NELSON MANDELA UNIVERSITY

A FRAMEWORK FOR SUPPLIER SELECTION IN THE NELSON MANDELA BAY RETAIL INDUSTRY

BY

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In accordance with Rule G5.6.3, I hereby declare that the above-mentioned thesis is my own work and that it has not previously been submitted for assessment to another University or for another qualification.

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DEDICATION

I dedicate this project to God for providing me with the strength to compile this research.

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ABSTRACT

The success of business firms operating in the retail industry is largely dependent on the performance rendered by their supply base. Choosing the incorrect supplier could have dire consequences for the retailer's performance, as suppliers are generally considered an extension of the retailer. Organisations base their operational expertise on the key performance objectives of cost, service, quality, speed, dependability and flexibility, which becomes the basis of their selection criteria when evaluating suppliers. The primary objective of this study was to develop a framework that guides retailers in their supplier selection process with the ultimate goal of formulating strategies to improve Nelson Mandela Bay's (NMB's) retail performance. In support of the primary objective, it was necessary to identify the current supplier selection criteria used in the NMB retail industry and the challenges that retailers face when selecting suppliers. The study set out to assess the effects of utilising established supplier selection criteria on retailers' performance, as well as to identify strategies that retailers should employ to improve their performance.

A quantitative research approach was utilised to collect data from a sample of 248 retailers and procurement and logistics managers. The empirical findings of the study identified flexibility, timeous delivery and reliability as the most important supplier selection criteria identified by retailers in NMB. The findings also revealed that utilising established supplier selection criteria has a significantly positive effect on retailers' performance. Lack of collaboration between suppliers and retailers, lack of transparency between suppliers and retailers and suppliers' limited knowledge of the criteria by which they are judged were identified as the most significant challenges facing retailers in NMB. The empirical findings also identified an increase in a retailer's competitive advantage and revenue as the benefits of utilising supplier selection criteria to improve a retailer's performance.

The conclusions and implications of the empirical findings are provided and recommendations made. The study advances a framework to assist in guiding the retailers and procurement and logistics managers, retail researchers and policy makers when selecting suppliers. The study suggests that retailers should identify the most important supplier selection criteria, inform potential suppliers of the importance

of those criteria, select suppliers based on those criteria and utilise those criteria to evaluate the suppliers' performance.

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LIST OF ABBREVIATIONS

AHP	Analytic hierarchy process
EFA	Exploratory factor analysis
EMS	Environmental management system
KMO	Kaiser-Meyer-Olkin
NMB	Nelson Mandela Bay
RBV	Resource-based view
SAP	System Application and Product
SCM	Supply chain management
SPSS	Statistical Package for Social Sciences

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 INTRODUCTION

Retail businesses are explained as businesses that sell products or services to consumers. In most cases, retail buyers are provided with a large amount of the company's money to spend on those goods (Hosseini & Khaled, 2019:207). Retailers receive ready to be sold products from their suppliers and for this reason it is imperative to select suppliers with low costs and high quality, as supplier selection has an effect on the retailer's product quality and prices (Makhitha, 2017:421). Failure to meet demand due to supplier performance and operational risks can result in reduced productivity and competitiveness, as well as increased costs for the retail firm (Xu, Tang & Zhou, 2019:2). Supplier selection can be used as a strategy for a retailer's continuous improvement (de Castro, Laudares, Ricco & dos Santos, 2019:151). The retailer's performance is affected by the supplier's performance (Rezaei, Nispeling, Sarkis & Tavasszy, 2016:581) and it is therefore imperative for the retailer to pay attention to supplier selection.

The current study therefore sought to develop a framework to guide retailers when selecting their suppliers and to determine the specific criteria to consider when selecting suppliers in the Nelson Mandela Bay (NMB) retail industry. The study also sought to assess the effects of utilising established supplier selection criteria on the retailer's performance. Identifying the benefits of selecting suppliers who meet the specific criteria, the challenges that retailers face when selecting suppliers and strategies that retailers can use to improve their performance were also part of this study's purpose. The current chapter introduces the study, provides the research background, problem statement, the aims of the study, research objectives, research hypothesis, significance of the study and the chapter outline.

1.2 BACKGROUND OF THE STUDY

The success of business firms operating in the retail industry is largely dependent on the performance rendered by their supply base (Manerba & Perboli, 2019:30). Choosing an incorrect supplier could have dire consequences for the retailer's

performance. These consequences can include out of stock situations that can result in the loss of sales, the recall of a firm's product due to poor quality, as well as the weakening of the retailer's competitive position (Amoako-Gyampah, Boakye, Adaku & Famiyeh, 2019:160). A structured approach to the selection of its supply base, based on a range of selected criteria, can therefore be regarded as essential to provide retailers with guidance when selecting suppliers. Such criteria will directly affect the retailer's cost structure and therefore its profits, merchandise range and quality, as well as the service offered to its customer base.

Suppliers are generally considered as an extension of the customer firms that they supply. By properly selecting and managing its supplier base, the retailer is able to offer superior quality merchandise at a competitive price (Jeble, Dubey, Childe, Papadopoulos, Roubaud & Prakash, 2018:521). Irrespective of the circumstances faced by the retailer when selecting suppliers, many organisations base their operational expertise on the key performance objectives of cost, service, quality, speed, dependability and flexibility, which becomes the basis of their selection criteria when evaluating suppliers (Badenhorst-Weiss, Cilliers, Dlamini & Ambe, 2018:84). The selection of suppliers is critical for the buying firm, and caution should be exercised when making such decisions (Rezaei *et al*., 2016:578). The relationships between the retailers and the suppliers are of significant importance, as cooperation allows the retailer to achieve low costs, high quality and increased competitiveness (Amoako-Gyampah, Boakye, Adaku & Famiyeh, 2019:160). Inferior supplier performance affects the ability of the retailer to satisfy its consumers.

Supplier selection is a process of identifying and evaluating potential suppliers that have the capability and value to perform to the expectations of the retailer (Torres-Ruiz & Ravindran, 2019:212). Supplier selection decisions can ensure analysing strategies for lower costs, improved quality, increased product availability, shorter lead-time and improved customer service. Determining which supplier from whom to source requires careful consideration of numerous factors and criteria. These criteria include quality, price, delivery time, service, environmental issues and social responsibility, merchandise offering, distribution policies, as well as supplier cooperation (Brewer, Ashenbaum & Blair, 2019:1). In a quest to achieve efficiency and effectiveness within the retail industry, retail stores should evaluate potential suppliers

using specific criteria, such as those mentioned above, to ensure that supply chain performance adds a competitive advantage to the retail firm. Thus, it is of the utmost importance that retail firms select a supply base that will have a positive influence on their operations and assist them in strengthening their competitive advantage in the market place.

According to Botha, Badenhorst-Weiss, Bimha, Chodokufa, Cohen, Cronje, Eccles, Grobler, Le Roux, Rudansky-Kloppers, Strydom, Van Wyk and Young (2016:265), effective purchasing is dependent on the selection of the correct supplier, as it can be regarded as a prerequisite for obtaining competitive prices, the receipt of reliable quality products, on-time delivery of ordered goods, the technical support needed after awarding the contract and the necessary after-sales service as and when required. Linking the above (and other expectations) to a specific set of supplier selection criteria and selecting them accordingly will thus assist in ensuring that the retailer's choice of suppliers has the ability to meet or exceed expectations.

In meeting a specific supplier selection criterion, suppliers must meet the specific expectations that retailers attach to that criterion. The criterion of flexibility for instance, requires the supplier to assist the retailer at short notice during crises, such as a change to order quantities to be delivered within a reduced lead-time (Govindan, Cheng, Mishra & Shukla, 2018:343). The criterion of quality may require the supplier to perform in-process quality inspection and provide physical proof thereof upon product delivery (Lan & Lin, 2019:238). To ensure fair pricing from its supply base, the retailer may only deal with suppliers who are willing to engage in open-book pricing.

