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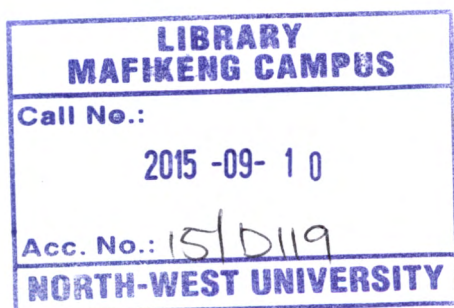
*Investigating supply chain and business strategy alignment in SABMiller; Kgalagadi
Breweries scenario*

Student name: Chandapiwa Leteane

Supervisor: Prof J Meyer

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degree of Master of Business Administration.

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Abstract

The aim of this study was to investigate supply chain and business strategy alignment in Kgalagadi Breweries Limited (KBL), a Botswana subsidiary of SABMiller. The existence of this company has recently been threatened by the introduction of the alcohol levy, reduced trading hours and a ban on alcohol advertising. These have also affected the competitive environment. Specific objectives of the study were to determine how supply chain and business objectives are ranked among KBL employees; to evaluate the criticality of supply chain processes in KBL to determine management focus areas within the entire spectrum of business; and to suggest ways to optimise the supply chain management tools in KBL.

A quantitative approach was adopted in this study of attitudes to internal factors within KBL, with data collected from KBL employees using a questionnaire. Alignment was investigated using three areas: objectives, processes and focus areas. Data from the questionnaires was analysed using the statistical tool SPSS.

The research findings have revealed that KBL supply chain and business objectives, and process and management focus areas are seen by employees to be generally in alignment. However, the researcher recommends that KBL should look at the areas which were rated as less important, and work on improving the ranking. In addition, there is need for workshops at KBL staff to ensure that all are familiar with supply chain principles and the company's needs.

In future, research could be conducted to understand the impact of external factors on alignment of supply chain and the business strategy as well.

Keywords; Alignment, Supply chain strategy, Business strategy, Competitive environment

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at North West University. It has not been submitted before for any degree or examination in any other University.

Chandapiwa Leteane

-----/-----/2014-----
Date

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CHAPTER 1 INTRODUCTION

1.1 Overview

This study focused on an investigation of supply chain and business strategy alignment in Kgalagadi Breweries Limited (KBL). Supply chain has been defined by Chaharsooghi and Heydari (2005, p.331); Borade and Bansod (2007, p.109) as processes that are involved in the procurement, production, distribution and delivery of a product to a customer. However this is not possible if supply chain is not informed by the business strategy.

KBL is a Botswana subsidiary of SABMiller, a beer and beverages company. Recently, the company has faced harsh economic conditions in its operations. This has forced KBL management to have a rethink on its business strategies with the aim of maintaining competitive advantage in the beer and beverages industry in Botswana and beyond. The local beer and beverages sector has been the most affected by these market forces because of additional punitive legislation from the Botswana government in the form of an alcohol levy. This levy was introduced in 2008 at a rate of 30%.

The government of Botswana offered alcohol abuse and health-related issues associated with alcohol consumption as reasons for the levy. The government's efforts to reduce alcohol consumption in Botswana have spurred a strong movement that is pushing for the ban of alcohol advertising and sponsorship and a reduction in trading hours of alcohol. Negative sentiments on alcohol consumption have also had a push-factor effect on the introduction of this alcohol levy, which now stands at 45%. Such sentiments include the belief that alcohol consumption is also contributing to the low pass rate in schools and general moral decadence in Botswana society (Mavolwane 2014).

For KBL, the alcohol levy has brought negative effects. Profits have plunged and the company has lost strategic direction, especially on finding the best options of dealing with the situation. The alcohol levy means alcohol is now more expensive than it used to be in Botswana. The reduction in trading hours also means that sales have been significantly reduced. The exposure of beer products has been reduced through the banning of alcohol advertising and sponsorship. This has led to a reduction of prospective customers and the market share of the local brew. Societal perceptions on alcohol consumption have also changed. This is because the issue of the banning of alcohol consumption is being promoted at government level from the central government down to the kgotla system where a consistent message on the negative effects of alcohol consumption has been given to the citizens of Botswana (MVA fund report 2006, p. 38).

SABMiller operated Kgalagadi Breweries Limited (KBL), trading as Sechaba Breweries Limited (SBL), continues to face both regulatory and economic challenges. Of late, the introduction of the alcohol levy, reduced liquor trading hours and the traditional beer regulations have impacted significantly on the profitability of the company. In addition to local pressures, the World Health Organisation (WHO) has embarked on an international campaign to ensure member countries comply with their strategy to reduce the harmful use of alcohol (World Health Organisation report on global strategy to reduce the harmful use of alcohol 2010, p.65). Botswana is possibly showing its compliance with these measures. These challenges, together with stiff competition from competitors, continue to affect KBL's trading environment negatively, hence the need for KBL to ensure that it aligns its supply chain strategy to its business strategy and that it maintains its competitiveness and profitability (Sechaba Brewery Holdings Limited annual report 2012, p15).

Mogapi (2009, p.1) states that morale amongst the workforce at KBL is at its lowest because of the current challenges the company is facing. Job cuts are threatening the existing workforce and the overall decline of Botswana's economy caused by the global financial crisis leaves these employees with nowhere to go if they lose their jobs.

Ambe and Badenhorst-Weiss (2010, p.2110) have revealed that the global financial crisis has changed the nature of business in the 21st century. Sanchez and Perez (2007, p.685) add that the market has become turbulent. This has led to an increased need for more competitive strategies to be developed in order to grow and sustain business. The new challenges call for the development of new strategies.

The need for alignment of supply chain strategy to business strategy for the sake of business competitiveness has been acknowledged by several authors (Hugo *et al.* 2004, p. 235; Lo and Power 2010, p. 453). Other authors have also warned of discontinuity in certain areas of supply chain and those of business strategy (Levy 1995, p. 123; Giunipero and Ketchen 2004, p. 331). In addition, Zhang and Cheng (2006, p. 562) have warned that companies find themselves in the midst of severe competition, inconsistent market demands and increasing consumer requirements, which have caused consumers to look at other available options in the market to meet their needs. This therefore means strategic decisions have to be made to develop the competitive supply chain that will look appealing to the eyes of the customer (Lee 2002, p. 145).

The market place of recent times has been defined by shorter product lifecycles, more competitive substitute products, and volatility in demand, which causes instability and uncertainty in demand forecasting (Christopher 2005, 896). This means companies have to look at their internal operations and how they can be internally executed together with the involvement of important stakeholders. It is envisaged that the current challenges at KBL may be tackled through a replacement or improvement of the supply

chain strategy in order to influence trading partners, and facilitate integration of internal physical processes and improvement of information flow through partners.

The principle of supply chain management (SCM) has been defined to explicitly recognise the strategic nature of coordination between trading partners and to explain the dual purpose of SCM. The latter includes improving departmental, organisational and the overall company supply chain performance (Li *et al.* 2006, p. 452). The relationships between a firm's business level strategy and its supply chain are complex. Understanding such a relationship allows companies to capitalise on the potential value that a supply chain can generate (Kohlberger *et al.* 2012, p.631). Therefore, the challenge is to achieve alignment of a cross-company supply chain (SC) strategy with the strategic intent of the businesses to create value and enable growth over the whole supply chain (Monahan and Nardone 2007, p. 31).

1.2 Problem statement

The Botswana government, just like other governments that have introduced the levy on alcoholic products, is benefiting significantly from this revenue. According to The Voice newspaper, the Assistant Minister of Presidential Affairs and Public Administration, Patrick Masimolole, when asked about it in Parliament, stated that the money collected from the alcohol levy for the 2010/2011 period amounted to 259 Million Pula. He claimed that the money would be used to fund poverty eradication projects and non-governmental organisations that would educate the nation on the harmful use of drugs and alcohol (Baaitse 2011). Although the levy finances important economic activities and non-governmental organisations (NGOs), this has not worked well for the company manufacturing alcohol, KBL. According to their financial results for the year ending 2009, their turnover reduced by 16%, profit after tax went down by 24% and the shareholders lost their dividends, which were reduced by 24 thebe (Sechaba Brewery Holdings Limited annual report 2010 p. 3).

KBL management should come up with viable options to strategically deal with challenges associated with the alcohol levy and the bad publicity the beer industry has been receiving of late. These challenges have resulted in profits and alcohol sales which are way below the pre-regulation levels. Supply chain related operations have been cited as some of the areas management could improve in order to turn around the fortunes of the company. Various options have been forwarded by researchers on how a supply chain can be manipulated for the overall benefit of the organisation's business strategy (Tokman *et al.* 2007, p. 56).

It is important for KBL to conduct a rapid assessment of supply chain performance with the aim of closing any gaps and loopholes in the supply chain. Such measures would contribute to the boosting of business efficiency through reduced delivery times and removal of bottlenecks in the supply chain. The supply chain may need to be redesigned in order to cater for the new challenges. For example, new network nodes in the supply chain may be added to increase delivery time and reduce stock-outs. Another area which KBL might need to consider is its reporting structure. Management reporting and organisational structure may need to be streamlined if the current structures impact on the supply chain (Ulaga 2008, p.21; Varadarajan 2009, p. 89).

Another challenge organisations face when mapping their supply chains to business strategies is the alignment of supply chain team skills with strategic objectives. A poorly designed alignment plan for the supply chain team will negatively affect the overall business strategy (Walters 2006, p. 356; Vargo and Lusch 2011, p. 225). Therefore KBL may in the future investigate the extent to which KBL management attaches value to the concept of equipping supply chain teams with the necessary skills so that they can help to transform the business strategy. In addition, they can also formulate of a detailed action plan of fusing the improved supply chain with the business strategy so that the company may achieve a competitive advantage.

1.3 Research objectives

The primary objective of this research is to determine if there is alignment between the supply chain and the business strategy of KBL. Sub-objectives include;

1. Determine how supply chain and business objectives are ranked among KBL employees
2. Evaluating the criticality of management tools in KBL in employees' opinion
3. Evaluating the criticality of supply chain processes in KBL in employees' opinion
4. Determining management focus areas within the entire spectrum of business
5. Determining the current status of supply chain and business strategies and to determine whether there is alignment between them.

1.4 Research questions

The research objectives will be best answered by looking at the following questions;

1. What are the employee perceptions at KBL with regard to the company's supply chain and business objectives?
2. How well can KBL optimise its management tools?
3. What supply chain processes should be prioritised?
4. Is management focused on the right areas?
5. What is the current status of supply chain and business strategies at KBL? Are they aligned?

1.5 Research methodology

In this research a quantitative research approach was used. A questionnaire was distributed to a broad spectrum of KBL employees to determine the importance of

objectives, processes and focus areas in the alignment of supply chain and the business strategy using a Likert scale. Information from questionnaires was captured on an Excel worksheet and later transferred to SPSS (version 20.0) for analysis. The analysis included the drawing of graphs and determination of correlation.

Research ethics such as reliability and validity were adhered to in order to ensure that the data collection, analysis and presentation were not significantly biased and causing results to be discredited.

1.6 Significance of the study

This research has both practical and theoretical significance. These include:

- From the research KBL should better understand its position with regard to supply chain and business strategies
- KBL can use the results to come up with action plans to close gaps identified
- The research methodology could be used by other researchers to assist other brewery institutions to understand their own supply chain objectives and whether they are aligned to their business strategies
- The information could then be used to improve brewery competitiveness.

1.7 Limitations of the study

The limitations of study look at issues of design or methodology that impacted or influenced the interpretation of the findings from your research.

