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FACULTY OF COMMERCE

DEPARTMENT OF MARKETING MANAGEMENT

**EVALUATING THE EFFECTIVENESS OF THE LOGISTICS SYSTEM ON COMPANY
PERFORMANCE**

(A Case Study of Grain Marketing Board)

A PROJECT RESEARCHED

BY

SARUCHERA RUFARO

**This dissertation is submitted in partial fulfillment of the requirements of the Bachelor of
Commerce Honours Degree in Marketing Management.**

APRIL - JUNE 2014

DECLARATION FORM

I, SPBO5 do hereby declare that this dissertation is the result of my own investigation and research, except to the extent indicate in the acknowledgements, references and by comments included in the body of the report and that it has not been submitted in part or in full for any other degree to any other university.

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Dedication

This dissertation is dedicated to Jesus Christ my Saviour and best friend. I also dedicate it to Ireen Nyawera the most self-sacrificing and beautiful mother a child could ever be blessed with, Francis Saruchera the most inspiring father a child could ever recognise and Naishe Chivizhe the greatest pillar a friend could ever have. Thank you for taking me to this extreme.

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Abstract

The research study was focused on evaluating the effectiveness of logistics system on company performance. The key objectives of the study were to identify the effects of availability of transportation on sales volume, to determine the effects of order processing on service quality and to establish the effects of packaging on brand image. Literature from different authors on the logistics system, components of logistics system (packaging, order processing and transportation) was reviewed. The researcher used a sample size of 43 respondents comprising of GMB management, employees and business customers. The study was stemmed from slow order processing, too much breakages and slow deliveries on distribution by GMB. The researcher used interviews and questionnaires to collect and gather data that was relevant to answer the problem of the study. The respondents were selected using non probability sampling techniques namely judgmental sampling and convenience sampling. The research outcomes exposed that the company performance can improve if the logistics system is effective. The researcher recommended the company to stock all Silo products, secure more logistics trucks and heavily distribute its products in different locations on time and to network all of its depots on the SAP system and retrain its employees on how to use SAP system. Area of further studies was also given by the researcher.

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CHAPTER I

GENERAL INTRODUCTION

1.0 Introduction

This chapter focuses on giving the background information to the study of the evaluation of the effectiveness of logistics systems on company performance with the emphasis on finding effects of strategies used by GMB. It provides statement of the problem, objectives of the study, assumptions and research questions, significance of the study, de-limitations, limitations and definition of key terms.

1.1 Background to the study

Maintaining grain reserve was and in many countries still is an integral part of government activity. Governments in eastern and southern Africa have become increasingly involved in grain marketing via strategic reserves and marketing boards. In the 2014 National Budget Statement, honorable **minister** Chinamasa highlighted that GMB has lost its position as a grain basket of the SADC region since Zimbabwe was once selected as a grain reserve basket of all SADC countries but however it is of no doubt that all those countries have their own reserves. It is evidently proven since Zimbabwe is importing some grains from Zambia. This is in line with an article published in the News Day on 11 March 2014.

Logistics is the process of planning, implementing and controlling the efficient, effective flow and storage of goods, service and related information from its point of origin to point of consumption for the purpose of conforming customer requirements (Kasilingam 1998). He went on to say logistics management tries to have the right product in the right quantity at the right place at the right time with the right costs. For business to be viable and to improve its performance, the logistics management has to be effective. Well managed logistics builds strong relationship with both customers and intermediaries involved in the channel (Kotler 2001). The elements of logistics are warehousing, transportation, order processing, packaging, material handling.

Research has been conducted in retailing industry in Thailand by Latika Supasansanee in 2009 focusing on logistics management in retail industry revealing that retail stores must have a well-managed logistics so as to gain competitive advantage and he gave a reference of 7-eleven retail store in Thailand which has a best logistics management pointing out that the store gained market share through proper logistics management.

In Zimbabwe, effectiveness of logistics systems has been done in beverage industry, this in line with an article published in the News Day (6 February 2013) which stated that Delta beverages make sure products are available to people at the remote ends of Zimbabwe, Delta does not wait for orders from the remote areas but schedules deliveries, operating a moving warehouse and retail outlets order from the moving warehouse. Since logistics management has succeeded in the beverage industry, the researcher wants to apply it in the Agriculture industry.

Grain Marketing Board (GMB) is a parastatal company wholly owned by government of Zimbabwe and is run by board of directors appointed by the government. GMB was established in 1931 under the statute of **Maize Control Act** (chapter 18:14). Its main purpose is to ensure food security in Zimbabwe with particular reference to staple food products namely maize and wheat. GMB buys more of its variety crops from farmers and sells them into the domestic agro processing industry.

The company adopted the commercialization concept in 1998 to pursue its mandate of improving shareholder's value and improving food security. This led to the birth of the **Silo Brand** which was easily accepted by the targeted mass-market with minimal marketing efforts. Products under the silo brand are mealie meal, rice, salt, sugar beans, soya chunks, jam, samp and popcorn.

Following the announcement of the 2009 Fiscal policy and the first quarter monetary policy statement, local grain trading was totally **decontrolled** that is the GMB monopoly in grain trading was removed and this allowed other merchants to compete with GMB. The government now requires GMB to operate commercially and use its own resources to conduct business. This resulted in stiff competition since GMB did not have its own transport to deliver their processed products so they had to hire (GMB internal reports 2013).

Little or no shelf space in retail and wholesale shops is an indicator of a problem of distribution faced by GMB (market visit reports 2013). Silo brand is a well-known brand, accepted and wanted by many customers but the company is facing challenges in making the product available on the market. (Customer complaint database and market visit reports 2013)

In GMB's internal financial report (2013), General Manager indicated that they have arrears on payment of transporters and this is a sign that GMB is facing challenges in paying transporters who are currently moving their products and therefore some of them are withdrawing resulting in slow deliveries which is giving birth to loss of shelf space to competitors. Due to this challenge, the relationship between GMB and their transporters is no longer strong. A disgruntled transporter wrote a complaint in the News Day (19 November 2013). The transporter exposed that GMB is failing them as transporters, reviewed that they have about three months without payment. This was a bad publicity.

At the GMB's Strategic Plan meeting (2014) held in Nyanga, the Deputy General Manager Commercial Services reviewed that employees are resisting to change to the SAP system (Systems Application Products) and they are still processing customer orders manually and all GMB depots are not networked to the SAP system so order processing still very slow and its affecting the company service quality. He went on to say there is need of a retraining on the use of SAP system (Minute Book 28 January 2014). This shows that the company is experiencing slow order processing.

Management attempt to solve the problem by obtaining 24 distribution trucks, this was pointed out in the GMB Annual Report (2013),” Distribution of commercial products is expected to improve significantly following finalization of local leasing arrangements for the procurement of the first batch of 24 distribution trucks.” In attempt to increase logistics capacity, management set aside ten million **dollars**, this was also reviewed in the in the GMB Annual Report (2013) that “ten million **dollars** offshore facility for capitalization of the commercial business in the coming year thereby increasing logistics capacity for increasing sales and distribution.” Management also changed packaging of Silo products to improve handling and avoid breakages (GMB Annual Report; 2013). Moreover, GMB trained its management and all employees at head office on how to use the SAP system (Systems Application Products) to improve order

processing in sales and distribution (Employee training book). The management did this to measure if this will have impact or improves on logistics efficiency in the form of transportation, packaging and order processing. No one attempted to measure the effectiveness of these strategies employed by the company hence the researcher embarked on the study to find out if effective logistics system can deliver the best to the customers and see if the performance of the organization can improve.

1.2 Statement of the problem

Given that GMB is experiencing slow order processing, breakages during distribution process and slow order picking so customers are switching to other brands, therefore due to this problem management tried to change silo packaging, procured twenty four trucks for logistics. Against this background, the researcher seeks to evaluate if logistics system can improve GMB performance?

1.3 Objectives of the study

- To identify the effects of availability of transportation on sales volume.
- To determine the effects of order processing on service quality.
- To establish the effects of packaging on brand image.

1.4 Research questions

In conducting the research, the researcher was guided by the following questions:

- How can availability of transportation improve sales volumes?
- What are the effects of order processing on service quality?
- How does packaging influence brand image?

1.5 Significance of the study

- **To the researcher-**The researcher gained experience that was of benefit when carrying out other researches in the future especially in the areas of logistics systems. The

researcher gained a lot of practical knowledge in the field of research and full understanding of the relationship between company performance and logistics.

- **To the organization** -The research findings helped GMB in highlighting the areas of improvement for the organization. Also the research helped the company to select the best logistics strategy and to select cost effective ways of distribution from producers to the end user. The company was able to identify the best ways to meet and exceed the customers' expectation by selecting the fastest means of making the products available to their customers.
- **Midlands State University**-The findings from this research provided reference materials that were used by students working on similar areas in the future. Future researchers get a platform for further researches to improve the knowledge on the evaluation of the effectiveness of logistics systems and how that knowledge can be best applied by organization as to improve the customer service quality.

1.6 Assumptions

The research is based on the following assumptions:

- No major changes in the company took place during the period of the research.
- There was maximum cooperation from staff and customers interviewed.
- Respondents gave honest and unbiased information.
- The economic and environmental factors remain constant.

1.7 Delimitations

- The research used was carried out at the GMB head office in Harare
- The researcher used descriptive and exploratory research designs.
- The research relied on the three elements of logistics which are transportation, order processing and packaging but there are six elements of logistics.
- Data was collected through industrial customers, employees and management at GMB Harare metropolitan.
- The research period is August 2012 to March 2014.

1.8 Limitations

- The research was limited to only head office so the results may not be a true reflection of the evaluation of effectiveness of logistics system employed by GMB. The researcher made sure sample size is a true representation of the population through statically calculation
- Management might have limited time to fill in the questionnaires or to have an interview. However, the researcher made some appointments with management and patience pays.
- Some of the relevant information may not be produced by the management since it may be sensitive to expose the failures or areas of weakness of the company. The researcher will provide the documentation that the information gathered will only for academic purpose and it is private and confidential.
- There may be delays from management in giving information given the bureaucracy characterizing the organization however the researcher will obtain information in time

1.9 Definition of terms and Abbreviations

- **Logistics** - ensuring the availability of the right product, in the right quantity and the right condition at the right place at the right time for the right customer at the right cost CLM (1991).
- **GMB** - Grain Marketing Board
- **SAP system** - Systems Application Products
- **Lead time**- Time from order entry until delivery
- **Fill rate** – The percentage of ordered items that are completely delivered in one shipment.
- **Order picking**- is the process of pulling items from inventory to fill a customer order.

Chapter Summary

The chapter gave an introductory background to the study, statement of the problem. The chapter further covered the objectives, research questions and significance of the study. Emphasis has been given assumptions, delimitations, limitations and definition of terms to sum up the chapter. As a first step toward accomplishing the stated goal of the study, a review of the current literature relating to logistics system is presented in the next chapter.