Being aware of what each supplier selection criterion entails will assist suppliers to evaluate themselves to ensure that the standards of their company are aligned with those of the retail organisation. Awareness of the supplier selection criteria can also benefit firms, (including retailers), in measuring the performance of their current suppliers. According to Sudrajat, Paramartha and Purba (2019:28), the analysis of supplier performance data enables the retailers to determine if the supplier is performing at an acceptable level. These authors are of the opinion that this information assists retailers with decisions regarding future purchases.

Research conducted into supplier selection criteria in South Africa includes that of Perks and Oosthuizen (2016), who investigated supplier selection criteria necessary for engaging in effective, socially responsible purchasing. The study undertaken by Perks and Oosthuizen (2016) focused on human rights, diversity, safety, ethics, environment and community as their supplier selection criteria. The study revealed that businesses should focus not only on the supplier's effect on socially responsible purchasing but should also ensure that the selected suppliers are socially responsible.

Studies conducted by De Araùjo and Alencar (2015) and Chiromo, Nel and Binda (2015) focused on the supplier selection process, while Makhitha's (2017) research related to the importance of specific supplier selection criteria weighted against one another. These studies were based on the food industry, the clothing industry and small, independent retailers. De Araùjo and Alencar's (2015) study revealed that there is a need for a structured supplier selection process and evaluation of performance. The study conducted by Chiromo *et al. (*2015) was on a custom-made clothing manufacturing firm that investigates suppliers prior to selection but does not consider evaluating the supplier's performance once service has been rendered. Makhitha investigated the importance of cost, quality and delivery time in small independent retailers. A comparison of small retailers and large retailers could reveal areas for improvement for small retailers. The current study used the following supplier selection criteria: quality, flexibility, pricing, on-time delivery, service, financial status and environment.

The current study was informed by the recommendations advanced for future research in Chiromo *et al*.'s (2015) study in which it is mentioned that supplier selection criteria requires further investigation with regard to the importance of establishing supplier selection criteria that meet the needs of the retail firm, and on the need to inform potential suppliers of those supplier selection criteria and use the same criteria to evaluate the supplier's performance. In light of the above, conducting a detailed study that develops a framework to help guide retailers as to the specific criteria to consider for the selection of suppliers, with the ultimate goal of improving the NMB retail performance, was justified.

1.3 PURPOSE OF THIS STUDY

The purpose of this study was to develop a framework to guide retailers with regard to the specific criteria to consider for the selection of suppliers, with the ultimate goal of improving retail performance in NMB. The study also sought to determine the specific criteria to consider when selecting suppliers, to identify the benefits of selecting suppliers who meet the specific criteria, the challenges that retailers face when selecting suppliers and to recommend strategies that retailers can use to improve their performance. This study stimulated research in the areas of supplier development and supplier performance measurement.

1.4 PROBLEM STATEMENT

Retailers need to pay attention to the importance of supplier selection, as it affects the overall performance of the retail outlet (Hussain & Al-Aomar, 2018:371). Inferior supplier performance has a negative impact on the product quality, price range and the service levels the retailer offers to its customer base (Dyili, Ganiyu, Mahlobelana, Singh & Naicker, 2018:20). Proper selection of suppliers is thus essential for retailers' overall performance and success.

Whether or not retailers in the NMB retail industry are guided properly in the selection of their suppliers, and if such guidance is provided with a particular range of supplier selection criteria, constituted the research problem of this study. Based on the research problem, this study primarily sought *to develop a framework that helps guide retailers with regard to the specific criteria to consider for the selection of suppliers, with the ultimate goal of improving the NMB retail performance.*

1.5 RESEARCH OBJECTIVES

1.5.1 Primary objective

- The primary objective of this study was to develop a framework that assists to guide retailers with regard to the specific criteria to consider for the selection of suppliers, with the ultimate goal of improving retail performance in NMB.

1.5.2 Secondary objectives

In support of the primary objective, the secondary objectives listed hereunder were identified.

- To identify the current supplier selection criteria used in the NMB retail industry.
- To identify challenges that retailers face when selecting suppliers.
- To assess the effects of having established supplier selection criteria on the retailer's performance.
- To identify strategies that retailers should implement to improve their performance.

1.6 RESEARCH HYPOTHESES

A firm's efficiency and effectiveness is improved when its supplier selection is based on a specific set of criteria. The hypothesis of this study stated that supplier selection criteria have a positive effect on the retailer's performance. These criteria relate to quality, flexibility, pricing, on-time delivery, service, financial status and environmental factors. The hypothesis and null hypothesis stated hereunder were consequently proposed.

H_0: Having established supplier selection criteria has no significant effect on the retailer's performance.

H_1: Having established supplier selection criteria has a significant effect on the retailer's performance.

1.7 LITERATURE REVIEW

South African retail companies measure well among the global retail sales ranks, with Shoprite Holdings Ltd, Massmart Holdings Ltd, Pick n Pay Holdings Ltd and Woolworths Holdings Ltd ranked in the top 250 retailers in the world (Carta, 2016). Strategies employed by successful retail companies within South Africa have improved over the years to ensure that they have become globally competitive within their industry. In order to achieve a competitive advantage, numerous retailers have begun focusing on improving their supply chain performance by forging closer strategic collaboration with their suppliers (Sener, Barut, Oztekin, Avcilar & Yildirim,

2019:88). According to Chen, Liu and Li (2019:2), the achievement of such a competitive advantage is determined by the manner in which the suppliers are selected.

Nuruzzaman (2015:224) emphasises that for any business to survive within a competitive business environment, improving and increasing competitiveness is crucial and it is therefore important to manage and develop its supply chain. It can thus be concluded that suppliers are to some extent collectively responsible for the success of their customer firms' supply chain performance. It is therefore essential that the suppliers that are selected meet the specific criteria set by the retailer.

A retailer's performance is affected by its suppliers' performance. Having a framework reflecting specific supplier selection criteria in place assists in communicating the retailer's expectations to its chosen supplier base. This enables suppliers to set minimum customer levels and make infrastructure investments where needed. Criteria used in the selection of suppliers also allow the retailer to measure its supplier performance for the duration of the contract. As a barometer, it informs the retailer if the performance of its supply base is in line with its expectations. The reason for supplier performance measurement is to make poor performing suppliers aware of their inferior performance and to either grant them an opportunity to improve within a specific period or to replace the supplier with one that is more capable.

Several studies identify product quality as the most important criterion. Quality as a criterion of supplier selection has an effect on the productivity of the organisation due to fewer operational interruptions and better customer service (Badenhorst-Weiss *et al*., 2018:84). Receipt of inferior products from the supply base has a negative impact on planned retail operations, as well as the retail store's objectives. The rejection of poor quality products negatively affects the availability of products for the retail customer and the intended service levels of the retailer. The consequences of poor quality products are the cost of back orders, loss of sales and loss of customers. Customer loyalty is thus affected, as well as current and future sales, turnover and profits. Inferior quality of products from suppliers negatively affects the retailer's customer demand and competitive position in the market (Liu & Atuahene-Gima, 2018:7).

Typical issues to assess when investigating quality as a criterion in the selection of suppliers include the quality control and quality assurance programs, as well as the quality policy and culture. The receipt of good quality products ensures smooth operations within the retail firm. The firm is thus able to provide good customer service, as customers are supplied as promised. The quality of a product increases the value of the product to the customer. It can therefore be concluded that selling high quality products increases a firm's profitability, as consumers are likely to repurchase their requirements from the same retail store.