A measure used to collect data which was in the form of a quantitative method using a questionnaire has limited the amount of data that could have been collected in this study. An additional qualitative approach in the form of interviews as was initially planned could have substantiated the data collected. Interviews could not be continued as they required time and availability of employees. Their availability was limited to the

fact that they are shift workers and the study was done during peak period when they are busy.

The sample size was another limitation. Although KBL has other branches throughout the country, the study was carried out in Gaborone only. This was to reduce financial constraints from the researcher. Finance that will be required to support her transport and accommodation costs.

Longitudinal effects in the form of study period meant that the study was confined to one year and all the stages were completed within this time. In addition the test used provided the results and the results were limited to the reliability of the test.

1.8 Delimitations of the study

The study was confined to the KBL offices headquarters in Broadhurst only. This helped the researcher to narrow down the focus of the study, since other KBL offices were excluded. The object was to improve the accuracy of the findings.

1.9 Chapter outline

The road to success for KBL is bumpy and rough. The government intentions of curbing alcohol consumption will in the long run affect the profitability of the company. This study aims to unpack this issue and to find lasting solutions for KBL to maintain its market position. This research is divided into six chapters. The entire study will be executed following the chapter outlines described below:

Table 1 Chapter outline

Chapter Number	Chapter Name	Description
1.	Introduction	This chapter focuses on background of the topic, problem statement, objectives, research questions, significance of the study and research methodology.
2.	Literature Review	This chapter focuses on theoretical definitions and concepts, framework of supply chain and business strategy and a critical analysis of the literature gathered by the researcher.
3.	Research Design and Methodology	This chapter focuses on analysis of how the blueprint of the entire research was compiled and applied to the current investigation. Research approaches, sampling, data collection, research instruments used, and methods of data analysis are covered, as well as issues of ethics, reliability and validity, and the elimination of bias.
4.	Presentation of Findings	A statistical package (SPSS version 20.0) was used to generate frequency tables and charts. The package was also used to extract the most significant variables of the study.
5.	Discussion of Findings	The major findings from chapter 4 are discussed. Links with data from literature review are made to check for conformity

		or disparities and reasons given for any variances in primary findings.
6.	Conclusions and Recommendations	The study finally draws up a list of conclusions followed by recommendations. The strengths and weaknesses of the study are also revealed. Areas of further study are also highlighted by the researcher, based on future opportunities such as time, funding and research interest.

1.10 Conclusion

This chapter focused on the introduction of the topic, background, problem statement, aims and objectives of the study, significance of the study, research methodology, limitations and delimitations of the study, and a chapter outline to define the rest of the study.

The next chapter, Chapter 2, focuses on literature review.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

This chapter focuses on the literature review of the study on the alignment of supply chain and business strategy at SABMiller Botswana. The specific objectives of the study are to determine how supply chain and business objectives are ranked among KBL employees; to evaluate the criticality of supply chain processes in KBL; to investigate the optimisation of supply chain management tools in KBL; and to determine management focus areas within the entire spectrum of business. Throughout this research, the researcher will investigate employee attitudes and look at how KBL could utilise supply chain principles and practices and how they can align them to the business strategy. This is aimed at assisting the company in dealing with the newly introduced alcohol levy and other challenges.

SABMiller is a multinational beverage company with its headquarters in London. It is the second largest brewing company in the world producing beer and soft drinks (SABMiller 2014). The company started operating in South Africa in the 1890s but has since grown to cover 6 continents and has revenue worth US\$23.2 billion as of 2013 (FTSE 2013). In Botswana, SABMiller is in a joint partnership with the government of Botswana through an acquisition of Kgalagadi Breweries Limited. The government owns 60% and SABMiller owns the remaining 40%. Furthermore, SABMiller has management rights at KBL (Sechaba Brewery Holdings Limited annual report 2013, p. 5).

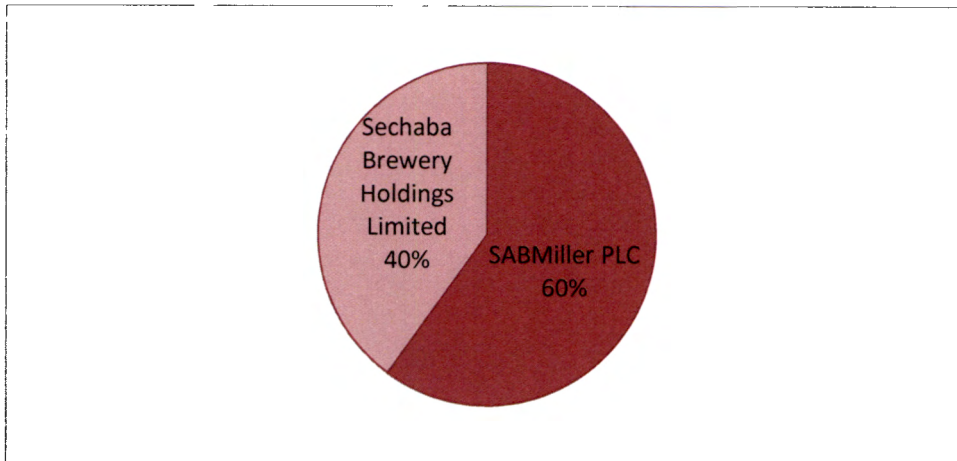


Figure 1: Sechaba shareholding (Sechaba Brewery Holdings Limited annual report 2013, p5).

KBL has vigorously contributed to the economy of Botswana as it has employed about 1000 people and sponsors a number of community projects country wide (Sechaba annual report 2014, p. 7). KBL's contribution to Botswana's economy is in line with Botswana's Vision2016 pillar which states that Botswana will be a prosperous, productive and innovative nation by 2016 (vision2016, 2014). KBL sponsors' innovativeness and productivity, contribute to the achievement of the pillar. Even though KBL initiatives benefit the country, the government has introduced stringent regulations that include the introduction of the alcohol levy and reduced trading hours, all aimed at minimising excessive use of alcohol. This has impacted on consumer spending. This means consumers are now forced to resort to other cheaper backyard alcohol. The latter can pose a health threat to the consumer, since its quality and safety is unconfirmed (Sechaba Brewery Holdings Limited annual report 2010, p.24). It has resulted in reduced volumes and profitability for the company. Given the current trading conditions discussed above, KBL has to come up with strategies to ensure that it is better positioned to compete and survive in this volatile and unpredictable business environment.

Botswana is not the only country that has these unfavourable trading conditions. Countries in the sub Saharan Africa region such as Tanzania, Zimbabwe, Zambia, Kenya and Namibia have similar conditions (Mavolwane 2014). Other regions such as Australia, United States of America and the European Union countries have governments benefiting from the introduction of alcohol taxes over time (Fogarty 2011). Since these conditions are new in Botswana's market, KBL could benchmark on how the alcohol industry has survived in other markets with similar conditions. According to Mmegi (2012) breweries have resorted to reducing operating costs, reducing the headcount (retrenchment) and closure of certain country operations. KBL has taken the same path, but it did not benefit significantly from such decisions. In the first year of the levy, 11 employees were retrenched (Mmegi 2009) and of late the Palapye KBL branch was closed (Mmegi 2013). This meant that businesses that made the brewery supply chain were indirectly or directly affected by the introduced levy. Although many solutions have been explored to remedy the alcohol beverages sales situation, proper supply chain management has proven to help the companies to survive even when the conditions were unfavourable. Having looked at the negative impact of the levy in the brewery operations and on profit margins, it is imperative that we look at previous work done in the area of alignment and this will be followed by a look at the key terms. Following this, the researcher will unpack the literature relating to this topic.

2.2 Previous work on alignment

The area of alignment has been studied significantly, with most studies checking for alignment of supply chain/business strategy with other strategies such as marketing, information systems and maintenance, just to name a few. In these studies, a beverage company has not previously been used as case study, hence this area has become of interest to the researcher. In the previous study, Sahay *et al.* (2006) studied the alignment of supply chain to the business strategy in Indian organisations. In their study, data was collected using questionnaires regarding three dimensions: objectives, processes and management focus areas. Their findings revealed that most of the Indian organisations have aligned their supply chain objectives with their business objectives. They now have to look at aligning their processes and management focus.

In this research, a similar approach will be taken to determine supply chain alignment to the business strategy at KBL.

In a study by carried out by Mateko (2010) to determine alignment between supply chain and maintenance strategy, the researcher has used questionnaires to collect information from different companies in South Africa. The author's findings reveal a strong correlation between the business strategy and maintenance strategy. Both Sahay and Mateko have used a similar method in collecting data, but the second author has introduced correlation to determine alignment. This approach was also used in this research work to determine alignment of supply chain to the business strategy.

Borella and Padula (2010) carried out a study to determine alignment between supply chain, manufacturing and distribution and the business strategy. The researcher used a *gestalt* and profile deviation to identify the relationship between the practices and the degree of alignment in the researched strategies. The findings included a high degree of alignment between the strategies. The approach taken by this researcher is different from that taken by the above mentioned authors. This shows that different authors have different ways of determining alignment; hence it generally up to the researcher to determine the method that is best suited for the research.

2.3 Understanding supply chain and business strategy

2.3.1 Supply chain

This study explores the possibility of using supply chain approach to survive in the market that has harsh conditions for sales of alcoholic beverages. Supply chain is a relatively new concept that started to be deliberated around 1999. Many authors have begun looking deeply into the concept (Qrunfleh 2010, p.8). Chaharsooghi and Heydari (2005, p.331) are amongst those authors; they have defined supply chain as consisting of all the processes involved in the procurement, production, distribution and delivery of a product to a customer. Borade and Bansod (2007, p.109) have however defined supply chain using the network principle. That is, it is the network of facilities and distribution channels that encompasses the procurement of materials, production,

assembly and delivery of product or service to the customer. The two authors do agree that supply chain starts with the procurement of inputs right up to the delivery of the product to the customer. Lau and Lee (2000, p.598) have brought in a new concept. They define supply chain as a set of functional entities or departments that are committed to ensuring that resources are present. In addition, these departments ensure that inputs are transformed into finished products that can be sold to the customer. All the above authors are in harmony in terms of the overall concept, which is that inputs have to convert into products that can be sold to the customer. These definitions are in line with the processes taking place at KBL. The company manufactures soft drinks and alcoholic products. Raw materials are sourced, procured, transformed, packaged and availed to the consumers in different parts of the country. Therefore, it is important that supply chain is well managed to reap its benefits, especially at times like these where gaining competitive advantage is of paramount importance.

2.3.2 Supply chain management (SCM)

SCM has been seen as an important aspect of many organisations. Organisations appreciate that an effective SCM is the key to building and sustaining competitive advantage, and for that reason, it is no different for KBL (Qrunfleh 2010). Companies in other parts of the world such as WalMart and Dell have proven that their success was largely through supply chain (Chopra and Meindel 2005). In addition, company managers at these leading retail companies are constantly looking for new and competitive ways to improve supply chain throughout its members (Cohen and Russel 2005, p.120). Al-Mudimigh *et al.* (2004, p.309) argue that supply chain management (SCM) oversees and optimises the processes of acquiring inputs from suppliers (purchasing), converting these inputs into a finished product (production), and delivering those products (outputs) to the customer. In essence, it is not sufficient to have a supply chain concept running in a company; it needs to be managed, but the management cannot be done without the presence of a supply chain strategy. That is where long term decisions are made about the future of supply chain: decisions aimed at ensuring that the company is sustainable.

