriced or margins are compromised.

* Denotes machine used imported materials.
### Table 4.6

**Material Efficiencies May 2003**

<table>
<thead>
<tr>
<th>Machine</th>
<th>Material</th>
<th>Product</th>
<th>Std Output</th>
<th>Act Output</th>
<th>Variance</th>
<th>Var.%</th>
<th>Variance Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLT 1</td>
<td>Cling Film</td>
<td>Various</td>
<td>50 plt/kg</td>
<td>50 plt/kg</td>
<td>0</td>
<td>0</td>
<td>None</td>
</tr>
<tr>
<td>FFS 1</td>
<td>BOPP Reel</td>
<td>2 kg Rice</td>
<td>500 bg/kg</td>
<td>400 bg/kg</td>
<td>-100 bg/kg</td>
<td>-20</td>
<td>Mat. Slipping</td>
</tr>
<tr>
<td>FFS 2</td>
<td>BOPP Reel</td>
<td>1 kg Rice</td>
<td>800 bg/kg</td>
<td>680 bg/kg</td>
<td>-120 bg/kg</td>
<td>-15</td>
<td>Mat. Slipping</td>
</tr>
<tr>
<td>MF 1</td>
<td>PE Bag</td>
<td>100g Beans</td>
<td>101 ea/kg</td>
<td>101 ea/kg</td>
<td>0</td>
<td>0</td>
<td>Pre-sorting</td>
</tr>
<tr>
<td>MF 2</td>
<td>PE Bag</td>
<td>200g Mopani</td>
<td>201 ea/2kg</td>
<td>201 ea/2kg</td>
<td>0</td>
<td>0</td>
<td>Pre-sorting</td>
</tr>
<tr>
<td>SW 1</td>
<td>SW Film</td>
<td>Various</td>
<td>50 bl/kg</td>
<td>45 bl/kg</td>
<td>-5 bl/kg</td>
<td>-10</td>
<td>Gauge variance</td>
</tr>
<tr>
<td>SW 2</td>
<td>SW Film</td>
<td>Various</td>
<td>50 bl/kg</td>
<td>45 bl/kg</td>
<td>-5 bl/kg</td>
<td>-10</td>
<td>Gauge variance</td>
</tr>
</tbody>
</table>

*Denotes imported materials were used.*

The above tables clearly show that imported materials perform better than locally supplied materials. The seemingly good efficiencies that are consistent with MF 1 and MF 2 are not truly representative of actual efficiencies as in realising that on line sorting of poor quality bags was hampering productivity, Mavhu sorted bags before planning production and only good bags were then transferred to the production line.

43
Table 4.8
Waste Analysis May 2003

<table>
<thead>
<tr>
<th>Machine</th>
<th>Material</th>
<th>Product</th>
<th>Issued</th>
<th>Waste</th>
<th>Unavoidable</th>
<th>Avoidable</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLT 1</td>
<td>Cling Film</td>
<td>Various</td>
<td>120 kg</td>
<td>1 kg</td>
<td>1 kg</td>
<td>0 kg</td>
</tr>
<tr>
<td>FFS 1</td>
<td>BOPP Reel</td>
<td>Various</td>
<td>600 kg</td>
<td>80 kg</td>
<td>12 kg</td>
<td>68 kg</td>
</tr>
<tr>
<td>FFS 2</td>
<td>BOPP Reel</td>
<td>Various</td>
<td>400 kg</td>
<td>40 kg</td>
<td>8 kg</td>
<td>32 kg</td>
</tr>
<tr>
<td>MF 1</td>
<td>PE Bag</td>
<td>Various</td>
<td>9,000 ea</td>
<td>60 ea</td>
<td>Nil</td>
<td>60 ea</td>
</tr>
<tr>
<td>MF 2</td>
<td>PE Bag</td>
<td>Various</td>
<td>12,000 ea</td>
<td>100 ea</td>
<td>Nil</td>
<td>100 ea</td>
</tr>
<tr>
<td>SW 1</td>
<td>SW Film</td>
<td>Various</td>
<td>400 kg</td>
<td>20 kg</td>
<td>4 kg</td>
<td>18 kg</td>
</tr>
<tr>
<td>SW 2</td>
<td>SW Film</td>
<td>Various</td>
<td>360 kg</td>
<td>20 kg</td>
<td>3.6 kg</td>
<td>16.4 kg</td>
</tr>
</tbody>
</table>