Flexibility as a criterion for supplier selection emphasises the supplier's ability to accommodate the unexpected. According to Badenhorst-Weiss *et al*. (2018:86) and Yadav and Sharma (2016:336), selected suppliers should be flexible to changes in volume, variety, mix and new products as demanded by the retailer. It can thus be concluded that supplier flexibility directly influences the customer service levels, as well as the profitability of the retailer.

The criteria pertaining to supplier pricing require an understanding of the supplier's material costs, direct and indirect overheads, manufacturing costs and transportation costs (Shishodia, Verma & Dixit, 2019:466). The willingness of the supplier to negotiate quoted prices, to reduce costs and employ an open book policy on pricing can be regarded as prerequisites for fair pricing. Uncompetitive pricing by a firm's supply base could give rise to inflated prices, which could increase the cost structures and selling prices of the buying firm.

Defending the cost structure of a business can be regarded as one of the primary responsibilities of the purchasing department. The purchasing department affects the efficiency and effectiveness of a business, as it has a direct effect on its cost reductions (in the form of price reductions) and profitability (Sarvestani, Zadeh, Seyfi & Rasti-Barzoki, 2019:73). This is especially true for the retail buyer where the sum of all prices paid to the retailer's supply base constitutes the largest cost component of the retailer's total costs. Substantial savings and higher profit margins can thus be achieved.

The frequency at which businesses, including retailers, place their orders or instruct their supply base to release goods on blanket orders is largely determined by the lead-

time quoted, or agreed to between the buyer and supplier. Adhering to the quoted or agreed-upon lead-time ensures timely delivery of goods to the retail store. Late delivery of products has adverse repercussions for businesses (Badenhorst-Weiss *et al*., 2018:85).

In their quest to reduce costs, businesses hold lower levels of stock to reduce inventory-carrying costs. This practice elevates the importance of on-time delivery, especially in a just-in-time supply environment, which requires an increased number of small-quantity deliveries. Valuable information pertaining to the potential supplier's ability to deliver on time can be sourced from its current customers (de Villiers, Nieman & Niemann, 2017:25).

The level of risk experienced by retail firms is partially influenced by the financial status of its suppliers. Dealing with financially stable suppliers reduces the risk of supply interruptions, as they are able to procure production requirements and cover their labour and overhead costs. According to De Villiers *et al*. (2017:24), avoiding the selection of suppliers with a weak financial status to some extent guarantees an uninterrupted supply of products.

According to Sting, Stevens and Tarakci (2019:116), buyers can examine various financial measures, such as the supplier's credit rating, profitability, inventory turnover and current ratios to gauge its financial status. The buyers' expectations of their suppliers continue to increase as they are constantly seeking better value packages for their employers. According to Badenhorst-Weiss *et al*. (2018:86), service as a supplier selection criterion also relates to the supplier's attitude towards managing the customer's inventory. This may include providing consignment stock or the supplier's willingness to accept deferred payment for goods supplied due to a cash flow problem experienced by a retail firm.

According to Badenhorst-Weiss *et al.* (2018:88), consumers expect business firms to engage in practices that could reduce greenhouse gas emissions and protect the environment. These authors also hold that retailers expect their suppliers to subscribe to such practices. From a purchasing perspective, this means critically assessing the impact of a product's use and packaging and searching for waste reduction and

recycling opportunities with the necessary buy-in from the suppliers sourced by the firm.

Cankaya and Sezen (2019:99) are of the opinion that many supply chain members (suppliers and customers), are beginning to realise the benefits of green supply chains. These benefits include the potential for cost savings, increased profits and cheaper products. According to Gawaikar, Bhole and Lakhe (2018:638), an environmental management system (EMS) requires businesses to set environmental policies with specific objectives, create a program aimed at achieving those objectives, as well as monitoring and measuring their effectiveness. These authors contend that purchasers dislike any form of association with known environmental polluters from a public relations and product liability standpoint.

It can be concluded from the preceding discussion that the performance of the retailer's upstream supply chain is key to its success. The full range of criteria that could be considered by the retailer during the supplier selection process is not limited to the criteria that are discussed in this study. Other criteria may relate to issues such as geographic location, reputation, technology and process capability, as well as systems. The choice of criteria range will be based on the unique requirements of the individual retail organisation and the product range it carries.

1.8 RESEARCH DESIGN AND METHODOLOGY

In order to successfully address the research objectives of this study, the research design identified the method that was adopted in this study. It discussed the quantitative research, sampling design, data collection procedures, as well as the measuring instruments and data analysis techniques most suitable for this study.

1.8.1 QUANTITATIVE RESEARCH

The quantitative research design used in this study is known as the phenomenological design, which allowed the researcher to gain deeper understanding by gathering numerical data and using it to descriptively analyse the data that was collected. This study adopted a positivist research paradigm, as it sought to identify the specific criteria to consider when selecting suppliers for the retail industry and assess the effects of employing supplier selection criteria on retailer's performance. The positivist

paradigm was considered appropriate for this study as it enabled the discovery and explanation of the problem statement, the sample size required and the establishment of specific criteria used in the pursuit of selecting suppliers.

1.8.2 Target Population

Struwig and Stead (2013:112) define a research population as a group of individuals that have related characteristics. The purpose of the study was to source data pertaining to the perceptions of retail industry operators when considering the specific criteria for selecting suppliers. The study population consisted of retailers operating within NMB that are involved with supplier selection.

1.8.3 Sample Frame

A sample is a portion of a population whose input can be used to generalise to the whole population (Lohr, 2019:3). For the purpose of this study, the population consisted of retailers in the NMB. The NMB Business Chamber Guide (2019) listed 670 companies.

1.8.4 Sampling techniques

Two types of sampling methods exist, namely probability and non-probability sampling. This study used probability sampling, whereby a structured questionnaire was utilised for data collection. The results were statistically analysed and interpreted under the guidance of a qualified statistician.

This study used simple random sampling as a sampling technique, as it allowed all retailers an equal chance to be selected. Retail stores in NMB were approached and a questionnaire was handed to the retail management who were directly involved in the selection of suppliers, either by hand or via email by means of an online survey monkey. Data was presented in a manner that maintained the respondents' anonymity.

1.8.5 Sample size

Sample size is the estimated number of individuals that will adequately represent the entire population of the study (Taherdoost, 2017:237). As mentioned previously, the sampling technique utilised was simple random sampling, which allowed the

researcher to randomly choose retailers in the NMB retail industry. The respondents for this study were chosen from among the 670 large companies identified by the NMB Business Chamber. A sample of 248 respondents (operations managers, procurement directors, buyers, sales associates, merchandise managers and senior buyers) was included in this study.

1.8.6 Data collection

1.8.6.1 Secondary data

In this research, collection of data performed a key role in achieving the results. The gathering of secondary data is one of the methods used to ascertain what is already known and what remains to be learned about one's choice of topic. Existing data is obtainable from various sources, such as publications and hard copies of published materials (Sherif, 2018:4). An analysis of secondary data identifies new or additional research questions to verify the findings of previous research (Sherif, 2018:10). A literature review was conducted to assess the current supplier selection criteria, to identify challenges that retailers face when selecting suppliers, the effects supplier selection criteria have on the retailer's performance and to identify strategies that retailers should implement to improve their performance. A literature search was conducted through the Nelson Mandela University network libraries and online databases, namely Emerald, Ebscohost, SAGE publications and Google Scholar. The data was used to develop the background to the study, as well as to design the questionnaire.

1.8.6.2 Primary data

Collection of primary data pertaining to supplier selection could be undertaken via various methods, but conducting a research study based on historical experiences, questionnaires, hermeneutics, cases studies, interviews, action research, observation and focus group interviews could all have been useful in addressing the objectives of this study. As the required data for the study was sourced by hand or emailed through an online survey monkey questionnaire, retail management were contacted and invited to participate in the study, and the Statistical Package for Social Sciences (SPSS version 26) software was utilised to analyse the data.