2.3.3 What is a supply chain strategy?

According to Guinepero and Moncka (1997), a supply chain strategy is formulated in parallel with the business strategy. So the business strategy informs the supply chain objectives, processes and activities. Schnetzler *et al.* (2004, p.691) define a supply chain strategy as the decisions that are made to shape the long-term capabilities of the company's supply chain functions. These decisions are meant to contribute to the overall company strategy. This definition is in line with this research, which seeks to determine if there is supply chain and business strategy alignment. Questionnaires were given to KBL employees who rated the business and supply chain objectives, processes and management focus areas using a Likert scale. The aim is to ensure utilisation of supply chain by KBL to survive in the harsh trading environment. Such utilisation can be possible if the business strategy exists to inform the supply chain strategy. The business strategy needs to be properly formulated to be effective.

2.3.4 Business strategy

Every business is led and guided by the presence of a business strategy. The latter informs other strategies developed in the company. Chen and Curtis (2006, p. 25) and Hanson *et al.* (2008, p. 234) define business strategy as an integrated and coordinated set of commitments and actions between the firm and the customer. However, Chen and Curtis (2006) adds that if business strategy exists, management will ensure that there is capability in the form of competency to achieve this high level objective.

Comparing the two strategies in question, one can state that business strategy constitutes the overall direction of the business, while supply chain strategy deals with the actual operations and the processes of supply chain such as procurement, demand forecasting and supplier relations (Cheng and Curtis 2006).

Business strategies are formulated to determine the way in which the organisations can move from their present competitive position to a newer and a stronger one. The

relationship between a firm's business level strategy and its supply chain are complex. Understanding such a relationship enables firms to maximise the potential value that a supply chain can generate. Supply chain objectives are derived from the business objectives (Gattorna, 1998).

2.4 Supply chain processes and critical areas

Supply chain processes are best explained in the Global Supply Chain Forum (GSCF) model. The forum has provided their own definition of SCM that is suited to their model. The definition stresses the integration of key business processes from the end user to suppliers of products, service and information with the aim of adding value to customers and other stakeholders (Lambert *et al.*, 1998). Their definition is in line with the definition given by Qrunfleh (2010, p.8) and Chaharsooghi and Heydari (2005, p.331) as stated in the previous section regarding SCM. The GSCF model has eight key business processes and these are: customer relationship management, customer service management, demand management, order fulfilment, manufacturing flow management, supplier relationship management, product development and commercialisation and return management (Cooper *et al.* 1997). The model follows in figure 2.

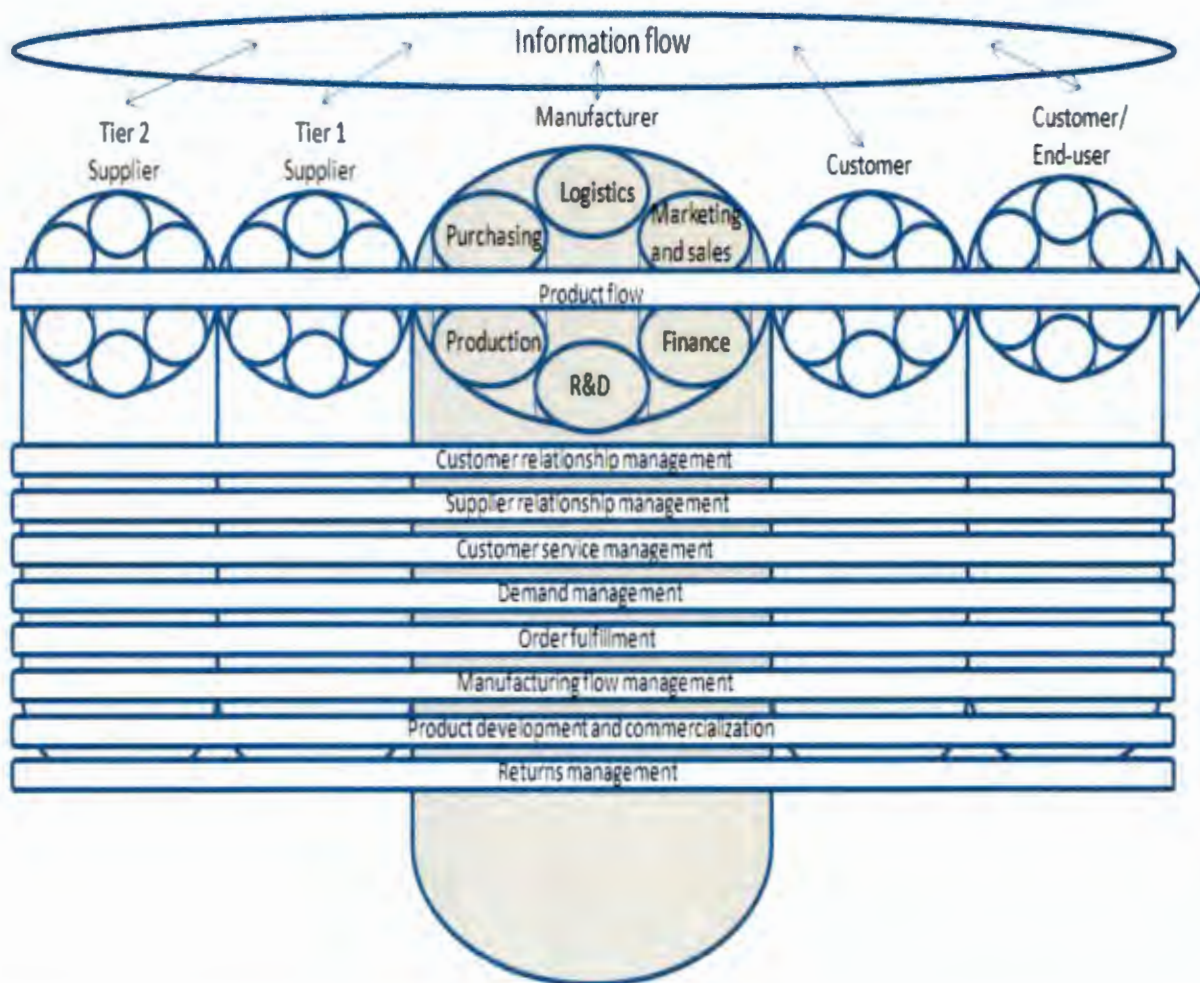


Figure 2: The supply chain model according to GSCF (Croxtan *et al.* 2001, p.53)

2.4.1 Eight key business processes

The GSCF framework stresses the importance of utilising a process focus, where all functions that touch a product, or are involved in its service delivery, must work together. Therefore, it is of paramount importance that close relationships be continually developed and maintained with key customers and suppliers. However, for these relationships to be maintained there has to be full understanding of the eight business processes (Croxtan *et al.* 2001). A thorough discussion of these processes follows below.

The key process area, customer relationship management, looks at the structures that can be put in place to ensure that relationships are developed and maintained with

customers. Such a structure involves management's understanding of the different customers according to their importance to the company. A Product Service Agreement (PSA) is drawn up with the effort of meeting their needs by eliminating demand variability and unnecessary processes that do not add value to the client (Croxtan *et al.* 2001). The customer relationship management function of the GSCF model can be used by KBL to scan the customer environment with the intention of assessing customer needs and how such needs can add value to KBL. A customer relationship will not last long if there is no customer service management.

The customer service management process can grow or destroy a company. It is the firm's face to the customer (Croxtan *et al.* 2001). Customers are furnished information pertaining to product mix, availability, functionality, shipping dates and order status. Real-time information is provided to the customer through interfaces with the firm's functions, such as manufacturing and logistics. Customer service management is responsible for administering the PSA that would have been formulated to manage customer relations (Bolumole *et al.* 2003).

The demand management process is equally important to both the customer and the company. It is concerned with ensuring that the needs of the customers are matched with the company's capabilities. The company's forecasting department synchronises issues pertaining to production capacity and procurement of required materials to be able to deliver the product required and the distribution of the finished product so that it can reach the customer within a reduced time. The forecasting section also comes up with contingency plans to mitigate for process interruptions to prevent demand variability and increase flexibility (Croxtan *et al.* 2002 and Lambert, 2008). KBL needs to look at the demand management section and evaluate its effectiveness in translating customer demands. In addition, they need to incorporate the customer relationship concept discussed above to ensure that there is effective communication with customers.

Order fulfilment is an important aspect in a supply chain. It involves the three key departments: production, logistics and marketing, with the intention of defining and understanding customer requirements, organising logistics and processing the order (Croxtan *et al.* 2001 and Lambert, 2008). Again, it is critical that the departments tasked with this role are integrated in KBL to prevent any delays in order processing and causing customers to divert to competitors. The above mentioned process could benefit KBL and their customers if the manufacturing process is taken heed of at KBL. Manufacturing flow process is critical as it ensures that processes are in place to manage the activities and processes that the product goes through in the plant and between plants. It seeks to establish manufacturing flexibility in order to serve the target market (Croxtan *et al.* 2001 and Lambert, 2008).

Supplier relationship management looks at the company's interaction with its suppliers. The company looks at ways it can build and maintain relationships with suppliers by segmenting them according to their importance to the mandate of the company. A PSA agreement is signed with the suppliers to ensure that the terms of the contract are adhered to (Rogers *et al.* 2004).

The next process, product development and commercialisation, looks at ways to ensure the company is successful in the trading arena by ensuring that there is continued development of new products to meet customer demands and to deter competition. All stakeholders, suppliers and customers, are involved in the development process in order to reduce product launch time and time to market (Rogers *et al.* 2004). In this way, KBL could engage in research in development of products that are best suited for Botswana's environment. They could do so through utilisation of their marketing department or through collaboration with the local university.

Customers' queries are dealt with by the returns management. It is critical in an organisation's success, since it allows the company to identify areas of concern within the production process and to rectify those (Rogers *et al.* 2002).

The GSCF model is an ideal starting point in KBL's attempts to align its supply chain and business strategy. Several challenges exist in KBL's quest to achieve its objectives. If the eight process areas are utilised well, they could result in significant changes to KBL's profitability.

2.5 Supply chain management tools

Supply chain management looks at the tools that a company can employ to optimise its supply chain. According to Burgess (1994), these tools include the following: Just-in-time, virtual inventory, supplier rationalisation, and reductions in the number of distribution facilities. Other tools are of strategic approach: Business Technology Management and Business Process Re-engineering (BRP). In addition, these tools have been linked to the lean model that is aimed at reducing waste within the overall supply chain. The utilisation of supply management tools with the right supply chain tools can bring remarkable results to a business entity. In the next section, we look at the supply chain strategy and business strategy and how they can be aligned, together with the challenges that can hinder the alignment.

2.6 Supply chain and business strategy alignment

Guinepero and Moncka (1997) have an interesting view: that for the company to be competitive, supply chain strategy has to be formulated and implemented in parallel with the business strategy. Sahay *et al.* (2006) have however proved in their study that the strategies need not be in parallel as long as they are aligned, as demonstrated in their three- pronged model. That includes gelling together objectives, processes and focus areas. In their argument, decisions made in one area of the business affect the other area.

Hugo *et al.* (2004) and Lo and Power, (2010) have written that the need for alignment has been largely due to the shift in the traditional way of doing business to more

sophisticated methods and global competitiveness. The world has become a global village. Cohen and Rousell (2005) claim that an aligned supply chain strategy brings about innovation, low cost, and better service and quality, which benefit the company and their clientele, making the company competitive in the global village. Therefore, KBL can look forward to improved customer satisfaction should it be able to implement supply chain well. The implementation and ability to align is enabled by inter-firm coordination and appreciation of each other's role and contribution in ensuring that the business remains viable. This is consistent with the discovery made by Nath and Sudharshan (1994) that strategic alignment is achieved if all departmental strategies are in harmony with the business strategy. Although this study is centred around alignment of business and supply chain strategy, possible future work could look at the alignment in other functional units.