Table 4.9
Waste Analysis June 2003

<table>
<thead>
<tr>
<th>Machine</th>
<th>Material</th>
<th>Product</th>
<th>Issued</th>
<th>Waste</th>
<th>Unavoidable</th>
<th>Avoidable</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLT 1</td>
<td>Cling Film</td>
<td>Various</td>
<td>120 kg</td>
<td>1 kg</td>
<td>1 kg</td>
<td>0 kg</td>
</tr>
<tr>
<td>FFS 1</td>
<td>BOPP Reel</td>
<td>Various</td>
<td>600 kg</td>
<td>30 kg</td>
<td>12 kg*</td>
<td>18 kg*</td>
</tr>
<tr>
<td>FFS 2</td>
<td>BOPP Reel</td>
<td>Various</td>
<td>400 kg</td>
<td>20 kg</td>
<td>8 kg</td>
<td>12 kg*</td>
</tr>
<tr>
<td>MF 1</td>
<td>PE Bag</td>
<td>Various</td>
<td>9,000 ea</td>
<td>60 ea</td>
<td>Nil</td>
<td>60 ea</td>
</tr>
<tr>
<td>MF 2</td>
<td>PE Bag</td>
<td>Various</td>
<td>12,000 ea</td>
<td>100 ea</td>
<td>Nil</td>
<td>100 ea</td>
</tr>
<tr>
<td>SW 1</td>
<td>SW Film</td>
<td>Various</td>
<td>400 kg</td>
<td>20 kg</td>
<td>4 kg</td>
<td>18 kg</td>
</tr>
<tr>
<td>SW 2</td>
<td>SW Film</td>
<td>Various</td>
<td>360 kg</td>
<td>20 kg</td>
<td>3.6 kg</td>
<td>16.4 kg</td>
</tr>
</tbody>
</table>

*Denotes imported material.

PLT 1 always runs imported material and hardly has any waste to talk of. In May and June machines FFS 1 and FFS 2 ran local and imported materials in that order. Evident in the above tables is that BOPP waste figures improved by more than 50% in June, a month when imported materials were used.
At this point, all things being equal, it can be confirmed beyond reasonable doubt that imported materials performed better.

4.2.3 Maintenance

Inspected records of machine and ancillary equipment maintenance confirmed that internal, voluntary and statutory requirements and procedures on all measuring equipment were religiously observed and followed. Records of inspection visits by the government's Factories Inspectorate, Health and Safety Department, Weights and Measures Section, SAZ and other service providers were seen and proved to be proper.

True, some production problems were attributable to the organisation, but these represented a small percentage of the problem. There was evidence, appropriately recorded, of machine malfunctions caused by both human error and normal mechanical mishaps. All the same, the equipment that Mavhu uses is not top of the range high-tech machinery that requires rocket science-like skills to run and maintain.

4.3 MARKETING

When a marketer encounters a significant problem, management effort is diverted from their mainstream effort, that of strategy formulation, to fighting fires and at times when the cause of the fire is not fully exposed, the fighting may take quite some time. At Mavhu, the Sales and Marketing department was fighting quality fires and rightly or wrongly blaming Production for it.
Table 4.10

Order Book January to June 2003

<table>
<thead>
<tr>
<th>Month</th>
<th>Orders Received</th>
<th>Orders Delivered</th>
<th>Variance</th>
<th>Variance%</th>
<th>Reasons for Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>520 tons</td>
<td>500 tons</td>
<td>-20</td>
<td>-3</td>
<td>Stock imbalance</td>
</tr>
<tr>
<td>February</td>
<td>700 tons</td>
<td>700 tons</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>March</td>
<td>400 tons</td>
<td>400 tons</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>April</td>
<td>500 tons</td>
<td>500 tons</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>May</td>
<td>400 tons</td>
<td>400 tons</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>June</td>
<td>400 tons</td>
<td>400 tons</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

For ease of presentation, sales orders taken each month were converted into tons and grouped together for the month. It was also felt that sales price analysis would not add real value to the main problem being investigated. However, as afore mentioned, all inefficiencies do have a bearing on the price charged, either as the marketer compromises price downwards in order to secure custom or builds in the cost of inefficiency into the selling price, a move that might compromise volumes downstream.

The Order Book will also allow one to appreciate potential market worth of Mavhu and what they actually delivered into the trade.

