## UNIVERSITY OF KWAZULU-NATAL

# THE IMPACT OF OUTSOURCING ON SUPPLY CHAIN AND OPERATIONAL EFFECTIVENESS

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A dissertation submitted in partial fulfilment of the degree of Master of Business Administration Graduate School of Business & Leadership

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#### **ABSTRACT**

This study was aimed at finding solutions that ensure efficient and effective organisational structures that are agile to the changing market pressures. In order to understand the relationship between productivity and efficiency, a dual approach was used. The study focused on the core competencies that an organisation can undertake to initiate cost effective operations and premium service delivery to its customers. This could have an impact on the customer excellence and competitiveness in the industry. A sample was drawn out of a population of 150 respondents to ascertain and identify the drivers that force organisations to change their operational thinking about outsourcing. Furthermore, a case study was used to explore the impact of outsourcing, to ascertain whether it can lead to improved efficiency in the supply chain. The questionnaire was used as the data collection instrument that would complement the literature of this study. The study revealed that outsourcing can positively impact on the cost effectiveness nature of a supply chain and the operations of an organisation. The research project found there are certain drivers that influence the decision making of business leaders of the organisation. The study found that the outsourcing of certain activities within the organisation can improve workflow of goods and services. An increase rate of worker productivity can enhance service delivery downstream of the supply chain and ensure a higher degree of customer satisfaction. It would be recommended that supply chain manager review the core competencies within the structure and focus on outsource service provider to strengthen it where there is a lack in expertise.

**Key words**: outsourcing; supply chain; operational effectiveness; productivity

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# **TABLE OF CONTENTS**

DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
LIST OF FIGURES	ix
LIST OF TABLES	x
CHAPTER ONE	1
INTRODUCTION	1
1.1 Introduction	1
1.2 Motivation of the study	2
1.3 The focus of the study	3
1.4 Problem Statement	4
1.5 The aim and objectives of the study	4
1.5.1 The objectives of this study	5
1.5.2 Research questions	5
1.7 Hypothesis	6
1.8 Methodology	6
1.9 Dissertation outline	7
1.10 Conclusion	8
CHAPTER TWO	9
LITERATURE REVIEW	9
2.1 Introduction	9
2.2 The definitions of supply chain management	10
2.3 The strategic evaluation of operational efficiencies	10
2.4 The evolution of outsourcing	11
2.5 The definition of outsourcing	13
2.6 Different theoretical views on outsourcing in the workplace	14
2.6.1 The Transaction Cost Economics (TCE) theory	14
2.6.2 The relational view	14
2.6.3 The concept of core competences	15
2.6.4 Resource-based view	16
2.7 The reasons for outsourcing	16

2.8 Discussion on outsourcing of supply chain activities	18
2.9 The disadvantages and advantages of outsourcing in supply chain	19
2.9.1 Disadvantages	19
2.9.3 Advantages	20
2.10 Background of outsourcing logistical activities	20
2.11The outsourcing process	21
2.11.1 Preparation	21
2.11.2 Vendor selection	22
2.11.3 Transition	22
2.11.4 Managing relationship	22
2.11.5 Reconsideration	23
2.12. Summary	23
CHAPTER 3	24
RESEARCH METHODOLOGY	24
3.1 Introduction	24
3.2 Aim of the study	24
3.3 Research paradigm	24
3.4 Research design and methods	25
3.4.1 Quantitative approach	26
3.4.2 Qualitative approach	26
3.5 Study setting	27
3.6 Population	27
3.7 Sample	28
3.8 Data collection	29
3.9 Data analysis	30
3.11 Validity and reliability	31
3.12 Ethical considerations	32
3.13 Conclusion	32
CHAPTER 4	33
EMPIRICAL FINDINGS	33
4.1 Study 1: Introduction	33
4.3 Gender respondents	33
4.4 The results of racial groups	34
4.5 The education of respondents	35

4.6 The key drivers of outsourcing	35
4.7 How outsourcing contributes to profitability	37
4.8 The internal factors affecting productivity	37
4.9 External factors	38
4.10 Does productivity have a positive impact?	39
4.11 Effects of shareholder returns	40
4.12 The determinants of sustained business improvement	40
4.13 Output per worker impact on operational efficiencies	41
4.14 Outsourcing of non-core competencies	42
4.15 Outsourcing on customer service levels	43
4.16 Competitive advantage in outsourcing	44
4.17 The outsourcing process	45
4.18 Summary	51
CHAPTER 5	52
ANALYSIS AND DISCUSSION	52
5.1 Introduction	52
5.2 The analysis on the key drivers of outsourcing	52
5.2.2 The pressure to improve customer service levels	53
5.2.3 The lack of internal expertise	53
5.2.4 The flexibility to adapt to change in work fluctuations	53
5.2.5 Time benefit	53
5.2.6 Desire to consolidate business	53
5.2.7 Shorter route to market	54
5.2.8 Focus on core competencies and the competitive advantage	54
5.3 Hypothesis testing	55
5.4 Study 2: Pioneer Foods Business Case	59
5.5 Summary	64
CHAPTER 6	66
CONCLUSION AND RECOMMENDATIONS	66
6.1 Introduction	66
6.2 Conclusion of the study	66
6.2.1 Identification of key drivers of outsourcing	66
6.2.2 The impact of outsourcing on organisational performance	68
6.2.3 Outsourcing leads to operational efficiencies	69

6.2.4 Outsourcing leads to competitive advantage	70
6.2.5 Outsourcing leads to customer excellence	70
6.3 The implication of the study	71
6.5 Limitations of the study	72
6.6 For future research	73
6.7 Summary	75
7. References	76
Appendix 1	84
Appendix 2	91
Appendix 3	92

# **LIST OF FIGURES**

Figure 4.1:	The survey overview	33
Figure 4.2:	Gender Respondents	34
Figure 4.3:	Results of racial groups	34
Figure 4.4:	Education of respondents	35
Figure 4.5:	The key drivers to outsourcing	36
Figure 4.6:	Effect of outsourcing on organisational profitability	37
Figure 4.7:	Internal factors affecting productivity	38
Figure 4.8:	External factors affecting productivity	39
Figure 4.9:	Does productivity have a positive effect?	39
Figure 4.10:	The effects on shareholder returns	40
Figure 4.11:	The productivity growth rate per worker	41
Figure 4.12:	Link between productivity and operational efficiencies	41
Figure 4.13:	The reasons for outsourcing of non-core competencies	42
Figure 4.14:	Outsourcing of non-core competencies	42
Figure 4.15:	Outsourcing on customer levels	43
Figure 4.16:	Competitive advantage of outsourcing	44
Figure 4.17:	The Outsourcing process	45
Figure 4.18:	The relationship between outsourcing and operational	
	efficiencies	45
Figure 4.19:	A higher rate of productivity per worker ensures improved	
	operational efficiencies in the workplace	46
Figure 4.20:	Picking, material and handling	47

# **LIST OF TABLES**

Table 4.1:	Outsourcing contributes to the profitability of the company	37
Table 4.2:	Outsourcing on customer service levels	43
Table 4.3:	Gaining competitive advantage	44
Table 4.4:	Outsourcing logictical activities/service linked to operational productivity	46
Table 4.5:	A higher rate of productivity per worker ensures improved	
	operational efficiencies in the workplace	46
Table 4.6:	Picking, Materials handling and equipment	47
Table 4.7:	The picking analysis for a period of 12 months from	
	October 2014 to September 2015	48
Table 4.8:	Picking analysis for a period of 12 months from October 201	5
	to September 2016	49
Table 4.9:	Monthly measurement for the month of June 2015	50
Table 4.10:	Monthly measurement for the month of June 2016	50

## **CHAPTER ONE**

#### INTRODUCTION

#### 1.1 Introduction

This study reviews some of the latest developments in outsourcing of business activities over recent times. The study focuses on some of the factors that can affect an organisation to enhance performance, cost reduction, profitability and improved efficiencies, thus, reducing the competitive advantage of the business. In chapter one, the researcher sets the rationale for conducting the study by introducing the audience to the problem and the investigation discussed in this paper. The study attempts to highlight the strategic effectiveness that outsourcing creates for fast moving consumer goods companies, such as Pioneer Foods.

The Council of Logistics Management (2016) proclaims that logistics management is the process that plans and implements efficient and effective controls for forward and reverse flow and the storage of goods, services and related information, from the point of origin and the point of consumption, in order to meet the customers' requirements. Globally, one of the largest industries is that of the fast-moving consumer goods (FMCG). The FMCG sector produces less expensive goods, with products that have a limited life span and is generally available for daily consumption. The margins on profits are very low, hence, most manufacturers and logistics business drive economies of scale to offset marginal financial pressures. FMCG companies manufacture nearly identical products, hence, the price sensitivity in the South African market remains rife. FMCG companies need to establish marketing tools and business activities to attract customers to its product offerings and services in order to ensure profitability and the loyalty of customers. The higher levels of attraction in the market towards a certain product offering by the business allows it to charge a higher premium for their products.

The fierce competition in the globalised economies acts as a catalyst to intensify rivalry within the FMCG industry. It forces manufacturers and logistics businesses to focus on the ways to minimize and reduce cost in their operations. According to Berthelot

(1999) view, globalisation is the process that opens trade and foreign investment for a national economy.

The logistics component for FMCG companies has become an integral part of strategic intent and the execution of its strategy. Other than the traditional view, where logistics was use merely as a function, it has evolved to become a strategic alliance of relationships that create competitive advantage. On a tactical level, the development of warehousing and distribution should incorporate a more centralised function which is aimed at cost management and customer excellence. In this view, the question becomes: should FMCG companies re-engineer their business towards the upper stream of value chain that ensures integration from raw materials to manufacturers and distribution centres? When taking into account the centralised function, it could maximise and leverage its outbound and inbound logistics more efficiently and effectively.

The ever-changing business environment influenced top management to re-think the design and re-engineering of its operations to improve productivity; lower operational cost and enhance its competitive edge, whilst improving customer satisfaction. Outsourcing of certain logistical activities can provide favourable advantages, but in many cases, there has to be a complete overhaul of the supply chain in order to create substantial savings.

#### 1.2 Motivation of the study

Pioneer Foods is one of the leading FMCG companies in South Africa, delivering branded food and beverages across the wholesale, retail and informal segments. The group focuses on delivering premium products to the households in the South African economy. The operational foot print of the group entails world class facilities that produce their power brands such as White Star, Ceres, Sasko, Weet-Bix, Safari, Liqui-Fruit and Spekko rice. The group's international foot print expands to Botswana, Nigeria, Namibia and the United Kingdom (Pioneer Foods, 2016).

During economic downturn, these products perform relatively well, as consumers opt for necessities in place of luxury products. There are certain factors that affect the performance of FMCG companies in the industry, such as the market size, market concentration, related industries, spending power of the consumers and the buying preferences of the consumers. FMCG companies operate in a low profit margin environment, hence, it is critical that they focus on the market size and whether a large enough market exists to deliver economies of scale. In addition, FMCG companies need to consider the concentration of the market in which they operate. The density of the market confirms the market size and the demand that its population consumes on a daily basis. Urbanisation requires an improved state of infrastructure, yet unemployment remains a challenge for the South African economy. The influx of people into urbanised areas requires enough employment. But the lack of employment opportunities in urban areas affects the spending power of the consumer, unfavourably. The FMCG sector requires a reliable distribution network where Pioneer Foods can revisit the vertical and horizontal integration of their operations in order to remain competitive. The strength in related industries, such the agricultural and manufacturing sectors, requires a strong distribution execution when exploring new opportunities at reduced prices for the company. Thus, it is critical that Pioneer Foods' research of the market's income per capita established in order to align the product offering in specific markets within the industry. The competition on the global stage has made it very difficult for FMCG companies such as Pioneer Foods to guarantee sustainable operations. At the back drop of the recession in 2008 and another one looming during 2015/2016, it has become even tougher for the company to sustain market leading positions of their premium brands. The motivation for this study originates as an area for business leaders to focus in making more accurate decisions with regards to an outsourced model. The outsourcing of certain activities may render beneficial results for the organisation's performance. Consumers are tightly strapped and not making ends meet, as their disposable income is tied up in credit and living expenses. Thus, when organisations make a difference to the structure, it could render a higher degree of efficiency which will spill over to the customer and the consumer in South Africa's emerging economy.

#### 1.3 The focus of the study

There are various researched projects that seeks to clarify the role between outsourcing and organisational effectiveness. The researcher seeks the influences of the key drivers which has an impact on management's decision to outsource logistical activities. Hence, the study will attempt the discussion surrounding the impact of

outsourcing on effective supply chain performance and draw analysis to verify the influence on business performance.

#### 1.4 Problem Statement

The concept of outsourcing certain functions has form part of management's decision. It entails that management decides on either to insource or look for external service providers for the execution of these activities. There is thus a need to ascertain which of the business activities an organisation can outsource and still remain favourable in the market against competitors. A radical shift in paradigm is required of businesses, especially those that are prone to an industrial revolution. The increasing fluctuations in market demand narrows the gap for business to create sustainable operations to ensure their relevance in the future. Organisations have looked outside of their internalised structures in order to remain relevant on the global stage. Organisations, especially in South Africa, need to establish what the drivers are, for the lack of performance. Thus, the main problem of this study is how to improve the effectiveness and the efficiency in the supply chain function through outsourcing certain logistical activities.

#### 1.5 The aim and objectives of the study

The decision of Pioneer Foods management to outsource certain business activities can become a complex decision, which was initially perceived to be an easy one, considering that it would reduce cost in the operations. It seems that business needs to take a "make or buy" decision, based on the impact of outsourcing on cost reduction. According to Woodwall (2009), organisations need to make these decisions whilst focusing on their core competencies. Thus, organisations, such as Pioneer Foods will need to go long by focusing on a more sustainable approached whilst eroding inefficiencies and improving quality and service delivery. The aim of the study is to understand what kind of decision making is required from the Pioneer Foods management structure in order to remain competitive in their industry. The key factors that play a role and the impact that these decisions will have on the operations. Theoretically, two studies that have influenced this regard include the Resource based View (RBV) and the Transaction Cost Economies (TCE). According to McIvor (2008), the outsourcing decision is considered in reducing cost, whilst the resource based view theory creates value and competitive advantage. On that note, the study has the following objectives and research questions.

## 1.5.1 The objectives of this study

The main objective of the study is to establish the impact of outsourcing on the supply chain efficiency and operational effectiveness. To achieve this, the study has the following objectives:

- To identify the key drivers to outsourcing in organisations
- To assess the impact of outsourcing on business performance.
- To establish whether outsourcing can lead to operational efficiencies for Pioneer Foods.
- To determine whether outsourcing contributes to the competitive advantage of the business.
- To understand whether outsourcing can improve customer satisfaction.

## 1.5.2 Research questions

The key questions that the researcher want to address with this study is as follows:

- What are the key drivers to outsourcing for Pioneer Foods?
- What is the relationship between outsourcing and Pioneer Foods' organisational performance?
- Does outsourcing lead to operational efficiency for Pioneer Foods?
- Can competitive advantage be determined through outsourcing of Pioneer Foods logical activities?
- Does outsourcing to service providers lead to customer satisfaction?

## 1.6 Significance of the study

The study is beneficial to the organisation with regards to the improvement of productivity and reducing costs through implement certain outsourced strategies. The outsourced decision can prompt a higher degree of operational and supply chain effectiveness.

## 1.7 Hypothesis

In support of the research questions, the following hypothesis will be tested:

- HP 1: There is a relationship between outsourcing and organisational profitability?
- HP 2: Outsourcing of logistical activities does lead to operational efficiencies?
- HP 3: There is a direct correlation between outsourcing of logistical activities and the organisation's competitive advantage?
- HP 4: Will outsourcing of logistical activities lead to inefficient and ineffective service delivery?
- HP 5: There is a relationship between outsourcing and customer satisfaction?