CHAPTER 2

Literature Review

2.0 Introduction

In this chapter the researcher investigates what other authors and previous researchers have to say about the research topic, that is, the evaluation of the effectiveness of logistics systems on company performance. This chapter provides a collection of the review of literature made from numerous sources comprised of reviewed journals, research particles, and published books in both online and offline literature. Review was focused on arguments concerning the effects of availability of transportation on sales volume, effects of order processing on service quality and effects of packaging on brand image. The main emphasis was on finding areas of agreements, areas of disagreements by different authors, gaps from contribution same as new perceptions and demonstrations of the researchers' knowledge about the topic of research.

2.1 The Concept of Logistics

Logistics has been cited as one of the key factors that affect competitiveness (Kotler 2003) which any given company can pay no attention to it at its own danger. A product or service is of no value if it is not available to customers at the time and place that they wish to consume it therefore logistics adds significant customer value. The works of Waters (2003; 19) suggest that "Without logistics, no materials move, no operations can be done, no products are delivered and no customers are served." Yet despite widespread agreement about its benefits, logistics is still poorly understood. Definitions are confused and the link between logistics and company performance remains to be proven. Several definitions have been brought forward by various authors in an attempt to define logistics.

Kotler and Keller (2012) define logistics as planning the infrastructure to meet demand, then implementing and controlling the physical flows of materials and final goods from point of origin to points of use, to meet customer requirements at a profit. The works of Kotler and Keller (2012) suggest that logistics system has six interdependent variables and these are: warehousing,

order processing, material handling, packaging, transportation and inventory management. However the current research focuses more on packaging, transportation and order processing. The views of Kotler and Keller (2012) are also supported by Abrahamsson (2008), Tilanus (1997), Sandberg & Abrahamsson (2011) Ballou (2006) and Council of Logistics Management (CLM (1991) where authors agree that logistics consist of six independent variables. They went on to mention that logistics has a clear role in the strategy of the firm and is the driver for cooperate level profitability and growth. They further said that when marketing is in consideration, logistics has to carry a speculation stock to back up a market growth idea with short lead times. While above authors are agreeing on six interdependent variables of logistics as the most important key factors that affect competitiveness in today business, there seems to be a point of difference with the works of Frazelle (2002) and Pfohl (2004) posited that logistics is the movement of material, information and money between customers and suppliers. Frazelle (2002) and Pfohl (2004) come up with five interdependent activities of logistics: customer response, inventory planning and management, supply, transportation and warehousing.

Zooming into the two definitions of Kotler and Keller (2012) and (Frazelle (2002), Pfohl (2004), the Kotler and Keller (2012) definition has planning aspect in it and it is aiming at meeting demand of customers whereas in the definition of Frazelle (2002) supported by Pfohl (2004) it is too narrow it lacks customer focus, lacks aspect of profitability and there is no planning aspect in the definition. However, in Frazelle's (2002) definition there is flow of materials, money, and information hence on Kotler and Keller (2012) there is only the flow of materials and goods. Kotler and Keller (2012) did not highlight the flow of information and money. Frazelle (2002) and Pfohl (2004) fail to appreciate that packaging is an element of logistics system. All other elements are the same. For the purpose of this research, it is suggested that the variables of logistics are determined by nature of the business for example in the service industry packaging and warehousing are not applicable. The benefits of effective logistics system can be found in the research done by Jurandir Peinando in Brazil on automotive industry where the results indicated that logistics system is more useful to help companies to improve their performance and the results also showed that there are so many tools that measure effectiveness of logistics such as sales volumes and loyalty.

Council of Logistics Management (CLM (1991) defined logistics as part of the supply chain process that plans, implement and controls the efficient, effective forward and reverse flow and storage of goods, services and related information between the point of origin to the point of consumption in order to meet customer's requirements. CLM (1991) further explained logistics as seven Rs that is ensuring the availability of the right product in the right quantity and the right condition at the right place, at the right time for the right customer at the right cost.

This definition by CLM (1991) highlights that there are three activities involved in logistics which are planning, implementing and controlling. The definition also emphasized that the purpose of logistics is to meet customer's requirements and it also conveys the idea that product flows are to be managed from the point where they exist as raw materials to the point where they finally discarded as well as the flow of services (CLM (1991).In the definition of CLM (1991) they also considered reverse flow of goods as part of the scope of logistics whereby goods will be returned to their source point due to several reasons such as damaged, obsolete and nonfunctioning.

Sandberg and Abrahamsson (2011) postulated that logistics is a business planning framework for the management of materials, services, information and capital flows. Sandberg and Abrahamsson (2011) went on to say logistics includes procurement, maintenance, distribution and replacement of personnel and materials and a logistics framework consist of physical supply ,internal operations and physical distribution of goods and services.

The definition for Sandberg and Abrahamsson (2011) is silent compared to the definition of CLM(1991) in that Sandberg and Abrahamsson(2011) did not included the three activities (implementing, controlling and planning) which were included by CLM(1991). Sandberg and Abrahamsson (2011) included planning only in his definition. Furthermore the definition for Sandberg and Abrahamsson (2011) is silent comparing with the explanation which was made by CLM (1991) using seven Rs (right product, right quantity, right condition, right place, right time, right customer, right cost). CLM (1991) clearly states that it is a right product to the right customer in the right place at the right time but the one for Sandberg and Abrahamsson (2011) is

silent on whether the product is received with the right customer in the right place at the right time or not.

Also the definition of Sandberg and Abrahamsson (2011) is silent in the notion that it does not highlight whether the business planning starts from the raw materials to the final user or not but CLM (1991) clearly stated that it is planning, implementing and controlling of raw materials, storage of goods, services and related information from the point of origin to point of consumption. Moreso, Sandberg and Abrahamsson's (2011) definition did not point out that the logistics management is to meet customer requirements or not.

Tilanus (1997) promulgated that logistics is a process of anticipating customer needs and wants, acquiring the capital, materials, people, technologies and information necessary to meet those needs and wants optimizing the goods or services producing network to fulfill customer request and utilizing the network to fulfill customer request in a timely way. The above definition by Tilanus (1997) brings out that logistics is customer-oriented operation management and capital is essential in meeting the customer needs and wants.

Kotler and Keller (2012) definition agrees with the definition of CLM (1991) in that they both included the three activities which are planning, implementing and controlling the physical flow of materials and final goods from the point of origin to the point of use to meet customer requirements. The two definitions differs when Kotler and Keller (2012) stated that meeting customer requirements at a profit but CLM's (1991) definition only states that meeting customer requirements leaving out at a profit. Kotler and Keller (2012) definition is silent in the notion that it did not highlighted that controlling of the physical flow of materials and final goods include reverse flow or not but with CLM (1991) it is very clear that reverse flow is part of logistics.

The current research suggest logistics to be defined as ensuring the availability of the right product, in the right quantity and the right condition at the right place at the right time for the right customer at the right cost with the right quality.

2.2 Importance of Effective Logistics

It has been generally accepted that effective logistics is one of the most important and significant ways of influencing company performance. Many authors and researchers are in support of this notion.

“Logistics networks are the backbone of the global supply chain.” Logistics has a clear role in the strategy of the firm and is a driver for corporate level profitability and growth (Abrahamsson et al 2003). When marketing is in focus, logistics has to carry a speculation stock to support a market expansion philosophy with short lead times. When production is in focus, logistics is used as a buffer stock to support production push philosophy (Abrahamsson 2008). Ballou (2006) claimed that logistics adds significant customer value. He said that a product or service is of little value if it is not available to customer at the time and place that they wish to consume it. Fugate, Mentzer and Stank (2010) believed that logistics can create value through efficiency, effectiveness and differentiation. Abrahamsson, Aldin and Stahre (2003) noted that competitive advantage can be accomplished through logistics, taking into account that most successful companies are well integrated to their supply chains. Scarvarda and Hamacher (2001) cited in Graeml and Peinado (2011) said that all over the world companies have been struggling to become more competitive in the coordination on their supply chains in order to succeed in delivering more efficiently. The importance of logistics system is to obtain and move supplies and equipment in a timely fashion to the places where they are needed at a reasonable cost (Owens jnr and Warmer 2003). The above authors agrees that logistics add customer value and that competitive can be gained through logistics and they differed when Fugate, Mentzer and Stank (2010) said that customer valued is gained through efficiency, effectiveness and differentiation while others are saying customer value is gained through the availability of the product to the customers hence they did not mention that the product has to be different from competitors. The current research contribute that logistics adds customer value when the customers are prepared to pay more for a product than the cost to place it in their hands.

2.3 Availability of Transportation on Sales Volume

Availability of transportation is a very essential aspect on sales volume which companies should not flout. Kenyon and Meixell (2011) promulgated that transportation are the activities involved in shipping any goods or finished products from suppliers to a facility or to warehouses and sales location. Without well-developed transportation system, Logistics could not bring its advantages into full play (Tilanus 1997). Kasilingan (1998) posited that transportation provides the movement of materials, products and persons between production facilities, warehousing, distribution centers, terminals and customer location. This means Kasilingan (1998) suggested transportation as a process and the process starts from flow of raw materials to customer location henceforth when a customer is located, he or she will be pleased with the service and the more he or she is satisfied the more he buys and spread the good services to non-users hence increased sales. The views by Kasilingan (1998) are also supported by Grewal and Levy (2011), Kenyon and Meixell (2011) where authors agree that availability of transportation leads to efficient delivery therefore customer satisfaction hence increased sales. The views seems to differ from the views of Scavarda and Hamacher (2001), Tontini and Zanchett (2010) where the authors mentioned that availability of transportation on sales volume involves five dimensions: reliability, responsiveness, flexibility, safety and empathy where they said concerning the dimension reliability is allied to delivery with respect of time and quantity and response is related to customer requests, safety in conducting business with the company, flexibility in the provision of services and ability and interest to address special needs. Kasilingan (1998), Grewal and Levy (2011), Kenyon and Meixell (2011) failed to identify the five dimensions identified by Tontini and Zanchett (2010). Furthermore, things like customers are not always right were not taken into consideration given that at times customers tend to abuse the norms and objectives of the organisation because they think they are always right so empathy at times has to be considered when necessary.

A good transportation system in logistics activities could provide better logistics efficiency, reduce operation cost, and promote service quality. Tilanus (1997) propounded that transport system makes goods and products movable and provides timely and regional efficiency to promote value addition under the least cost principle. In providing the products in timely manner that means customers will like the service and they will buy more hence sales volume of the

company will be increased because the more the customer is satisfied with the transportation of his orders the more he buy. Most products have to be transported in some way at some stage of their journey from production to consumption (Fernie and Sparks 1998; 4).