No monetary value is tabled against the Order Book because of the volatility of the Zimbabwean currency and the currently skewed pricing policies that have been prevalent from late 2001 to date. However, for purposes of the study, the researcher was convinced that the comparison of tons received and tons delivered would suffice in as far as showing sales order volume trends and the obvious effect on both top and bottom lines of Mavhu's accounting numbers.
The Order Book table shows us that from February to June volumes of orders taken reduces. This trend matches the trend of increased returns in the following months of March and April as indicated in the Returns from Market table. However, the fact that month in month out, excepting for January, all taken orders were delivered confirms the popularity of their products.

Table 4.11

Returns from Market May 2003

<table>
<thead>
<tr>
<th>Date</th>
<th>Product</th>
<th>Customer</th>
<th>Quantity</th>
<th>Reason for Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>30.05</td>
<td>2kg Rice</td>
<td>TM Supermarket</td>
<td>14 bales</td>
<td>Seal bursting</td>
</tr>
<tr>
<td>30.05</td>
<td>1kg Rice</td>
<td>TM Supermarket</td>
<td>20 bales</td>
<td>Excessive colour variation</td>
</tr>
<tr>
<td>30.05</td>
<td>20g Nuts</td>
<td>Speed Catering</td>
<td>6 bases</td>
<td>Seal bursting</td>
</tr>
<tr>
<td>30.05</td>
<td>200g Kapenta</td>
<td>OK Zimbabwe</td>
<td>24 cases</td>
<td>Scuffed print</td>
</tr>
<tr>
<td>30.05</td>
<td>1kg Rice</td>
<td>OK Zimbabwe</td>
<td>14 cases</td>
<td>Excessive colour variation</td>
</tr>
<tr>
<td>30.05</td>
<td>2kg Rice</td>
<td>Confianco W/S</td>
<td>10 cases</td>
<td>Seal bursting*</td>
</tr>
<tr>
<td>30.05</td>
<td>2kg Rice</td>
<td>Mufema W/S</td>
<td>4 cases</td>
<td>Seal bursting*</td>
</tr>
<tr>
<td>30.05</td>
<td>200kg Kapenta</td>
<td>Bhadhella W/S</td>
<td>11 cases</td>
<td>Scuffed print</td>
</tr>
</tbody>
</table>

Table 4.12

Returns from Market June 2003

<table>
<thead>
<tr>
<th>Date</th>
<th>Product</th>
<th>Customer</th>
<th>Quantity</th>
<th>Reason for Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>30.06</td>
<td>2kg Rice</td>
<td>TM Supermarkets</td>
<td>4 packets</td>
<td>Shelf Damage</td>
</tr>
<tr>
<td>30.06</td>
<td>200g Kapenta</td>
<td>OK Zimbabwe</td>
<td>14 cases</td>
<td>Scuffed print</td>
</tr>
<tr>
<td>30.06</td>
<td>200g Kapenta</td>
<td>Spar Supermarkets</td>
<td>7 cases</td>
<td>Scuffed print</td>
</tr>
<tr>
<td>30.06</td>
<td>200g Kapenta</td>
<td>TNT Supermarkets</td>
<td>20 cases</td>
<td>Bar Code scan failure</td>
</tr>
</tbody>
</table>

Returns from the market are accumulated over a full calendar month and published at the end of the month. Mavhu has an arrangement with all customers whereby all returns are replaced with good product as opposed to passing credit.
Like in the cases of all other analyses looked at above, May returns from the market were very high and upon further investigations it turned out that most returns were packed using locally made materials. (It is quite easy to establish the manufacturer of packaging materials, as most printed packaging suppliers will invariably print some unique identity mark that runs along the 'hem' of the reel or is in the seam of the preformed bag.)

It was observed that none of the returns were a result of contents related problems such as expired product, offensive taste and smell, underweight, overweight or discolouration.

4.3.2 **Merchandising**

Mavhu employs a team of merchandisers who visit all large wholesale and retail outlets on a daily basis, with their main objectives being to ensure that Mavhu products are afforded prime point of sale (POS) display positions and that stocks are adequately replenished timeously and also to aid consumers as they are shopping.

Merchandisers reports examined showed an increase in negative comments from shop managers about the quality of packaging of Mavhu products, especially products that were breaking on shelves.