The researcher wants to gain a deeper understanding on the cause and effect relationship. If outsourcing is introduced to the business how does it impact the hypothesis mentioned above. The researcher wants to confirm the impact that it will have on the overall business performance.

## 1.8 Methodology

The research design of this study is structured to gather data from participants, observations and company documents, which form part of the research plan to analyse data and use resources in a systematic manner. The researcher introduces the audience to a research project that has a multiple case design. The researcher assumes that the analysis of a cross- case study will set the platform to test the hypothesis and identify whether the outsourcing decision ensure supply chain and operational effectiveness. The researcher wishes to test the theory in different settings. The data in Study 1 is collated through a series of survey questionnaires, whereas the information in Study 2 are formulised through observations recorded by the researcher. The participants were selected from the employees working in the Pioneer Foods Logistics Services structure. The questionnaire was used to test the literature and random sampling selected to distinguish the group of subjects from the larger population.

#### 1.9 Dissertation outline

**Chapter 1**: This chapter describes the study by highlighting the problem statement, motivation, the purpose for the study, as well as the outlining of objectives and research questions.

**Chapter 2**: This chapter focuses on the theory related to outsourcing and organisational effectiveness and the effect of outsourcing on business performance. It shows the need for management to understand the impact of decision making on profitability and sustainability. The researcher also discusses and reviews pertinent published academic articles related to outsourcing of logistical activities.

**Chapter 3**: In this chapter, the researcher discusses the different methodologies that were applied, as well as the research instruments used to collect primary data. An indication of the sample process, limitations of the study and certain assumptions to be taken into account in executing the research, are provided.

**Chapter 4**: Chapter 4 focuses on the presentation of the research results. The researcher endeavours to describe and explain the figures, tables, diagrams and charts and interpret them. This chapter provides detailed data through graphical and observational analysis.

**Chapter 5**: The researcher follows on the empirical results found in Chapter 4. The discussion in Chapter 5 ties the analysis back to the literature review discussed in Chapter 2.

**Chapter 6**: The researcher concludes the study and discusses the recommendations for future research on the subject matter.

## 1.10 Conclusion

This chapter provided an introductory perspective and covers the motivation for the study, the purpose of the study, problem statement of the study, the objectives of the study as well as the research questions of the research project. The research background is discussed, as well as the logistics company footprint in the broader FMCG industry of South Africa. The main problem of the research is discussed and subsequently, the scope of the study.

## **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Introduction

In the fast-moving consumer goods industry today, we see organisations faced with ever changing circumstances. This forces these organisations to revisit their business strategies so that they compete in saturated markets and the challenges of slow moving economy. Globalisation plays a role, as organisations are requested to deliver a higher degree of product quality and services that ensure proper traceability and sustainability. In this chapter, the researcher provides an overview of previous research on outsourcing to enhance business performance in volatile markets. The researcher introduce the framework for the project that comprises the main focus of the research described in this study.

The geographies in the South African markets bring disparity from role players that operate in foreign markets, hence, the cost of operations in the South-African industry are much more expensive. In addition, globalisation offers new technologies that allows business to focus more on improving their efficiencies, agility and business performance. The management structures faced a complex decision to outsource certain functions. This exercise is naturally perceived to be an easy decision in order to reduce costs within the operations. Therefore, managers are faced with a "make or buy" decision based perception of cost reduction. We find that a quick decision to outsource might have a long-term impact. In order to produce a proper product offering and excellent services through best practice with a lower rate of inefficiencies, the organisation makes a decision to focus on its core competencies (Woodwall, et al., 2009). There are two theoretical studies of outsourcing namely, the resource based view (RBV) and the transaction cost economies (TCE), which have been highly influential in the literature of outsourcing. Each study has its own uniqueness, where the TCE focuses on the reduction of factors of production, the RBV focuses on adding value in order to gain competitive advantage (McIvor, 2008).

The goal of the literature review was to survey previous studies on the impact that outsourcing has on supply chain efficiencies and operational effectiveness. The researcher's aim is to explore and find the solution that would ensure an efficient and effective business model which is agile in the ever-changing markets. Secondly, the researcher hopes to identify the different role players that are the key drivers which force managers to make changes to their business strategies. The researcher seeks to find if outsourcing certain functions would render the solution in the business quest to remain competitive.

## 2.2 The definitions of supply chain management

A supply chain is an integrated manufacturing process wherein raw materials are converted into finished products, then delivered to customers (Beamon, 1998). Furthermore a supply chain can be described as a linked set of resources and processes that begins with the sourcing of raw materials and extends through the delivery of end items to the final customer. Another definition explains the supply chain as a generic description of the process integration involving organisations to convert raw materials into finished products and to convey them to the end-user (Pienaar, 2009b).

The definitions above are the cornerstone to the core factors in supply chain. It encapsulates the need for an end to end production flow from a raw material state to the consumer. The following definitions are more complex. They encompass a broader view of a supply chain and incorporate additional activities in the function of the supply chain. The collection of all producers, suppliers, distributors, retailers and transportation, information and other logistics providers that are involved in providing goods to end consumers (Chow & Heaver, 1999). A supply chain includes both the internal and external participants for the firm.

## 2.3 The strategic evaluation of operational efficiencies

Businesses aspire to gain optimal competitiveness in order to enhance and maximise their service levels and production throughput at each plant. Thus, these businesses need to operate as efficient as possible, in order to gain the competitive edge over other firms. The management structure of these businesses need to implement certain measurements in order to manage their operations more efficiently. It is, however very difficult for a business to establish whether or not it is efficiently run without the measurement of its performance. Businesses need to explore and evaluate the degree of efficiency it maintains in its operations. The implementation of a quantitative model to track efficiency in the business can act as a tool to measure the business productivity levels. The model could indicate the focus areas that require attention or improvement. If it sheds light on the weak areas of the organisation, it makes it easier to focus on the necessary changes which can improve business efficiency.

The efficient management of supply chains has become the key focus for businesses as they strive to differentiate their product and service offerings to gain competitive advantage in the industry (Christopher, 1998). Businesses have to revisit the integration of their internal and external operations, thus, they need to seek continuous improvement of their supply chain (Little, 1999). Businesses need to combine their resources in their supply chains to operate in the most cost-effective way to provide a competitive product and service offering. One of the key factors that businesses focus on performance in their supply chains form end to end.

The overall supply chain efficiency is defined as the efficiency which takes into account the multiple performance measures related to the supply chain members, as well as the integration and coordination of the performances of those members (Wong & Wong, 2007). It is therefore important that the management structures of these business measure their operations. One can only manage what you measure, hence, businesses need to develop and implement supply chain models to measure their productivity. The models developed will assist management to identify focus areas that would improve the total supply chain function.

#### 2.4 The evolution of outsourcing

The industrial revolution saw companies struggle to gain competitive traction in the market that ensure competitive advantage and profitability to the company. In the 20<sup>th</sup> century, we have seen that well-established businesses manage and execute their assets. The contrast occurs during the industrial age where businesses were rigid in their execution of assets in order to gain economies of scale. These businesses

focused on multi layering their management structures and diversifying their portfolio to secure profitability whilst exercising economies of scale. The thinking during the 1970s onwards changed the business approach of companies as more organisations applied creativity in their business approach. The focus changed from local to international competitiveness, as businesses look for ways to gain market share across borders. This new thinking squeezed businesses to think outside the box and gear up their structures to gain traction in international markets. It allowed businesses to become more flexible and creative in the execution of their assets. It became evident that businesses started focusing on their core business functions and identified which functions are less important in the new approach to the market. The outsourcing of certain functions saw that these businesses became more agile and competitive in sustaining profitability and organisational performance (Handsfield, 2006).

During the 80<sup>th</sup>, we found that most businesses outsourced certain functions that they do not provide in-house due to the lack of internal competencies. Outsourcing was not formally identified as a business strategy until 1989 (Mullin, 1996). During this time the foundation for outsourcing was cemented, especially after businesses procured external suppliers to provide them with ancillary services. In the 90<sup>th</sup>, businesses refocused their approach on cost saving measures and drive organisational performance through outsourcing non-core business activities. This stage of the evolution saw businesses outsource mostly their human resources, security and cleaning services, plant maintenance and accounting. Outsourcing components to affect cost savings in key functions is yet another stage as managers seek to improve their finances (Handsfield, 2006).

The 20<sup>th</sup> century saw businesses starting to form strategic partnerships as a strategic advantage. This stage in the evolution prompt businesses to reduce ownership of certain business activities in order to develop strategic partnerships with industry role players. The new approach to business thinking would ensure greater organisational performance. Consequently, organisations are likely to select outsourcing more on the basis of who can deliver more effective results for a specific function, than on whether the function is core or commodity (Handsfield, 2006).

## 2.5 The definition of outsourcing

According to Troaca & Bodislav (2012) the concept of outsourcing is referred to in American terminology as the outside resourcing. Thus, it means that businesses source their resources from the outside. Adapted in economic terms, the concept of outsourcing allows for the use of external resources to develop business objectives. (Troaca & Bodislav, 2012).

Furthermore, Greaver (1999) defines outsourcing as the act of transferring some of an organisation's recurring internal activities and decision rights to outside providers, as set forth in a contract. In contrast to earlier business thinking, Greaver (1999) states that businesses should not be ashamed of outsourcing. The businesses approach in earlier years found that outsourcing was a direct result of incompetence and lack of capacity in the execution of internal business activities (Greaver II, 1999). To expand on this notion, Mullins (1996) belief outsourcing is a restructure of business decision that allows for strategic competitiveness.

Outsourcing can be defined as the strategic use of outside resources to perform activities traditionally handled by internal staff and resources (Handsfield, 2006). This view explores outsourcing as a strategic tool to enter into contract with specialised service providers as valued partners. These service providers may render the same internal service with greater efficiency. The business approach has evolved through the generations from outsourcing to reduce the head count in the organisational structures to that of a strategic role player that carries value-adds.

Although there are a variety of criteria that can be used to measure the efficiency of a supply chain, for the purpose of this study, the criteria used are speed, reliability, cost and customer satisfaction. While speed, reliability, cost and customer satisfaction on their own are only measures of effectiveness, when considered in terms of the effect they have on resource utilisation in a supply chain, they can be used to measure efficiency.

The Pareto optimality confirms a trade-off between three different factors. These factors are cost, reliability and speed. Once the optimal point of efficiency is reached, by adding further component of the factors mention above can result in a negative impact (Economy Professor, 2006). There is a direct relationship between speed, cost, reliability and cost. Therefore, as speed and reliability increase, costs will usually increase and with a decrease in costs, speed and reliability will usually decrease. This means that a firm has to make a trade-off between the different criteria for supply chain efficiency as defined in this dissertation. If these three elements are seen in combination, then supply chain efficiency is achieved, if customer satisfaction is maximised with the optimal combinations of speed, reliability and costs. While, for example, speed may increase in the supply chain, if the marginal costs demanded by the speed increase are in excess of the marginal consumer satisfaction achieved, then the supply chain is not efficient at the increased speed (Economy Professor, 2006).

## 2.6 Different theoretical views on outsourcing in the workplace

## 2.6.1 The Transaction Cost Economics (TCE) theory

The most utilised theory of outsourcing in known as the transaction cost economics theory and it is viewed as one of the best decision-making tools to assist businesses on whether to outsource (Perunovic & Pedersen, 2007). This theory conceptualised business units in organisational terms, as governance structures. According to Williamson (2000), the notion of governance is to introduce order to reduce conflict and reach a mutual gain contractually.

#### 2.6.2 The relational view

The relational view explores how businesses gain sustainable competitive advantages with the inter-organisational relationships. Thus, this view explains how businesses make a decision to outsourced partnerships and the preferred relationship it will follow. The theory has been applied in different research phases of the outsourcing process such as managing the relationship, transition and the reconsideration phases. Hence, the relational view could be the theory that has been utilised and applied in every phase of the outsourcing process.

## 2.6.3 The concept of core competences

The concept of core competences has been developed on the basis of the resourcebased theory. The concept has become more and more popular in literature, as researchers argue on which business activities or assets should remain within the structures of the organisation. Prahalad & Hamel (1990) defines the core competencies as a process of collective learning in the organisation, specifically the coordination of diverse production skills and the integration of multiple streams of technologies. This view is supported by Sanchez & Heene (1997) as they expand that core competencies is the result of collective learning processes and are entrenched in business activities. The application of core competencies has become more popular since the 1970s for researchers as businesses started to re-think their approach and the capabilities required in their structures. The concept gained traction as top management and decision makers start to buy into the execution of core competencies in their structures. Researchers, Nicolai & Dauwitz (2010) believe that businesses should build and develop their strategy around its core competencies. The concept should be used to develop decision frameworks, as argued by researcher that core competencies shall remain internally and non-core competencies outsourced to service providers.

The modern world of business owners and managers has to consider whether or not to outsource certain functions. According to Lee & Kim (2010), an inverted relationship exists between the organisation's performance and outsourcing. Therefore, a business needs to establish the importance between the core operations and those activities that are considered non-core competencies. The latter are classified as the routine function within the operations and can easily be duplicated by an outside party of vendor. In contrast to the non-core activities, we find the operations core functions that affect shareholder wealth and financial stability. These activities generally add value to the business (Cicek & Ozer, 2011). Researchers draw a distinction between the two variables, which are unique to each organisation. It is therefore thought when an organisation focuses on its core functions and specialises therein, whilst outsourcing the non-core activities, this entity has an innovative business (Hsiao, et al., 2010).

A core competency can vary from business to business, hence, it can be classified as anything from high performance teams in manufacturing to the brand of a product. It creates a tangible result that render long-term competitive gains for the business. Therefore, researchers believe that a core competency has certain characteristics that make it unique. It can improve customer excellence or tap into the unexplored markets. Through creating these kinds of advantage over competitors, core competencies make it harder for others to imitate one's product offering of service excellence (Jacobs & Chase, 2014).

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#### 2.6.4 Resource-based view

The inside-out perspective seeks that a business views its organisation as a collection of productive resources. These resources must be deemed valuable to the organisation. The perspective is built on the assumption that businesses should identify its internal resources before seeking external resources. This thinking on the resource-based view in business can allow competitive advantage if resources and capabilities are deployed effectively (Barney, 1991). Some researchers argue that this view is built on the proposition that businesses lack capabilities in certain areas and seek to overcome these weaknesses through outsourcing to external parties. The deployment of resources enables the business to execute its business strategy in order to enhance efficiencies (Barney, 1991). The primary focus of the resource-based view would be that capabilities and resources can vary across businesses, but still remain homogenised (Barney & Hesterly, 1996). The most popular use of the theory takes place during the preparation phase of the outsourcing process.

#### 2.7 The reasons for outsourcing

The literature explored gives different views that underline the reasons for an organisation to apply for outsourcing. The initial theory, TCE unpacks the cost of production versus the procurement of a cheaper solution for the organisation (Beregszaszi & Hack-Polay, 2012).

From the literature, we find that competitive advantages in the value chain are derived from the outsourcing model, hence, researchers claim that this benefit can result in a cost-effective business that sets itself apart from the rest in the industry (Beregszaszi & Hack-Polay, 2012). Porter cements this point of view, stating that competitive

advantage for an organisation originates from its cost leadership strategy (Stonehouse & Snowdon, 2007). Furthermore, once an organisation operates on a cost-effective platform, it results in a strategic benefit for that organisation (Beregszaszi & Hack-Polay, 2012).

The organisations entrenched in unfavourable markets become cost conscious. The business world is moulded by innovation and globalisation and innovative solutions, which can change the organisational strategy to adapt to market conditions. The technological influences act as a catalyst could accelerate business performance and enable it to render service at a higher level (Beregszaszi & Hack-Polay, 2012).