2.7 Challenges to achieving supply chain alignment to business strategy

Supply chain includes internal and external stakeholders ((Monahan and Nardone 2007). In the quest to achieve alignment, all the strategic partners have to be included. Cohen and Roussel, (2005) claim that this is normally not an easy process to accomplish since your business strategy has to be aligned to that of your trading partners. KBL could, in its quest for alignment, involve its stakeholders so that a consensus decision is made that will benefit all parties.

2.8 Conclusion

This study focuses on the investigation of supply chain and business strategy alignment in SABMiller, with Kgalagadi Breweries Limited (KBL) as the case study. The literature gathered included the challenges KBL is facing, such as the imposition of the alcohol levy which resulted in a higher selling price of beer and loss of business to competitors who bring cheaper imported beer to Botswana. Trading hours were also reduced as a result of additional clauses in the alcohol levy. Many beer outlets closed shop as a result of loss in revenue and non-renewal of trading licenses. All these factors resulted in the need for KBL management to think about ways to increase supply and access to

their customers and realign their supply chain with their strategic objectives with the aim to continually make profit. Hence the need to carry out research to help the only country brewery to survive harsh trading environment.

The literature indicates that a redesign of supply networks and more efficient fleet management could be possible starting points for KBL in realising its wider strategic objective of regaining the lost market and increasing sales revenue in order to stay competitive. The redesign of the supply network and the coordination of transportation have the potential to achieve the best mix of responsiveness and efficiency for the market being served. Researchers' observations that supply chain management can help an organisation to realise benefits for the company's strategic objectives can be equally applied to the KBL scenario.

Typical models such as the Global Supply Chain Forum Model (GSCF) have been identified as possible strategies which KBL can map to its internal processes with the aim of adding value to customers and other critical stakeholders. The key processes defined by the GSCF model are essential to the propulsion of the business strategy towards the desired goals.

The next chapter, Chapter 3, focuses on Research Design and Methodology.

CHAPTER 3 METHODOLOGY

3.1 Introduction

Chapter 2 presented the literature review of this study, which was used to gather secondary data on the investigation of supply chain and business strategy alignment in SABMiller, using Kgalagadi Breweries in Botswana as a case study. This chapter will present the research design and methodology, the sampling procedures adopted, the data collection instrument and methods of analysis. Finally, issues of reliability and validity are discussed, in addition to research ethics.

The research methodology and research measures adopted were developed by Sahay *et al.* (2006) when they determined supply chain and business strategy alignment for organisations in India. In their study, companies from different sectors of the economy took part, with only finance directors and managing directors completing the questionnaires. In this case, the methodology has been amended to suit a single company, which is KBL, operating at national level in Botswana. The amendment involved the use of only the Gaborone based staff; all of them instead of using only finance and managing directors. The structure of the company consists of employees at shop floor level and operational and management level. Employees who took part in the study included management (employees at management level) and non-management (employees at operational and shop floor level). They represented a broader cross-section of the company.

3.2. Research design

In this research, a quantitative method was used to collect and analyse data during research (Tashakkori and Teddlie 2003, p.36). Saunders *et al.* (2009, p.56) define quantitative method as a data collection and analysis tool that utilises numerical values. The information was later captured on the statistical tool, SPSS, for analysis.

3.2.1 Advantages of questionnaires

The following are the advantages of using a questionnaire in this study (Kasi 2009):

1. The results of a questionnaire can easily be quantified and analysed using appropriate software.
2. A large amount of information can be gathered in a relatively short period of time. This benefits the study in the sense that travelling expenses will be reduced and follow ups are minimised.
3. Anyone can administer the questionnaires and this does not impact on validity and reliability. Other methods such as interviews would need trained personnel in order to maintain some degree of validity and reliability.
4. The results of a questionnaire can be analysed more objectively and scientifically than other forms of data collection such as interviews and focus groups.
5. Questionnaires generate quantitative data which can easily be used to test or analyse research hypotheses.

3.2.2 Disadvantages of questionnaires

The following are the disadvantages of using a questionnaire in this study (Cresswell 2008):

1. It is not easy to gather and analyse some forms of data using a questionnaire, for example emotions, gestures and feelings.
2. There is no way of verifying how truthful the respondent is giving responses. It is also possible that a respondent can give the questionnaire to a third party to answer on his/her behalf.
3. Respondents do not have the opportunity to seek clarifications on questions they do not understand since the researcher will not be there.
4. There is a problem of researcher imposition in the sense that the researcher selects which questions are listed in the questionnaire and which ones are left out and some important information may be lost as a result.

In a quantitative study, researchers may use questionnaires using a Likert scale wherein respondents answer by ranking a particular question. A similar technique was used in this study to determine alignment of supply chain to the business strategy in KBL. A questionnaire covering supply chain and business principles was issued to KBL employees to rate their supply chain and business strategy objectives, processes and focus areas.

3.3 Target Population

The target population consisted of all management and non-management employees at KBL in Gaborone City.

KBL Gaborone has a head count of 400 employees of which 50 are managers and 350 are non-managers. To represent the population of study, from the management side (management group) all 50 were invited. This was to ensure that the views given accurately represented views of KBL management as far as possible. Ultimately, 11 managers responded. 22 per cent was a reasonable number of views representing management of KBL.

On the non-management side, all 350 employees from the group were taken as a part of the population of study. Of the 350 employees in the group, 200 responded. This formed 57% of the entire non-management staff, which is a majority representation of non-management employees. Together, the groups represented a broad spectrum of employees at KBL.

3.3.1 Sampling

Sampling, as defined by Cohen *et al.* (2007, p158), is a process used in statistical data analysis where a predetermined number of observations will be extracted from a larger population. The method used to sample from a larger population will depend on the type

of analysis being performed, but will include simple random sampling, systematic sampling and observational sampling. The sample should be a representation of the general population. A population of 400 employees based in Gaborone was used in this study. The researcher works in Gaborone therefore it was convenient for her to distribute questionnaires in Gaborone. All members of staff were issued with questionnaires from different collection points. This is because within KBL, the different departments are not in a single area. The study sample which was used in this study is given in Table 2 below:

Table 2: Study Sample

Participants	Total in Population
Management staff	50
Non-management staff	350
Total	400

3.3.2 Respondents

Respondents were all KBL employees based in Gaborone and they consisted of employees from different departments. They also varied in the positions they hold within the company. These included all, from shop floor to directors. Most of those in management group were degree holders, some with post graduate qualifications. The non-management group have at least to be qualified with secondary school qualification to university degrees.

3.3.3 Procedure

The researcher ensured that the questions asked in the questionnaire were understood as far as possible by all respondents. The researcher took at least a few minutes explaining all the questions to each and every employee who took part. Some did not understand some English words and verbal words translation was done to them.

Consultation with management was done so that every employee could be given 30 minutes to complete the questionnaire at different times during working hours.

Respondents filled the questionnaires in and handed them back to the researcher's office, which is also at KBL. Those who have access to email had an extra option of emailing the questionnaire back to the researcher. In addition, respondents could give the questionnaires back to the staff at the company cafeteria for their convenience. Respondents were regularly reminded of the questionnaire at the lunch gatherings in the cafeteria where all KBL staff have lunch.

3.4 Structured questionnaire

The study questionnaire was designed using guidelines proposed and utilised by Sahay *et al.* 2006. The researcher in this study organised the questionnaire in a way that suited the research at hand. A questionnaire was divided into 5 parts. Part 1 was optional and was intended at obtaining personal information about the respondent. (See Appendix 1)

Part 2 looked at getting to know the respondent and gaining an understanding of the group that took part in the data collection. Information such as gender, length of service, position held and age was required by the researcher to be able to determine whether to assist in completing the questionnaire. The researchers had to gather employees in groups beforehand and explain to them most aspects of the questionnaire. This was the case with those who had not done a business related course or had below technical trade qualification. However, even some at management level did require clarity on certain aspects of the questionnaire.

Part 3 looked at business versus supply chain objectives and how critical they are to the organisation in the respondents' view. Respondents were asked to rank 6 business

objectives according to their criticality to the business. The objectives investigated were as follows; customer satisfactions, profit maximisation, increase in turn over increase in return on investment and earnings per share and delivering the highest value to shareholders. These were compared to a set of 18 supply chain objectives: having products in stock, broader product line offering, expanding distribution, reducing supplier base, reducing warehouse cost, innovating new products and service, flexibility of product mix, reducing transportation costs, flexibility in production time, reducing lead time, lowest product cost, improving on time delivery, best product performance, reducing inventory costs, expanding sales revenue, high product reliability and again enhancing customer satisfaction.

Part 4 looked at the alignment of management tools to the supply chain processes; do they support each other? Part 5 looked at the areas of focus from top management versus the time allocated to critical supply chain areas.

3.4.1 Administration of the questionnaire

Research questionnaires were delivered directly to the individual employees while some questionnaires were sent through email. The questionnaires were to be answered by marking with an X on the spaces provided and thereafter, returned to the researcher via mail or by hand at the different collection points. Respondents, who preferred to use-mail and hand questions, sent their questions via mail. Feedback to their queries would as well be returned via e-mail.

However, emails had the lowest response rates. This prompted the printing out of all questionnaires and hand delivery to all the employees who did not respond through mail. At a time of handing the questionnaire to each respondent, the researcher introduced the questionnaire by fully explaining the intention of the research, why it was being done and the importance of the contribution of the respondents. Thereafter, some

respondents particularly those who needed help were taken through the different parts to assist in completing the questionnaires accurately and to minimise the number of wrongly filled and damaged questionnaires. This addressed any uncertainties that the respondents had about the questions asked.

3.5 Data collection and analysis

Data from questionnaires was processed and analysed using a statistical analysis package, SPSS (version 20.0). 226 questionnaires were collected from respondents from the following departments: manufacturing, finance, human resources, sales and marketing and supply chain. However, 15 of the 226 questionnaires were nullified for the following reasons; incompleteness of certain sections and ranking of the same question twice.

An Excel spreadsheet was opened to capture information from each of the sections to facilitate the data cleaning before it was exported to SPSS for the data analysis of each section to be discussed. Section 2 required the respondent to provide information about themselves, such as the respondent's age, gender, educational background, length of service, position (management or non-management). Thereafter, the number of respondents per group was determined. Refer to section 4.1.

In part 3, the researcher's aim was to extract information about respondents' ranking of supply and business objectives. This was to determine the critical objectives from both the supply chain and the business side. The objective could only be considered critical once it had been captured and an average determined. The average results of each question were then graphed using a bar graph in descending order. The averages were further taken through an analytical route; cross tabulations were then placed in a contingency table where the objectives were grouped into three sections: customer satisfaction, profit maximisation and operational excellence. Different elements of the supply chain and business objectives would fit into one of those sections. The

averages in each of the three sections would then be used to determine alignment through the use of correlation analysis.

Similarly, part 4 and 5 were processed and analysed using similar guideline to part 3. Again, the aim was to determine whether supply chain processes complemented business management tools and in that way to determine if there was alignment. For part 5, the aim was to determine if the supply chain critical areas were areas that management is also focusing on. The next section discusses validity and reliability.

3.6 Validity and Reliability

In this research, the researcher ensured that the results obtained were valid and reliable. Validity refers to the degree to which a study accurately reflects or assesses the specific concept that the researcher is attempting to measure (Cooper and Schindler 2006). In an attempt to be valid and reliable, the researcher had used a tried and tested research instrument, that which was used by Sahay *et al.* (2006) to measure alignment between supply chain and the business strategy in Indian organisations.

3.7 Elimination of Bias

The researcher considers bias as unethical and has avoided it since the onset of this research. Simundic (2012) describes bias as the researcher's inability to collect data, interpret and publish research in a transparent and accurate manner. That is why the researcher has complied with the rules governing bias more so that the information involves a multimillion company that can sue for defamation of character. This was done by excluding company management from the running of the research hence they could not influence the results in any way (Simundic 2012 pp.11).