4.3.3 **Finished Goods and Distribution**

Records in this department revealed a significant amount of goods that move backwards and forwards between Mavhu and its customers as replacements or returns. Evidence of sales personnel ferrying goods to and from customers was also found. Again, the main reasons for all these unplanned activities are caused mainly by the rejection and subsequent return of goods by customers for sub-quality problems.

4.4 **ADMINISTRATION**
Non-line management time demand was found to be on the increase as they get embroiled in the maze of trying to reconcile claims from customers and claims to suppliers. Unlike production time, management time is difficult to tabulate, but evidence of the paperwork, correspondence (electronic and written) and meetings that involved managers from Accounts through to HR clearly indicated that the stretch and strain on management time, because of the global quality problem, was of concern.

4.5 SUMMARY

This study has revealed as much as possible those factors that are close to the problem, but as mentioned in defining the problem, there are many exogenous factors that affect efficient operation of an organisation. The bottom line would be the observations and findings do clearly show the importance of quality, firstly to the product itself, secondly to the company and lastly but by no means least, to the customer.

It is the researcher's belief that it is within the reach and capability of the management of Mavhu to take corrective action now and address the core of the problem; i.e. quality of packaging, especially that which is supplied by local firms.

One of the real threats to Zimbabwean companies is the stringent controls on foreign currency, even to those firms that export and therefore generate their own foreign currency. Of great benefit to firm and country would be for Mavhu, and any other exporter for that matter, to maximise the local content in exported goods as this will improve earnings (given that exchange rates currently favour Zimbabwean exports) and foreign currency reserves. Local conditions of purchase also allow for favourable terms of payment as opposed to imports which do require money upfront before shipment of goods. Also true is the likely possibility that imported goods are likely to land more expensive than local supplies as imports attract duties and huge transporting costs.
It is probably very correct to mention that Mavhu have the information and basic evidence of the causes of the problem. The next move would be to strategise and plan a course of action.

What appears to be in Mavhu's favour is the fact that almost everyone in the organisation is aware of the problem and its implications to the well-being of the company. This is a good situation because one of management's most difficult jobs is to explain a problem to people that do not understand or do not think there is one. However, as mentioned and intimated in the literature review, management have to the torchbearer on Mavhu's chosen p

In the next chapter recommendations on the course of action will be offered.
CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter will make an effort to extract key points from the analysis and findings of the research, draw conclusions from them and make recommendations on that basis. The progression of this chapter will try as much as possible to follow the trend of analysis as in the Literature Review and Methodology chapters. At the end of it all, an attempt to answer the hypothesis will be made.

Generally, the overall performance of an organisation is influenced by internal and external factors. In some instances the organisation may not have the wherewithal to address those factors that inhibit performance and in other instances it may just be a question of understanding the root cause of the problem.

The historical background of the Zimbabwean economy has moulded a culture that is commensurate with improvisation, quick-fix or a take-it-or-leave-it streak. A culture “conceived and born” during the UDI sanctions era and “raised” in post-independent Zimbabwe. A culture born from a situation of perennial shortages of foreign currency and subsequent stringent controls of hard currencies by the central bank, a situation which culminated into all kinds of deals and arrangements by those affected by the shortage.

The supplier-customer relationships in Zimbabwe were, as a result, further complicated by the extensive integration processes that commerce and industry had to experience. It became very common to see vertical and horizontal integration. While in some businesses the reasons for integration might have been to achieve growth, in the manufacturing industry the main reason for vertical integration backwards was to secure supply of materials critical to the firms operations. The negative side of these developments is that professionalism and quality are seriously compromised when dealing with a “favoured” member of the group.
The quantum leap forward that is desired in order to change this culture requires an immediate mindset change, mainly by private organisations’ management and, impossible as it may seem, by government. Both private organisations and government must desist from passing blame and do what is within each one’s capability in addressing the core problems affecting packaging quality.

5.2 CONCLUSIONS

Mavhu, the organisation, may fittingly be assumed to have reached the proverbial crossroads threshold of their history. The bitter pill they have to take is to accept that part of the problems they are experiencing are a result of them not having an entrenched management system that guarantees continuity of standards. Yes, the local suppliers might be letting Mavhu down, but the conclusive truth of the matter is that the situation is exacerbated by the lack of a systems and procedures instrument that allows such a system to more or less police itself. There currently is no evidence of such a strategy.