The literature explores various reasons and influences that may cause an organisation to take up the option of outsourcing. The organisational goals, its corporate strategy and the market size of the industry, can all contribute to the decision to outsource (Birtch, et al., 2010). Outsourcing can be viewed as a solution to a business problem. (Corbridge & Pilbeam, 2010). The basic form of outsourcing is confirmed once an organisation does not render a certain service in-house (Baltzan, 2014). Furthermore, on this notion, business organisations expect a premium service delivery from its outside service providers (Alewell, et al., 2011). Other researches claim that outsourcing is fashionable and remain nothing but a fad (Walker & Walker, 2000).

It seems that the cost-saving initiatives could be one of the main drivers to pursue an outsourced model. Business organisations that outsource human capital will be affected incertain functions such as payroll, reduction in expenses and elimination of overtime. The sentiments are not shared by all researchers. In contention to this point, other researchers are of the opinion that organisations look further beyond pure economic motives (Birtch, et al., 2010).

The organisation that applies a cheaper resource will eliminate extensive capital outlay and further investments. It could lead to economies of scale, which in return is linked to the TCE theory. The organisation therefore makes a "make or buy" decision. It therefore becomes clearer that cost will be allocated to the variable state and no longer a fixed position on the financials. This cost migration is viewed in a more favourable

manner which sits well with the executives of the organisation (Beregszaszi & Hack-Polay, 2012).

A rigorous selection criteria assist with keeping the cost to a minimum level. Some researchers argue that organisations need to take into consideration the indirect and hidden costs of an outsourcing model when making the decision. In addition, these researchers are of the view that the outsourcing of certain business activities might be seen as the most viable option by passing the risk onto the service provider. The mitigation of risk acts as a driver, especially for small enterprise business owners that are more vulnerable to risk (Beregszaszi & Hack-Polay, 2012).

Exploring the model that holds a strategic intent can open new avenues for the change agent or strategic partner to create excellence in the organisation (Ulrich, 1997). Therefore, it is imperative that an organisation focuses on releasing itself from those activities that are not adding value to the business. It has to focus on the ones that ensure strategic wealth and added value activities. These are the core competencies of the business. This study centres on the relinquishment of the organisation's noncore competencies and cultivating an outsourced model that generates more strategic direction (Barney, 1991).

An influential aspect for business performance argued by researchers is that training and development of staff can catapult a positive workspace that harbours a greater performance. Furthermore, some have the view that it releases the innovation from the inside of the business (Beregszaszi & Hack-Polay, 2012). In contrast to these views, some researchers are of the opinion that it may not have a great impact on the business performance after all. Hence, there would be no effective influence on the organisation's outputs (Beregszaszi & Hack-Polay, 2012). A contributing role which can ensure an all-inclusive organisation would be following an outsourced business approach. This view requires further influence of factors that have an impact on strategic goals (Corbridge & Pilbeam, 2010).

#### 2.8 Discussion on outsourcing of supply chain activities

The concept of outsourcing in an organisation has influenced traditional organisation structures to make some changes to their traditional approaches. It seems that shop

floor workers and entry level staff members are more exposed to a high degree of outsourcing. This comes after the manager starts focusing more and more on the impact that an outsourced model might have on the bottom line. The study aims at understanding and identifying the major drivers that cause managers to make a decision to outsource the human resources. Through data analysis and processing, we explore whether it could be business pressures that confirm the decision of the managers (Beregszaszi & Hack-Polay, 2012).

The established role players in the FMCG industry grant that the risk is diluted and not confined to only one segment in the business. If employees are disengaged due to the decision to outsource, it becomes clear that the motivation thereof reach beyond cost, risk and quality.

A greater focus on core activities for an organisation present little confirmation that it could be the right solution to ensure an efficient operation. In contention to this view, it might bear the cost of uncertainty through relinquishing control of certain functions.

## 2.9 The disadvantages and advantages of outsourcing in supply chain

#### 2.9.1 Disadvantages

Organisations cannot rely on outsourcing to have a quick immediate impact on business and financial performance. On the contrary, the decision to outsource might have an adverse effect on the business performance. A reduced head count on the shop floor might not be viewed as a suitable long-term benefit. Therefore, the influence on operational efficiencies and sustainability might be negatively impacted on (Beregszaszi & Hack-Polay, 2012).

Once the organisation focuses on its internal synchronisation and reducing its structures, the higher the level of dependencies on the outsourced service provider. The adverse circumstances could be a result of losing certain expertise that the organisation built up over time (Beregszaszi & Hack-Polay, 2012). The relinquishment of non-core activities can reduce the skill base internally and have an effect on the effectiveness of the organisation (Beregszaszi & Hack-Polay, 2012).

We learn from literature that the outsourcing model can have a direct impact on the morale of employees, once the restructuring process commences. The latter might act as a catalyst for an uncertain workforce (Seth & Sethi, 2011).

## 2.9.3 Advantages

We explore the concept that the outsourcing of certain activities can have a direct result on the value adds for the organisation. It can have a strategic impact if the organisation implements it correctly. This will generate a higher degree of flexibility and agility for the organisation. The restructuring will bring role players with fresh ideas and new approaches (Seth & Sethi, 2011).

Once the organisation focuses on its strengths, it enhances its effectiveness. The shareholder value and the customer excellence will improve. The organisation will experience greater flexibility as a result. The credibility of the organisation shows improvement once outside vendors are utilised. The cost saving initiatives are viewed by many as the most popular reason for a business to continue with the outsource model. The organisation will then convert its fixed cost structure for a variable option. These changes can improve the management of risk for the organisation, whilst producing an overall higher level of output. The organisation performs better at reduced costs, as a result (Seth & Sethi, 2011).

#### 2.10 Background of outsourcing logistical activities

The concept of outsourcing is defined as the undertaking that an organisation makes to move its internal responsibilities to outside suppliers. The technology, the materials handling equipment, as well as the facilities, are moved to the outside supplier. (Jacobs & Chase, 2014).

The outsourcing model holds its benefit to each organisation as it allows for a competitive advantage. The competitive advantage provides the organisation with an edge over its competitors and generates strategic value. The request to respond to market fluctuations and the forecast of organisational direction means that it has to focus on its core competencies (McIvor, 2008). The traditional operating strategy will give way for the outside supplier. The roles and responsibilities otherwise performed internally will be outsourced (Cicek & Ozer, 2011). Strengthening the core functions

through reallocation of its resources will improve the organisation's product and service delivery (Lee & Kim, 2010).

The focus on reducing the financial burden was traditionally the main focus point for organisations, but recently, this focus has shifted to the improvement of productivity and efficient operations (Cicek & Ozer, 2011). The speed of execution in operations and accuracy improved the flexibility of the organisation. It assists the organisation to tap into new opportunities, technologies and skills (Elmuti, 2004). Once the organisation has assessed it skills levels and capabilities, it can make the decision to outsource and take into consideration which are the non-core competencies (Slack, et al., 2013).

## 2.11The outsourcing process

## 2.11.1 Preparation

In order to realise the full potential that outsourcing brings, we need to consider how the core competencies of the company can reap a competitive advantage in certain business opportunities. The company needs to consider and differentiate between its core functions and other functions that will assist the company in reaching its goals.

The preparation of outsourcing is the initial step in the outsourcing process. This phase is usually subject to certain opportunities, risks and the extent of the core activities are outsourced. According to Perunovic (2006), the company should gauge all their strategic objectives in order to ascertain whether they should outsource. In addition, what activities and when, where and how to outsource these activities. McIvor (2005) argues that a competitive collaborative strategy should be followed if the risks are low and the activity is critical to the company's competitive advantage. The company would in turn follow a close collaboration strategy if the market risks are perceived to be higher. Hence, Perunovic (2006) argues that a company should be in search of a contractual or a collaborative relationship to conclude a short-term or long-term relationship. The latter requires a close collaborative relationship in order to mitigate the market risk.

A longer relationship is used with strategic intent and where the outsourced activity is aligned to the core competencies of the company (Greaver, 1999). He further argues that a non-strategic relationship is associated with a higher degree of uncertainties in the outsourced relationship.

#### 2.11.2 Vendor selection

The vendor selection phase renders a critical step for the company, because this step might have future implications if not executed correctly. Therefore, Perunovic (2006) argue that in preparation for the execution, the company needs to screen for suitable vendors. Furthermore, Perunovic (2006) state that in order to conclude with an appropriate vendor the company has to request for writing of proposals which defines the evaluation of the vendor. Subsequently followed on evaluating, the vendor is the arrangement for outsourcing solution. A contract is negotiated, which becomes the objective during the vendor selection phase.

#### 2.11.3 Transition

Once the vendor is signed, the company has entered into the next phase in the outsourcing process. The transition allows for a halt to the in-house activity and a substitution with an outsourced function. The transition of employees, physical assets and technology are a period of high sensitivity which should be handled with due care.

#### 2.11.4 Managing relationship

The continuous assessment during the outsourcing process, as well as the gauging, can be the key for a successful relationship with the company vendors. According to Felto (2005), this stage requires the most attention and efforts. Importantly, both parties require of them to establish higher degrees of trust, flexibility and commitment. According to Perunovic (2006) when managing the relationships, the company needs to hard and soft management styles. The latter refers to vendor management through trust, which is perceived as soft management style, whereas the contract management will render a harder management style, both are required to ensure a successful relationship. It is important to know that when knowledge is shared as part of the outsourcing process, the success is influenced by the capabilities of the people present of the knowledge.

#### 2.11.5 Reconsideration

The last phase in the outsourcing process is easily forgotten (Perunovic, et al., 2006), but there are a number of reasons why one should reconsider the outsourcing contract to be terminated. The company is left with three options during this phase, which include to continue with the relationship, insource the activity, or find a new vendor to continue with outsourced work.

#### **2.12. Summary**

The literature review provided insights into the theories that are identified and used by the researcher to create a platform to test results against. The literature review centred on the following areas. Firstly, supply chain management was considered, secondly, the different theoretical views for outsourcing in the workplace were explored and finally, the reasoning around outsourcing's logical activities were the penultimate focus point. Ultimately, the framework for supply chain performance was developed and the performance measurements identified. The following chapter highlights the methodologies that the researcher will use in order to paint the findings against the canvass of literature discussed in Chapter 2.

## **CHAPTER 3**

#### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter explores the research methodology used in the study. Therefore, it provides an overview of the research process that has been used and continues to explain the philosophical considerations behind the research methodology. The details for each research method used, as well as the process of the data collection and observation process used in the fieldwork, are explored. According to Amaratunga (2002), research can be defined as the process of enquiring and investigation through a systematic and methodical approach which increases and improves knowledge. There are three steps followed in the research process. To lead-in research, the researcher identifies the problems in preparation of the literature review. During the process, initial ideas are identified and revised to establish gaps within the researched area. The respective research questions spawn from the research problems, whilst literature is examined to ascertain whether the research questions had been answered. Subsequently, the research aim is identified, based on the final selection of research questions. The research objectives originated from the above-mentioned exercise.

#### 3.2 Aim of the study

The research aim is to understand the impact of outsourcing on an organisation's effectiveness. Furthermore the researcher wish to identify the reason behind making a decision to outsource. The study is aimed at unpacking the beneficial impact that outsourcing has on the organisational performance, productivity and customer satisfaction.

#### 3.3 Research paradigm

Positivism system is philosophical in nature and recognizes factual information that has been gathered through observations. The knowledge gained through the analysis of the observations, in addition to a measuring tool, can only render trustworthy results. The studies that adopt positivism allow the researcher to remain neutral whilst having limited influence on the data collection process. The objective approach followed by

the researcher become evident in the interpretation of the results. The results are quantified and observed through statistical analysis (Morris, 2006).

The mathematical verification promotes the empirical findings, with the researcher remaining independent from the studies being carried out in the research. Thus, the researcher assumes independent and the research is viewed in an objective manner (Morris, 2006).

## 3.4 Research design and methods

The research design is descriptive, the researcher used it to develop the database for a specific science. In this study, the database for outsourcing activities to achieve organisational performance was initiated. It is imperative to provide the approach to research, theories, concepts, methods and methodologies, prior to conducting research. (Silverman, 2000). According to (Silverman, 2005) the research approach establishes a framework of how we look at reality. This study takes on a social nature, hence, we find the two different categories of research approaches linked to the methods used. The researcher knows these two categories as the qualitative and quantitative research approaches.

There is a distinctive difference between quantitative and qualitative research methods, with the former comprising numerical values and statistics, whereas qualitative research explores descriptions and meaning. (Shields & Twycross, 2003). Justifiably, quantitative methods are used to find meaning in research through use of questionnaires as a measurement tool. In comparison, qualitative research is invaluable to explore the measuring of people's behaviours and attitudes. (Shields & Twycross, 2003). Each method has its own benefits and shortcomings. The research paradigms, research questions and method are different for each method. Although they are different, they have to serve the purpose of the research. Although common sense will assist the choice of method used in the event, there is an issue with the characteristics in nature. Furthermore, quantitative and qualitative research can be combined as two sets of research methods into one (Sechrest & Sidani, 1995).

#### 3.4.1 Quantitative approach

The quantitative approach often demands a deductive relationship between research and theory. It necessitates the gathering of information and data of a numerical nature and constitutes a biasness towards natural science undertaking (Bryman, 2004). According to (Denzin & Lincoln, 2005), positivist science used in the most traditional form can be perceived as a westernised accomplishment, where the truth is verified and the views of the researcher remains worthless. The measurement and analysis in this approach does not allow for biasness on the part of the researcher. The quantitative enquiry is the relationship between variables and not processes (Denzin & Lincoln, 2005). The quantitative approach is argued by (Newman, 1977) as the cause- effect relationship to solve a problem through linking an abstract idea to that of the accurate measuring of a social problem. This approach can be used by the researcher to highlight the relative importance of various causes to a social phenomenon (Bryman, 2004). Thus, the researcher can accurately account for associations amongst the variables and understand the existing relationships. The results can be generalised to the whole population due to the statistical nature of this approach. It was the intent of the researcher to confirm a cause-effect relationship between the variables related to the supply chain measurement factors in the study. The quantitative research approach is an attractive option as the researcher aims to establish deep insights into a natural setting.

#### 3.4.2 Qualitative approach

Some researchers argue that the qualitative research approach is not distinctly confirmed by paradigms and theories to clearly define it in research. Denzin (2005) argues that the qualitative approach is difficult to define clearly. Furthermore, Denzin (2005) furnish a generic definition as an activity that locates the observer in the world. Thus, it encapsulates of a set of interpretive, material practices that make the world visible and transcends the world.

The field notes, conversations, memos, photographs and recordings transcends the world into a sequence of representations. The naturalistic approach allows the researcher to study natural settings as the researcher attempts to understand and interpret a certain phenomenon.

The qualitative research approach is not considered as the "best fit" to meet the researcher's aim for the research project. According to Mason (2002), the affirmation of people's views and knowledge, their understanding and undertakings are all meaningful properties that the research question will explore. The research concerns the views and opinions of the employees of Pioneer Foods, with regards to the effectiveness of its supply chain and the performance of their supply chain.

# 3.5 Study setting

Pioneer Foods storage facilities were identified for the study setting of this research project to gather knowledge and information from real workplace situations. The physical nature of this setting is determined by warehouses and distribution centres throughout South Africa. The researcher could interact with the employees, in terms of the experiences and challenges faced on the shop floor. These experience originate from working in a robust environment where movement of goods are demanded and delivered at a rapid pace. The researcher's field locations were established within the scope of the Pioneer Foods Logistics structure where information could be managed and retained on the same individuals. The research project are affected by social factors imposed on employees. A knock on effect influence the organisational performance which impact on the struggling economy.

#### 3.6 Population

The population of a research project can be defined as the total number of subjects that conform to a set of specifications. It comprises of the entire group of individuals that is of the interest of the researcher. It is the interest of research project that can be generalised by the researcher (Polit & Hungler, 1999). The research population for this study comprise out of a 150 supply chain employees employed within the Pioneer Foods Group.