Bias could enter before or during data collection, especially when deciding on the sample population. Researchers can nominate a certain population because they know

they will give them certain results; that is, selection bias (Parajes 2007). The researcher in this case avoided that by issuing questionnaire to all employees of KBL.

Researchers could act on bias during data analysis by reporting non-existing experiments, eliminating certain data points, use of inappropriate statistical tools. The results obtained would then give conclusions favouring the researcher's hypothesis (Simundic 2012 pp. 13). That was avoided in this research through the removal of spoilt questionnaires and the use of an objective statistical tool, SPSS.

Bias can also occur during data interpretation. Researchers tend to stick to the direction that they want their research to take (Sekaran and Bougie 2010). To avoid this, the researcher used a recognised statistical tool such as correlation coefficients, mean and cross tabulations to interpret data.

3.8 Ethical considerations

The researcher in this study has complied with research ethics guidelines. Ethics are moral principles that control and influence a person's behaviour (Bosede 2010, p50). They are connected to beliefs and principles of what is wrong or right. The subsequent sections will be used show how the researcher complied with research ethics guidelines.

3.8.1 Ensuring that participants are given informed consent forms

The research instrument was distributed to participants with a consent form to complete (part 1 of the questionnaire, refer to Appendix 1) before they could take part. The consent form allowed the participants either to confirm or reject participation. The instrument also had a covering letter explaining the purpose of the study and the role of the participants. It included assurance from the researcher regarding confidentiality, privacy and their right to withdraw from the study at any point.

3.8.2 Ensuring confidentiality and anonymity

Respondents were not required to fill in their names on the questionnaires. The questionnaires were given serial numbers which were not connected to the respondents. The questionnaires were also kept secure throughout the research.

3.8.3 Ensuring that permission is obtained from KBL

The researcher sought permission from KBL Corporate Affairs department in order for the research to be conducted at the KBL premises. Permission was awarded to the researcher.

3.9 Conclusion

This chapter discussed the quantitative research design and methodology of this particular study. It dealt with issues around the population used, research instrument (questionnaire) and its justification. It also discussed issues of validity and reliability together with bias. The next chapter, Chapter 4, focuses on results of the study's findings.

CHAPTER 4 RESULTS

The aim of this research was to investigate alignment in supply chain and business strategy in Kgalagadi Breweries Limited. Specific objectives of the study were to determine how supply chain and business objectives are ranked among KBL employees; to evaluate perceptions of the criticality of supply chain processes in KBL; to optimise the supply chain management tools in KBL; and to determine management focus areas within the entire spectrum of business.

The results for each objective are displayed in the form of graphs depicting the mean of responses received. These are then followed by a table showing the correlation coefficient calculations to determine if there is relationship between the variables under study.

The results of each area will be discussed below while a detailed analysis will follow in chapter 5.

4.1 Sample size and responses received

A total number of 226 completed questionnaires were received with 15 questionnaires disqualified because they were either incomplete or the same question was marked more than once. According to table 3 below, 21% of employees did not take part in the study while 79% took part.

Table 3: The total number and percentage of participants

Participants	Actual number of participants given questionnaires	Actual number of respondents	Percentage of respondents
Management staff	50	11	22
Non-management staff	350	200	57
Total	400	211	79

The sample further consisted of 25%female and 75% male staff as displayed in the pie chart below;

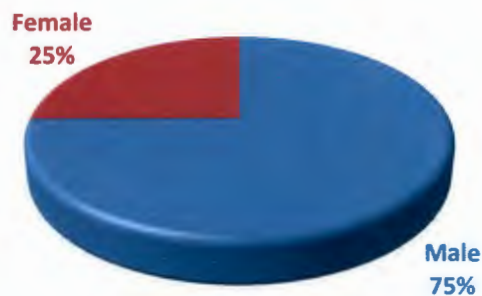


Figure 3: Gender based responses received

The figure above shows that there are more male staff at KBL Gaborone. This may be because of the nature of jobs that employees are required to do, which are relatively manual.

Majority of the respondents fell in the 31-40 years age group, followed by the 40-50 years group and lastly 21-30 years; 42%, 33% and 25% respectively. The age groups of under 21 years and over 50 years were unrepresented; no staff members of those ages took part in this exercise.

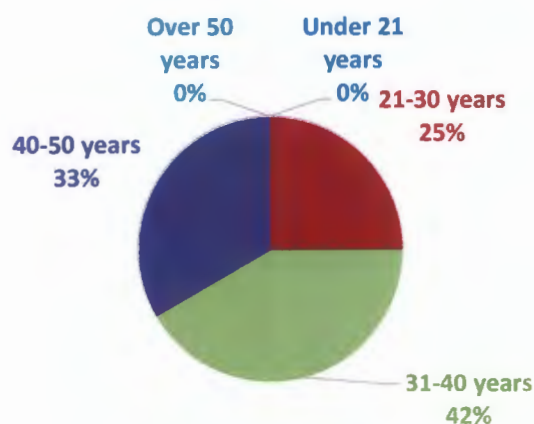


Figure 4: Respondents' ages

The respondents' work experience and education background were critical in this study. Gaborone staff was used and of the 400 employees, 8% had under 2 years' work experience, 175 had 2-4 years, 8% had 4-6 years. 25% had 6-8 years and lastly 425 had over 9 years' work experience. This is shown in figure 5 below.

Figure 5 also contains information on the respondents' educational backgrounds. Majority of the respondents fell in the group of having some schooling or less, followed by three other school qualification; undergraduate, technical and O-level. The postgraduate qualification had no representation.

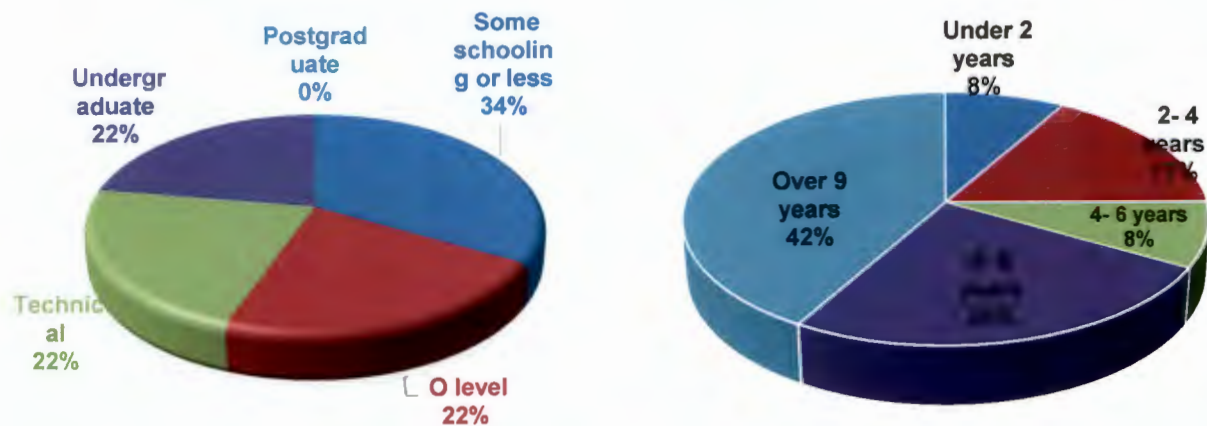


Figure 5: Respondents' education qualification and work experience

4.2 Alignment of objectives

This section briefly looks at the findings of the study and discusses each objective's results as follows:

4.2.1 Objective 1 (a): To determine how business objectives are ranked among KBL employees

The following business objectives were measured using a 5 point Likert scale: increase in earnings per share, turnover and return on investment, maximisation of profits and customer satisfaction. In the scale, 1 meant that the indicator was not critical for the success of the business and 5 meant the indicator was critical for the success of the business in the respondent's view.

KBL employees ranked increasing turnover (sales) as the most critical objective at 4.72. This was followed by customer satisfaction and profits maximisation, both at 4.63. Return on investment and delivering highest value to shareholder: both scored above 4, with increasing earnings per share scoring below 4 at 3.9. The difference between the highest and lowest ranking objective is 0.82. This means KBL employees both non-management and management alike, own, understand and rank highly their business objectives. The results are shown in figure 6.

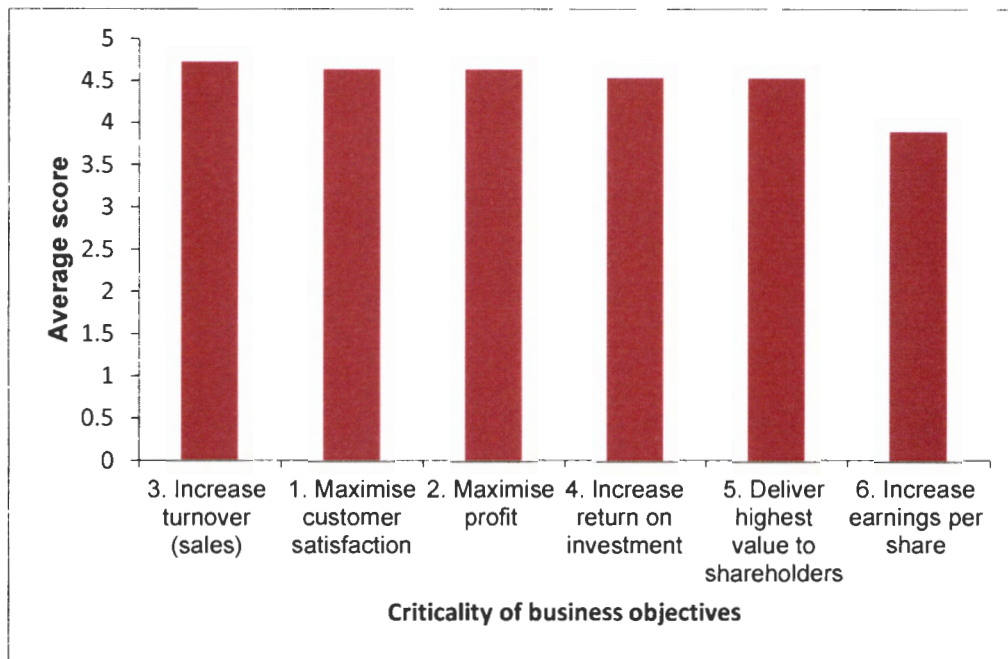


Figure 6: The results for the business objectives survey

4.2.2 Objective 1 (b): To determine how supply chain objectives are ranked among KBL employees

Eighteen supply chain objectives were investigated for alignment to business objectives and the results are shown in figure 6. Having products in stock was considered the most important objective, scoring 4.7. It was closely followed by customer satisfaction at 4.45 and expanding sales revenue at 4.27. Botswana's beverage industry is highly competitive and KBL understands that their products can be substituted by other products available at the time of need. Therefore it is critical that they are available at all times, satisfying the customers' needs, while at the same time increasing sales volume and revenue. Reducing transport costs, product performance, reducing lead time and reducing inventory costs all scored above 4 while the remaining objectives scored below 4 but above 3. These findings are shown in Figure7 below.