5.2.1 Management Skills

It is the belief of the researcher that about 80% of Mavhu's manpower is confident and capable of executing their duties to a satisfactory level. However, what is evidently missing is the empowerment of key personnel to manage the business through a management system that is self-monitoring as opposed to being supervised and being told. Again this was alluded to in the literature review.

5.2.2 Information Technology

During the research process it was observed that the recording and keeping of information at Mavhu was impaired by the IT system that is definitely outdated. Good examples are the Purchasing and Production departments whose data capturing methods are done manually
first and later converted into electronic IT. The time, accuracy and manpower demands are almost doubled. The delay in publishing management information was seen to be of real concern as errors took long to rectify, thus impacting on reputation.

5.2.3 Quality Management System

Mavhu Commodities will benefit tremendously from introducing a quality management system in its operations in that the mainstream problems regarding product quality are a result of non-conformances in the form of materials that do not meet standards and that the introduction of such a system will effectively address those problems.

It is also the researcher's belief that once the decision is made to embrace such a system and this is immediately communicated through to all stakeholders, especially suppliers and customers, the battle will have been half won before it has begun in earnest.

5.2.4 Supply Tradition in Zimbabwe

From open and closed discussions held with industry fathers, trade institutions, government departments and attendances made to seminars, conferences and exhibition fairs, enough conclusive evidence was gathered which points firmly to the fact that the majority of local suppliers still believe that they are 'more equal' than their customers. These industry players have not moved with the times and still apply sellers' market approach to doing business. One wonders what their marketing people are employed to do.

TQM systems allow for fair play and laying down of ground rules as two interested parties enter into business relationships. Non-conformance to ground rules simply means no deal. At the end of the day none of the business partners will cry foul or will feel short-changed.
5.2.5 Customer Reaction to Poor Quality

The researcher can confidently comment and conclude that today's consumer has a wide choice of most type of goods to choose from. In FMCG's, the observations made at home and abroad clearly confirmed that they were justifiably saying no to sub-quality goods by not buying them. This resistance has not reached hostile levels as evidence of goodwill is evident in the purchases that are going on (when the quality is right).

5.3 RECOMMENDATIONS

While it is in Mavhu's capability to simply shut out all suppliers who do not supply quality service, that in itself does not totally overcome the problem permanently. New suppliers always seem to have a tendency to perform superbly as they court new business, but only to flounder as they become too comfortable.

5.3.1 Strategy Formulation

Nearly all contemporary management proponents speak of the importance of identifying and defining the nature of a problem, following that with the most effective way forward, which is for management to formulate a strategy that guides the path to be followed.

It is recommended that Mavhu must seriously consider implementing ISO 9001 : 2000 series of TQM standards. This series of standards will not only address the core problem, that of material quality, but will ensure the improvement of operational procedures in all other departments in the organisation. The Managing Director (MD) must endorse this programme and show total commitment.

While the implementation of ISO must never intimidate aspiring takers, let no one be under any delusion that this is a stroll in the park. Total commitment is by all and sundry, especially management is a prerequisite.
Time wise, Mavhu must budget for a full year by the end of which the entire documentation process, i.e. the writing of procedures and and work instructions (WI) will have been completed.

ISO self regulating controls can, to the un-informed, be quite difficult to live with. It is very important therefore that all business publics that deal with the organisation be informed of the firm’s decision to embrace this worthwhile programme. All must be made to understand that in the long term the benefits reaped from this programme will benefit everyone. A circular letter to customers, suppliers and support institutions will suffice.

5.3.1.1 Management Representative

The first step would be for the management team of Mavhu to agree a suitable and capable candidate within the organisation who would be responsible for implementing the system. Guidelines and assistance on the implementation process and procedures would be provided by SAZ.

The Management Representative has a very important role in that he has to ensure that the programme is not derailed through lack of commitment and enthusiasm from all quarters of the organisation. Most importantly, he must never allow it to be a system that is used to show off the certificate only. ISO is not about certification but about following procedures that enhance continuity, improvement and customer satisfaction by doing what an organization says it does.

It is important that the MR reports to the Managing Director because of the importance of the programme and the related decisions that may need the approval of the chief executive officer.

5.3.1.2 Writing of Procedures
Guided by the published ISO format of guidelines of procedure writing, it is recommended that the writing of procedures starts simultaneously for all departments with special attention (gineuapig like) being given to the Purchasing department simply because of its closeness to the core of the problem.