### 3.6.1 The target population

The target population for this study is identified as the set of individuals that the researcher aims to investigate. The research draws the sample from the target population. In this study, the target population would be the supply chain personnel, the employees at the distribution centres across Pioneer Foods' logistics footprint in South Africa. These individuals focus on the planning of materials and finished goods

on an end to end nature. The researchers explores the age, sex and the occupation of the target population gain a better understanding on how outsourcing would influence the business effectiveness. Furthermore the transport desk and distribution centre personnel ensure that products are warehoused in a safe condition and shipped to the customer at the lowest transport cost. The participants has to be employees within the supply chain space with Pioneer Foods where data were collected and had to be willing to participate in the study.

#### 3.7 Sample

The sample is defined as a subset of the research population that was selected for this study and it represents the research population (LoBindo-Wood & Haber, 1998). A simple random sampling technique was followed for the survey, because questionnaires were distributed to the supply chain personnel within Pioneer Foods. The probability sampling type used meant that each participant in the population had an equal chance of being selected (Creswell, 2009). The process of selecting a portion to represent the entire population is known as sampling (LoBindo-Wood & Haber, 1998). A number of supply chain individuals were selected. The researcher saved time and money by selecting the sample to be studied instead of studying the entire population. Furthermore the researcher attempts simple random sampling without the replacement to avoid that elements are not repeated.

The proposed rule of thumb for determining the sample size where the sample size is more than 30 or less than 500 are appropriate for most research. The minimum size should be 30% of the total population (Sekeran, 2003). The size of the sample is determined by a number of variables. The criteria to determine the sample size depend of the level of precision, the level of confidence and the degree of variability. The level of precision is also known as the sampling error. It reflects the range in which the true sample is estimated. The confidence level is based on the idea of the Central Limit Theorem. For this study the researcher has selected a 95% confidence level. The homogenous nature is underpins the degree of variability (Lenth, 2001). The researcher consider these factor when determining the sample size for this study. For the population of a 150 Pioneer Foods employees at a confidence level of 95% and a level of precision of 11%, the sample size equates to 50 individuals.

#### 3.8 Data collection

In the first study, the researcher administered the questionnaire of 50 members of the Pioneer Foods Logistics Services. The second study in research project involved a number of observations that were recorded during the movement of resources and warehouse practices. Manual record keeping was done on the time duration of picking a load in the warehouse. Thus, the time picking commence versus the time picking was completed and submitted for processing. The information was compile by the researcher to monitor the efficiency of worker output. The information for the second study in the research project was kept on electronic records by the warehouse personnel for ease of analysis.

#### 3.8.1 The research instrument

The data was gathered through a structured online questionnaire (Appendix 1) that is utilized in the first study is identified as the main instrument for the analysis in identifying the impact of outsourcing. The design of the questionnaire is set to encapsulate a wide range of information which facilitate a comprehensive research of this study. The framework for sampling is carefully designed by the researcher to consider the constraints and convenience of handling and processing of the data. The researcher attempts to provide the audience with evidence in a manner that does not reflects any biasness.

The questionnaire was carefully constructed by the researcher to avoid any ambiguity and poorly asked questioning. The questionnaire was administer electronically to the respondents of the survey and sent to a 150 respondents. The questionnaire was accompanied by a cover letter which briefly outlined the objectives of this study (http://impactoutsourcing.questionpro.com). The respondents complete the questionnaire of the electronic portal. The data of the survey was compiled by the researcher for further analysis (QuestionPro, 2016).

The observations used in the second study are drawn from real life experience in practices. The company documents and files of Pioneer Foods features these situations and illustrate the concept portrayed by the researcher. The display of data and evidence in this study has been observed objectively.

#### 3.8.2 Time Frame of study

The researcher conducted the data collection of this study from February 2016 to May 2016. Questionnaire for study 1 was completed and submitted during this period. The data collection of the observations done by the researcher in Study 2 stretches over a longer period. The observation are record for the period October 2014 to September 2016.

### 3.9 Data analysis

The researcher is interested in defining the impact that outsourcing has on supply chain and operational effectiveness. The researcher will assess data in the terms of the research questions that was posed for this project. The data analysis of the key drivers to outsourcing through probability sampling. Respondents will complete a 5-point Linkert scale. The researcher derive his data from the compile information on an electronic data base.

The relationship between outsourcing and organisational performance will be presented graphically. The researcher present the descriptive statistics to the audience to display the relationship between the two variables. The impact that outsourcing has on operational efficiency, competitive advantage and whether it leads to customer satisfaction are displayed through us of descriptive statistics. The researcher use the form of descriptive statistical analysis and present the study perform on the sample group of employees at Pioneer Foods. The researcher want to understand and gain clarity for the research of the entire population. The researcher uses the measures of central tendency, such as the mean and other percentiles to compute the data. In addition, the researcher make use of dispersion, such as the standard deviation and the ranges when computing the data for the research project. The researcher's analysis conducted should determine the strength in the relationship between outsourcing and the effect on operational effectiveness. The researcher uses triangulation to draw an understanding between the data presented. The researcher eliminates the risk of systemic biases in the study. According to Fontana and Frey (2005) human beings are complex in nature with their lives continuously changing. Furthermore, the use of more than one method strengthens the chance of greater understanding on how they conduct their lives (Fontana and Frey, 2005). This method also assists the researcher to gain a better assessment of the validity of the

explanations that the researcher wishes to develop. It will provide the researcher with a credible conclusion (Maxwell, 1996). The use of triangulation is used by the researcher as a strategy to extend the trustworthiness emanating from the study. The triangulation used are a combination of data and analytics which fortifies a rigorous an in-depth approach.

The study presented a multi-methods approach (Creswell, 2009). Hence, a combination of methods, questionnaires and observations are analyses in this study. In this project, the findings from data were cross-checked with the results of observations made during the site visits and with documentation analysis. An additional form of triangulation will be that of data triangulation (Creswell, 2009). This type of triangulation entails the use of various sources of data. This study displays the findings generated from secondary data, such as the organisation's reports, work process documents, notifications and public documents. The primary source of data will be the observational evidence gain from site visits. Therefore, the multiple sources allow for additional cross checking of the findings in the study as well as evaluating the consistency and reliability (Creswell, 2009).

### 3.11 Validity and reliability

A credible claim of the truth is known as the validity of the research approach. Certain doubt may arise as the validity approach rarely makes provision of what is believed on the opposing cases (Silverman, 2000) The shortcoming of reliability is the fact that a qualitative researcher goes about categorising the events or activities described. The reliability of the interpretation in the study may be questioned. This could happen even in the event that the study is recorded and transcribed (Silverman, 2005). Silverman (2000) argues the two responses to the question of the validity of the study. Thus, the triangulation will be the initial response and secondly the validation. The undertaking of combining various ways at perceiving the findings act as an attempt to gain a true fix on the situation.

The validation of respondents in study 1 allows that we revert to the subjects with provisional results and refine the results accordingly. The research asked that the respondents to clarify their observations in an attempt to reflect an honest

representation. The respondents in study 1 had an opportunity to comment on the problems identified. The names and details of the respondents will not appear in the study. The reliability of the research measurement was complete via a pre-test and post-test to measure the variation of results on different days. This strategy was used in an attempt that respondent would render and honest and real version in the research. Therefore, the degree of a good quality research is evident when the study generates a good understanding (Stenbacka, 2001). The confirmation of reliability in the qualitative research and the examination of trustworthiness is critical. According to Seale (1999), the trustworthiness of the research project sits at the centre of the issues traditionally known as validity and reliability.

#### 3.12 Ethical considerations

Ethical issues are highly regarded amongst academic institutions. Ethical issues are concerned with the morality of human conduct and are especially relevant in relation to research. Their vital role is to protect the rights of human subjects. Ethics is becoming an increasingly prominent issue for all researchers. This comprehensive and accessible guide introduces students to the field and encourages knowledge of research ethics in practice (Israel & Hay, 2006). The respondents were informed that their responses would be treated confidentially. Thus, no names, ethnic group and unit name were required for feedback. The survey pack (Appendix 1) was sent out to respondents through electronic mail from the desk of the Communications Liaison Officer of Pioneer Foods. Respondents have to complete the questionnaires and respond to a central e-mail address that was set up for projects of this nature.

#### 3.13 Conclusion

In this chapter the researcher aimed to contextualize the methodologies appropriate for the research project. The researcher argue that the research design is the best fit for this study. The researcher also discuss the ethical implication for this study and the descriptive analysis required to gain a greater understanding of the data presented.

### **CHAPTER 4**

# **EMPIRICAL FINDINGS**

## 4.1 Study 1: Introduction

The objective of this chapter is to present and summarise the empirical findings of the data collected from the participants at Pioneer Foods. The data that the researcher obtained was analysed and illustrated through graphs and tables. This chapter consist of two studies. The first study focus on the data collected from the questionnaire, whilst the second study reflect the analyses from the observations made by the researcher.

## 4.2 The Overview of Survey

In figure 4.1 the researcher illustrates the percentages of the sample drawn from the total population in this study. The evidence from the pie chart in Figure 4.1 indicate that 25% of the total population is equal to the sample of the study.

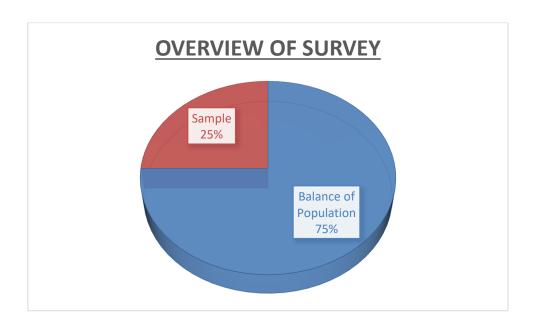


Figure 4.1: Survey overview

The following graphs and illustrations display the demographical evidence from the survey.

#### 4.3 Gender respondents

In figure 4.3 we find that a total of 52% of the participants were males and 48% comprised the females.

## What is your gender?

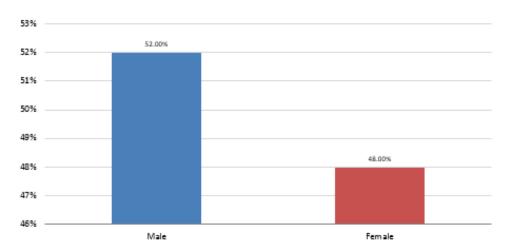


Figure 4.2: Gender of respondents

The additional demographical information form survey indicated that 36% of the respondents were between the ages of 40 to 49, whereas 33% made up the ages in the category of 30 to 39. The ages 16 to 19 represented a response of 3% and ages 20 to 29 had a 12% representation. The ages 50 to 59 had 14% response, whilst 1% made up the category 60 and over.

## 4.4 The results of racial groups

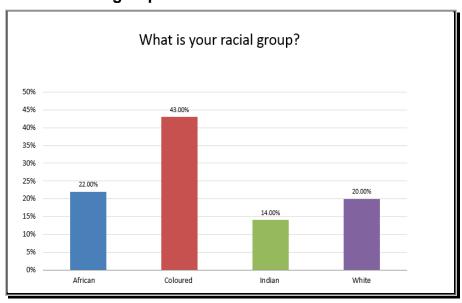


Figure 4.3: Racial Group

Figure 4.3 indicate the majority of the respondents were of the Coloured racial group, forming 43% of the total respondents. It is evident that 22% were of African ethnicity, whilst 22% represented the White and 14% was made up of the Indian ethnicity.

### 4.5 The education of respondents

What is your highest form of education (if currently studying, indicate highest qualification already obtained)?

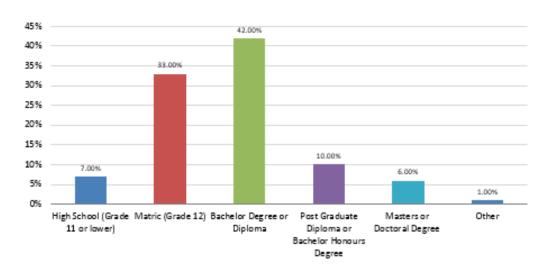


Figure 4.4: Education of respondents

Figure 4.4 shows that 42% of the survey respondents had a Bachelor's degree or Diploma and only 33% of the respondents had qualified for Matric (Grade 12). A total of 10% had a post-graduate degree and 6% represented those with a Master's or Doctoral degree. 1% made up a NQF technical qualification, whereas 7% only qualified for Grade 11 education.

#### 4.6 The key drivers of outsourcing

The researcher introduces the key drivers that lead to a decision being taken from management to outsource in the workplace. Critical that these drivers has an impact on the business performance.

# How do you feel about the following key drivers to outsourcing in the workplace?

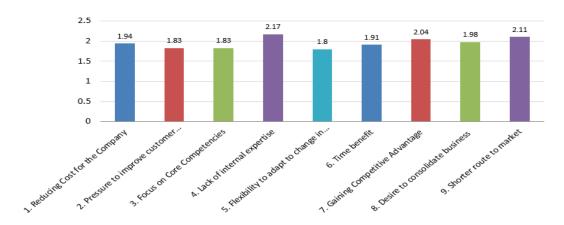


Figure 4.5: Key drivers of outsourcing in the workplace

From Figure 4.5 we find that the key drivers such as the reduction in cost to the company has a mean of 1.94, with 49% of the respondents believing that outsourcing is a key determinant to reduce cost for the company. The pressure to improve customer levels indicated service excellence to the company's customers. A total of 51% of the respondents believed that outsourcing is a key determinant to improve customer satisfaction.

Core competencies are often referred to as the key drivers that differentiate a company from its business environment. Hamel & Prahalad (1990) argues that core competencies are the collective learning within the company and the coordination of diverse production skills and integrate multiple streams of technologies. Respondents for this survey felt very strongly towards outsourcing and focusing on the company's core competencies. The survey results find that a total of 45% of the respondents strongly agreed with this notion.

Furthermore we learn from figure 4.5 that the highest mean of all the key drivers above indicated that a lack of internal expertise forces employers to outsource in the workplace. If profitability is used as a determinant for organisational performance, it can be argued that 42% of the respondents agreed that outsourcing ensures profitability. The balance of the key drivers focuses on the flexibility to adapt to change or work fluctuations, time benefits, gaining competitive advantage, the desire to consolidate business and a shorter route to market.

## 4.7 How outsourcing contributes to profitability

The contribution to the profitability of the business through the outsourcing decision is depicted in the Figure 4.6 below.

Outsourcing contributes to the profitability for the company

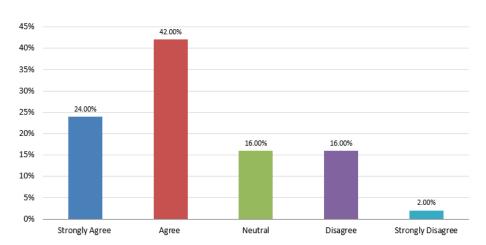


Figure 4.6: The affect outsourcing has of organisational profitability

Outsourcing contributes to the profitability for the company					
Mean	2.29				
Standard Dev.	1.08				
Variance	1.16				

Table 4.1 Outsourcing contributes to the profitability of the company

Figure 4.6 illustrate that 42% of respondents agree that outsourcing contribute to the organisational profitability.

In order to understand what determines productivity, the respondents felt that workplace training was the overall in-house factor. In figure 4.7 we find that 30% of the respondents answered that on-the-job training holds the key to workplace productivity.

### 4.8 The internal factors affecting productivity

The information on the internal factors affecting productivity in the workplace is key determinant of Pioneer Foods internal stakeholders influence the efficiencies in their operations.