1.8.7 Measuring instruments

Measuring instrument is a term used by researchers to describe the various means of collecting primary data, such as interviews, observation, oral, historical, among others. The survey methodology was utilised in this study to gather the primary data by means of questionnaires. An explanation of the purpose of the study and the type of information required was provided in a cover letter. The cover letter included an assurance of confidentiality and anonymity, as well as instructions on how to complete the questionnaire.

The questionnaire was divided into six sections (A to F). Section A of the questionnaire consisted of a nominal scale based on the respondents' personal information and the type of business, and Sections B to F consisted of multi-term measures that were anchored by an ordinal, 5-point Likert scale.

1.8.8 Analysis of data

Data analysis, in this study, provided the information that allowed for a better understanding of the effects of supplier selection criteria on the retailer's performance (Aranda, Dias, Wolf, Carvalho, Tavares, Yamin & Barbosa, 2019). The research data was gathered by means of a questionnaire. The questionnaire was analysed and captured in Excel spread sheets. Descriptive statistics were used to analyse the demographic information by means of SPSS version 26. Inferential statistics were used to analyse the Likert ordinal scales by means of exploratory factor analysis (EFA) and SPSS version 26. The research hypothesis was tested to indicate the coefficient correlations matrix between the research variables. A regression analysis was performed using SPSS version 26.

1.9 SCOPE OF THE STUDY

The study focused on specific criteria to consider when selecting suppliers within the retail industry; those that positively influenced retailers' efficiency and effectiveness. The empirical study included retailers located within the NMB, irrespective of their product line offering.

1.10 CONTRIBUTION OF THE STUDY

This study contributed to the existing body of knowledge by developing a framework that could assist retailers in NMB with the selection of their supply base to meet a specific range of criteria and to meet the retail firms' expectations. This framework consisted of a set of criteria that retail firms could adopt in the supplier selection process.

The empirical findings of this study highlighted the current supplier selection criteria used in the NMB retail industry, identified challenges that retailers face when selecting suppliers, assessed the effects of employing established supplier selection criteria on the retailers' performance and identified strategies that retailers can use to improve their performance. The findings of this research serve as a guide for retail suppliers to improve their performance. This allows them to make the necessary adjustments in specific areas of performance. The outcome of the study can be useful to retail firms in terms of their supplier development and supplier performance measurement initiatives. All this contributes to the body of literature pertaining to supplier selection and retail performance in South Africa.

1.11 CHAPTER OUTLINE

Chapter 1: Introduction of the study

This chapter provides the introduction and background to the study. The discussion covers aspects such as the problem statement, research objectives, a brief discussion of the research methodology, as well as the research plan for the study.

Chapter 2: Theoretical framework and retail management

Chapter 2 reviews the supply chain theories used to understand retail performance, the state of the global retail sector and the South African retail industry. It also provides the current retail trends, retail's future outlook, as well as competitive advantage in the retail industry.

Chapter 3: Effect supplier selection has on the retailer's performance

This chapter discusses the link between supply chain management and sourcing and the importance of supplier selection decisions within the industry, supplier selection criteria and the link to supplier performance, as well as the consequences of inferior supplier performance on retail performance. Reference is made to supplier partnerships and relationship management.

Chapter 4: Research design and methodology

This chapter focuses on the research design and methodology that was utilised in the study. The sample, development of the measuring instrument and data analysis procedures used in the study are discussed.

Chapter 5: Empirical findings of the study

This chapter explained the empirical results of the study. The results emanating from the quantitative study are grouped into various themes. Thematic analysis was employed to analyse the data and the results are presented quantitatively. The empirical results are compared to the existing literature reviews. Appropriate tables and figures are used to present the findings of the study.

Chapter 6: Conclusion and recommendations

The conclusions are discussed and recommendations formulated based on the results of the study. The chapter presents a summary of the key findings, provides managerial and policy implications and recommendations for future research.

CHAPTER TWO

SUPPLY CHAIN THEORIES AND RETAIL MANAGEMENT

2.1 INTRODUCTION

Business firms that fall under the retail industry are companies that sell goods or services to end consumers. The retail industry consists of different divisions, such as wholesale, motor, accommodation, food and beverages and retail (Stats SA, 2018). These divisions contribute to the economic growth of the country, which has a positive impact on level of employment, as well as the standard of living (Agarwal, 2017). A supply chain network consists of companies that work together in a sequence that will assist the retailer to achieve competitiveness. For this reason, supplier selection affects the retailer's performance.

This chapter reviews the supply chain theories used to understand the retailer's performance. The theory guiding this chapter is a resource based view (RBV), including its developments and extensions that are found in literature. Resource based view theory contributes to strategic management in discussing how firms seek for explanations to achieve and sustain a competitive advantage. The need for the research is discussed based on the South African and global retail sectors by identifying the global leaders and evaluating the average annual net revenue for South African global retailers. It mentions the South African retailers that have extended globally, as well as strategies a number of companies employ to ensure their competitiveness. Thereafter, the retail trends that influence the retailer's performance are highlighted and the way in which retailers envision the future of retail markets.

2.2 SUPPLY CHAIN THEORIES USED TO UNDERSTAND RETAIL PERFORMANCE

Literature pertaining to supply chain theories has been researched for many years. Supply chain theories such as grey theory, RBV theory, process related theory, evidence theory, transaction cost theory, agency theory, institutional theory, stakeholder theory and dynamic system theory have been utilised in previous studies to explain supplier selection processes (Amarasuriya, 2018:15; Lammi, 2016:20; Thakur & Anbanandam, 2015:770; Wu, 2009:8893; Masella & Rangone, 2000:71).

Choi and Wacker (2011) posit that authors have used these above-mentioned theories to review supply chain management and operations management, which provide theoretical perspectives in literature. This study was perceived through RBV theory to explain the influence supplier selection criteria has on the performance of the retailer.

2.2.1 Resource based view theory

The RBV is a theory used in strategic management to identify the resources that contribute to the firm's competitive advantage (Mamonov & Triantoro, 2018:147). In a study conducted by Penrose (1959), the RBV was described as resources and capabilities that assist firms to sustain a competitive advantage. Penrose (1959) posited that resources, (such as physical products, suppliers and infrastructure), and services, (such as information sharing, brand reputation and customer service), influence a firm's growth and heterogeneity can influence the firm's performance. Kor and Mahoney (2004) advanced the notion that RBV focuses on efficiency, economic profit, competitive advantage and profitable growth.

Within RBV theory, resources are divided into three groups: tangible assets; intangible assets and core competencies (Prahalad & Hamel, 1990:84; Teece, Pisano & Shuen, 1997:510; Priem & Butler, 2001:23; Rađenović & Krstić, 2017:130; Mamonov & Triantoro, 2018:147; Coulet, 2019:162). These resources are used to increase the firm's performance (Coulet, 2019:162). With these mentioned, the resources may be heterogeneous and immobile (Jurevicius, 2013). The retailer should use these resources and capabilities to create and implement strategies that assist in gaining an advantage (Barney & Mackey, 2018:359).

Wernerfelt (1984), one of the few authors that previously cited Penrose's study, posited that resources refer to anything that could add value to the firm; with that, it was named RBV theory. Wernerfelt (1984:72) describes resources as assets that could assist the firm to gain an advantage. For instance, raw materials, equipment, improved strategy processes, finances and employees. According to Chicksand, Johnston, Watson, Walker and Radnor (2012:466), resources are the firm's strategies in internal processes that assist in decision making that will benefit the relationship between power and competitiveness. The key components of RBV are resources, capabilities and strategic assets (Barney, 1991). Additional literature holds that there

is a relationship between resources, capabilities and competitive advantage (Conner, 1991; Grant, 1991; Wang & Ahmed, 2007; Hitt, Xu & Carnes, 2016:78; Rađenović & Krstić, 2017:130; Barney & Mackey, 2018:359; Coulet, 2019:164). However, only a limited number of studies have investigated the effect of the combination of resources and capabilities on performance (Rungtusanatham, Salvador, Forza & Choi, 2003; Ravichandran & Lertwongsatien, 2005; Brandon-Jones, Squire, Autry & Petersen, 2014:57). For instance, Rađenović and Krstić (2017:129) argued that with the use of RBV, the firm could link resources, capabilities and competitive advantage.