Kotler (2012) proposed that transportation's choice affects product pricing, on- time delivery performance and the condition of the goods when they arrive, all of which affect customer satisfaction. In Kotler's (2012) suggestion, it means when choosing distribution transport, companies have to be cautious so that products will be delivered on time and will be received in their state and satisfy customers. When a customer is satisfied he or she is likely to buy more and spread the gospel to non-purchasers hence increase in sales volume. For the purpose of this research transportation will be defined as the movement of products from point of production to point of consumption profitably.

2.4 Definition of Order Processing

Order processing is defined as the elapsed time between an order's receipt, delivery and payment (Kotler 2012). The longer the cycle takes, the lower the customer's satisfaction and lower the company's profits (Grewal and Levy 2011). From the definition by Kotler (2012) it is noted that on order placement there is need of a receipt. Ballou (2006) says that order processing is the activity that triggers product movement and service delivery. He goes on to say order processing is an important element in the time that it takes for a customer to receive goods or services. The definition by Ballou (2006) is silent in that he did not mention the activities that are involved in the product movement. Furthermore, Ballou (2006) did not mention about payment whereas in Kotler (2012) it is mentioned but however, the two definitions by Kotler (2012) and Ballou (2006) agrees when they mentioned that the product has to be delivered.

Frazelle (2002) defined order processing as a set of activities occurring between order entry and order release to the warehouse. Frazelle (2002), Ballou (2006) and Kotler (2012) agrees in that they are saying order processing is the activity but Kotler(2012) reviewed the activities involved where Ballou (2006) and Frazelle (2002) did not review. For the purpose of this research order processing activities will include order receipt, order handling, delivery, responsiveness, reliability and payment.

Pfohl (2004) mentioned that an order forms the basis for the information flow in a logistics system and he came with principal functions of order processing which are planning, managing and monitoring the flow of goods. Pfohl (2004) identified six activities namely order transmission, order preparation, order routing, order picking, shipment and invoicing of the orders which above authors did not mention.

2.4.1 Concept of Service Quality

Service quality is like beauty in the eyes of the beholder and hence a matter of perception (Rhoades and Waguespack 2004 cited in Janawade 2011). Paying attention to service quality can help organisations to catch competitive edge (Boshoff and Gray 2004). In today's business, service quality is becoming an important aspect among customers and for business to be successful and survive, provision of high service quality is necessary in meeting several requirements such as customer satisfaction and loyalty, attracting new customers and to increase the market share and profitability (Vasanthakumar 2010) and it is also supported by Shemwell et al (1998) who said the key of success in today's competitive environment lies in the delivery quality services and this will increase that level of satisfaction. Quality is based on customer's evaluation and perceptions. Asubonteng et al (1996;64) said that customer's expectation serves as a foundation for evaluating service quality because quality is high when performance exceeds expectation and quality is low when performance does not meet their expectation. Parasuraman et al (1985) cited in Janawade (2011) enlightened service quality as the evaluation between service performance and service expectation.

Parasuraman (1988; 16) cited in Jeon (2009) defined service quality as a global judgment of attitude relating to the superiority of a service. (Zeithaml, Berry, Parasuraman 1996) said that consequences of perceived service quality can be identified from customer's behavioural intention such as repurchase intentions, word of mouth and customer loyalty. Consumer's satisfaction is determined for his or her shopping experience (Cicerone et al 2009; 28) and is supported by Sureshchander et al (2002; 364) who consider customer's level of satisfaction is determined by their cumulative experiences at all of their points of contact with a supplier

organization. Customer satisfaction is positively core related to the service value provided to customer (Bateson 2011)

Parasuraman et al (1985; 47) cited in Janawack (2011), Berry (1999) and Zeithaml (1995) recognized 10 determinants used in assessing service quality as a result of their focus group studies with service providers and customers; reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer and tangibles. Walker (1990) advised that the key determinants are product reliability, a quality environment and delivery systems that work together with good personal service staff attitude, knowledge and skills.

Armistead (1990) split the dimensions into “firm” and “soft”. The firm dimensions are time (including availability, waiting time and responsiveness), fault freeness (physical items, information and advice) and flexibility (ability to recover from mistakes to customize the service or add additional service. He went on to say the soft dimensions are style (attitude of staff, accessibility of staff and ambience), steering (the degree to which customers feel in control of their own destiny) and safety (trust, security and confidentiality)

Swan and Combs (1976) posited that consumers judge products on a limited set of qualities some of which are moderately important in determining satisfaction, while others are not critical to consumer satisfaction but are related to dissatisfaction when performance on them is unsatisfactory. Swan and Combs identified that there are two types of determinants which are “instrumental” (the performance of the physical products) and “expressive” (the psychological performance of the product) and both have to be accomplished to satisfy the consumer.

2.4.2 Effects of Order Processing on Service Quality

Be it a physical good or service, companies still has to perform a quality service. The interaction between customers and goods or service providers is very crucial phase and employees must be well motivated and trained to have a quality service. Pfohl (2004) reviewed that order processing addresses the handling and monitoring of an order from the time it is placed by the customer to the delivery of the shipment documents and invoice to the customer. Meaning that if the

company fails to monitor the order, there will be wrong order delivery and customers will not be satisfied with the delivery therefore service quality is affected and this is supported by (Bateson 2011) who reviewed that customer satisfaction is positively core related to the service value provided to customer. (Vasanthakumar 2010) pointed out that service quality is becoming an important aspect among customers and for business to be successful and survive, provision of high service quality is necessary in meeting several requirements such as customer satisfaction and loyalty, attracting new customers and to increase the market share and profitability and it is also supported by Shemwell et al(1998) who said the key of success in today's competitive environment lies in the delivery quality services and this will increase that level of satisfaction.

The works of Pfohl (2004) is in agreement with Vasanthakumar (2010), Bateson (2011) and Shemwell et al (1998) in that order processing addresses the handling and monitoring of an order from the time it is placed to the time by the customer to the delivery of the order and payment. They further said customer satisfaction is positively core related to the service value provided to customers. The works of the above authors seems to differ from the works of Kotler (2012) and Grewal and Levy (2011) who explained that order processing as the elapsed time between an order's receipt, delivery and payment and they further said that the longer the cycle takes, the lower the customer's satisfaction and lower the company's profits. A good order processing system in logistics activities could provide better logistics efficiency, reduce operation cost, and promote service quality (Tilanus 1997).

2.5 Definition of Packaging

Packaging is all materials used for the containment, protection, hard delivery and presentation of goods (Kotler 2003). Abrahamson et al (2003) noted that packaging is a coordinated system of preparing goods for transport, warehousing, sale and end use. He further elaborated that packaging mainly protects the goods from damage and spoilage. Protective packaging is a support activity of transportation and inventory maintenance as well as of warehousing and material handling because it contributes to the efficiency with which these activities are carried out (Sandberg 2011).

The definition for Kotler (2003) reviewed that packaging is used to contain, protect, hard delivery and presentation of the goods meaning the packaging has to be strong to allow hard deliveries since products passes through intermediaries before the final consumer therefore less breakages and the brand image is enhanced. The definition of Kotler (2003) agrees with Abrahammmson etal (2003) definition in that Abrahammmson etal (2003) is also saying packaging mainly protects the goods from breakage and spoilage meaning to say again the packaging has to be strong. The definitions for Abrahammmson etal(2003) and Kotler (2003) similarly agrees with the one for Sandberg (2011) in the sense that Sandberg is also talking about packaging as a supporting activity of transportation also meaning the packaging has to be strong.

Packaging is also defined by Olanyika and Aminu (2006) as all the actions of crafting and producing container or covering for a product. Keller (1993) suggested that packaging includes all the activities of designing and producing the container for a product. The definitions for Olanyika and Aminu (2006), and Keller (1991) are silent in that they are not supporting transportation activities, they only pointed out that packaging is for containment and covering the product so with these two definitions it is not clear that the cover has to be strong or not.

The European Federation (1997) defines packaging as all products made of any material of any nature to be used for containment protection, delivery and presentation of goods from raw materials to processed goods. This definition is not in line with the objective of identifying the effects of packaging on brand image because it is saying any material of any nature which means it is not clear that packaging should be durable to avoid breakages so the core-relation of packaging and brand image will not be clear.

Perrault and McCathey (2000) propounded that packaging makes products easy to identify and promote the brand at the point of purchase and in use. They further explained that packaging can make difference in new marketing strategies and may even have more promotional impact than advertising and where protective it may help reduce risk of damage. For the purpose of this research this definition is most suitable since it clearly states the core-relation of packaging and brand image

Saghir (2002) identified three levels considered in packaging as a system:

- 1) Primary packaging (to protect the product and in many cases in contact with it also known as the “consumer packaging”)
- 2) Secondary packaging (designed to contain and group together level primary packages also known as “transport packaging”)
- 3) Tertiary packaging (involving several primary or secondary packages grouped together on a load unit or pallet)

Garcia-Arca and Prado-prado (2008) suggested that packaging design affects costs directly (costs of purchasing and waste management) and indirectly (packaging, handling, storage, transport and claims). Regattieri and Santarelli (2012) also considered packaging as a system (primary, secondary and tertiary) which they further said that the packaging system is cross-functional, since it interacts with different industrial departments and these are often contradictory and thus packaging have to satisfy several purposes:

- Physical protection-the objects enclosed in the package may require protection from mechanical shock, vibration and temperature.
- Hygiene-barrier from oxygen, water vapour, dust is often required
- Containment-small objects have to be grouped together in one package for efficiency reasons.
- Information transmission-packages can communicate how to use, store, recycle or dispose of the package or product.
- Marketing- packages can be used by marketers to encourage potential buyers to purchase the product
- Security- packages can play an important role in reducing the risks associated with shipment.

2.5.1 Effects of Packaging on Brand Image

Packaging plays an essential role in communicating the image and identity of a company since it is part of branding process (Sajuvigbe et al; 2013). It is supported by Panwar (2004) who said that packaging is an important part of the branding process as it plays role in communicating the image and identity of a company and it influences customer's purchase decision (www.iiste.org). Saghir and Jonhson (2001) also support that role of packaging on supply chain is to enhance communication and information sharing. The package is the buyer's first encounter with the product. (Aaker 1991, Schmitt and Simonson 1995) identified packaging as a means for affecting brand image. The authors went on to say effects of packaging on brand image and personality is due to multiple structural and visual element including brand logos, colours, fonts and package materials. In support to that, Gofman et al (2010; 167) said that the right choice of colours is an important factor in creating the impression needed to influence brand and product selection. Brand image is reinforced by brand communication such as packaging, advantages, promotion, customer service and word of mouth. Holmoes et al (2012) says that packaging is quality measurement of brand image and the product. They went on to say when consumers view the new package on the shelf, they are commonly required to make a quality appraisal of the product through experience with package.