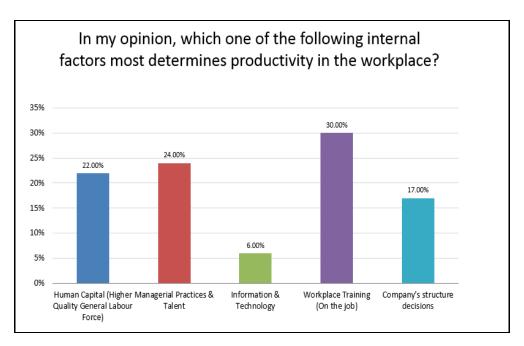


Figure 4.7: Internal factors affecting productivity

Furthermore, figure 4.7 illustrates that twenty four percent (24%) of the respondents felt that a secure talent pool will render a productive environment, whist 22% felt that an organisation with a higher quality general labourers will ensure a productive workforce. The response to whether a talent pool would ensure productivity could be drawn in contrast to that of a lack of internal expertise as a key driver of outsourcing.

In contrast to the internal factors driving productivity, respondents had an interesting view on the external factor impacting on productivity in the workplace.

#### 4.9 External factors

The impact of external factors is illustrated in the next section. The researcher present the evidence how external factors affect the productivity of the operation,

# In my opinion, which one of the following external factors has the biggest impact on productivity?

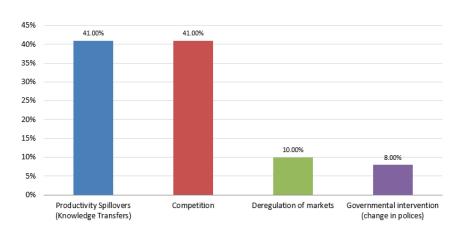


Figure 4.8: External factors impact on productivity

Figure 4.8 indicate a combined total of 82 % of the respondents felt that productivity spill-overs and external competition (41%) had the biggest impact. Figure 4.9 shows us that an overall majority of the respondents felt that productivity had a positive impact on the business with 75,41% of the respondents who felt strongly about this statement and 21,31% agreed with the notion, while 3,28% remained neutral.

## 4.10 Does productivity have a positive impact?

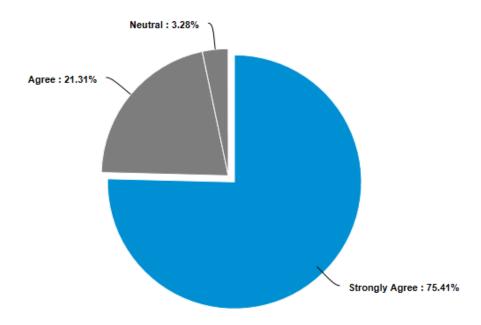
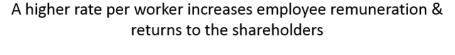


Figure 4.9: Does productivity have a positive effect

Figure 4.10 presents a higher productivity will yield higher remuneration and returns to shareholders, a total of 43% of the respondents strongly agreed with this statement, with 32% being in agreement.

#### 4.11 Effects of shareholder returns

The figure 4.11 indicate the how the respondents of the survey interpret the effects of a higher rate per worker will increase the remuneration and the returns to the shareholders of the company.



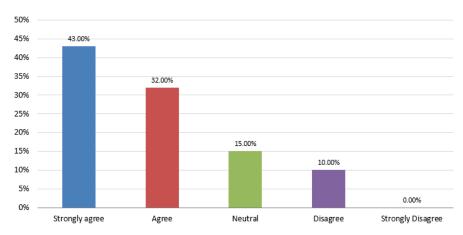


Figure 4.10: The effect on shareholder returns

## 4.12 The determinants of sustained business improvement

In Figure 4.11 we find that in order to understand the determinants for sustained business improvement, the respondents (47%) felt strongly that the productivity growth rate per worker is the key determinant.

# The productivity growth rate per worker is the most important determinant for sustained business improvement

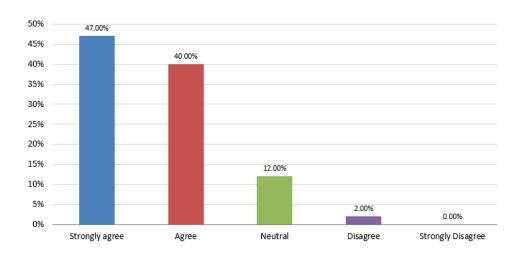


Figure 4.11: The determinant of sustained business improvement

Figure 4.12 indicate that only 45% of the respondents strongly agreed that a higher productivity will yield operational efficiencies in the workplace.

## 4.13 Output per worker impact on operational efficiencies

The output per worker is critical for operational manager as this measure determines the output of the operational performance.

A higher rate of productivity per worker ensures improved operational efficiencies in the workplace

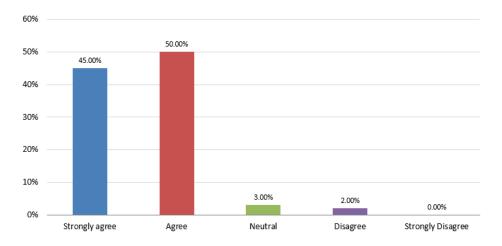


Figure 4.12: Link between productivity and operational efficiencies

It was interesting to observe that an overall combined majority of 95% of the respondents confirmed that a higher rate of productivity per worker will improve operational efficiencies in the workplace.

## 4.14 Outsourcing of non-core competencies

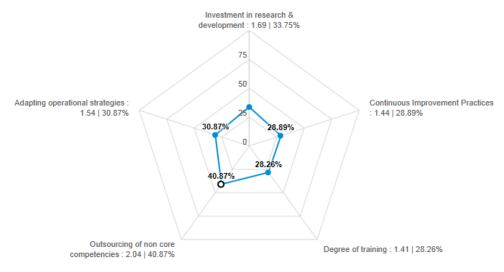


Figure 4.13: Outsourcing of non-core competencies

From figure 4.13, it is shown that the outsourcing of non-core competencies is a key driver of productivity, to which 40.87% of the participants agreed.

### Outsourcing of non core competencies

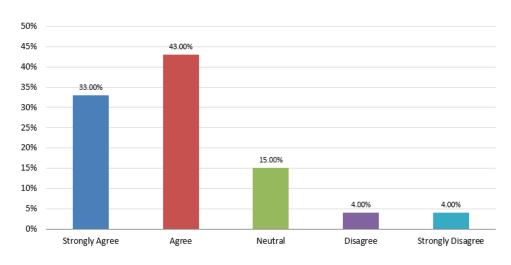


Figure 4.14: Outsourcing of non-core competencies

Outsourcing of non-core competencies improves productivity in the workplace.

Fifty one percent (51%) of the respondents' in figure 4.15 believed that pressure to improve service levels would be a direct result of outsourcing in the workplace.

# 4.15 Outsourcing on customer service levels

The respondents of the survey strongly agree that outsourcing will improve the customer service levels of the business.

# Pressure to improve customer service levels

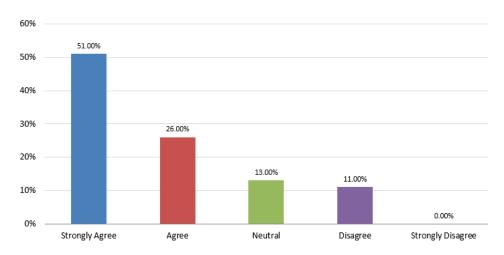


Figure 4.15: Pressure to improve customer service levels

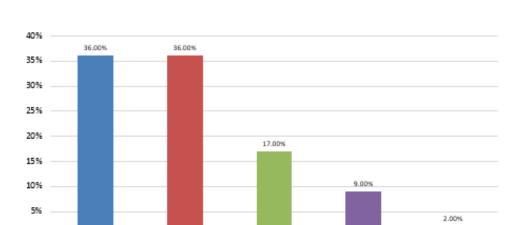
Outsourcing improve customer service levels	
Mean	1.83
Standard Dev.	1.03
Variance	1.06

**Table 4.2 Outsourcing improve customer service levels** 

The outsourcing of certain logistical activities renders competitive advantage in the industry.

## 4.16 Competitive advantage in outsourcing

The competitive advantage that companies look for in the market is critical to win the race over its rivals. Pioneer Foods has ensure that every opportunity is taken to solidify its competitive edge over other companies such as Tiger Brands and Primer Foods.



Neutral

Disagree

Strongly Disagree

# Gaining Competitive Advantage

Figure 4.16: Gaining competitive advantage

Strongly Agree

The information in Figure 4.16 indicates that 36% of the respondents felt that outsourcing yields a competitive advantage for the business.

Agree

Gaining Competitive Advantage	
Mean	2.04
Standard Dev.	1.04
Variance	1.09

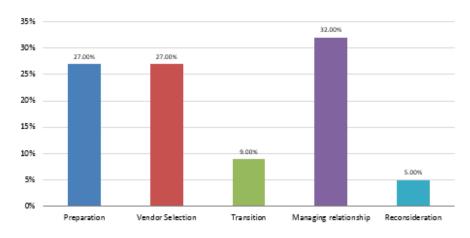
**Table 4.3 Gaining competitive advantage** 

#### 4.17 The outsourcing process

The most critical step in the outsourcing process is indicated in Figure 4.17.

What is the most critical step in the outsourcing process?

Choose from drop down below?



Mean: 2.591 | Confidence Interval @ 95%: [2.202 - 2.980] | Standard Deviation: 1.317 | Standard Error: 0.199

Figure 4.17: The most critical step in outsourcing

An overall majority of the respondents in figure 4.17 felt that managing relationships during the outsourcing process is the most critical step in the process. 32% of the respondents chose the option of managing the relationship, with 27% of the respondents feeling that preparation and vendor selection, respectively, are deemed very important.

In section 4.18 the illustration indicate that higher levels of efficiencies can results in enhanced business performance. The respondents of the survey favour this notion.

#### 4.18 Higher levels of efficiencies through the implementation of outsourcing

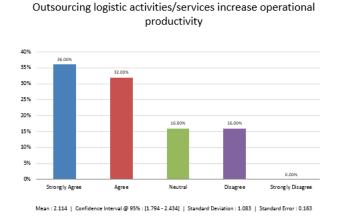


Figure 4.18: Outsourcing logistic activities/ services increase productivity

Outsourcing logistic activities/services linked to operational productivity	
Mean	2.11
Standard Dev.	1.08
Variance	1.17

Table 4.4 Outsourcing logistic/services linked to operational productivity

The rate of execution in the operations are determined by the staff completing the task. In the following figure 4.19, the researcher indicate that the evidence from the survey confirms this belief.

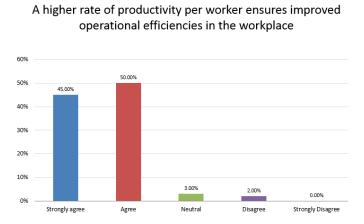


Figure 4.19: A higher rate of productivity per worker ensures improved operational efficiencies in the workplace

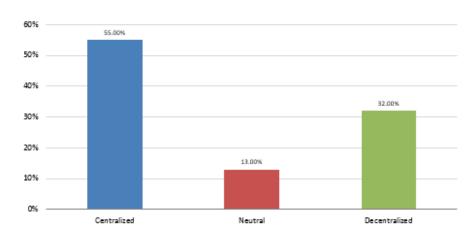
A higher rate of productivity per worker ensures improved operational efficiencies in the workplace	
Mean	1.62
Standard Dev.	0.64
Variance	0.42

Table 4.5: A higher rate of productivity ensures improved operational efficiencies in the workplace

Figure 4.19 illustrate that a higher rate of productivity per worker can prove beneficial results and enhance the operational efficiencies within the workplace.

The picking, materials handling and equipment to be outsourced and centralized the function will squeeze assets furthermore to improve efficiencies.

Picking, Materials handling & Equipment



Mean: 1.766 | Confidence Interval @ 95%: [1.505 - 2.027] | Standard Deviation: 0.914 | Standard Error: 0.133

Figure 4.20: Picking, Materials & Equipment

Picking, Materials handling & Equipment	
Mean	1.77
Standard Dev.	0.91
Variance	0.84

Table 4.6 Picking, materials and equipment

Figure 4.20 illustrate that 55% of respondents opt for the centralisation of the picking, materials handling and equipment of the company.

## 4.19 Study 2: Pioneer Foods Business Case Analysis

## 4.19.1 The Picking Analysis

The researcher has conducted a second study through observing the employees performing a manual function. The researcher will illustrated the difference between an insourced and outsourced picking model.

From Table 4.7 we are presented by the observations in the picking process at Pioneer Foods. The results originate from monitoring the movement of the staff in the picking function of the warehouse form the October 2014 to September 2015.

The results displayed in Table 4.7 shows that on average only one tonne of stock is pick by a permanent staff member.

Month	Mix Picking (tons)	Full Pallets (tons)	Total (tons)	Average Mix picking per day (tons)	Average  Mix picking per picker (tons)	Average Mix picking per hour (tons)
October	1137	2416	3553	49	10	1.2
November	1349	2728	4077	67	13	1.6
December	1064	3538	4602	53	11	1.3
January	1202	1540	2742	57	11	1.3
February	1047	1672	2719	52	10	1.2
March	1417	2100	3517	64	13	1.6
April	1383	1412	2795	63	13	1.6
May	1123	1493	2616	51	10	1.2
June	1621	1714	3335	74	15	1.8
July	1831	2240	4071	83	17	2.0
August	1366	1654	3020	62	12	1.4
September	963	1527	2490	44	9	1.1
Total	1292	2003	3295	60	12	1

Table 4.7: The picking analysis for the period of 12 months from October 2014 to September 2015

The information displayed in table 4.8 shows a reduction in the total tonnage picked year on year. The tonnage decreased from 1292 to 1226 at the end of September 2016. The average tonnage per picker states one tonne for the same period.

The results in Table 4.8 render finding based on an insourced picking model that was used in Pioneer Foods business.

Month	Mix Picking (tons)	Full Pallets (tons)	Total (tons)	Average Mix picking per day (tons)	Average Mix picking per picker (tons)	Average Mix picking per hour (tons)
October	658	1241	1899	31	6	0.75
November	930	2828	3758	44	9	1.06
December	1974	2112	4086	94	19	2.26
January	597	1138	1735	28	6	0.68
February	898	2328	3226	43	9	1.03
March	1274	2270	3544	61	12	1.46
April	2083	4636	6719	99	20	2.38
May	1003	2052	3055	48	10	1.15
June	1018	2087	3105	48	10	1.16
July	1865	2240	4105	89	18	2.13
August	1411	1654	3065	67	13	1.61
September	999	1527	2526	48	10	1.14
Total	1226	2176	3402	58	12	1

Table 4.8: The picking analysis for the period of 12 months from October 2015 to September 2016

Employee	Actual volumes	Expected volumes	Sum of time (min)	Sum of actual time	Productivity	Efficiency	Idle time	Average
- · · ·		40000	40000				1000/	
Permanent 1	0	48000	10800	0	0%	0%	100%	0
Permanent 2	11939	48000	10800	4800	25%	44%	56%	1.1
Permanent 3	24216	48000	10800	8160	50%	76%	24%	2.2
Permanent 4	2783	48000	10800	1440	6%	13%	87%	0.3
Permanent 5	2256	48000	10800	1920	5%	18%	82%	0.2
Permanent 6	6825	48000	10800	3840	14%	36%	64%	0.6
Permanent 7	22400	48000	10800	8160	47%	76%	24%	2.1
Permanent 8	24471	48000	10800	8160	51%	76%	24%	2.3
Permanent 9	7701	48000	10800	4800	16%	44%	56%	0.7
Totals	102591	48000	10800	4587	24%	42%	58%	1

**Table 4.9 Monthly Picking Measurement for the month of June 2015** 

Employee	Actual volumes	Expected volumes	Sum of time (min)	Sum of actual time	Productivity	Efficiency	Idle time	Average
Outsourced 1	28279	48000	10800	7200	59%	67%	33%	3.93
Outsourced 2	25000	48000	10800	10080	52%	93%	7%	2.48
Outsourced 3	38716	48000	10800	10080	81%	93%	7%	3.84
Outsourced 4	28926	48000	10800	9600	60%	89%	11%	3.13
Permanent 1	13707	48000	10800	9600	29%	89%	11%	1.43
	·		·	·	·	·	·	·
Totals	134628	48000	10800	9312	56%	86%	14%	3

Table 4.10 Monthly Picking Measurement for the month of June 2016

Table 4.9 indicate actual volumes in units pick at 102591 with a productivity yield of 24% and total efficiency at 42%. The total time idle was 58%. The average picked quantity remain at 1. In contrast figure 4.10 shows a total actual volumes in units picked was 134628 with a productivity yield of 56% and total efficiency of 86%. The idle time is illustrated at 14%. The average quantity picked increased to 3 pallets.