Every member of the organisation must be given the opportunity to explain what they think their job entails, after which a consensus must be reached as to what the job should be. This part of the process is key to enthusing those members of staff who are apprehensive to change.

It must be remembered that even after certification, the success of any TQM system relies on improvement. TQM is dynamic, and so should be the people that drive it.

5.3.1.3 Management Review

Most novel programmes tend to die quietly simply because participants, as human nature has it, enter that comfort zone and at times go back to their old ways of doing things.

The most important control procedure for continual sustenance of the system is that of management review. A detailed calendar of review dates should be published and management must ensure that the review meetings are carried out without fail. Any laxity by management will mean laxity by staff and subsequent collapse of the programme.

5.3.1.4 Continual Improvement

By embracing the ISO series of TQM, Mavhu will have taken a huge step towards wanting to reach world standards of operation, a world whose buzz phrase is continual improvement. Continual improvement will always make one keep aiming higher, and customers are
enthused by that. As was established in the study, consumers definitely prefer good quality products.

One of Mavhu's strategies, that of acquiring EPZ status, confirms the firms aspiration of wanting to continue to grow organically and that in its own right is an improvement mentality, a mentality that identifies with global trends and for them to ever become meaningful global players, true quality of product and service have to be part and parcel of their making.

Below is proposed guideline calendar for the implementation programme for an ISO programme. It is anticipated that the programme will take at least twelve months before accreditation is considered. It must be emphasised, again, that the accreditation should not be the prime objective, but to do things right must be.

The twelve-month implementation calendar has been broken into weekly periods.

Table 5.1
Proposed Implementation Calendar for ISO 9001: 2000

<table>
<thead>
<tr>
<th>Date</th>
<th>Department</th>
<th>Activity</th>
<th>Champion</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>MD</td>
<td>Proposal to Management</td>
<td>MD</td>
<td>1 day</td>
</tr>
<tr>
<td>Week 1</td>
<td>MD</td>
<td>Notice to Staff</td>
<td>MD</td>
<td>1 day</td>
</tr>
<tr>
<td>Week 1</td>
<td>MD</td>
<td>Advise SAZ</td>
<td>MD</td>
<td>1 day</td>
</tr>
<tr>
<td>Week 1</td>
<td>MD</td>
<td>Appoint MR</td>
<td>MD</td>
<td>1 day</td>
</tr>
<tr>
<td>Week 1/2</td>
<td>MD</td>
<td>Identify Consultancy</td>
<td>MD and MR</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Week 2</td>
<td>Marketing</td>
<td>Advise Customers</td>
<td>Marketing Manager</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Week 2</td>
<td>Purchasing</td>
<td>Advise Suppliers</td>
<td>Purchasing Manager</td>
<td>1 week</td>
</tr>
<tr>
<td>Week 3/4</td>
<td>MR</td>
<td>Prepare Budget</td>
<td>MR</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Week 4</td>
<td>MD</td>
<td>Management Review</td>
<td>MR</td>
<td>1 day</td>
</tr>
<tr>
<td>Week 5 to 10</td>
<td>All</td>
<td>Writing Procedures and WI</td>
<td>All Employees</td>
<td>6 weeks</td>
</tr>
<tr>
<td>Week 11</td>
<td>MD</td>
<td>Management Review</td>
<td>MR</td>
<td>1 day</td>
</tr>
</tbody>
</table>
5.3.2 Information Technology

One of the sub-sections of ISO deals with the subject of communication to a great depth. The control and dissemination of information and the use of the information received in decision-making determines the results.

Whatever the objective may be, the art and science of collecting information is highly depended on the equipment (hardware and software) at one disposal. Mavhu needs to search for an IT system that will be compatible to its operations and be able to meet their aspirations. At its disposal are numerous IT companies that are capable of providing ideal packages at understandable costs.
5.4 SUMMARY

The findings of any study have to prove beyond any reasonable doubt that the hypothesis has been addressed. Mavhu are an organisation who are currently doing well in terms of recording profits and keeping their worker public happy by paying wages and bonuses. However, this situation might not prevail for long if the quality issue is not addressed. The observations made in the market confirmed that customers were conscious of below par quality, and can move away from a favourite brand because of its appearance.

Interestingly, it is apparent that to correct the problem is neither an insurmountable task nor an expensive one. The end result benefits will definitely justify the decision to take corrective action as soon as possible.