Keller and Lehmann (2006) posit that a good package draws the consumer in and encourages product choice. In effect, they can act as "five-second commercials" for the product. Packaging also affects consumers' later product experiences when they go to open the package and use the product at home. Some packages can even be attractively displayed at home. Kotler (2012) highlighted that distinctive packaging like that for Kiwi shoe polish, Altoids mints, and Absolut vodka is an important part of a brand's equity. Various factors contribute to the growing use of packaging as a marketing tool. The effective package must perform many sales tasks: attract attention, describe the product's features, and create consumer confidence, and make a favorable overall impression.

- **Consumer affluence.** Rising affluence means consumers are willing to pay a little more for the convenience, appearance, dependability, and prestige of better packages.

- ***Company and brand image.*** Packages contribute to instant recognition of the company or brand. In the store, they can create a billboard effect, such as Garnier Fructis with its bright green packaging in the hair care aisle.
- ***Innovation opportunity.*** Unique or innovative packaging such as resealable spouts can bring big benefits to consumers and profits to producers.

Traditionally packaging is projected as a means of protecting and preserving goods, handling, transport and storage of products but there are other function which are very important such as sales promotion, customer attention and brand communication (Regattieri and Santarelli 2012).It means that when a package is made, it must be in a design that meet the demand of sales and marketing perspective and not only in transportation network perspective. Regattieri and Santarelli (2012) suggested that a typical supply chain is an end to end process with the main purpose of production, transportation, and distribution of products which means there is product movement from supplier to manufacturer, distribution, retailer and finally the consumer therefore products moved are contained in packages and for this reason role of packaging is a very important issue on brand image. Aaker (1996; 69) Brand image is how the consumers perceive the brand.

Marketing demands a package that looks nice and right size, packages do not only present the product on the shelf but they also arouse consumer's expectations and generate a desire to try out the product hence once the product is purchased, packages reassure the consumer of a product's quality and reinforce confidence. The packaging plays the role of an important interface between the brand owner and the customer (Regattieri and Santarelli 2012)

Chapter Summary

This chapter dealt with review of related literature in respect of evaluation of strategies that has employed to enhance sales volume at GMB, with deep emphasis given to logistics systems as it was the core of this study. In this respect the chapter discussed issues concerned the definitions of logistics, definition of transportation, packaging, order processing and its impact to sales volume, brand image and service quality. The next chapter will address issues to do with the methodology used in this study.

CHAPTER 3

Methodology

3.0 Introduction

The purpose of this study was to explore the effectiveness of the logistics systems for processed products by GMB. This chapter was a comprehensive guide covering the research design, population, sample methods and sampling techniques used. Other aspects of this chapter also included the data collection procedures, research instruments, data presentation and the pilot study carried out.

3.1 Research Design

A research is a draft or blue print that exploits methodology to solve problems and generate new appropriate ideas. (Kumar 2005) proposed that a research is a process of collecting, analyzing and interpreting information to answer questions. It specifies the details of the procedures necessary for obtaining the information needed to structure or solve marketing research. Research designs can be classified into exploratory, descriptive and causal designs. Exploratory and Descriptive research design was used in this research project in order to identify alternative course of action.

3.1.1 Exploratory Research Design

Exploratory research design is a qualitative research undertaken to explore an area where there is little knowledge on the problem and therefore it must be defined more precisely so as to gain an insight and ideas before an approach can be developed. Exploratory research design was used because it is flexible and it can address research questions of all types which are Why? What? and How? In addition exploratory research design helps the researcher to identify alternative courses of action. However explorative research inhibits an ability to make definitive conclusions about the findings. Concepts in this research design were experience, survey, focus groups discussion, in depth interviews are found and literature search. The effectiveness of logistics system was analyzed using in depth interview of management since they are well informed about the issue of GMB's logistics systems.

3.1.2 Descriptive Research Design

Descriptive research was also used in order to acquire the information concerning the current status of the logistics system at GMB and to describe what exists with respect to variables in the situation. Descriptive research helps provide answers to the questions of Who? Where? What? , When? and How associated with a particular research problem but it cannot establish answers to ‘why.’ Descriptive research also produces rich data that lead to important recommendations because the approach collects a large amount of data for detailed analysis. However, descriptive research cannot be used to discover a definitive answer.

3.2 Target Population

Target population is the entire population which the researcher is interested in (Polit and Hungler 1995). The population components in the research comprise of GMB management, employees and business customers. The population of this study will be 300 business customers, 15 management and 100 employees of GMB Head office in Harare. Management and employees were involved in the target population because they are the ones involved in the operations of the company and customers since they are the buyers and users of the products and services of the organization therefore they provided enough information that facilitated collecting the data which was necessary for this research to be a success. Total Target population is 415.

3.3 Sampling Methods and Techniques

Sampling is the process of selecting the people with whom to conduct research. Sampling has two methods namely probability sampling and non-probability sampling. Probability sampling is a technique in which each unit has a known chance of being selected in the final sample.

Probability sampling techniques are stratified random sampling, simple random sampling and systematic random sampling. Non probability sampling is a technique in which the selection of each sampling unit is unknown. Non-probability sampling techniques are convenience sampling, judgmental sampling, quota sampling and snowball. In this research, non-probability sampling procedures was used in the collection of data namely convenience sampling and judgmental sampling

3.3.1 Sampling Frame

Sample frame is a representation of the elements of the target population (Paurav Shukla, 2008). It consists of a list or set of directions for identifying the target population. GMB is a large entity and sampling frame was focused on its head office in Harare because it was costly to collect data from all parts of analysis. For the purpose of this research, the sample frame included management and employees of GMB from production department, logistics department, sales and distribution department and business customers of GMB.

3.3.2 Sampling procedures

For the purpose of this research, convenience sampling and judgmental sampling method was used to select a sample which was represented.

3.3.2.1 Convenience Sampling

Convenience sampling involves selecting respondents based on their availability for the study and is well known for saving time and costs. During data collection period was not known which employee was in the offices hence convenience sampling will be used for them. However this method lacks exactness in sampling.

3.3.2.2 Judgmental Sampling

Purposive sampling or judgmental sampling is the process whereby the researcher selects a sample based on experience or knowledge of the group to be sampled. It is also called “judgment” sampling or deliberate sampling. This sampling method involves purposive or deliberate selection of particular units of the universe for constituting a sample which represents the universe. On the other hand, in judgement sampling the research’s judgement was used for selecting items which was considered as representative of the population. Corbetta (2003) posits that the sampling units are not chosen in a random manner, but on the basis of some of their characteristics. This kind of sampling is used, for instance, on very small samples in order to avoid chance fluctuations that might excessively distance the sample from the characteristics of the population. One of the limitations of purposive sampling however is that it carries a potential for inaccuracy in the researcher’s criteria and resulting sample selections

After revising different sampling techniques ‘deliberate or purposive sampling’ was adopted in this study. It was a deliberate act by the researcher to choose respondents from the Grain Marketing Board. Because these respondents seemed to be the ones that would be easily accessible to the researcher (the researcher was already familiar with the organization and on a first name basis with some of its employees that she worked with during time of attachment at the organization). Using judgement, the researcher also perceived that management and employees in Marketing Division (marketing and sales department, production, logistics and distribution) were the ones who are well informed in matters to do with logistics system and company performance hence they were best fit to constitute the sampling frame.

3.3.3 The Sample Size

Choosing the sample size was employed using Conroy’s rule (www.rcsi.ie). Conroy highlights in a graph the different samples that can be used in order to study finite populations to give different margins of error as below.

Table 3.1 – Rule for selecting optimum sample size

ACCEPTABLE MARGIN OF ERROR	SIZE OF POPULATION					
	LARGE	5000	2500	1000	500	200
+/- 20%	24	24	24	23	23	22
+/- 15%	43	42	42	41	39	35
+/- 10%	96	94	93	88	81	65
+/- 7,5%	171	165	160	146	127	92
+/- 5%	384	357	333	278	217	132
+/- 3%	1067	880	748	516	341	169

Source: www.rcsi.ie

Permanent staff falling into marketing, production and logistics were around 100 at the head office. The researcher deemed that a statistical margin of error lying between 7, 5% to 10% was not bad. A sample of 10 respondents was chosen which is 10% of the target population. It

seemed reasonable that the respondents came from head office since most of bulk of marketing and strategy formulation and review was based at head office.

Management staff at the head office was around 15. The researcher considered that a statistical margin of error lying between 15% to 20% was not bad. A sample of 3 respondents was chosen which is 20% of the management staff.

Business customers for GMB were around 300 in Harare. The researcher believed that a statistical margin of error lying between 7.5% to 10% was not bad. A sample of 30 respondents was chosen which is 10% of the business.

3.4 Data Sources

There are two main sources of data namely primary and secondary data.

3.4.1 Secondary Data Sources

Secondary data is data collected for some other purposes which might be relevant to a particular study. The data used in this research was from GMB internal reports, customer complain reports and newspapers.

3.4.2 Primary Data Sources

Primary data is firsthand information or raw data obtained at the point it is generated and it is later be used as secondary data. In this research data was obtained through interviewing and questioning management, employees and business customers of GMB.

3.5 Research Instruments

The researcher used interviews and questionnaires to collect primary data relevant to the study

3.5.1 Questionnaires

A questionnaire is an instrument that structures a set of questions intended to gather information from respondents and there by accomplish the researcher's objectives (Kumar 2005). Questions can either be structured or unstructured. Unstructured questions are open ended and they allow respondents to answer in their own words. Structured questions are closed ended questions that have response alternatives. For the purpose of this study closed ended questions was used hence

it speed up the research since answers were provided and it is easy for the researcher to evaluate. However, unstructured questionnaires restrained respondents who were willing to add more information.

3.5.2 Interview

In-depth interviews were used as another instrument of research for GMB management. Interview is a technique in which a survey instrument is administered by a trained interviewer who asks questions and records the respondent's answers (Paurav Shukla, (2008).The researcher asked questions which were as simple as possible using the KISS model (Keep It Simple and Stupid)

3.6 Validity and Reliability

3.6.1 Pilot Study

A pilot study is “a small-scale experiment or set of observations undertaken to decide how and whether to launch a full-scale project” (Collins English Dictionary; 2003). Crossman (1992) defines pilot study as “a research project that is conducted on a limited scale that allows researchers to get a clearer idea of what they want to know and how they can best find it out without the expense and effort of a full-fledged study. They are used commonly to try out survey questions and to refine research hypotheses.” In highlighting the importance of pilot studies Baker(1993: 182-3) says that one of the advantages of conducting a pilot study is that it might give advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated. In the words of De Vaus (1993: 54), “Do not take the risk”.

The pilot study was carried out with my research supervisor, two marketing assistants, three sales representatives and three key customers. The main objective was to check for clarity and understandability of the questionnaire. Pilot studies may have certain limitations such as the possibility of making inaccurate predictions or assumptions on the basis of pilot data; problems arising from contamination; and problems related to funding. For the above mentioned reasons and the fact of limited time that is why the researcher decided to use a very small group of trusted respondents in the pilot study. Results of the pilot study indicated that the questionnaire

and interview guide was clear and understandable therefore a full questionnaire survey was conducted.