# 4.18 Summary

The research instrument allowed the researcher the data presented in Chapter 4. The findings of the study render positive results towards outsourcing in the workplace. The researcher will draw the contrast of the case study in Chapter 5, against the results found in Chapter 4.

## **CHAPTER 5**

#### **ANALYSIS AND DISCUSSION**

#### **5.1 Introduction**

In this chapter, the data and results presented in Chapter 4 are being discussed. The responses are discussed and compared to the different views on the impact of outsourcing and operational effectiveness of the business. The responses from the two different studies are analysed and compared with the different views and underlying theories established in the study. Therefore, the responses in terms of the preferred outsourcing and productivity are correlated against the organisational results of the survey for study 1.

#### 5.2 The analysis on the key drivers of outsourcing

The key drivers of outsourcing for Pioneer Foods Logistics Services are indicated in Figure 4.5.

#### 5.2.1 The reduction in cost to the company

According to Blumberg (1998), the traditional thinking of corporate executives was to provide tasks and functions executed through internal staff. The reasoning behind this type of thinking led corporate executives to believe that the internal operations of the company exercise greater control over efficiency and productivity of its operations through a centralised management style.

However, market pressures have driven executives to exercise a mode of thinking that will best adapt to changes in the market. One of these mode of thinking is that outsourcing can provide the company with a very effective means of reducing its costs. The results are confirmed by Bowers (1990), that a company will be accredited with cost saving through the successful implementation of an outsourced strategy.

The survey results present us with forty-nine percent of the respondents strongly agreed that by contracting service providers, the company can provide an improved service delivery and high quality at a reduced cost. The reduction in costs allows the company to gain traction on its ability to improve operational efficiencies. These views are supported by (Alexander & Young, 1996), who confirm that if the outsourced

decision is implemented as a management tool and fully integrated, it must lead to a sense of value extraction for the organisation.

#### 5.2.2 The pressure to improve customer service levels

From the survey we found that 51% of the respondents believed that outsourcing can improve customer satisfaction. Researchers such as Burns (2001) affirms the reasons for outsourcing. Cited in the literature are related to decreased costs and increased customer services, which are often related to improving management focus, enabled by outsourcing, enhancing speed to market and increasing revenue.

#### 5.2.3 The lack of internal expertise

The lack of internal expertise can be viewed as a benefit to the company if outsourced to a service provider. The lack of internal expertise, together with the unfavourable attitude towards peripheral activities, can lead to less effective execution of company goals. A total of 38 % of the respondents agreed that the lack of internal expertise is viewed as a direct result to outsource certain activities.

#### 5.2.4 The flexibility to adapt to change in work fluctuations

The outsourced service providers allow for the organisation to remain more flexible to demand fluctuations. Thus, be focusing on the core competencies of the business, companies can leverage their outsourcing strategies to remain agile to changing consumer preferences and economic uncertainties. Flexibility is defined as the firm's intent and capabilities to generate firm-specific real options for the configuration and reconfiguration of appreciative superior customer value propositions (Johnson et al., 2003)

### 5.2.5 Time benefit

Forty percent (40%) of the respondents of the survey agreed that the time benefit influences the decision outsource its logistical activities.

#### 5.2.6 Desire to consolidate business

Forty- five percent (45%) of the respondents felt that outsourcing is a key factor for companies to restructure and gain benefits through eliminating duplication of costs and responsibilities.

#### **5.2.7 Shorter route to market**

Outsourcing certain logistical activities allows for outsourced service providers to deliver on expertise through cost-effective logistics. Responsiveness refers to the firm's ability to respond quickly to customer needs and wants (Carlos et al., 2010).

#### 5.2.8 Focus on core competencies and the competitive advantage

If Pioneer Foods harbour certain capabilities and assets utilised in a superior manner from those of its competitors, it will realise a competitive advantage in the industry. The durability, transferability and replicability allows for the business to gain a competitive advantage in the market (Sadler, 2003). Durability refers to the period that competitive advantage is held, whilst transferability refers to the difficulty in transferring resources outside the business. The third one is replicability, which refers to the high degree to replicate the assets (Sadler, 2003).

Forty-five percent of the respondents strongly agreed that companies should focus on their core competencies. According to (Srivastava, 2005), there are various definitions and views about the concept of core competence and how the role enhances competitive advantage. (Bogner, et al., 1999) expect that academics, business executives and consultants, will be able to further develop normative and theoretical propositions that will enrich the understanding of competence and dynamic competitive advantage. Therefore, competitive advantage and core competencies are not necessarily the same, but can be (and should be) closely related because a successful competitive strategy is built on the firm's core competencies and competitive advantages (Javidan, 1998)

(Leonard-Barton, 1992) argues that core competencies refer to the knowledge set that distinguishes a firm and provides a competitive advantage over others. Our survey indicates that knowledge transfer has the biggest impact on productivity. Together with competition, 41% of the respondents felt that productivity spill-overs (knowledge transfers and competition are external factors that have the most influence on a company's productivity). The researcher views core competencies as a key determinant of competitiveness and organisational performance for a company. These findings are consistent with (Calantone, et al., 2002) who argue that implementing

strategies for core competencies can enhance competitive advantage and organisational performance.

#### 5.3 Hypothesis testing

The P-value approach involves determining "likely" or "unlikely" by determining the probability, assuming the null hypotheses were true, of observing a more extreme test statistic in the direction of the alternative hypothesis than the one observed. If the P-value is small, say less than (or equal to)  $\alpha$ , then it is "unlikely." If the P-value is large, say more than  $\alpha$ , then it is "likely."

If the *P*-value is less than (or equal to)  $\alpha$ , then the null hypothesis is rejected in favour of the alternative hypothesis. If the *P*-value is greater than  $\alpha$ , then the null hypothesis is not rejected.

Specifically, the four steps involved in using the *P*-value approach to conducting any hypothesis test are:

In the following hypothesis testing for the research study, the researcher specifies the null and alternative hypotheses.

The sample date is used and we assume that if the null hypothesis is true, we need to calculate the value of the test statistic. To conduct the hypothesis test for the population, mean  $\mu$ , we use the t-statistic formula:

$$t * = x^- - \mu s / n \sqrt{t} * = x^- - \mu s / n$$

This formula follows a t-distribution with n - 1 degrees of freedom.

Thus, when using the known distribution of the test statistic, we calculate the *P*-value's.

Set the significance level,  $\alpha$ , the probability of making a Type I error to be small 0.01, 0.05, or 0.10. For the purpose of this study, the researcher assumes a significance of 5% and compares the *P*-value to  $\alpha$ . If the *P*-value is less than (or equal to)  $\alpha$ , reject the null hypothesis in favour of the alternative hypothesis. If the *P*-value is greater than  $\alpha$ , do not reject the null hypothesis.

HP1: Identifying the relationship between outsourcing and Pioneer Foods' organisational performance?

H0: There is a relationship between outsourcing and profitability?

H1: There is no relationship between outsourcing and profitability?

Since the researcher's test statistic,  $t^* = 2.29$ , is not less than 1.974, nor greater than 2.604, we fail to reject the null hypothesis. That is, the test statistic does not fall in the "critical region." There is sufficient evidence, at  $\alpha = 0.05$  level, to conclude that the population variance is such that there is a relationship between outsourcing and profitability. The researcher assumes profitability as a key determinant of organisational performance. The results are validated by the theory made by (Handsfield, 2006), that outsourcing will ensure that organisations display a higher degree of agility in sustaining profitability and business performance. Thus, concluding that outsourcing would have a significant impact on the organisational performance.

HP 2: Determining whether outsourcing leads to operational efficiencies for Pioneer Foods. The researcher views productivity as an ingredient of operational efficiency. The right combination of productivity impact on the total operational efficiencies in the supply chain.

H0: There is a link between outsourcing and operational efficiencies?

H1: There is no link between outsourcing operational efficiencies?

With the mean of 2.11, standard deviation of 1.08 and a variance of 1.17, we test for a link between outsourcing to service providers has an impact on operational efficiencies. The information in figure 4.18 indicate a strong response with a standard error of 0.163. The researcher's test statistic, t\* = 2.11, is not less than 1.794 and not more than 2.434. Hence, the researcher does not reject the null hypothesis. The researcher does not accept the alternative hypothesis which states that there is no link between outsourcing and operational efficiencies.

At a level of significance of 5%, there is sufficient evidence that the mean resides within the upper and lower confidence intervals. The results are complimented by the research. (Barney, 1991) argue that once resources are effectively deployed, the business will enhance efficiencies.

HP 3: Can competitive advantage be determined through outsourcing of Pioneer Foods logical activities?

H0: Outsourcing guarantee competitive advantage for the company?

H1: Outsourcing does not guarantee competitive advantage for the company?

The test on whether outsourcing ensures competitive advantage in the workplace rendered a mean of 2.04 from all the respondents. The figure 4.16 shows a strong response, where 36% of the respondents strongly agreed that outsourcing guarantees a competitive advantage for the company. The other 36% agreed that it brings competitive edge.

The researcher's test statistic,  $t^* = 2.04$ , falls between the ranges 1.745 and 2.340. Thus, the mean variance for this population is not less than 1.745 and not more than 2.340. Hence, we accept the null hypothesis and reject the alternative hypothesis. (Barney, 1991) confirmed that the execution of resources in throughout your business strategy will ensure a competitive advantage.

HP 4: Will outsourcing of logistical activities lead to inefficient and ineffective service delivery?

H0: Outsourcing leads to inefficient and ineffective and ineffective service delivery?

H1: Outsourcing leads to efficient and effective and effective service delivery?

Outsourcing ensures a higher level of productivity in the workplace, therefore, the researcher tested whether there is any significance that outsourcing might lead to inefficient service delivery or efficient service delivery. With a mean of 1.62 and a standard deviation of 0.62, we find that a higher rate of productivity per worker will improve operational efficiencies in the workplace. At a level of 5% significance, we find that the mean of the population falls between 1.455 and 1.786. Thus, we reject the null hypothesis that a higher rate of productivity leads to inefficient service delivery. The researcher does not reject the alternative hypothesis, as there is enough evidence that outsourcing leads to efficient and effective service delivery through a higher rate per worker.

The drive to focus on the stronghold of the organisation will render an operation that is effective. The shareholder value is positively influence through the satisfaction of customers. The improved levels of customers' satisfaction would be as a result of the scalability from flexible operations that meet changing market conditions. The association with experienced service providers may reap benefits for the organisation's credibility. In addition, the benefit of reducing cost are viewed as one of the main reasons to go ahead and outsource. It requires that this organisation reduces its fixed asset component and replace it with a variable structure on its financial statements. Ultimately, allowing a reduction in risk management through low cost structures and greater business performance (Seth & Sethi, 2011).

HP 5: Does outsourcing to service providers lead to customer satisfaction?

H0: Outsourcing to service providers does lead to customer satisfaction?

H1: Outsourcing to service providers does not lead to customer satisfaction?

The researcher aimed to test whether outsourcing has an impact on customer excellence. The company identified outsourcing as one of the key drivers to improve service levels. This originated from the continuous pressure to remain competitive in the market.

Since the researcher's test statistic,  $t^* = 1.83$ , the population mean fall between the upper and lower confidence interval. To test the hypothesis, the population variance need to range between 1.536 and 2.124. The  $t^* = 1.83$  falls between this range, hence, the researcher does not reject the null hypothesis, but rejects the alternative hypothesis.

The researcher concludes that at 95% confidence interval, there is sufficient evidence that outsourcing to service providers leads to customer satisfaction. Thus, the literature confirms that strengthening the resource allocation will improve the organisation's product and service delivery (Lee & Kim, 2010). The improvement in these areas confirms a higher degree of customer satisfaction.

Outsourcing a logistics function allows the organisation to focus on the value add it brings and creates space for the strategic intent on core activities. A higher degree of flexibility and creative ideas is a direct result of human intervention working in an outsourced format. Hence, the reshuffling of resources opens the door to creativity and fresh ideas that otherwise were not be available internally (Seth & Sethi, 2011).

### 5.4 Study 2: Pioneer Foods Business Case

The Regional Distribution Centre (RDC) in Durban has basic requirements for their warehouse, where they receive Stock Keeping Units (SKUs) from their supplying plants. The White Star Maize gets shipped from its Estcourt milling operations with the Sasko cake flour coming from its milling operations in Durban. In addition to the cake flour, Durban RDC also receives its rice from its Crossbow plant situated on the same premises as the wheat operations. Durban RDC stores these SKU's in its warehouses for future dispatch. The RDC receives orders from customers via electronic data exchange on its financial system SAP, the order is processed via a route and planning tool PLATO, a load sheet extracted for pickers to assemble the multiple deliveries per shipment.

We find that more and more companies are evaluating their processes, with the view to cut costs whilst improving on their productivity within the distribution centres. Picking, especially order picking, has come under a lot of scrutiny. This is when the picker receives stock from the warehouse in response to a specific request for multiple product lines. The picker picks the products from a load sheet and package the multiple product onto a pallet for dispatch. This action is the most labour intensive operation in the distribution centre, because employees use manual systems and methods to pick the products.

The productivity in the workplace can increase with the improvement of the employees' efficiency. If employees produce more output with a constant amount of inputs, the result may indicate increased levels of productivity. Secondly, employers can also experience an improvement in productivity through a decrease in slack time. Thus, employees are more efficiently utilised in their daily tasks and duties. Thirdly, the productivity levels may improve with the implementation of technology in the workplace, such as automation in the manufacturing industry. The table 4.7 shows

the total number of tonnage picked at the Durban Distribution Centre for the period from October 2014 to March 2015.

The total number of tonnage picked consist of two different sections, namely straight picking and mix picking. Straight picking refers to the full pallet of stock picked as illustrated in table 4.7. The straight pallets are made up of one product line and equates to 1 tonne of stock. The mix picking refers to multiple products picked onto on pallet, hence, the different product quantities make up an average of 1 ton in total. The average mix picking per day equals an average of 60 pallets per day for the entire picking team. The picking team consisted of 5 permanent employees.

The 60 pallets are picked over a 9-hour shift, with 45 minutes allocated to break times. The table 4.7 furthermore shows the average mix picking per picker, at any given day. For example, the average mix picking per picker for June 2015 is equal to 15 tons per picker. The mean for the year October 2014 to March 2015 equates to 12 mix pickings per picker. This number is reduced to 1.0 tons per hour. The 1.0 tons over 8 hours actively involved results in 12 tons of multiple picking per day. This rate per worker is very slow in a food and beverages environment. All employees who contributed to these volumes were permanent employees within the business structure. Table 4.8 indicates the picking analysis for October 2015 to September 2016.

Table 4.8 indicates a reduction in mix picking year on year from 1292 tons to 1226 tonnes of multiple pickings. A total number of 66 tons reduced from one financial to the next. The average mix pickings per day reduced from 60 to 58 mix pickings per day. In addition, an average mix picking per picker remained flat, 12 pickings per employee year on year. The table 4.8 yields an average of 1 ton of multiple products picked per hour. Thus, each picker only picks 1 ton every hour during their shift. The results indicate a very slow pace picking, which results in a delayed process through the supply chain and evidently, a bottleneck between moving stock from the warehouse to the distribution.