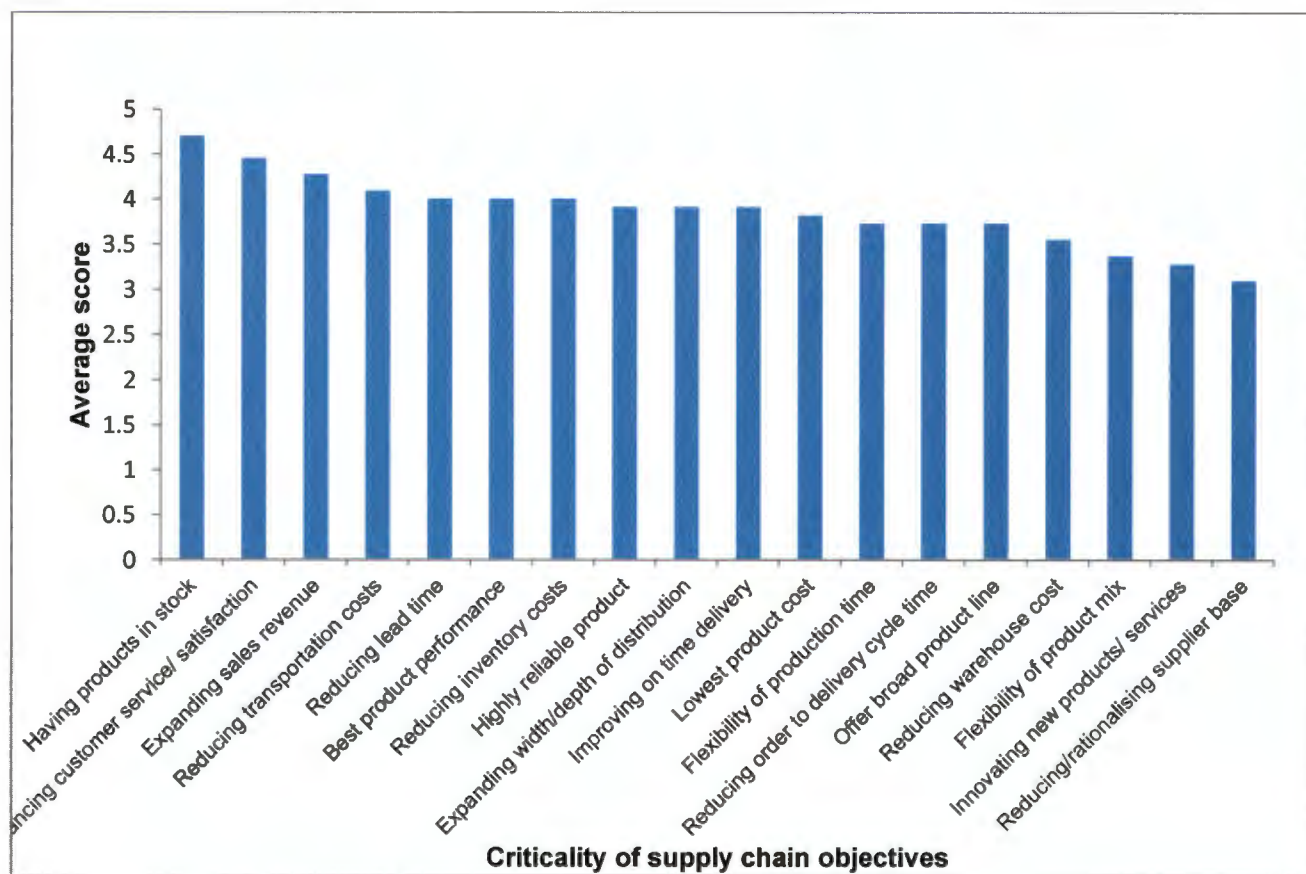


Figure 7: The results for the supply chain objectives

4.2.3 Correlation

A correlation approach was used to determine if there is alignment between business and supply chain objectives. The results are depicted in table 4 and 5. A regression value of 0.628 and a Spearman's correlation value of 0.940 was obtained. The correlation value is a positive correlation. This means that when the business objectives increase, supply chain objectives increase. So emphasis on business objectives trickles down to supply chain objectives.

Table 4:Case Processing Summary; objectives

Cases					
Valid		Missing		Total	
N	Percent	N	Percent	N	Percent

Table 5: Symmetric measures; objectives

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Interval by Interval	Pearson's R	.628	.119	1.613	.182 ^c
Ordinal by Ordinal	Spearman Correlation	.940	.047	5.531	.005 ^c
N of Valid Cases		6			

VAR00001 * VAR00002	6	33.3%	12	66.7%	18	100.0%
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4.2.4 Objective 2: To evaluate the criticality of management tools and use

The alignment of business processes was investigated by determining the criticality and use of selected management tools within the organisation. The results are shown in figure 4. The respondents have rated total quality management (TQM) and activity based costing (ABC) as the most critical management tools. KBL understands that quality differentiates the company from its competitors and positions a company well in the market. It is also critical that all the activities within the organisation are costed to prevent issues of waste that could cripple the business. The duo were closely followed by total productive maintenance (TPM), use of computer aided design (CAD) and Just in time; 4.3, 4.2 and 4.1 respectively. The three outlined above are important to an organisation where production is continuous. Machinery has to be available when required, plant designs should be available to allow for plant modification while, Just in time assists in increasing plant efficiency. Process re-engineering and supply chain optimisations were rated above 4 while the remaining processes were rated below 4.

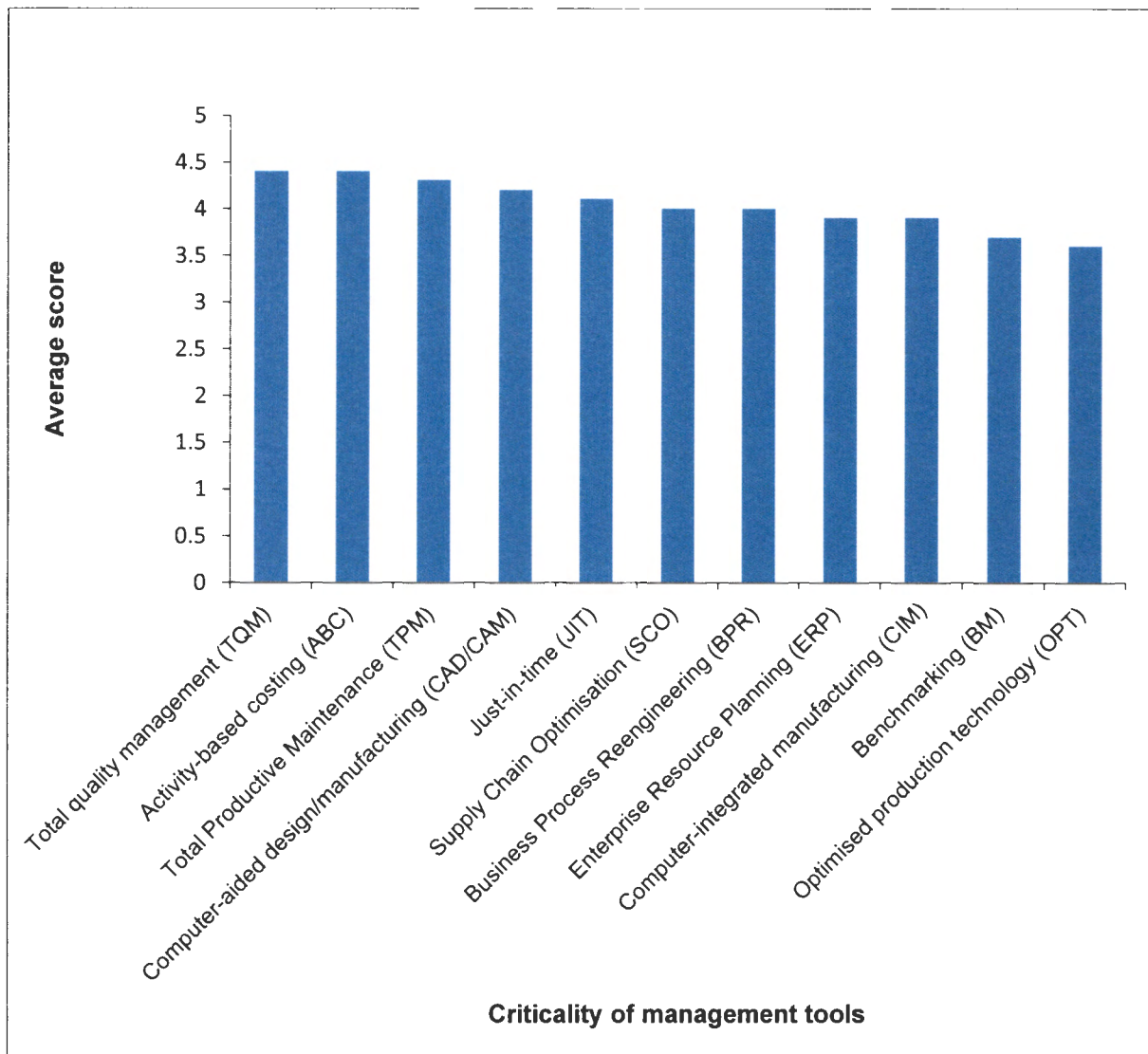


Figure 8: Criticality and use of management tools

4.2.5 Objective 3: To evaluate the criticality of supply chain processes

Eleven supply chain processes were assessed for alignment to the management tools. Demand management was ranked critical at 4.6, followed by manufacturing at 4.5 and customer service at 4.4. This is a clear indication that you have to know the market demand before you manufacture and attempt to satisfy the customer's needs. Order fulfilment scored above 4, while the remaining processes scored below in 4. The results are shown in figure 9

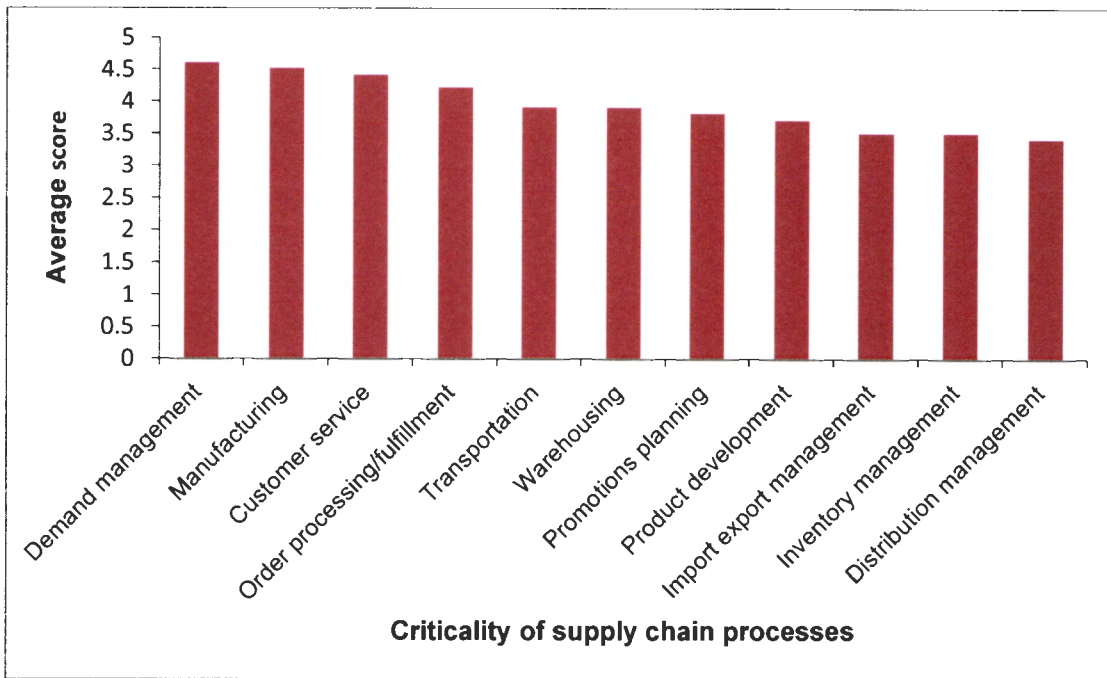


Figure 9: Criticality of supply chain processes

4.2.6 Correlation

Similarly a correlation method was used to determine if there is alignment in terms of processes. A Pearson regression of 0.967 and a Spearman's correlation of 0.984 was calculated. 0.984 shows a positive correlation.