Penrose's (1959) study was aimed at gaining maximum profit by identifying the internal drivers that influence the firm's growth process. Rugman and Verbeke (2004) posited that Penrose's (1959) intention was not for the development of firms to earn rents. Nevertheless, the authors continued to mention that isolation gain does not make the firm successful; utilising resources more efficiently as a supply chain network results in rent earnings.

2.2.1.1 The theory critique

Yeow, Soh and Hansen's (2018) critique focused on the underdevelopment of the moving targets of emerging strategies in a digital context. From an RBV perspective, the organisation can sense, seize and transform capacities (Yeow *et al.,* 2018:49). A critique of RBV is the confusion between resources and capabilities creating value with resources and capabilities that create economic rents (Barney & Mackey, 2018:365).

According to Lloyd (1961:106), Penrose's theory was criticized by mentioning that it lacked support from other partner firms and never intended to present strategies for firms to earn rent. Rugman and Verbeke (2004:215) emphasized that firms working in isolation will experience difficulty in achieving efficiency and equity in rents.

The contribution of Penrose's theory was creating economic value by discovering the link between resources and opportunities for rapid growth of the firm (Kor & Mahoney, 2004:183), whereas Rugman and Verbeke's contribution was in stating that achieving and sustaining competitive advantage cannot occur in isolation (Kor & Mahoney, 2004:184). With the critique, literature has shown confusion between resources and capabilities that create value and those that generate economic profits (Barney &

Mackey, 2018:365). The frameworks discussed in the paragraphs that follow were developed as a result of the criticism of RBV.

2.2.1.2 VRIO framework

The VRIO framework assists to ascertain which resources are valuable to the firm, which are likely to be imitated and how the firm can manage and sustain these resources (Barney & Hesterly, 2015; Lopes, Farinha, Ferreira & Silveira, 2018:661). According to Porter (1985), a firm's competitive advantage can be created and sustained through cost leadership, cost focus (low costs translate to high profits) and differentiation (uniqueness in its industry). The resource based view holds that firms' resources must provide economic value and must comply with the value (V), rare (R), inimitable (I) and organisational support (O) resource framework (Amit & Schoemaker, 1993; Barney, 2001:645; Gunasekaran, Papadopoulos, Dubey, Fosso-Wamba, Childe, Hazen & Akhter, 2016:5; Chatzoglou, Chatzoudes, Sarigiannidis & Theriou, 2018:49). Barney's VRIO framework identifies the attributes discussed hereunder.

Valuable resources (V) are those resources that add value to the firm and allow the firm to be efficient and effective in its processes (Barney, 1991). Strategic capabilities is when the organisation takes advantage of opportunities to provide value for customers with competitive advantage and acceptable returns (Grant, 1991:10). If the resources are not valuable, the organisation does not achieve a competitive advantage.

Rare resources (R) are those that are unique to a firm and that competitors would find difficult to access. This creates perfect competition (Bergh, Ketchen, Boyd & Bergh, 2010:623). In situations in which resources are not rare, competitive parity is achieved (Lopes, Farinha, Ferreira & Silveira, 2018:661).

Inimitable resources (I) are resources that are difficult and costly for competitors to imitate; they are the firm's strategic resources and capabilities (Barney & Hesterly, 2015:95). Competitors may imitate by means of direct duplication and substitution (Barney & Mackey, 2018:364).

Organisational support (O) refers to those resources that add value, are rare and inimitable and must be arranged to be supported by the organisation to ensure full

economical value is achieved or the competitive advantage will be temporary (Jurevicius, 2013; Chatzoglou *et al.,* 2018:53).

The VRIO framework complements other strategies employed to ensure that a supply chain integrates its resources to sustain the focal firm's competitiveness. With the use of the VRIO attributes, the firm is able to deliver high value resources and capabilities, making it difficult for competing retailers to imitate and they therefore yield to a sustained competitive advantage (Meyer, 1991:823; Barney & Mackey, 2018:365; Lopes, Farinha, Ferreira & Silveira, 2018:661).

According to Chatzoglou *et al.* (2018:49), retailers need to recognise and examine the value added by resources, as this could assist in gaining a competitive advantage for the firm. The resource based perspective utilises VRIO resources and capabilities to implement strategies that improve the firm's efficiency and effectiveness. Without these strategies and significant resources, the firm's performance will negatively affect its profitability. The VRIO framework suggests that the retailer's resources, capabilities and competitive advantage are linked, therefore the chosen suppliers should deliver high value products and services. With the use of the VRIO framework, a company relies on its resources to attain a competitive advantage.

2.2.1.3 Dynamic capabilities

In this study, the theoretical approach to dynamic capabilities is viewed as a development of RBV theory. Literature defined dynamic capability as the ability of a firm to strategize the supply chain to adapt its resources and capabilities to meet rapidly changing customer demands (Teece *et al.,* 1997:516; Teece, 2014:14; Coulet, 2019:163). Dynamic capabilities is a theory that focuses on the opportunity to utilise resources efficiently and effectively in order to achieve and sustain a competitive advantage in changing environments (Fernandes & Machado, 2018:4).

The dynamic capabilities framework, as a sub-stream of RBV, seeks processes that change its resources, capabilities, strategies, products and services so as to survive in changing retail markets (Coulet, 2019:146). This theory applies to this study, as retailers need to inform suppliers of changing customer demands in order to sustain a competitive advantage.

This theory can be defined as the ability to coordinate and link processes with internal and external stakeholders to take any opportunities to build efficiency and effectiveness among retailers (Teece *et al.,* 1997:516; Teece, 2014:14; Reuter, Foerstl, Hartmann & Blome, 2010:48). Dynamic capabilities is a theory that emerges to help to understand the competitive forces approach and the strategic conflict approach in relation to the firm's performance in enduring efficiency and effectiveness (Teece *et al*.,1997:510).

The dynamic capabilities approach analyses relevant resources "in order to (1) sense and shape opportunities and threats, (2) to seize opportunities, and (3) to maintain competitiveness through enhancing, combining, protecting, and, when necessary, reconfiguring the business enterprise's intangible and tangible assets" (Teece, 2014:14). The dynamic capabilities framework integrates the suppliers' resources with those of the retailers to generate innovation and economic rents (Kor & Mahoney, 2004:184; Coulet, 2019:146).

2.2.1.4 Relational view theory

A theory that was relevant to this study was the relational view theory, which is an extension of RBV. Dyer and Singh (1998) argued that relational view is a theory that focuses not only on firms' critical resources but also on partnerships developed with critical suppliers for overall value gain. Dyer and Singh (1998) posited that the overall gain of competitiveness is based on (1) relation specified assets investment, (2) knowledge exchange and joint learning, (3) collaboration of resources and capabilities to create and develop new products and services and (4) effective government mechanisms.

Mamonov and Triantoro (2018:153) posit that the relational view theory offers a complementary perspective to RBV by firms investing in resources and capabilities that would support partnerships and therefore generate rents. For instance, retailers that support their focal supplier partnerships in development results in sustaining a long-term competitive advantage (Wu & Wu, 2015:183).