The information in Table 4.8 indicates the actual volumes picked by each employee versus the time allocated to each employee. An average of rate of mix pickings is 1 tonne for permanent employees, were recorded during the month of June 2015. The

previous measurements indicate that employees are measured on the total tonnes per hour. The researcher acknowledges and considers the limitations in this measuring tool as data and information may be distorted. The distortion follows where a picker receives a load sheet where a few balers are removed. For example: Picker 1, receives a load sheet that confirms the quantity of 90 bags of rice. The total amount for a full pallets of rice equals 100 bags of 10kg rice. The picker will remove 10 times 10kg bags of rice on a full pallet and submit the work list to distribution. The result of this recording proved that the picker completed a task in quick time. However, he only removed 10 bags. The records were kept using the total amount of pallets per picker, as a measurement of productivity in the warehouse.

This measurement per pallet was found to be inadequate, as it does not reflect the total number of units that were packed onto mix pallet. The mix pallets are referred to as the number of different product quantities and different product grouped on one pallet. For example, the grouping of rice, maize, rice and cake flour on one pallet recorded against different quantities. This measurement per unit focused on the complexity of the load, in contrast to the method mentioned above, that only focus on the simplicity of picking one tonne.

The change in recording grants the researcher with a greater degree of clarity in terms of total output per worker. The complex nature of mix picking is measured in order to manage the supply chain flow more effectively.

In table 4.9, the researcher found the monthly picking measurement for the month of June 2015. The entire picking complement exist out of permanent employees. The actual volumes indicate the total number of units that was picked by each employee. The expected volumes are calculated for the month. The target is set as follows, each employee needs to pick an amount of 5 units per minute. The expectation for each employee results in a target of 48000 units per month.

The sum of time is reflected in minutes and encapsulates the total minutes allocated to each employee to reach their target of 48000 units for the month. The sum of actual time indicates the actual minutes that the employee spent on his picking during the month of June 2015.

Productivity is calculated by dividing the actual volumes by the expected volumes per employee. The efficiency is calculated in measure of time through dividing the actual minutes by the total sum of minutes for the month. Idle time is reflected as the balance of time that was not used towards adding value to the operations. The average indicated in Table 4.9 encapsulates the total number of mix pallets pick per hour.

In Table 4.10 we see a significant change to the picking complement at the distribution centre of Pioneer Foods. Through natural attrition, the total number of permanent employees reduced for 9 pickers to only 1 permanent employee. The addition of 4 outsourced employees were introduce through an outsourced decision that was made by the leadership of the distribution centre.

The total number of tonnage for mix picking declines by 37%, from June 2015 to June 2016. Thus, in June 2015, the pickers picked 603 tonnes more than the pickers who picked in June 2016. The decrease in the total number of mix tonnage is offset by the increase in full pallets picked. Table 4.8 shows that straight pallets picked increased to 2176 tonnes, a difference of 173 tons year on year.

The researcher found that the total number of units increased between June 2015 and June 2016, from 102591 units to 134628 units. The increase of 32037 units is a result of decreased order placed by the customers. Thus, Pioneer Foods experienced a lot of smaller complex orders that required more labour intensive picking in their supply chain operations.

To test this, results of the business case, the researcher sought to gain clarity through a cross reference of the results of the survey done. The respondents were asked to respond to whether picking, materials handling and equipment needed to be centralised or decentralised, with centralised being outsourced to a company that gains a national footprint but accessible throughout the FMCG network. Whereas, decentralised constitutes a specific region/ area wherein the service provider operates. A strong response from the respondents indicated that to centralise picking, handling and equipment. The picking includes the mix picking in secondary distribution. Figure 4.20 shows a response of 55% overall.

Outsourcing picking has a test statistic of  $t^* = 1.77$ . The researcher found that the mean resides within the upper and lower ranges. Thus, at a confidence level of 95%, the researcher found that picking should be centralised and outsourced to national service provider.

Order picking has long been identified as the most labour-intensive and costly activity for almost every warehouse. Studies estimate the picking costs to be above 50% of the total warehouse operating expense (see van den Berg & Zijm, 1999; Ruben & Jacobs, 1999; Broulias et al., 2005. Subsequently, any under-performance in order picking can lead to unsatisfactory service and high operational costs for the warehouse and consequently, for the whole supply chain. Therefore, in the present paradigm of companies actively competing and seeking cost reductions, warehousing professionals consider order picking as the highest priority area for productivity improvements. (Goetschalckx & Ashayeri, 1989)

The organisation of order-picking processes directly influences the distribution centres and consequently the supply chain's performance. The distribution centre of Pioneer Foods indeed did an analysis of the difference between insourced and outsourced employees. We derive from the data above, that the employees who were outsourced completed their work at a higher output than the permanent employees of the company. The outsourced staff were affiliated to an outside service provider that specialised in productivity in the warehouse.

The contribution to the supply chain was improved in increments by adding an outsourced member to the picking team. However, with the decrease in total tonnage, the rate of picking remains constant. Employees were measured on the basis of the number of pallets that they picked. Each picker had less picking to complete in the 9-hour operation, but still could not produce efficient picking results.

The introduction of an outsourced decision in the warehouse showed signs of improvement. The incremental changes that were tactically implemented by the leadership of the distribution centre were analysed against the information recorded on the performance of the permanent employees. The rate per worker had an effect on the productivity and the volume contribution that was completed per day. The

outsourced decision showed that in comparison, June 2015 versus June 2016, that a 2 additional tonnes per hour at quicker than the permanent staff in June 2015. The comparison shows that the external parties enhanced the picking process and improved the supply chain delays between warehouse and distribution.

#### 5.5 Summary

The researcher's objective was to establish if the relationship between outsourcing and the company's effectiveness exist. The results of this relationship could be viewed to have an inverse effect on the company's performance. Secondly, one can argue that no link exists between outsourcing and organisational performance. The respondents for this study believed that outsourcing had a positive effect on the business. 75 % of the respondents viewed the relationship positively. The Pioneer Foods case study shows that fewer employees were used to picked stock at higher productivity and efficiencies levels. Each picker picked on average, 2 pallets more than the permanent employees in the previous year. The idle time was reduced 14 % down from 58% in June 2015. The productivity levels doubled from 24% on average to 52% in June 2016.

According to the results discussed in Chapter 5, all the above theories and statistics are accepted. Hence, it can be confirmed that a positive relationship exists between outsourcing logistics activities and productivity. The results furthermore indicate a high significance in this relationship. There is a direct correlation between the variables, once outsourcing increases a higher degree of productivity in the workplace. The second study validates that a higher productivity was the direct result of outsourced service providers taking over the picking in the warehouse.

The results in the first study confirms that the outsourcing of logistical activities and services increases productivity, as well as allowing employee performance to increase, given a set of expectations that are clearly stated. Hence, a higher work rate per employee increases employee remuneration and the returns to the shareholders. Could this improve the rate in the work place, together with the growth rate per worker is a determinant for sustaining business improvement? It will certainly contribute to a sustained supply chain. From the second study, it is evident that less time is spent on employees being idle. In addition, the results of the survey provide with information

that the higher rate of productivity per employee ensures a high rate of operational efficiencies, which directly impacts on the company's profitability. A higher operational margin plus a reduced cost strategy and a higher degree of customer satisfaction, has an impact on the effectiveness of the business.

The researcher concludes on the analysis of the data and the presentation of the findings. The information promotes a strong background that organisation leaders be aware of the business results that are confirmed in literature. The analysis discussed on the first study indicate that the respondents in the survey confirm the notion that outsourcing has an impact on the operational effectiveness. The hypothesis test were discussed in accordance of the information that flowed from the survey. The researcher tested the validity of accepting of rejecting the null hypothesis. The study 2 confirm that outsourcing certain logistical activities can lead to increase output per worker which improves the operational efficiencies and in turn the organisational performance in the supply chain.

## **CHAPTER 6**

#### CONCLUSION AND RECOMMENDATIONS

#### **6.1 Introduction**

This chapter considers the conclusions on the discussion that was presented in Chapter 5. The motivation for this study was to determine whether a relationship exists between Pioneer Foods outsourcing to service providers and the company's supply chain and operational effectiveness. The data gathered from the participants of the study indicate a strong view that security, cleaning, procurement of inventory and services, warehousing, secondary distribution, picking, handling and equipment and transporters, should be part of centralised business strategy. This chapter therefore addresses the research questions that were posed, followed by the recommendations and suggestions for future research.

### 6.2 Conclusion of the study

# 6.2.1 Identification of key drivers of outsourcing

Outsourcing areas of the business allows the company to focus on the core competencies and reduce cost in its operations. The researcher's aim was to identify the key drivers of outsourcing for Pioneer Foods. The survey results in Study 1 revealed that internal and external drivers influence the decision to outsource. It is imperative that each organisation focuses on determining the key drivers of their success. One approach that Pioneer Foods has opened up to is the impact of key drivers on the outsourcing decision. The key drivers are distinguished between the core and non-core competencies in the business organisation. Once Pioneer Foods identified the key drivers for them to outsource, they could justify the outsourcing decision based on the cost-effective nature. Reducing the cost of the company allows the company to invest in the areas of business where it has the strongest capability. Based on the findings in Study 1, the researcher confirms that outsourcing decision is based on key drivers that all organisations within the fast moving consumer goods space can use to enhance their business performance.

At Durban Distribution Centre, describe in study 2, one of the weakest capabilities was the picking process. This process, usually a manual laboured process, directly impacts on the rate of tempo worked by each permanent employee. The permanent

employees seem to lack some skills and expertise, whereas the outsourced members were focused on a set of skills that enhanced a certain area of the supply chain. The second study allowed the researcher to focus on the break bulk picking that takes place in the warehouse. The results and the study therefore conclude that once an outsourced decision has been made, the rate of output per worker can change. The business case indicates that outsourced personnel introduced to the business worked at a higher pace than the traditional employees.

The outsourced staff members were managed at a different incentive model versus the permanent employees. This incentive scheme drove the outsourced staff members to render an improved state of picking. The improved state of picking ensured a smoother flow of processes in the supply chain between the warehouse and the distribution departments, as well as the time benefit it passes onto the operational efficiency of the distribution centre. Time delays are reduced and the time taken to complete the administration flow ensures for accurate checking of the loads before dispatch. These loads are pre-staged in the holding area, as opposed to loading it directly from the warehouse.

Furthermore, an improved state of picking ensures a higher degree of organisational flow between departments and between the distribution and its customers. The time benefit will spill over from warehouse to and from dispatch to distribution. The loads are checked and invoiced timeously, which ensures that trucks exit the distribution centre on time. The on-time departure at the gate has a knock-on effect, as it gives the vehicle sufficient time to travel to the customer and make delivery on the agreed nominated delivery date.

The flexibility of the operations become evident when the demand increases because of promotions and customer preferences. The improved worker rate in the picking allowed for ease of emergency orders to be dispatch. Although not plan, it re-enforces the service delivery and responsiveness of the supply chain from order entry to the customer's satisfaction. The outsourced decision ensures a higher degree of agility in the supply chain structure, which paves the way for a shorter route to market.

The researcher cross examined the impact that the key drivers had on the outsourcing decision in Study 1 and Study 2, to establish improvements that are evident. The researcher can therefore conclude that the key drivers of outsourcing play a significant role on the performance of supply chain and operational effectiveness in the organisation.

# 6.2.2 The impact of outsourcing on organisational performance

The researcher investigated the relationship between outsourcing and the organisational performance of Pioneer Foods. The analysis captured in Study 1 during the discussion in Chapter 5 indicates that there is a significant level of confidence that support the relationship between the outsourcing decision and the level of organisational performance.

Organisational performance entails the profitability to be viewed as a key determinant to the business. This key determinant is also impacted upon by other factors such as cost savings and operational efficiencies. In Study 2, it was found that the level of worker output between the outsourced staff members and the permanent employees distinguished the gap between the different levels of operational performance. A higher degree of operational margins is the result of less down time. The amount of slack time experienced in the supply chain can affect the process flow of goods moving from the warehouse to the distribution and eventually, according to the slot times of the customer. The drive to focus on the stronghold of the organisation will render an operation that is effective. The shareholder value is positive influence through the satisfaction of customers. The improved levels of customer satisfaction would be as a result of the scalability from flexible operations that meet the changing market conditions. The association with experienced service providers may reap benefits for the organisation's credibility. In addition, the benefit of reducing costs are viewed as one of the main reasons to go ahead and outsource. It requires that this organisation reduces its fixed asset component and replace it with a variable structure on its financial statements. Ultimately, allowing a reduction in risk management through low cost structures and greater business performance (Seth & Sethi, 2011).

The respondents in Study 1 indicated that a positive link exists between the outsourcing decision and the organisational performance. In terms of profitability, the cost reduction and improved service delivery, the researcher concludes that outsourcing decision has an impact on organisational effectiveness and its performance.

# 6.2.3 Outsourcing leads to operational efficiencies

The researcher also looked at the lack of efficiencies in the Pioneer Foods supply chain, with a view of improving its effectiveness in the market. In Study 2, the researcher found that the business made a decision to change the footprint and accessibility, whilst resetting the cost base. In this case, one of the values to ensure an effective organisational footprint was the efficiencies required in the supply chain. The saturated market that Pioneer Foods operate within is highly competitive between its rivals Tiger Brands and Premier Foods. The determining factor that could set Pioneer Foods apart from its rivals is that of producing maximum output per worker and reduce the cost of managing its overheads and resources.

Determining whether outsourcing leads to operational efficiencies for Pioneer Foods has been discussed during the researcher's analysis in Chapter 5. The link between outsourcing decision and the operational efficiencies is significantly displayed in Study 2. The findings indicate that if a business organisation focuses on intensifying the productivity of the function within the supply chain, it can render positive results. It is therefore critical that Pioneer Foods focus on the core operations and outsource the areas where they experience a lack of expertise. The case study of Pioneer Foods shows that even though the volumes in tonnage per month decreased, the business can still render positive efficiencies. These efficiencies will ensure that the necessary tonnage is delivered at a lower rate per tonne. This has an impact on the operational margins, which speaks to the greater performance of the supply chain for this business at a lower variable cost.

The researcher confirms the studies on outsourcing in the organisations can lead to operational efficiencies.

# 6.2.4 Outsourcing leads to competitive advantage

Pioneer foods can render its services to the market more competitively through making the outsourced decision. This decision that the leaders of the company takes ensure that the business operates on a variable cost structure versus that of a fixed cost structure. Hence, with the reduction in tonnage, the organisation only expense the amount of tonnage picked and shipped by the outsourced vender.

The fluctuation in customers' preferences and seasonal promotions hinder the supply chain flow and can cause a bottle neck because of the bull whip effect. Should Pioneer Foods make the outsourcing decision, it ensures agility in its operations and scalability in market demand. In addition, the variable execution of its supply chain will give the business a favourable advance over competitors in an already saturated market. This notion is consistent with the information displayed in Study 2 of the research project. The researcher concludes from the analysis in Chapter 5, that there is a relationship between the outsourced decision and the competitive advantage over rivals in the industry.

# 6.2.5 Outsourcing leads to customer excellence

The outsourcing decision to external service providers are very relevant in today's industry. Each customer is dictated by certain factors. These factors include political influence and legal changes to the landscape. The economy of South Africa and the position that it is in, impact on the consumer. The latter also affects the leaders of business to make a decision to outsource in an indirect way. The rivals in the FMCG industry travel to the same customers throughout South Africa. The customer requires the correct product on the correct truck at the correct time. For companies such as Pioneer Foods, it is imperative to ensure effective and efficient supply chain operations. The outsourced decision to implement logistics activities throughout their supply chain can result in customers receiving goods on time and in full order quantity.