Table 6: Case Processing Summary; processes

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
VAR00001 * VAR00002	11	61.1%	7	38.9%	18	100.0%

Table 7: Symmetric measures; processes

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Interval by Interval	Pearson's R	.967	.014	11.396	.000 ^c
Ordinal by Ordinal	Spearman Correlation	.984	.011	16.521	.000 ^c
N of Valid Cases		11			

4.2.7 Objective 4 (a): To determine management focus areas within the entire spectrum of business

This section had 6 areas. Respondents had to decide which areas management is focusing on, those that would drive the future of the company in the short and long term. Similarly, a 5 point Likert scale was used to determine management focus areas. 1 meant not critical and 5 meant critical to the organisation according to respondents. The results are shown in figure 10.

Growth in market share was ranked critical at 4.8, followed by cost reduction at 4.7 and customer centricity and digitisation sharing the score of 4.4. The remaining areas: new product development and productivity enhancement both scored above 4. A score above 4 for all the focus areas means that respondents considered all 6 areas to be important to the company's success in this competitive market.



Figure 10: Focus of top management

4.2.8 Objective 4 (b): To investigate the time spent on supply chain critical areas
 Order fulfilment and quality have gone neck and neck to produce a score of 4.4. These are closely followed by demand forecasting on a par with distribution. These results illustrate the emphasis the company places on quality of its product and service. Orders are done on time to satisfy the customers' requirements. They manufacture according to customers' demands and ensure efficient distribution of their products. The results are shown in the figure below.

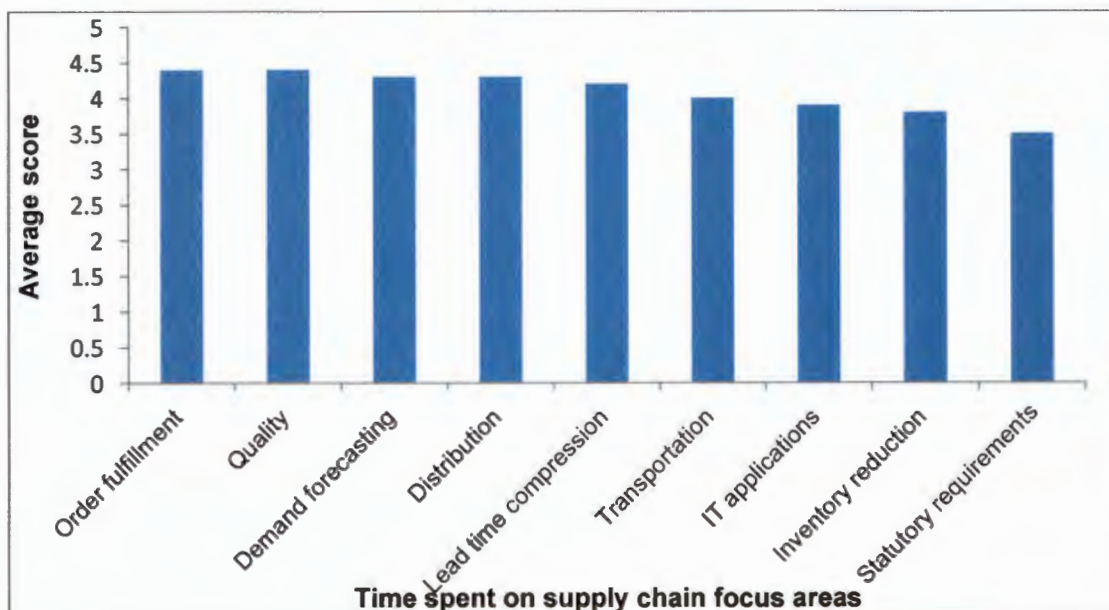


Figure 11: Time spent on supply chain critical areas

4.2.9 Correlation

Management focus areas were compared to supply chain focus areas. The results for correlation are shown in table 8 and 9. A Pearson's regression figure of 0.924 and a Spearman correlation coefficient of 0.985 show a positive correlation. This means supply chain focus areas move in line with management focus areas.

Table 8: Case Processing Summary; focus areas

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
VAR00001 * VAR00002	6	33.3%	12	66.7%	18	100.0%

Table 9: Symmetric measures; focus areas

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Interval by Interval	Pearson's R	.924	.033	4.825	.008 ^c
Ordinal by Ordinal	Spearman Correlation	.985	.025	11.489	.000 ^c
N of Valid Cases		6			

4.3 Conclusion

This chapter focused on the presentation of the study's results. A statistical package, SPSS (version 20.0) was used to generate means and graphs that were used during analysis of the results in Chapter 5. The findings were presented according to the initially set objectives which were to determine how supply chain and business objectives are ranked among KBL employees; to evaluate the criticality of supply chain processes in KBL; to optimise the supply chain management tools in KBL; and to determine management focus areas within the entire spectrum of business.

On the issue of how supply chain and business objectives are ranked among KBL employees, the study findings revealed that employees rank increasing sales turnover as the most critical objective, followed by improving customer satisfaction and profit maximisation. These factors were followed by the need to realise better return on investment and delivering the highest value to shareholders. Employees have ranked having products in stock as the most critical supply chain objective, followed by customer satisfaction and expanding sales revenue.

The critical supply chain tools that need optimisation have been ranked as follows: total quality management and activity-based costing as the most critical management tools. These two tools were followed by total productive maintenance (TPM), the use of computer aided design (CAD) and Just-in-time.

Evaluating the criticality of supply chain processes in KBL, the findings reveal that demand management was the most critical supply chain management process, followed by manufacturing and then customer service.

On determining management focus areas within the entire spectrum of business, the findings of the study reveal that growth in market share was the most critical management focus area, followed by cost reduction, then customer centricity and finally, digitisation. The last point of discussion was on the time spent on supply chain critical areas. The most critical areas were order fulfilment and quality which were tied. They were followed by demand forecasting and distribution.

The next chapter, Chapter 5, focuses on the analysis of results.

CHAPTER 5 ANALYSIS OF RESULTS

5.1 Introduction

This chapter focuses on analysis of the study's results. The study objectives were to determine how supply chain and business objectives are ranked among KBL employees; to evaluate the criticality of supply chain processes in KBL; to optimise the supply chain management tools in KBL; and to determine management focus areas within the entire spectrum of business. This analysis is based on the research questions articulated in chapter 1, using results articulated in chapter 4 and the literature discussed in chapter 2.

5.2 What are the employee perceptions at KBL with regard to the company's supply chain objectives?

This research question was aimed at determining how the employees of KBL, both management and non-management, and based in Gaborone, perceive supply chain objectives. The results of this study are shown in figure 6, where 18 supply chain objectives were under study. The employees have ranked having products in stock as the most critical objective. Customer satisfaction and expanding sales revenue come in second and third place respectively. The ranking awarded to these objectives was relatively high; 4.7, 4.45 and 4.27 in descending order from position 1 to 3. In the opinion of the respondents, having products in stock was critical in the volatile market, where in addition, consumers can quickly switch brands to non-KBL brands.

Although no studies have been carried out to determine if there is an alignment between supply chain and business strategies specifically in beverage industries, Sahay *et al.* (2006), whose methodology was used in this study investigated alignment in Indian industries. The author had in some instances different results compared to those of this study. In Indian industries, the results showed that having products in stock was the least important objective of supply chain. However, KBL employees ranked that aspect as critical. The study of Sahay *et al.* (2006) continued to acknowledge the importance of customer satisfaction. The latter was rated second by KBL employees. This shows that

the world over, business success is seen to be based on customer satisfaction, words that have been echoed in the GSCF model, where their first and third key process areas are customer relationship management and customer service management respectively. Customer relationship management looks at ways to improve relationships with customers, while customer service management ensures that customers have information at their disposal at any given time about the products offered by the company (Croxtan *et al.* 2001), increasing sales revenue. Regarding business objectives, respondents echo similar sentiments, since customer satisfaction has been given the third priority at a ranking slightly higher than that of supply chain: 4.63 versus 4.45.

Looking at the other objectives that were assessed, the general trend is that they are important. They have been ranked above three. Of interest though, is that employees have ranked the following three at the bottom: Reducing/rationalising supplier base, innovating new products and service and flexibility of product mix.

Reducing/rationalising supplier base: the world is moving towards rationalising or having preferred suppliers, a practice that Xerox (2012) has applauded for reducing costs and improving efficiency. In terms of innovating new products, KBL is not in a highly innovative market such as a cell phone market, so the need to be innovative may not be necessary at this point in time. The current focus hinges around competitive advantage and business sustainability. Flexibility of the product mix was ranked third from the bottom. The low ranking by employees may be because they know of the existence of the product mix and therefore sees no need to give it focus. That, however, could be taken care of by the demand forecasting section, to forecast the right mix that would move volumes in the market.

5.3 What supply chain processes and management tools should be prioritised?

This research question was aimed at ranking supply chain and business process to determine which of these should be prioritised for KBL to survive the adverse effects of the alcohol levy and strict trading regulations. According to the results depicted in figure 7, management tools were analysed for alignment to supply chain processes. KBL employees have ranked highly (as a priority) total quality management, activity based costing and total productive maintenance. They were ranked as follows; 4.4, 4.4 and 4.3 respectively. The importance of quality management cannot be overstated in the survival of a business such as a beverage making company like KBL. Janakiraman *et al.* (2012, p4) acknowledge that there is evidence showing that there is a relationship between quality, profitability and market share. Quality also reduces cost through reduced instances of penalties for non- conformance by the authorities or law suits from customers.

Activity based costing has attained a similar ranking to total quality management; at 4.4. This also shows the importance of costing activities before they are carried out to reduce activities that would not benefit the company financially. Companies generally employ cost accountants to perform such a task.

Total productive maintenance (TPM) attained a slightly lower ranking of 4.3, coming immediately after the most critical duo. TPM is an operator centred maintenance where the operator takes the lead in cleaning and ensures that proper maintenance is carried out on the machinery to prevent future breakdown and other defects that can reduce his efficiencies (leanproduction 2014). If machines are running efficiently, customer orders can be processed on time, reducing the order delivery cycle, which then benefits both the customer and the company.

The following supply chain processes have been given least priority by KBL staff: optimised production technology, benchmarking and computer integrated

manufacturing. This is contrary to the findings by Sahay *et al.* (2006), where Indian organisations rated benchmarking as the second most critical factor. The researcher would have expected KBL employees to rank its importance highly, especially at a time when there is need to understand how other countries have managed to deal with issues of the alcohol levy.

Computer integrated manufacturing has been seen to reduce operator downtimes assorted with manual operations in large plants. KBL, as an example of such a manufacturing plant, utilises computer integrated manufacturing in their daily operations and hence the lower score does not reflect the importance of such a tool in the respondents' view. Optimised production technology is also an important tool that would save the company time and money by ensuring that production planned to optimise the resources available hence reducing costs. Therefore, even though benchmarking and optimised production technologies were given least priority, the researcher would have placed them among the top six priority areas for the above reasons.