2.2.1.5 Application of resource based view

In the current study, the RBV theory is used to theoretically explain the relationship between supplier selection and its influence on the retailer's performance. The RBV theory also helps to understand the importance of selecting suppliers that assist the retailer to sustain a competitive advantage.

Resource based view theory emphasises that organisations that focus on their resources and capabilities are more or less able to achieve a competitive advantage in the market (Barney, 1991; Wright & Ketchen, 2001; Sirmon, Hitt, Ireland & Gilbert, 2011; Chatzoglou *et al.,* 2018:63; Mamonov & Triantoro, 2018:147; Coulet, 2019:162). Resource based view is currently applicable, as retailers are striving to better their business processes and RBV is used as a lens to ascertain the ways in which one variable can assist another variable to achieve competitive advantage. This study utilised RBV to identify significant supplier selection criteria in the retail industry and to establish whether or not current retailers have sourcing strategies in place to choose suppliers.

As RBV is the most powerful theoretical approach in representing sources for a firm to gain competitive advantage in the market (Ipek, 2018:169), the limitation of RBV is that retailers that identify resources as valuable, rare and inimitable may change over time. RBV enables firms to cope with changes in dynamic international environments and enables them to compete. Another limitation is that RBV theory is not productive for small and medium sized firms as they have short- term agreements most of the time and consistently change suppliers in favour of lower prices (Yaman, Moussa & Ergun, 2005:2114).

Resource based view theory allows the retailer to identify critical resources and capabilities that can improve the firm's competitive position. From the RBV literature, the VRIO framework assesses the extent to which the firm's resources meet the requirements to sustain a competitive advantage, whereas dynamic capabilities complements RBV in helping the firm to adapt its resources and capabilities to rapidly meet changing customer demands and relational view identifies the importance of developing partnerships with critical suppliers for overall value gain.

As noted in Chapter One, the research aimed to develop a framework that reflects specific criteria to consider for the selection of suppliers to improve NMB's retail performance. RBV allows the retailer to ensure that suppliers' competences are linked with the retailer's core competencies, and with RBV the retailer can assess which suppliers can meet customer requirements and inform them of the supplier selection criteria. RBV is an approach that strategizes the use of resources to achieve a competitive advantage. This study required the retailer to specify sourcing decisions in order to sustain a competitive advantage. Collaboration allows retailers to provide suppliers with criteria used for the selection, evaluation and development of suppliers.

2.3 THE GLOBAL RETAIL SECTOR

Most retailers work towards increasing their annual retail sales. Retailers that are global are those that expand to other countries (Shi, Lim, Weitz & France, 2018:158). In order for retailers to be globally competitive, the organisation must implement strategies that are consistent and appeal to the global market. Having products that appeal to and meet both local and international consumer needs provides retailers with the opportunity to increase their retail profits (Reinartz, Dellaert, Krafft, Kumar & Varadarajan, 2011:S53). Entering global markets increases retail sales, which has an effect on the growth of the economy (Stats SA, 2018). For instance, being part of other markets drives global innovation and development and increases investment to overcome recession, infrastructure issues, political instability and currency challenges (Deloitte, 2016:1).

The retail leader in the world since 2013 is Walmart Stores United States (US), which is operating in 28 different countries with the highest revenue of R7, 034,822 trillion and in second place is Costco Wholesale Corporation (US) with a revenue of R1, 814,092 trillion. As stated at the BRICS Summit (2018), South Africa is still referred to as a developing country despite four South African retailers being ranked in the top 250 largest retailers across the world and with South African retailers' annual revenue ranging from R58, 06 billion - R104, 7 billion.

Over the 50 years of its existence, Walmart has remained customer focused by strategizing their systems to better compete in competitive markets. According to Ghosh and Shah (2015:319), Walmart's supply chain strategy has moved from

consistent low prices to focusing on offering a wide assortment of branded products. For successful retailers such as Walmart and Costco, strategizing begins during the sourcing stage. For instance, Walmart and Costco find products at the best prices from suppliers who are able to meet their increasing demands (Kissinger, 2017; Lu, 2018). One of the decision areas for Costco is process and capacity design, where the emphasis is on selecting a supplier that can offer speed and efficiency for maximum capacity (Costco Wholesale Corporation Annual Report, 2017; Kissinger, 2017). Walmart invested heavily in product redesign to ensure that their supply chain objectives were aligned with the consumer's requirements, which increases their competitive position (Ghosh & Shah, 2015:319).

Within these global competitive markets, success for the above-mentioned companies is only possible because of the collaboration strategies used to develop their suppliers. For instance, Walmart's supply chain management constructs communication and relationship networks that improve material flow with low inventory (Lu, 2018). Walmart has programs in place that allow the input of information and tracking of the suppliers' performance (Roberts & Berg, 2012:103). Walmart has invested in advanced technology that allows the supply chain network to accurately forecast demand, track and predict levels of inventory, create highly efficient transportation routes and manage customer relationships and service response logistics (Lu, 2018). Most of these would never have been possible if the selected suppliers were incapable of keeping up with increasing customer demands. Walmart is thus able to gain a competitive advantage over other retailers.

Conversely, Costco uses a number of decision areas for operations management. Costco's aim is to achieve the highest possible quality while maintaining low production costs by managing the design of the products and services offered by the supply base (Costco Wholesale Corporation Annual Report, 2017; Kissinger, 2017). Another strategy involves service quality control by establishing consistency of quality in all stores (Kissinger, 2017). Other decision areas are location strategy and supply chain management, which offer customers the opportunity to purchase goods in bulk to maintain low costs (Ayers & Odegaard, 2017:7).

Table 2.1: Global Powers of Retailing Top 250 FY2017

Global Powers of Retailing Top 250, FY2017			
FY2017 Retail revenue rank	**Name of company**	**Country of origin**	**FY2017 Retail revenue (RSAbn)**
1	Walmart Stores Inc.	United States	7, 034,822
2	Costco Wholesale Corporation	United States	1, 814,092
86	Shoprite Holdings Ltd.	South Africa	158,794
140	The SPAR Group Limited	South Africa	101,963
160	Pick n Pay Stores Limited	South Africa	87,524
179	Woolworths Holdings Limited	South Africa	74,968

Source: Deloitte (2019)

Shoprite Holdings, SPAR Group Limited, Pick 'n Pay Stores Limited and Woolworths Holdings Limited have expanded into international markets (Deloitte, 2018:21). As these large retailers are active in global markets, they are provided with the opportunity to partner with suppliers in other countries in order to assist with cost reduction, distribution and outbound logistics, shorter delivery time, quality and reliability (Yaman, Moussa & Ergun, 2005:2115). This enables them to target different consumer segments and increase their sales by aligning their strategies to be more supply chain driven so as to evaluate their suppliers' capabilities and performance in line with various criteria (Makhitha, 2017:420). This proves that South African retailers can compete with year on excellent retailers and their products relate to international markets.

These retailers' success has been achieved by choosing trade partners that coordinate their supply and demand management, transparency communication and efficient cost saving without compromising on quality (Smith, 2016; Euromonitor

International Report, 2018; Kibuuka, 2018). This begins in the selection stage, as the retailer should select suppliers that have the ability to grow and develop into new markets.

Retailers' supplier selection criteria are essential to ensure that they are able to compete in local and international markets. The use of supplier selection criteria in South Africa's small and large retailers allows them to ensure that the selected suppliers will deliver the correct products at the right time and the right price and correct quantity (Makhitha, 2017:420). Thereafter, once the retailer specifies its criteria to its suppliers, it exploits success in the market (Shi, Lim, Weitz & France, 2018:147).

South Africa's retail growth is increasing significantly globally; therefore more research needs to be undertaken with regard to the supplier selection criteria used in the retail industry. The ensuing section focuses on the status of South Africa's retail industry, the importance of selecting suppliers and strategies some companies use to ensure their competitiveness.