3.7 Data Analysis Plan

After collecting the data, it was analyzed using tables, graphs and pie-charts and other means of graphical presentation. The responses were categorized according to answers. Tables and graphs were formulated from the different responses. Pie-charts and other graphical means were used to conclude the results.

Chapter Summary

The researcher made use of the descriptive and exploratory research designs. Convenience sampling and judgmental sampling was also used, questionnaires and interviews was used as research instruments. This permitted the researcher to obtain all the information that was presented in the next chapter.

CHAPTER 4

Data presentation, Analysis and Discussions

4.0 Introduction

After the data have been collected, the researcher turns to the task of analysing them. The unwieldy data should necessarily be condensed into a few manageable groups and tables for further analysis. The chapter focuses on establishing whether data collected answered the research questions. The sections contained in this chapter provide a summary of the findings obtained from the business customers, GMB employees, GMB management surveys. The findings considered to be of key importance to the research objectives have been supported with statistical tables, bar graphs, pie charts and other forms of graphical illustrations were used for analysis. The chapter dealt with presentation, analysing, findings and discussion of data obtained.

4.1 Response Rate

The researcher distributed questionnaires to study participants and conducted interviews with respondents. The breakdown of response rate on questionnaires is shown in the table below:

Table 4.1: Questionnaire and interview Response Rate

Respondents	Questionnaires Issued	Questionnaires Returned	Percentage of Return %
Business customers	30	27	90
Employees	10	10	100
Management	3	3	100
Total population	43	40	93

Table 4.1 shows that from a sample of 30 originally targeted business customers, 90% responded and there was 100 % response rate from employees of GMB. There was 100% attendance from the management staff on the interviews. Generally the response obtained was good and from this the researcher could conclude on data gathered and analysed. The response rate is illustrated in

the table above and it implies that out of a total sample of 43, 93% responses were received. The 10% of the customers failed to return the questionnaires to the researcher as agreed upon hence their responses could not be included in the study. Aaker (1998) suggested that response rate of 75% is enough to allow the researcher to proceed to analysis of findings. Given a response rate of 93%, the researcher proceeded to analysis of findings.

4.2 Demographic Information

4.2.1 Work experience

The majority of respondents seem to have considerable work experience. As evidenced by the pie chart below the majority of survey participants have worked in GMB for 6-10 years. Since the research seeks comparisons of research variables in August 2012 to March 2014 compared to the previous years it means the majority of employees had relevant knowledge of the historical and present performance of the company.

Quite a large number of employees however have worked in the company for 0-5 years. This was a bit disturbing but it was assumed by the researcher that in the past years the GMB was not performing well so respondents who are only knowledgeable about the status quo can still provide useful information about the way things are now since the launch of new packaging and new trucks. In any case, to sum up those who have worked in the company for 5 years or less and all those who have worked from 6 years up to more than 15 years it was evident that employees with little experience in the organization were clearly outstripped.

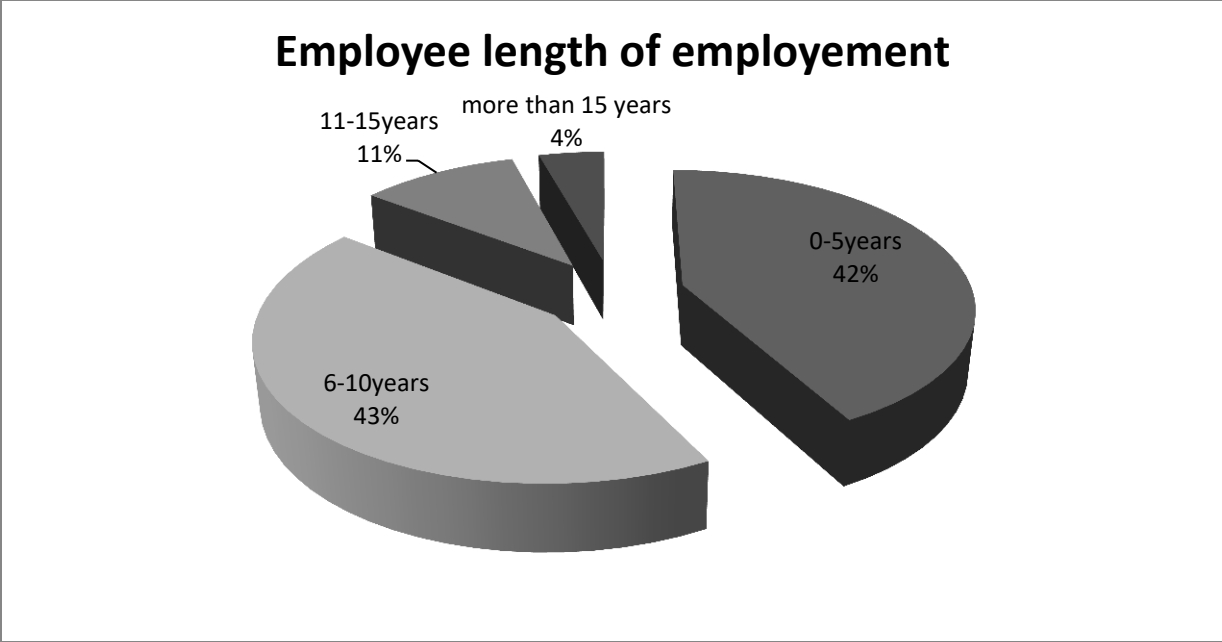


Figure 4.1 – pie chart showing employment periods of questionnaire respondents

4.2.2 Customer Characteristics

The researcher established the characteristics of the customer sample by questioning on the length of relations in doing business with GMB and the following were yield;

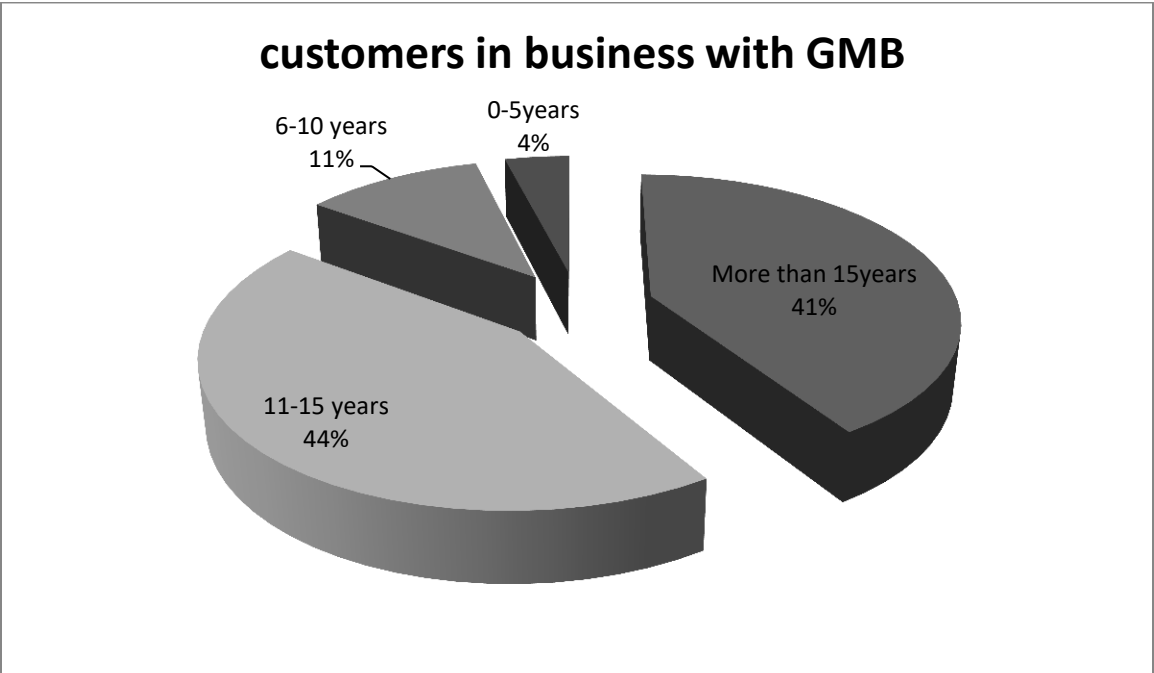


Figure 4.2 – pie chart showing number of years of customers in business with GMB

From fig 4.2 above, 41% of the respondents have been doing business with GMB for more than 15years. Respondents who have been doing business with GMB for 11-15 years add up to 44%. Customers who have 6-10years had a representation of 11% respondents. Those with 0-5years were represented by 4%. Majority of the respondents have more than 11years of doing business with GMB as evidenced by the pie chart above. This shows that majority of respondents had the knowledge of the logistics systems at GMB so research assumed that they provided useful information. Basing on those who have 0-5 years, the researcher assumes that the information was still valid since new packaging was introduced in January 2014.

4.3 Effects of Availability of Transportation on Sales Volume

The researcher asked the employees to indicate whether the sales volume will increase if GMB increase its current fleet and if it improve on its distribution system and the following were obtained.

Table 4.2 Employee Perception of Sales Volume of The GMB Current fleet

Employee Respondents	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Sales volume will increase if GMB improve its distribution system	60%	20%	10%	10%	0%
If the current fleet is increased, sales will positively affected	70%	20%	7%	3%	0%

From table 4.2 above, 70% respondents strongly agreed that for GMB to increase its sales volume there is need for increasing its current fleet and 60% of respondents strongly agreed that sales volume will increase if GMB improve its distribution system. Only 20% of respondents merely agreed with the opinion. With this it then shows that GMB has to increase its current fleet

and improve its distribution system so that it will increase its sales volume. 10% of respondents are neutral with this opinion and 10% disagreed with the opinion therefore it shows that there are other factors that are affecting sales volume despite availability of transport.

From the interview held with management, the marketing manager reviewed that availability of transportation affect sales volume especially distribution outside Harare is a big challenge because hired transporters do not want to go outside Harare and as for company trucks, they are not enough and they are very small. The production manager also said GMB’s own transport is mainly used to ferry maize and wheat from different depots and therefore this will delay distribution of processed products to customers hence sales will be affected. He further said it was worthy for hired transporters to distribute for GMB but the challenge is that the company is failing to pay them so definitely GMB has to increase its fleet.

Table 4.3 Employee estimates on sales volume accrued as a result of purchase of new trucks.

Employee response	Less than 10%	10-20%	21-30%	More than 30%	No effect
How have the newly procured trucks affected sales volume	10%	40%	20%	30%	0%

From the table 4.3 above, 10% of the respondents assumed that the procurement of the distribution trucks has an increased sales volume by less than 10%. Also 40% of the respondents purported that the sales were increased between 10%-20% after the procurement of trucks. Moreover, 20% of respondents alleged that sales volume had increased between 21-30% as an effect of procurement of the 24 trucks. In addition to that 30% respondents believed that the

procurement of 24 trucks increased sales volume by more than 30%. Lastly 0% responded to No effect on the procurement of trucks and therefore it shows that there was a positive effect on the sales volume after the procurement of trucks.