The study has attempted to show that the missing link in addressing the core of Mavhu's packaging problems is a management system that exposes and controls nonconformances.

A well-planned and managed strategy to implement and sustain such a system is, in the researcher's view the right prescription.

5.4.1 Closing Remarks

The revelations of the study have been the exposure of the issues affecting the operations of Mavhu, mainly the supply and quality of packaging and the resultant impact of the deliverance of quality downstream. Admittedly, there are structural factors within the organisation that affect the execution of quality service.

At the end of the day the ball lies firmly on Mavhu's side of the court and it's up to the organisation now to make that telling stroke, the stroke that will aims to eradicate nonconformances.
One speaker at a TQM seminar spoke of absolutes and in describing the fourth absolute he said, "The measurement of quality is the price of nonconformance, i.e. all the expenses in doing things wrong, and on the other side is the price of conformance, which can be described as what is necessary to spend to make things come out right." The former is nearly always double the cost of the later.

5.4.2 Further Research

It is the researcher belief that the study has looked at a specific problem in detail. However, the dynamism of today's business goings-on are such that further research will be necessary especially with regards to consumer behaviour towards quality.
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APPENDICES

APPENDIX 1

UNIVERSITY OF NATAL
Graduate School of Business

Interview Guide for Internal Respondents

1. Do you know the suppliers of the packaging material used in the factory, if yes name them?
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2. Do you know the packaging materials by name and composition, if yes name and briefly define them...........
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3. Do you work with these materials; if yes describe your experience with them...............
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4. If you have any problems with any material, describe the problem.

5. Do you know the cost of packaging? Tick  Yes  or  No.

6. Do you know the cost of ingredients? Tick  Yes  or  No.

7. Do you know the cause of Production waste. If yes explain.

8. Do you know the cost of Waste? If yes, explain.

9. Do you know the company's customers? If yes, name those you know.

10. Do you deal with customers and if yes, in what capacity.

11. Do you know our competitors and their products? If yes, name them and their products.
12. How do you compare our products and service to our customers with those of our competitors?

13. In your view is there anything that needs to be done to our products and service and by who?

14. Do you have access to vital supplier information regarding quality standards?

15. What is your comment on stock levels of your raw materials and finished goods?

16. What is your comment on Goods returned from the market?

17. Do you have any other comments?
APPENDIX 2

UNIVERSITY OF NATAL
Graduate School of Business

Interview Guide for CZI, SAZ, ZAP, ZIMTRADE, ZNCC (Personal)

Introduction

(My name is Edward Tichaona Mukungurutse, I am an MBA student with the University of Natal. I am carrying out a research project on packaging quality as part of my programme. I would appreciate it if you could afford me some time to ask you a few questions about packaging made by Zimbabwean companies.)

1. What service do you provide to local industry? .................................................................
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2. As a service provider to industry, what you think about locally produced packaging? ..........
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3. Are your services and recommendations understood and used by industry? ....................... 
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4. In your view how does local packaging compare to imported packaging? ..............................
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5. Presuming that there is a problem what do you think is the way forward? 
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6. What is your view regarding the users of the packaging? 
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7. Do you carry out any tests on packaging and product after packing? If so what are the results and your comments? 
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8. Are there any regulations on quality and what are they? 
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9. What service do you provide to local industry? 
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10. What do you think is the impact on trade, especially exports? 
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11. What other comments do you want to make? 
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Salutation

Thank you for your time and comments, your contribution is greatly appreciated.
APPENDIX 3

UNIVERSITY OF NATAL
Graduate School of Business

Interview Guide for Customers (Observation)

1. Select two separate placings per shop and separate locally and imported packaged product and observe consumers shopping and listen to comment.

2. Observe merchandising quality and shelf refill activity.

3. Look and listen to consumer comments as they talk to shop stewards and merchandising staff.

4. Listen to consumers talk about products in the shops and at POS.

5. Observe damaged product on shelves, in trolleys and at POS and listen to comments.

6. Observe any form of product deformity on shelves, e.g. colour variation, print scuffing, out of register panels, crimp and seal standards.

7. Observe comments from shop staff.

8. Observe deliveries and storage facilities at shops.

9. Observe selling prices at each shop.

10. Observe the fast and slow sellers of Mavhu products and compare quality.

11. Listen to comments by wholesalers and retailers, especially shop staff when they reject products.