2.4 THE SOUTH AFRICAN RETAIL INDUSTRY

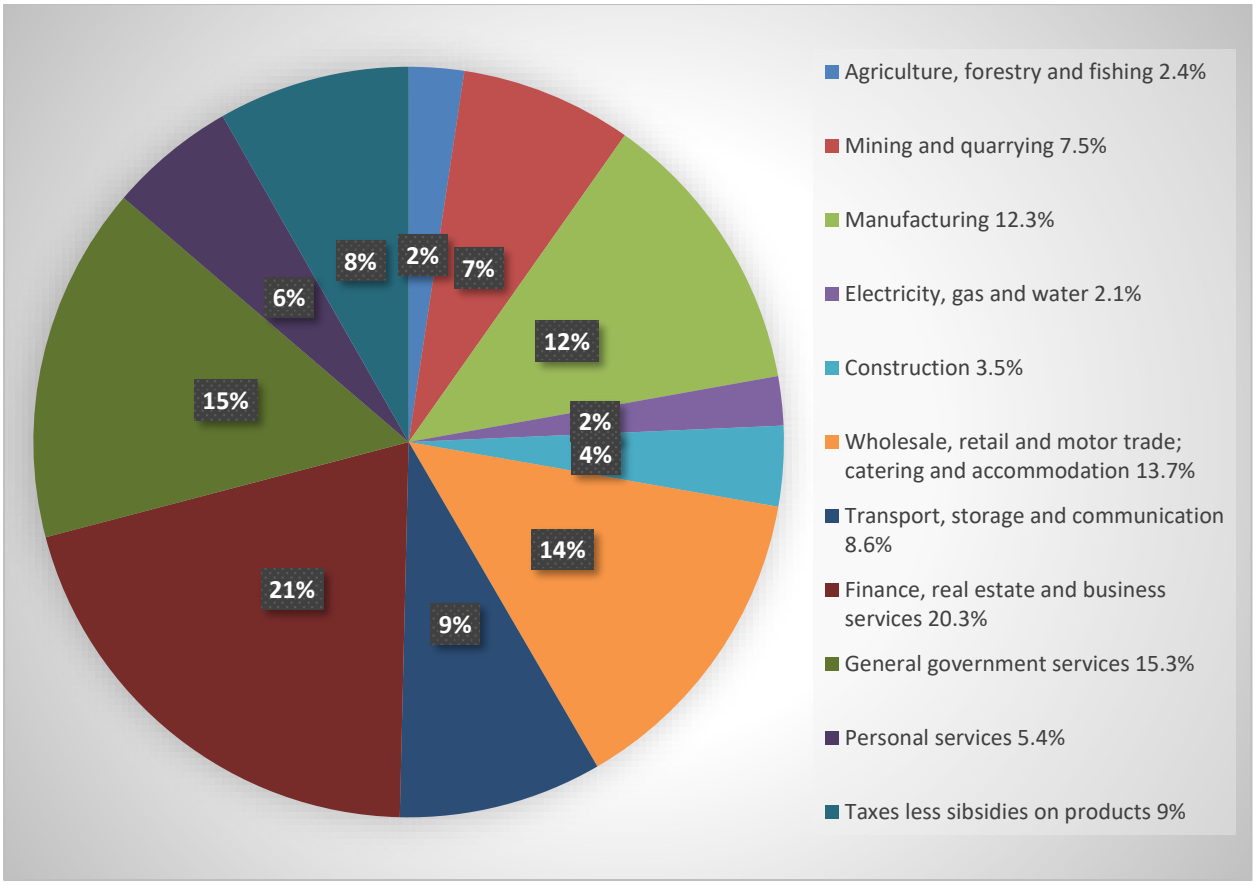
The five key retailers in South Africa that hold the majority of the market share are Shoprite Holdings with 31.7% of the market share, Pick 'n Pay Stores Limited with 6.7%, SPAR Group Limited with 9.5%, Woolworths Holdings Limited with 3.7% and Massmart with 3.5% of the market share (Market Watch, 2018; Shoprite Holdings Integrated Report, 2018; South African Market Insights, 2018). Shoprite Holdings' main focus is on bringing the products directly to the consumer and targeting consumers that live in rural areas. Shoprite also offers low prices and is able to do so with the assistance of their suppliers' low prices. These strategies are only possible with well-planned partnerships that ensure efficient distribution to consumers (Lourenco, 2018:3).

South African retailers' exposure in various markets allows them to compete against others to better their products and services, while at the same time building sound relationships with supply chains in various countries. Exposure in different markets allows South Africa to highlight its privately labelled products while overlooking the cultural differences of other countries. A study conducted by van Dongen (2015:81)

revealed that South African retailers managed to find the gaps to fill in global markets, developed context appropriate IT systems and adapted to managing long and complex supply chains. Van Dongen (2015:37) posited that South African retailers have developed competitive advantages that are relevant in global markets.

The South African retail sector is made up of general dealers, food, beverages and tobacco in specialised stores, pharmaceuticals and medical goods, cosmetics and toiletries, textiles, clothing, footwear and leather goods, household furniture, appliances and equipment, hardware, paint and glass and numerous others (Stats SA, 2019). Wholesale, retail and the motor trade, catering and accommodation's contribution to the South African Gross Domestic Product (GDP) in quarter four of 2018 increased by 0.8% (Stats SA, 2018). Retailers sell products and services to consumers and provide a place where the consumers can purchase the products and services. Retailers' success is measured by their annual retail sales.

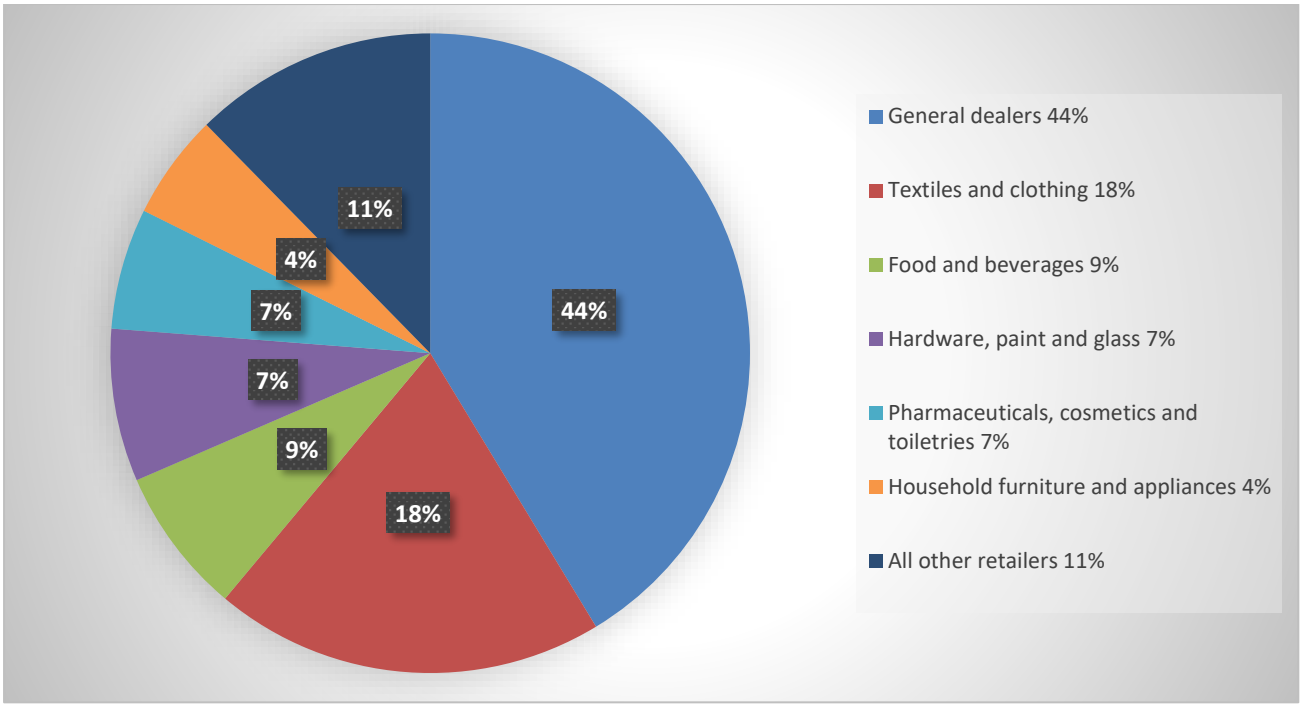
In 2018 retail sales reached R1. 26 trillion, accounting for up to 2.7% of South Africa's GDP (Stats SA, 2018), which represented a 3.2% increase in spending compared with 2017.