Customer excellence in today FMCG space has resulted in companies changing their thinking and operational strategies to improve the supply chain and enhance the responsiveness. The researcher concludes that the implementation of an outsourced decision positively contributes to customer satisfaction. The Pioneer Foods study indicates that improved efficiencies will ensure on-time dispatch, which can reduce the amount of orders that need to be re-delivered. The on-time dispatch gives the vehicle sufficient travel time to complete the delivery at the agreed dates. The improved operational practices also include accurate distribution of product in an organised fashion. The dispatch department ensures that the right products are sent to the customer. Should the customer receive their product on time and in full order quantity, it means that the customer has experienced full satisfaction.

# 6.3 The implication of the study

The study provides an empirical evidence that organisations in South Africa can experience the higher levels of supply chain and operational effectiveness through an outsourced decision. Operational leaders and supply chain managers can use the evidence from the study to develop strategies around core competencies to improve organisational effectiveness. In order for companies to remain relevant in the industry, the managers need to evolve and migrate from the traditional business practices to a state where an outsourced decision ensures sustainability.

#### 6.4 Recommendations arising from this study

This study promotes that the management structure at Pioneer Foods need to investigate the implications of this study. The leaders of the organisations need to consider different performance models in the operational strategy.

Currently, we find that Pioneer Foods has only outsourced certain functions in the operations. This study indicate through the empirical findings that the key drivers to outsourcing can have a significant impact on the business performance. Hence Pioneer Foods should assess the ineffective cost of operations in certain segments. The aim would be to partner with an outsourced partner that ensures improved business delivery.

This study recommends that Pioneer Foods should further carried out their own internal study to assess whether the implementation of outsourcing in the supply chain does not have adverse effects. The outsourcing decision made by the leader of the business should not influence or reduce the profitability and customer services.

This study recommends that companies render a full evaluation of its core competencies prior to taking a decision to outsource that function. The study promotes the strengthening and building on core competencies and relinquishing the other functions due to lack of expertise.

### 6.5 Limitations of the study

The satisfaction of the research questions of the study attempted to build a bridge for management to cross from the conventional state of mind to a more modern approach. This modern approach might allow organisations to grow their agility whilst sustaining a slow economy.

The concept of outsourcing does not render immediate performance on a short term financial basis. If it is not implemented correctly, it could equate to less than beneficial cost saving than initially perceived. The beneficial sentiments such as the cost savings of outsourcing might not have long term effects on the organisation's operational efficiency, sustainability and stability (Beregszaszi & Hack-Polay, 2012). The results of the study are limited to the Pioneer Foods Logistics Service and the management of Pioneer Foods.

The researcher considers the fact that Pioneer Foods would be exposed to a reduction in internal cohesiveness and an increased state of dependency on its outsourced model. The researcher considers an adverse impact due to the loss of internal skills and expertise (Beregszaszi & Hack-Polay, 2012). This loss of assets and knowledge might influence the effectiveness of the organisation. Pioneer Foods therefore needs to consider all areas, when a decision is made to outsource.

Some researchers view that the quality of services from service providers does not warrant the offering when entered into contract (Beregszaszi & Hack-Polay, 2012). Other bodies of research are of the opinion that outsourcing directly influences the morale of the employees and creates confusion and uncertainty due to restructuring process (Seth & Sethi, 2011).

#### 6.6 For future research

There is an increasing challenge for market share, as well as a higher degree of competition within industries, with an increase in the expectations of the customers and heightened relationships of suppliers. The researcher identifies that the research project is homogenous in nature and recommends that further studies completed to establish results across different industries and companies.

The business supply chain manager has to identify opportunities to eliminate cost and waste, whilst remaining flexible and relevant in the complex environment. The supply chains in the South African industries cannot be isolated. The researcher affirms that more research is complete across the border of Africa in comparison to South African saturated markets.

The productivity model in this dissertation focuses on efficiencies within the supply through outsourcing the picking in the distribution centre. The model can be used to evaluate the supply chain and identify certain bottlenecks or improvement on its shortcomings.

The literature review conducted in this dissertation focused on the relevant research. The literature review was used as a platform to identify the advantages and the disadvantages of outsourcing in supply chain. It investigated the key drivers of outsourcing in the workplace. Furthermore, it investigated the conventional and unconventional methods used to measure supply chain efficiency.

Collaboration along a supply chain has been shown to be an imperative to overall efficiency. Open communication, coordination and functional integration across all links and nodes in the supply chain need to be planned to function with the aim of maximising the efficiency of the overall supply chain. They orchestrate to efficiently supply a product to customers. The decision to outsource needs to be in line with the business objectives. It can be seen that Pioneer Foods made certain tactical and strategic decisions as a means to stay relevant in the market. The questions beg whether the leader's decision to outsource certain logistical activities will ensure a sustainable organisation in the future?

The researcher's aim of this study was to improve the knowledge on the impact of outsourcing on supply chain and operational effectiveness. The researcher conducted the study on a quantitative basis, which the biasness of the author. This could be seen as a limitation of the study. Outsourcing can certainly be viewed as a dynamic approach and brings with it certain complexities. Therefore, the researcher wishes to see an establishment of a framework that renders positive business results for an organisation. The researcher wishes to see further information and studies in this area, where managers who deal with activities such as laboured picking implement mechanisms to improve and standardised the supply chain effectiveness. The introduction of framework could potentially save time and effort spent. It will simplify the process and the knowledge transfer can potentially enhance operational performance to new heights.

The researcher hopes that more studies be done, where empirical data and evidence are streamlined to create a framework that would assist the entire industry. A framework that acts as an outsourcing solution for different business area throughout the supply chain. The introduction to a standardised manner of managing tactical decision, which result in a strategic effect on the supply chain and operational effectiveness of the organisation.

# 6.7 Summary

The research project contributes to literature through its contribution of the different studies that was introduced and discussed. Furthermore, the contribution towards creating a platform for managers to utilised the findings as a mechanism which can influence strategy and efficiencies. It can be found that outsourcing has a significant impact on the supply chain and operational effectiveness. The researcher stresses that top management assesses the core and non-core competencies and promotes change to the architecture of the organisation to include the outsourced decision. The value extraction of such a decision is guided by the impact of outsourcing on the organisational performance of the business.

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# **Appendix 1**

<u>Questionnaire: The relationship between Outsourcing and Efficiency at Pioneer Foods:</u>

1.	The following	are ex	pressions of	productivity	y in the workplace:
----	---------------	--------	--------------	--------------	---------------------

1.1 Productivity is determined by t	the output produced per worker?
-------------------------------------	---------------------------------

1	2	3	4	5
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree

1.2 Output is relative to the inputs of labour, materials handling and equipment in the workplace?

1	2	3	4	5
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree

1.3 Human capital is the most important resource use to ensure productivity in the workplace?

1	2	3	4	5
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree

1.4 Can productivity be express through the outsourcing certain business activities?



1.5 Productivity is determined by doing thing right the first time?



# 2. Which of the following characterize the importance of productivity:

2.1 A higher rate of productivity per worker allows for higher wages to employe and greater returns to their shareholders?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.2 The growth in productivity per worker is the most important determinant for sustained business improvements?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.3 A higher rate of productivity per worker allows for improved operational efficiencies in the workplace?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.4 Mediocre levels of productivity affects the operational excellence?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree							
Strongly Agree Neither Disagree Strongly Disagree  2.2 The growth in productivity per worker is the most important determinant for sustained business improvements?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.3 A higher rate of productivity per worker allows for improved operational efficiencies in the workplace?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.4 Mediocre levels of productivity affects the operational excellence?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?		_	-			ws for higl	her wages to employees
sustained business improvements?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.3A higher rate of productivity per worker allows for improved operational efficiencies in the workplace?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.4 Mediocre levels of productivity affects the operational excellence?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?		Strongly	$\circ$	$\cup$	4 Disagree	Strongly	
Strongly Agree Neither Disagree Strongly Disagree  2.3 A higher rate of productivity per worker allows for improved operational efficiencies in the workplace?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.4 Mediocre levels of productivity affects the operational excellence?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?		_	-			most imp	ortant determinant for
2.3 A higher rate of productivity per worker allows for improved operational efficiencies in the workplace?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.4 Mediocre levels of productivity affects the operational excellence?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Strongly Agree Neither Disagree Strongly		1	(2)	(3)	4	(5)	
efficiencies in the workplace?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.4 Mediocre levels of productivity affects the operational excellence?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Strongly Agree Neither Disagree Strongly			Agree	Neither	Disagree		
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2.4 Mediocre levels of productivity affects the operational excellence?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?  1 2 3 4 5 Strongly Agree Neither Disagree Strongly Strongly Agree Neither Disagree Strongly		1	2	3	4	(5)	
1 2 3 4 5  Strongly Agree Neither Disagree Strongly Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?  1 2 3 4 5  Strongly Agree Neither Disagree Strongly			Agree	Neither	Disagree		
Agree Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?  1 2 3 4 5  Strongly Agree Neither Disagree Strongly	2.4 Med	diocre leve	ls of prod	luctivity af	fects the c	perational	excellence?
Agree Disagree  2.5 A low rate of productivity per worker results in longer amount of time spent complete duties?  1 2 3 4 5  Strongly Agree Neither Disagree Strongly		1	(2)	(3)	<b>(4)</b>	(5)	
complete duties?  1 2 3 4 5  Strongly Agree Neither Disagree Strongly			Agree	Neither	Disagree		
Neither Disagree Shandy		-		ty per wor	ker results	in longer	amount of time spent to
Neither Disagree Shandy		1	2	3	4	5	
			Agree	Neither	Disagree		

# 3. Which of the following is the most accurate measure of labour productivity:

3.1 The total n	umber of	units of o	utput per r	ninute pro	aucea?
1 Strongly	2 Agree	3 Neither	(4)	5 Strongly	
Agree	Agree	Neither	Disagree	Disagree	
3.2The total ne	umber of	funits of o	utput divid	led by tota	I number of employees?
1	2	3	4	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
3.3 The total no number of		funits of in	put per m	inute is mo	ore important than the total
(1)	(2)	(3)	<b>(4)</b>	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
3.4The total n	umber of	funits of in	put produ	ced per m	inute?
(1)	(2)	(3)	<b>(4)</b>	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
3.5 The total n	umber of	service le	vel agreer	ments not	met per business unit?
1	2	3	4	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
3.6The total a	mount of	time the e	employee i	remain idle	e in the workplace?
1	2	3	4	5	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	

3.7 The volum	es contri	outea per (	empioyee	for the mo	ontn ?
Strongly Agree	2 Agree	3 Neither	4 Disagree	5 Strongly Disagree	
3.8The rate/te	empo at w	hich each	employee	conduct	business?
1	2	3	4	5	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
3.9The length	of hours	spent to c	omplete d	uties per	employees?
1	2	3	4	5	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
3.10 The	attitude	of employe	ee towards	s his work	to meet targets daily?
1	2	3	4	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
4. Which of to workplace		ving are t	he key dri	ivers to p	roductivity in the
4.1 The invest	ment in re	esources &	& technolo	gy at Pion	eer Foods?
1	2	3	4	5	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
_	e of educ	ation & tra	ining of er	_	at Pioneer Foods?
1	(2)	(3)	<b>(4)</b>	(5)	
Strongly	$\overline{}$	$\sim$	$\sim$	$\sim$	
Agree	Agree	Neither	Disagree	Strongly Disagree	
Agree				Disagree	he workplace?
Agree				Disagree	he workplace?

4.4The outs	ourcing c	of non - cor	e compete	ncies in the	workplace?
① Strongly Agree	2 Agree	3 Neither	4 Disagree	5 Strongly Disagree	
	•	g business strategies?		South Africa	a forces management to
1	2	3	4	5	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
5. Which o	f the foll	owing are	key drive	rs of outso	urcing in the workplace:
5.1 Pioneer costs?	Foods ca	n use outse	ourcing as	mechanism	to control and reduce
<u>(1)</u>	(2)	(3)	<b>(4)</b>	(5)	
Strongly Agree	Agree	Neither [	, iougi cc	Strongly Disagree	
5.2The pres		nprove cus	tomer serv	vice levels is	a key driver to
<u>(1)</u>	(2)	(3)	<b>(4)</b>	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
5.3 Pioneer	Foods ne	ed to focus	on its cor	e competen	cies in the workplace?
<u>(1)</u>	(2)	(3)	<b>(4)</b>	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
5.4The lack workplac		al expertise	e capabilitie	es act as a c	driver to outsourcing in the
1	(2)	(3)	<b>(4)</b>	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	

	-		ur force to utsourcing		inging de	mand and work fluctuations
1	)	2	(3)	<b>(4)</b>	(5)	
Strong Agre		Agree	Neither	Disagree	Strongly Disagree	
6. <u>The fo</u>	llowin	g focus	on impa	ct of outs	ourcing	in the workplace:
6.1 Outsou organia	_		tes to the	cost redu	ction and	profitability for the business
1		2	3	4	5	
Strong Agre		Agree	Neither	Disagree	Strongly Disagree	
6.2 Outsou	urcing (	ensures	for highe	r levels of	productiv	vity in the workplace?
1		2	3	4	(5)	
Strong Agre		Agree	Neither	Disagree	Strongly Disagree	
6.3 Outsou	•		ess activit	ies can le	ad to pos	itive impact on product &
1	)	2	3	4	5	
Strong Agre	-	Agree	Neither	Disagree	Strongly Disagree	
6.4Outsou	urcing (	creates a	a competi	tive advar	ntage for	the organization?
1	)	2	3	4	5	
Strong Agre	•	Agree	Neither	Disagree	Strongly Disagree	
6.5 This co	ompetit	tive adva	antage cre	eates valu	e to the s	shareholders?
1		2	3	4	5	
Strong Agre		Agree	Neither	Disagree	Strongly Disagree	

# 7. The following focus on selection criteria for outsourcing:

Outsource contr <b>ol</b> ove			to service	providers	reduces the organizations
1 Strongly Agree	2 Agree	3 Neither	4 Disagree	5 Strongly Disagree	
Outsourcin organizatio	_	rvice prov	ider can re	educe/ mit	igate risks for the
1 Strongly Agree	2 Agree	3 Neither	4 Disagree	5 Strongly Disagree	
Outsourcin motivation	-		e providei	has an in	npact on employee
1	(2)	(3)	<b>(4)</b>	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
Re-enginee manageme	_	ne busines	ss through	outsourci	ng requires the buy-in of top
1	(2)	(3)	<b>(4)</b>	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
Re-enginee employees	•		•	outsourci	ng requires the buy-in form
1	2	3	4	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	

# Appendix 2

# **Ethical Clearance:**



09 September 2016

Mr Marc Anthony Arendse (214581507) Graduate School of Business & Leadership Westville Campus

Dear Mr Arendse,

Protocol reference number: HSS/1458/016M

Project title: The impact of outsourcing on supply chain and operational effectiveness

Full Approval - Expedited Application

In response to your application received on 05 September 2016, the Humanities & Social Sciences Research Ethios Committee has considered the abovementioned application and the protocol have been granted FULL APPROVAL.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shamila Naidoo (Deputy Chair)

/ms

Ct Supervisor: Mr Christopher Chikandiwa

Cc Academic Leader Research: Dr Muhammad Hogue

Cc School Administrator: Ms Zarina Bullyraj / Ms Eileen Mohamed

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# Appendix 3

# Turnitin Report:

# Impact of Outsourcing on Operational & Supply Chain Effectiveness

scholar.sun.ac.za Internet Source  eprints.aston.ac.uk Internet Source  www.slideshare.net Internet Source	2
www.slideshare.net	
	2
	1
Submitted to University of KwaZulu-Natal Student Paper	1
onlinecourses.science.psu.edu  Internet Source	1