Managers were interviewed in order to get more data, all of the interviewed management revealed that the procurement of trucks has improved distribution. The Logistics manager said that of course there was an increase in sales after the procurement of distribution trucks but it could have increased more if the trucks were at least 15 tonne trucks or 30 tonne trucks, so he was saying the challenge is that the trucks are very small.

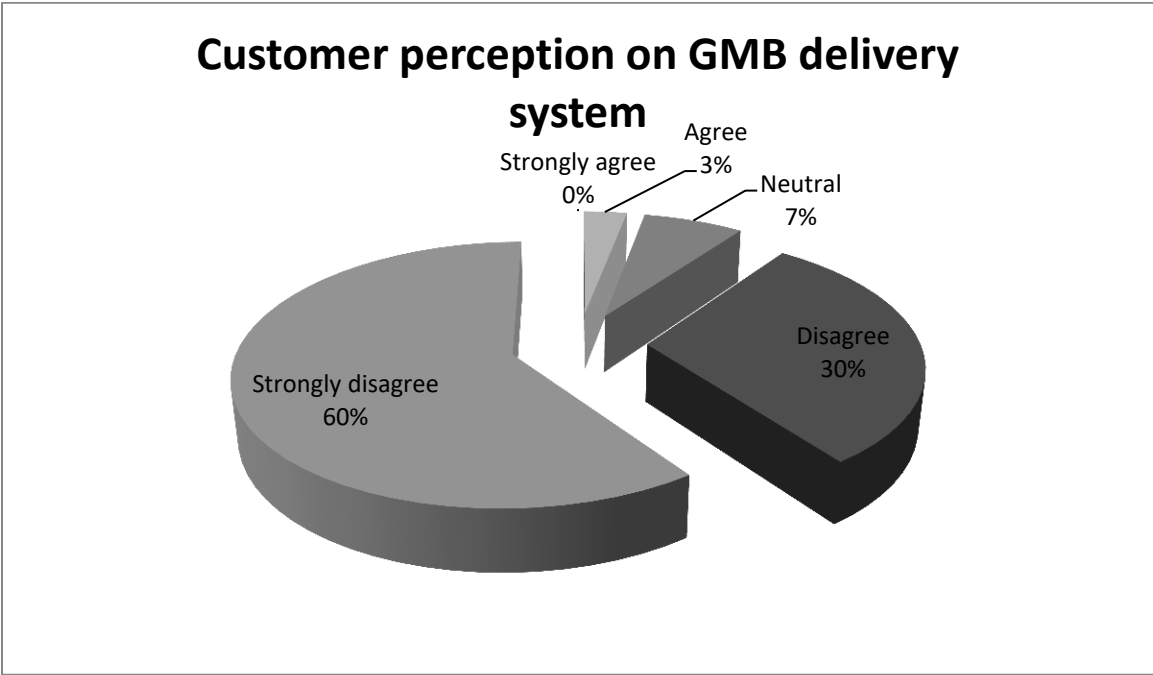


Fig4.3 Customer perception on GMB delivery system

From fig 4.3 above, 30% to 60% disagreed that their repeat purchase is due to the delivery system by GMB while 7% were neutral and 3% disagreed and 0% strongly disagreed with the idea. From the responses, customers state that their repeat purchase of GMB's products is not as a result of efficient delivery system they receive.

4.4 Effects of Order Processing on Service Quality

The researcher intended to assess the effects of order processing on service quality. The following figures 4.4, 4.5, 4.6 and 4.7 are to present findings of order process variables which are lead time, fill rate, reliability and responsiveness

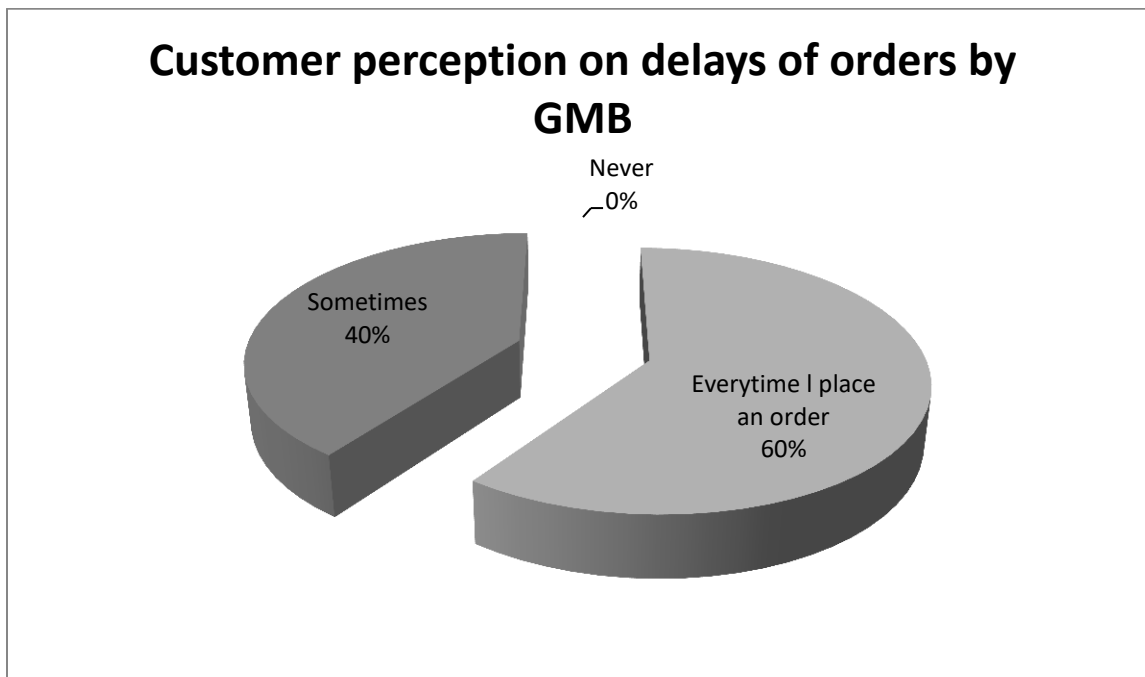


Fig 4.4 Customer perceptions on delays in delivery of orders by GMB

Customers were asked if they have ever experienced delays in orders they place at GMB. The findings as shown in the fig 4.4 above shows that 40% said sometimes they experience delays when they place orders and 60% said they face delays every time when they place orders. There was no respondent who has never experienced delays in placement of orders. Therefore this shows that 100% of the respondents face delays in placement of orders.

Inorder to obtain more data, managers were interviewed. The Production manager said that indeed GMB need more trucks because the available trucks are enough and they are very small since they have to perform number of duties in the production department and therefore there will

be delays in delivering customer orders. Considering the production manager’s view it shows that they make delays in delivering orders hence affecting reliability of the company.

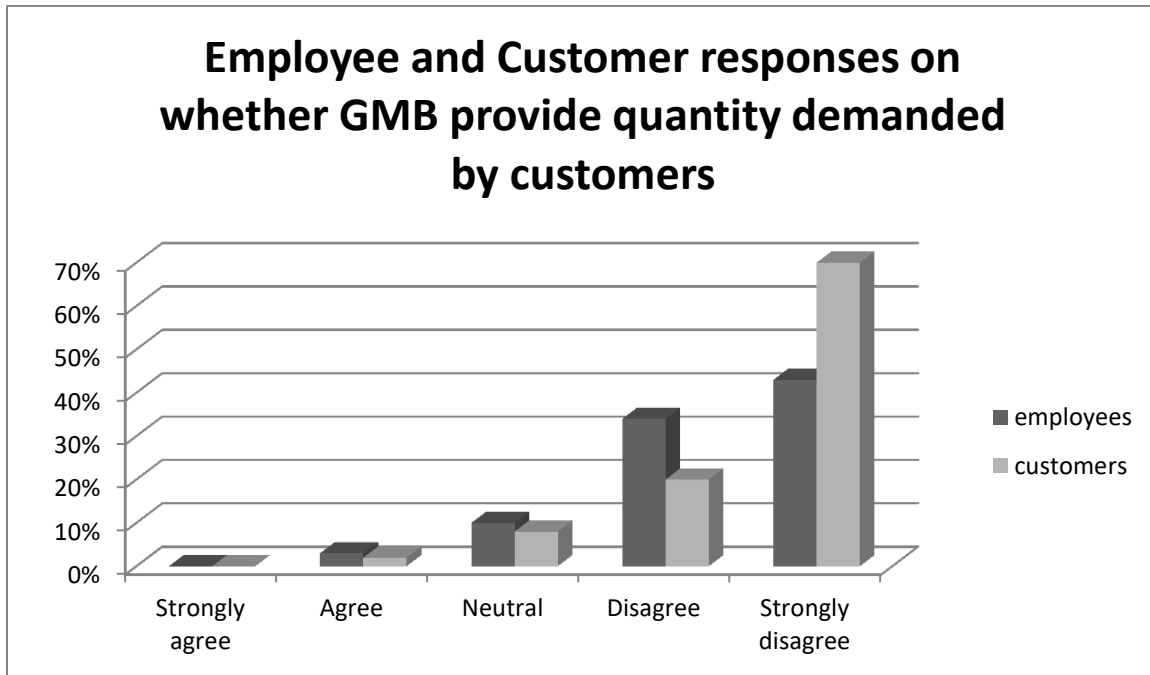


Fig 4.5 Employee and customers responses on whether GMB provide quantity demanded by customers

From the fig 4.5 above, the outcomes from employees were as follows; a total of 43% strongly disagreed that GMB always provide quantity demanded by customers and 34% disagreed that with this view. So this shows that 77% disagree and strongly disagree with this notion. Therefore from the above graph it shows that GMB do not always provide quantity demanded by customers. 10% of respondents were neutral to this view and 3% agreed that GMB always provide the quantity demanded by customers and there was no respondent who strongly agreed with this view. The findings from customers were as follows; 70% strongly disagreed, 20% disagreed, 8% were neutral, 2% agreed and 0% strongly agreed. From the findings, it shows that the majority of the customer responses are saying they do not receive the correct order quantity they place.

Adding to that, management was interviewed to review their fill rate and the logistics manager responded that at times they face challenges in providing the quantity demanded so due to that, the trucks might be too small for the order demanded and they gave an example of Mahommad Mussa who orders big quantities like 15 tones silo salt, 15 tones silo roller, 12 tones silo refined, 5 tones silo rice and 5 tones pagoda rice then it means this order add up to 52 tones hence GMB has 4 tone trucks therefore it means 13 trucks have to go with one delivery. Due to this problem they will fail to provide the quantity demanded. Furthermore, the production manager said that GMB's fill rate is very low due to shortages of the product. Combining the responses from employees and management it shows that the fill rate at GMB is very low since they do not always provide the quantity demanded by customers.