Supply chain processes were also ranked according to their importance (priority) by KBL employees. Priority was given to the following processes: demand management, manufacturing and customer service. Their ranking was as follows; 4.6, 4.5, 4.4 respectively. Croxton *et al.* (2002) argue that demand management is a critical tool in the manufacturing process that aligns customers' requirements to supply chain capability. In that way, out of stock situations, over stocking, and disruptions in the manufacturing process are reduced. Manufacturing was ranked as a second critical process. This was expected since KBL is a manufacturing plant. The GSCF model has also shown the importance of manufacturing by listing it on its eight critical supply chain processes (Croxton *et al.* 2001). Manufacturing flow process are followed to ensure that KBL produces a quality product at a low cost. KBL employees have shown that even though the product is available, the consumers of the product have to be serviced with integrity. Therefore, respondents ranked customer service as the third priority in the supply chain process. The results are in line with those obtained in the business

objective as discussed in section 5.2, where customer satisfaction was ranked in second place as a supply chain critical objective.

Inventory and transportation management were ranked as the least important supply chain processes. This is an interesting discovery since companies are moving towards reducing inventory and developing networks that ensure less spending on transportation. This is an area that KBL could explore and see how best to use it to their benefit.

5.4 How well can KBL optimise its supply chain?

This research question aimed at looking at the current status of supply chain and how KBL can deliver goods to customers at the lowest cost while attaining profitability. This means the company has to be able to use supply chain processes accurately. Looking at KBL, a manufacturing plant, the demand forecasting department has to work hand in hand with sales and distribution and marketing to ensure that their forecasts are accurate. Greater accuracy would help to reduce instances of inventory being inaccurately ordered and then written off.

Demand management was rated highly by respondents. Demand forecasting also has to communicate effectively with manufacturing. This would reduce disruptions in production process as well as production of excess market products that would then spend time in the warehouse. By the time they reached the market, their shelf life would have been reduced.

Despite their low rating, transport and logistics have to be efficient at delivering goods to the customer at the right time and in a less costly manner, in the researcher's view. Not only would that benefit the company but it would improve customer satisfaction. So a thorough look into the distribution routes is critical. Even though routes are looked and

improved, it is equally critical that, the order fulfilment process in up to a good standard. This means customers are informed of the progress of their order at all times.

5.5 What are the management focus areas?

The aim of this research question was to determine the areas that management is focused on in the view of management and non-management employees, and to determine if these areas would benefit the business in the current harsh trading conditions. Employee response showed a determination to focus on growth in market share, reduce cost and emphasise customer centricity: 4.8, 4.7 and 4.4 respectively. Growth in market share may be a challenging objective for the company to achieve. This is largely due to the negative sentiments towards alcohol encouraged by the government of the day on the harmful effects of alcohol consumption of beer and continued enrolment of new legislation to curb the use of alcohol (MVA fund report 2006, p. 38).

Equally important, according to responses, is the need to reduce cost. Mmegi (2012) continues to report that breweries in other countries have resorted to reducing operating costs, headcount (retrenchment) and closure of certain country operations. KBL has been through the same path but it did not benefit significantly from such a decision. In the first year of the levy, 63 employees were retrenched (Mmegi 2009) and of late the Palapye KBL branch was closed (Mmegi 2013). Although KBL has tried different cost reduction strategies, supply chain might be the answer to its problems.

Customer centricity has been ranked as the third focus area by respondents. This is line with the objective and process discussed above that in all instances have shown that customers are critical in the success of the business.

5.6 What is the current status in supply chain and business strategies; are they aligned?

The aim of the questionnaire was to assess supply chain and the business strategy and learn whether there is perceived to be alignment in the strategies. Every business is led and guided by the presence of a business strategy. The latter informs other strategies developed in the company. Cheng and Curtis (2006, p. 25). Business strategies are formulated to determine the way in which the organisations can move from their present competitive position to a newer and a strong one (Gattorna 1998). The correlation results have shown that supply chain and the business strategy objectives processes and focus are considered to be aligned at KBL. In terms of the objectives, a correlation of 0.940 was found, a positive correlation showing that when the business objectives improve, there is an improvement in supply chain objectives. This is critical because supply chain objectives are formulated based on the business objectives.

Alignment was also investigated by mapping supply chain processes to management tools. Similarly, positive correlation results were obtained; 0.984. This translates to an alignment. This means there are tools in place to guide the supply chain processes with the aim of ensuring the business is profitable in the view of the respondents.

Management focus area results show a positive correlation as above regarding alignment determination. A correlation coefficient of 0.985 was obtained. This shows a positive correlation, which means that supply chain staff are perceived to spend a significant amount of time on important supply chain areas in line with areas that management is focused on.

5.7 Recommendations

The success of supply chain depends on a knowledge base used by those implementing it. The researcher therefore recommends that staff should engage with

one another through workshops and discussion forums. Secondly, management needs to engage more frequently with the workforce, communicating new developments and where the company is headed. That would assist employees to make decisions that are aligned to management focus. Thirdly, KBL could consider implementing a GSCF model which provides for structured and coordinated supply chain events. Fourthly, a legal advisor/department might be necessary to deal with issue relating to laws governing the country and to ensure smooth relations with the country's legal system. In addition, KBL should build relationships with important customers and suppliers to allow for smooth operation of the business.

5.8 Areas for further study

It is important for further studies to be conducted on how the external environment affects the alignment of supply chain and management objectives. This study focused mainly on internal processes and excluded the external environment to a great extent. The external environment consists of the government of Botswana as a shareholder in KBL, suppliers of raw materials (both local and from abroad), competitors, the impact of legislation on alcohol, among others.

Time factor and the complexities associated with incorporating other factors in this study prevented the researcher from expanding the study to accommodate these issues. The study was also confined to the KBL premises in Gaborone City. Extending the study to other cities and towns could also have added weight to the findings of the study.

5.9 Conclusions

Kgalagadi Breweries Limited, a beverage making company in Botswana has not escaped a fierce trading environment brought about by tough legislation pertaining to irresponsible use of alcohol, and competition from international competitors. The past five years have seen the development and implementation of legislation after legislation. The latter includes the introduction of the alcohol levy at 40% and an annual increase of

5% and the reduction in liquor trading hours. This has prompted the researcher to investigate ways in which KBL can maintain competitiveness in this harsh market. The research looked at the problem from the strategic point of view, determining if supply chain strategy is aligned to the business strategy using three areas: objectives, processes and management focus.

The research findings have shown through correlation that supply chain and the business strategy objectives, processes and focus areas are perceived by employees to be aligned. The researcher was however astounded by the lower rating given to the area of statutory requirements. In the researcher's opinion, this might not work in favour of KBL, since legislations have been changing in the beer industry with the aim of reducing alcohol abuse. Two other areas were also rated low by KBL personnel: distribution and inventory management. However, research has shown that companies are moving away from keeping large amounts of inventory to small manageable levels. Literature has also shown that companies have distribution networks that work to reduce costs. Therefore in the researcher's opinion, this may be the areas where KBL could excel in reducing cost.

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APPENDIX A Questionnaire

FOR OFFICE USE ONLY: Respondent Code: _____

**"Investigating supply chain and business strategy alignment in SABMiller;
Kgalagadi Breweries scenario"**

Graduate School: North-West University

Researcher: Chandapiwa Leteane

Supervisor: Prof Jan Meyer

Note to the respondent:

We need your help to understand if the supply chain strategy is aligned to the business strategy of Kgalagadi Breweries Limited

Although we would like you to help us, you do not have to take part in this survey.

If you do not want to take part, just hand in the blank questionnaire at the end of the survey session.

What you say in this questionnaire will remain private and confidential.

The questionnaire as three parts:

Part 1 asks permission to use your responses for academic research.

Part 2 asks general personal particulars like your age, gender etc.

Parts 3 to 5 ask for information about supply chain and the business strategy

How to complete the questionnaire:

1. Please answer the questions as truthfully as you can. Also, please be sure to read and follow the directions for each part. If you do not follow the directions, it will make it harder for us to do our project.

2. We are only asking you about things that you and your fellow colleagues should feel comfortable telling us about. If you don't feel comfortable answering a question, you can indicate that you do not want to answer it. For those questions that you do answer, your responses will be kept confidential.

3. You can mark each response by making a tick or a cross, or encircling each appropriate response with a PEN (not a pencil), or by filling in the required words or numbers.

Thank you very much for filling in this questionnaire.

Part 1: Permission to use my responses for academic research (optional)

I hereby give permission that my responses may be used for research purposes provided that my identity is not revealed in the published records of the research.

Initials and surname _____

Postal address: _____

Postal code: _____

Contact numbers: Home: _____ Cell: _____

Part 2

Personal particulars:

Tell us a little about yourself

	Under 21 years	21-30 years	31-40 years	40-50 years	Over 50 years
1. How old are you?					
2. What is your gender?	Male			Female	
3. What is your highest level of education?	Some schooling or less	O level	Technical	Undergraduate	Postgraduate
4. How long have you been KBL?	Under 2 years	2-4 years	4-6 years	6-8 years	Over 9 years
5. What type of post are you in at work?	Managerial			Non-Managerial	

Part 3

Importance of overall business objectives

	1. Not critical to the organisation	2. Not so critical to the organisation	3. Averagely critical to the organisation	4. Critical process to the organisation	5. Very critical process for the organisation
1. Maximise customer satisfaction					
2. Maximise profit					
3. Increase turnover (sales)					
4. Increase return on investment					
5. Deliver highest value to shareholders					
6. Increase earnings per share					

Criticality of supply chain objectives

	1. Not critical to the organisation	2. Not so critical to the organisation	3. Averagely critical to the organisation	4. Critical process to the organisation	5. Very critical process for the organisation
1. Having products in stock					
2. Offer broad product line					
3. Expanding width/depth of distribution					
4. Reducing/rationalising supplier base					
5. Reducing warehouse cost					
6. Innovating new products/ services					
7. Flexibility of product mix					
8. Reducing transportation costs					
9. Flexibility of production time					
10. Reducing lead time					
11. Reducing order to delivery cycle time					
12. Lowest product cost					
13. Improving on time delivery					
14. Best product performance					
15. Reducing inventory costs					
16. Expanding sales revenue					
17. Highly reliable product					
18. Enhancing customer service/ satisfaction					

Part 4

	1. Not critical to the organisation	2. Not so critical to the organisation	3. Averagely critical to the organisation	4. Critical process to the organisation	5. Very critical process for the organisation
Criticality of supply chain processes					
1. Customer service					
2. Demand management					
3. Inventory management					
4. Order processing/fulfillment					
5. Manufacturing					
6. Product development					
7. Transportation					
8. Distribution management					
9. Import export management					
10. Promotions planning					
11. Warehousing					

	1. Not critical to the organisation	2. Not so critical to the organisation	3. Averagely critical to the organisation	4. Critical process to the organisation	5. Very critical process for the organisation
Criticality of management tools					
1. Total quality management (TQM)					
2. Benchmarking (BM)					
3. Just-in-time (JIT)					
4. Supply Chain Optimisation (SCO)					
5. Computer-aided design/manufacturing (CAD/CAM)					
6. Business Process Reengineering (BPR)					
7. Enterprise Resource Planning (ERP)					
8. Total Productive Maintenance (TPM)					
9. Activity-based costing (ABC)					
10. Computer-integrated manufacturing (CIM)					
11. Optimised production technology (OPT)					

Part 5

Prioritisation of top management	1. Not a priority	2. Below average priority	3. Average priority	4. Above average priority	5. A priority
1. Growth in market share					
2. Customer centricity					
3. Cost reduction					
4. Productivity enhancement					
5. New product development					
6. Digitisation					

Time spent on supply chain focus areas	1. No time allocated	2. Some time allocated	3. Average time allocated	4. Above average time allocated	5. More time allocated
1. Order fulfilment					
2. Quality					
3. Inventory reduction					
4. Demand forecasting					
5. IT applications					
6. Transportation					
7. Distribution					
8. Lead time compression					
9. Statutory requirements					