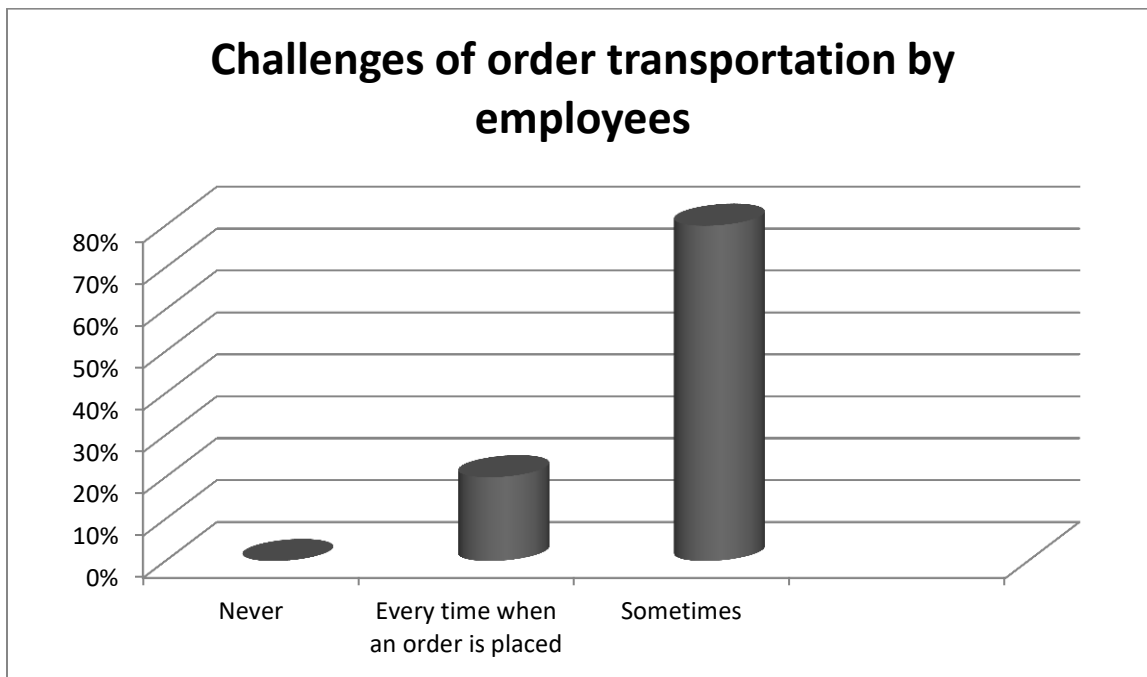


Fig 4.6 Employee responses on the challenges of order transportation.

Employees were asked if they have ever experienced challenges in transportation of customer orders. The findings as shown in fig 4.6 shows that 80% said sometimes they face challenges when dispensing customer orders and 20% said they face challenges every time when an order is placed by a customer. There was no respondent who has never faced challenges in distributing

customer orders. Therefore this shows that 100% of the respondents face challenges in allotting the customer orders.

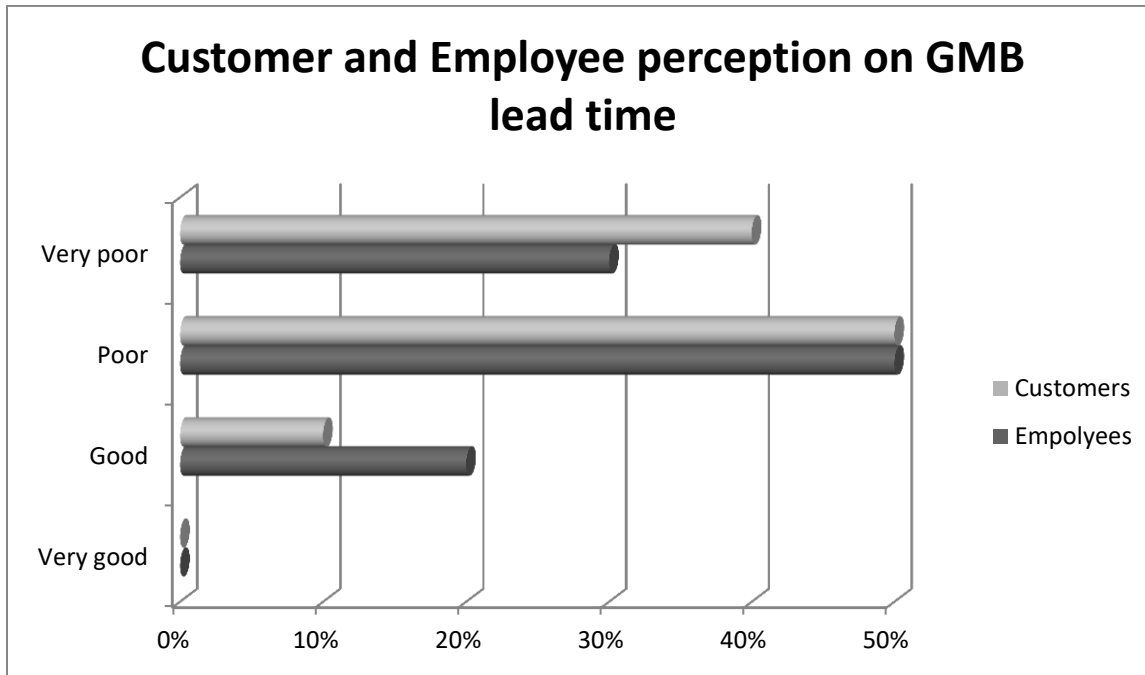


Fig 4.7 Employee and customer perception on GMB lead time

Employees and customers were asked to rate GMB’s lead time comparing to its competitors. As shown in fig 4.7 above, 30% of the employee respondents said the lead time is very poor and 40% of the customer respondents said it is very poor. To sum up 35% of the respondents (both employees and customers) said the lead time for GMB is very poor comparing to its competitors. 50% of the employee respondents said that the lead time is poor and 50% of the responses from customers said it is poor. 20% of the responses from employees said that GMB’s lead time is good and 10% of the customers responded that the lead time is good. From the above information it shows that majority of respondents is saying GMB’s lead time is very poor.

Management was also interviewed on how they respond to the customer orders and how reliable is GMB to its customers in terms of order processing. Of the respondents, marketing manager said the responsiveness to customer orders is very poor because GMB’s order processing is slow

and this is delaying distribution process. He said that it is being caused by processing orders manually therefore at times figures may not be accurate and also, the order passes through many offices before it is processed thus it is affecting the service quality of the organization. He further explained that the company introduced the SAP system (Systems Application Products) and employees failed to use it and besides most of the depots are not networked to the system so lead time is affected hence service quality is also affected.

4.5 Effects of Packaging on Brand Image

This section presents information gathered on the effects of packaging on brand image as it was one of the objectives. Employees were asked if packaging has effects on brand image and if new the packaging has improved company brand image. The following results were obtained;

Table 4.4 Employee Perception of effects of packaging on brand image

Employee Respondents	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Packaging of Silo products has impact on how customers perceive brand image.	61.3%	21%	6.7%	8.4%	2.6%
Newly introduced packaging has improved the brand image	40%	50%	7.5%	2.5%	0%

From the table 4.4 above, 61.3% employees strongly agreed with the opinion that packaging of Silo products has impact on how the customers perceive the brand image and 21% agreed with this notion. 6.7% of the employees were neutral to this notion, 8.4% disagreed with this view and 2.6% strongly disagreed. With these results it shows that packaging has an influence on the brand image. The findings on the new packaging improved brand image were as shown in fig 4.7 was that 40% strongly agreed, 50% agreed, 7.5% were neutral, 2.5% disagreed and 0% strongly disagreed. From the above finding, the majority of respondents were agreeing that the new packaging has improved brand image.

Moreover, from the interview conducted to management by the researcher, the marketing manager reviewed that packaging has a greater influence on brand image. He further said that the introduction of new packaging actually improved the brand image especially on Silo upfu and Silo salt but it was going to have a greater effect if it was communicated on the market through massive promotions. The logistics manager highlighted that newly packaging resulted in few returns on breakages especially on salt and customers have increased their buying decision.

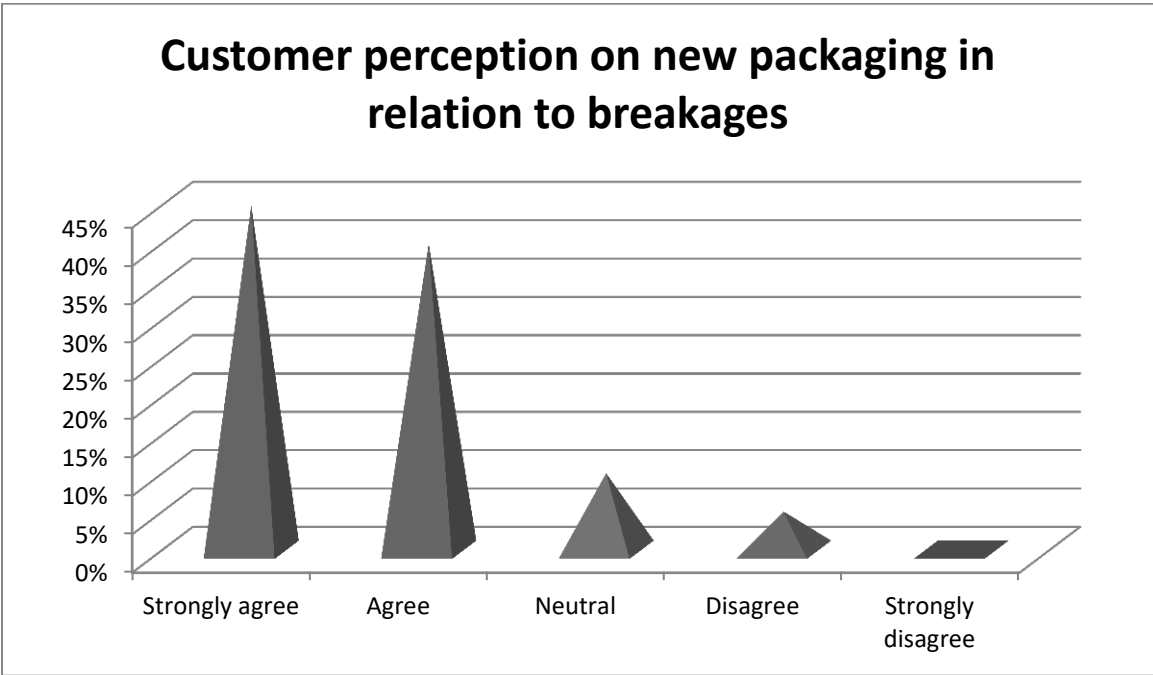


Fig 4.8 Customer perception on new packaging in relation to breakages

From fig 4.8, it shows that 45% of customers strongly agreed that newly packaging reduced the number breakages and 40% also agreed with this notion. Only 10% of the customers are neutral to this notion, 5% of them are disagreeing and 0% strongly disagreed with this view. This indicates that the new Silo packaging reduced number of breakages since majority is agreeing with this view and just a few disagreed.

From the interview conducted with management on the effects of the new packaging over breakages, the marketing manager commented that the new packaging improved company brand

image especially on salt and mealie-meal and he went on to say there are now few customer complaints on the breakages. He further said that the intermediaries are saying Silo salt is now moving fast as well as Silo upfu hence this communicates improved brand image.

Summary of Findings

This chapter focused on the presentation, analysis, and discussion of the results from the research. The results were presented in the form of tables, graphs and pie charts and they were discussed in line with the research questions as well as objectives. Data analysis and interpretation in this chapter indicated a core-relation between logistics system and company performance. The next chapter covers the summary, conclusions and recommendations.

CHAPTER 5

Summary, Conclusions and Recommendations

5.0 Summary

The main area of focus for this research study was to evaluate the effectiveness of logistics system on GMB on an attempt to improve company performance. This study was undertaken during the period of August 2012 to March 2014. The study identifies the statement of the problem and enlightening objectives relevant to the study. Research questions were used to guide the research. Slow order processing, too much breakages and slow deliveries on distribution by GMB made the researcher to study on the logistics systems. The findings revealed that logistics system affects company performance. Limitations, delimitations, assumptions and definition of terms were also provided.

To find the views of different scholars in relation to logistics system, literature was reviewed using books, previous thesis and articles. Areas of agreements and disagreements and the gaps that exist among authors were also viewed for the progress of the research. Their views helped the researcher to have an in-depth understanding of effects of logistics system on company performance. The logistical elements: packaging, order processing and transportation were also reviewed and concept of company performance in general. The literature reviewed was guided by objectives provided in chapter one.

Descriptive research and exploratory research designs were used to gather the data from the GMB employees, management and its corporate customers. Questionnaires and interviews were the research instruments used. The researcher used non-probability sampling techniques namely convenience sampling and judgmental sampling with the sample size of 43 which was determined using Conroy (1999). For the accuracy of this research validity and reliability of research instruments was used.

Data was gathered using interviews with management, questionnaires that were administered by researcher for customers and employees. 3 managers were targeted for interview and they were all interviewed, 10 questionnaires were distributed to employees and they all responded and 30 questionnaires were distributed to corporate customers and 27 responded to the questionnaires.

The respondents were selected through non-probability sampling technique that is judgemental sampling. The evaluation and analysis are brought out major findings discussed below. To conclude the study and for recommendations findings were used and they are discussed below.

5.1 Conclusions

5.1.1 To identify the effects of availability of transportation on sales volume

The research questionnaire contained a section which questioned employees that, “If the current fleet is increased, sales will be positively affected”. The majority of respondents strongly agreed that the increase in current fleet will increase sales volume. Therefore it can be concluded that availability of transportation has a positive effect on sales volume as indicated by 70% respondents who strongly agree and 20% who agreed to make a total of 90% respondents agreeing to this notion. Hence it is now the company’s choice to try and improve on the availability of transport in distributing their products.

5.1.2 To determine the effects of order processing on service quality

It can be concluded that order processing positively affect service quality basing on the findings. It shows that quick respond and reliability to customer orders positively affect the service quality and slow responses to customer orders which lengthen lead time negatively affect service quality. 70% of respondents strongly disagree and 20% disagreed with the notion that GMB is reliable and respond quickly to the customer orders. The interviewed marketing management revealed that order processing is very slow and is delaying distribution. In the literature review, (Grewal and Levy 2011) reviewed that the longer the cycle takes, the lower the customer’s satisfaction and lower the company’s profits. Results from this research helped the researcher to reach the conclusion that amongst all order processing strategies; responsiveness, reliability, fill rate and order cycle are very effective in improving GMB’s service quality. Therefore the company still has a lot to do in order to undercut poor order processing and maintain a good service quality.

5.1.3 To establish the effects of packaging on brand image

The researcher concluded that packaging has a positive effect on brand image as evidenced by the findings where 85% of the customers agreed (45% strongly agreed + 40% agreed) that the newly introduced Silo packaging improved the GMB brand image. Marketing management said that it could have impacted better if the new packaging was communicated to the customers. This concludes that the Silo packaging has an effect on the brand image. Therefore any packaging has to be designed in a way that will boost the brand image. Keller and Lehmann (2006) suggest that a good package draws the consumer in and encourages product choice. Packaging is a very important issue on brand image (Regattieri and Santarelli 2012).

5.2 Recommendations

5.2.1 To identify the effects of availability of transportation on sales volume

From the interview held with management, the logistics manager said sales volumes are not only affected by distribution but availability of the product itself therefore the Grain Marketing Board is recommended to stock all Silo products, secure more logistics trucks and heavily distribute its products in different locations on time.

5.2.2 To determine the effects of order processing on service quality

GMB can network all of its depots on the SAP system and re-train its employees on how to use SAP system so that they will improve on its order cycle and increase on the service quality. Companies like ZESA, ZIMRA, Delta and Mbada Diamond are already using SAP system efficiently.

5.2.3 To establish the effects of packaging on brand image

GMB needs to maintain and continue to improve on its quality standards, features and packaging so as to maintain and improve on its brand image. Once customers know that there is consistent quality at GMB they will always come to purchase and also spread the gospel to non-consumers who in turn will come in to try the products.

5.3 Recommendations for Further research.

This study recommends that further research be done on comparing the effectiveness of logistics system on company performance on multiple industries. This is in order to establish if

differentials in industry type also have an influence on the effectiveness of logistics system on company performance.

The researcher recommends that further study be done on the effects of logistics system on other company performance measures such as market share and profitability.

Only three variables of logistics systems were used in this yet they are six, therefore the researcher recommends that a similar study be done using other variables such as inventory management, warehousing and material handling so that there is a balance on the effects of logistics system on company performance.

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Appendices

APPENDIX I

Interview Guide for Management

1. What are the effects of transportation on sales volume
2. Has the procurement of 24 distribution trucks in any way improved sales volume?
3. How reliable and responsive is GMB to its customer in terms of order processing?
4. What is the GMB's fill rate?
5. What do you think is the effect of packaging on brand image?
6. Has the new packaging in any way affected brand image?

THANK YOU FOR YOUR TIME

APPENDIX II

Questionnaire for Employees

My name is SPB 05. I am a fourth year student studying for a Bachelor of Commerce Honors Degree in Marketing at Midlands State University. As per the requirements of the course, I am carrying out a research on *The evaluation of the effectiveness of the logistics system on company performance, a case of Grain Marketing Board*. I kindly request your cooperation in filling this questionnaire. All the information collected will be for academic purposes only and it will be confidential. Anonymity remains a valid point in this research. Your assistance will be greatly appreciated.

Do not write your name on the questionnaire.

Instruction

Tick in the answer boxes provided.

Section A

1. What is the state of the current fleet?

Very good

Good

Poor

Very poor

2. If the current fleet is increased, sales will be positively affected.

Strongly agree

Agree

Neutral

Strongly disagree

Disagree

3. Sales volume will increase if GMB improve its transportation system.

- Strongly agree
- Agree
- Neutral
- Strongly disagree
- Disagree

4. In your own view, how have the newly procurement 24 distribution trucks affected sales volume?

- Less than 10%
- 10-20%
- 21-30%
- More than 30%
- No effect

5. Have you ever experienced challenges with transportation of customer orders?

- Never
- Every time when an order is placed
- Sometimes

6. GMB always provides quantity demanded by customers.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

7. How do you rate GMB lead time (time from order entry until delivery) relative to that of competitors?

Very good

Good

Poor

Very poor

8. Packaging has an impact on how customers perceive the company brand image.

Strongly agree

Agree

Neutral

Disagree

Strongly disagree

9. The introduction of new packaging has improved the brand image?

Strongly agree

Agree

Neutral

Disagree

Strongly disagree

Section B Demographic information

1. Gender

Male

Female

2. Number of years worked at GMB

0- 5

6-10

11-15

More than 15

3. Period of employment in current position

0- 5

6-10

11-15

More than 15

4. Which department are you from ?

Production and operations

Sales and Distribution

Logistics

Other

THANK YOU FOR YOUR TIME

APPENDIX III

Questionnaire for Customers

My name is SPB05. I am a fourth year student studying for a Bachelor of Commerce Honors Degree in Marketing at Midlands State University. As per the requirements of the course, I am carrying out a research on *The evaluation of the effectiveness of the logistics system on company performance, a case of Grain Marketing Board*. I kindly request your cooperation in filling this questionnaire. All the information collected will be for academic purposes only and it will be confidential. Anonymity remains a valid point in this research.

Your assistance will be greatly appreciated.

Do not write your name on the questionnaire.

Please answer the following questions by ticking the box with an answer which most closely represents your opinion.

Section A

1) GMB has an efficient delivery system (no delays)

Strongly agree

Agree

Neutral

Disagree

Strongly disagree

2) Your repeat purchase is as a result of GMB's delivery system.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

3) If your response to question 2 above is disagree or strongly disagree please state why.

.....

.....

.....

.....

4) Have you ever experienced delays in delivery?

- Never
- Every time I place an order
- Sometimes

5) GMB always delivers the correct order quantity placed by customers.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

6) How do you perceive GMB service quality relative to its lead time in delivery?

- Very good
- Good
- Very poor
- Poor

7) Packaging of Silo products has positive impact on brand image?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

8) Newly introduced Silo packaging reduced the number of goods returned as breakages.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Section B: Demographic Information

1) Gender

- Male
- Female

2) For how long have you been doing business with GMB?

0- 5

6-10

11-15

More than 15

3) May you kindly specify your customer type.

End user

Trade customer

THANK YOU FOR YOUR TIME

APPENDIX 4

REQUEST FOR PERMISSION TO CARRY OUT A RESEARCH



P. Bag 9055

Gweru

10 March 2014

The Marketing Manager

GMB Head Office

Cnr Enterprise Rd & Samora Machel Ave

Harare

Dear Sir/Madam

REF: Application for permission to conduct a research at GMB Head Office

I am a fourth year student studying for a Bachelor of Commerce Marketing Management Honours Degree at Midlands State University. I am seeking your approval to carry out a research at your organization centered on the following topic, "Evaluation of the effectiveness of the logistics systems on company performance". All the information collected shall remain private and confidential and will be used only for academic purposes.

I would be grateful to be allowed to continue with my research.

Yours Faithfully

SPB 05