Source: South African Market Insights (2018)

Figure 2.1: Sectors that made up the GDP in 2018

Figure 2.1 illustrates the key sectors that contributed to South Africa's GDP in 2018 with the wholesale, retail and motor trade, catering and accommodation accounting for 15,1% of the GDP, which was the third highest contributor to the GDP. This indicates the importance of the retail industry, which includes the suppliers that retailers select. Retailers should prioritize the selection of suppliers, as this choice influences the country's gross profit. The divisions of the retail sector and how much these divisions contribute to the retail industry are illustrated in Figure 2.2.



Source: Stats Release, December (2018:2)

Figure 2.2: Divisions that made up the retail trade industry in 2018

As illustrated in Figures 2.1 and 2.2, the GDP increases each time customers spend an extra rand. As shown in Figure 2.2, general dealers contributed the highest with 41.2%, followed by textiles and clothing with 19.7%. Household furniture and appliances contributed the lowest percentage with 5.5%. In the 2018 results it was clear that customers spent the majority of their money at general dealers, which includes supermarkets.

Large retailers such as Shoprite Holdings and small and medium sized retailers such as spaza shops have a significant impact on a country's wealth (Stats SA, 2018). With assistance from their supply chain, retailers are able to attain success. The suppliers provide retailers with products and services on time to ensure that the retailers are able to deliver the final products and services to the consumers as expected (Cooper & Ellram, 1993:13). Retailers must therefore pay serious attention to the supplier selection process. The buying firm should select suppliers that are willing to develop and align their objectives with the retailer's goals (Chen, Ellis & Suresh, 2016:593). The retail company should select suppliers based on specific criteria in order to meet their customers' requirements.

Due to the size of the stores and the annual revenue generated, the stability of national retail stores that have made a footprint in the emerging markets remain competitive based on their consistent ability to distribute goods to urban cities, townships and rural areas with the assistance of their suppliers (PricewaterhouseCoopers Report, 2012). Wholesale, retail and the motor trade, catering and accommodation is a sector that continues to grow (Stats SA, 2018). However, retailer growth cannot be achieved in isolation; the suppliers' assistance is essential. A retailer's success can be achieved through long-term supplier and retailer relationships, which emphasizes the importance of correctly strategizing supplier selection decisions (Lu, 2018).

2.5 RETAIL TRENDS

Local and global trends in the retail industry assist the retailer to compete or be unique in meeting customers' changing needs. Retail trends can be seen as predictions of the future, of which retailers must be aware.

Supply chain trends are likely to be a continuation of the previous year's trends but with a more structured route towards the retail sector's future (Banker, 2019). The retailer should remain vigilant and pay attention to the trends to attain a sustainable competitive advantage. The retail trends that influence the retailers' performance are discussed in the ensuing sections.

i. Supply chain collaboration

Coordination within a supply chain has a significant impact on a firm's performance (Sarkar, 2018). Buying firms have grown from articulating low costs as the reason for making a choice, to adding value, long-term relationships, integration and collaboration between the supply chains allowing supplier development in order to be competitive (Sarkar, 2018). For instance, Shoprite Holdings (South Africa's leading retailer) stated that without building long-term relationships and collaborating with its suppliers for low prices and quality products, achieving efficiency and effectiveness in customer satisfaction would not have been possible (Shoprite Holdings Integrated Report, 2018). A response to maintaining long-term relationships lies in selecting the correct suppliers (Wu & Weng, 2010:391). The supplier that meets the requirements of reasonable pricing, high product quality, technological capability, short delivery time,

flexibility capability and competitive advantage offers the retailer numerous opportunities to improve performance, which results in maintaining a long-term relationship (Pulles, Schiele, Veldman & Huttinger, 2016:129; Maestrini, Luzzini, Maccarrone & Caniato, 2017:302; Sumiati, Rofiq, Risanto & Yulianti, 2017:109).

ii. **Use of technology**

The use of the internet since 1995 has increased, especially with regard to supplier selection. According to Barua, Ravindran and Whinston (1997:118), the "Technology Forecast 1996" increased the use of electronic commerce by allowing businesses to create websites for displaying products and services, ordering products, transactions, sharing information and identifying potential supply chain partners. With expanding global competition with the advent of this millennium, supply chain management shifted with the changing markets and technology in order to meet consumers' growing needs for improved quality and customer service (Su *et al.,* 2009:83).

A global retail trend is highly advanced digital capability that allows consumers a pre-shopping opportunity to search for unique products that offer greater consumer experience, as well as the opportunity to reinvent technologies that allow supply chains to share information almost instantaneously (Business Connexion, 2016; Mordor Intelligence, 2018; Pearson, 2018). The rise of digital retailing increases the need of omnichannel, automation and artificial intelligence in order to sustain a competitive advantage globally (Banker 2019; Deloitte 2019:8).

Bugwandin (2017) undertook a study of the most important criteria to consider for information technology outsourcing for vendor (supplier) selection in South Africa. Supplier selection criteria used in various industries and platforms in South Africa are similar, with a few that vary to accommodate their industry (Makhitha 2017:421). For instance, Bugwandin (2017:54) specified that the criteria to consider when selecting suppliers through the internet are cost, quality, commitment, additional resources, additional expertise, prior work, contract terms, confidentiality, location of supplier database and black economic empowerment. Technologies such as System Application and Product (SAP) have made purchasing easier for buyers to select, evaluate and manage suppliers (Sarkar, 2018).

A study conducted by Dickson (1966) prior to the internet, presented quality, delivery, performance history and warranties and claim policies as the most important criteria to consider when selecting suppliers. Once technology had been introduced, more attention was given to reducing the number of suppliers in order to place smaller orders with more frequent deliveries, as requested by retailers (Cooper & Ellram, 1993; Schmenner, 1998). Over time retailers learnt to choose suppliers that enabled them to be innovative with the use of technology, which also provided specification of products and reduced the bidding processes (Barua, Ravindran & Whinston, 1997:119). Small organisations lack the resources and wherewithal to invest in technologies that enhance efficient communication, adjust to rapid changes and enhance global supply chain relationships. However, recent literature emphasises that small and large retailers require collaboration, knowledge and technical know-how, availability of finance, knowledge for innovation, use of information technology and investment in research and development (Gupta & Barua, 2018:207).

iii. **The use of criteria**

According to Trade Intelligence (2018), the South African retail trend driven by customer demand includes price, convenience, customer service, digital connectivity, lifestyle, sustainability, community retailing and ethical trading. The product price is made up of the low prices from suppliers and the logistics costs (Yadav & Sharmar, 2016:335). Retailers that offer consumers convenience and satisfactory customer service are likely to be favoured by consumers (Shoprite Holding Ltd Report, 2019). Reliability and flexibility of suppliers in meeting changing market demands is vital to the retailer to ensure that the consumers are satisfied, whether in lifestyle, demand or socially. The selection of poor suppliers can result in detrimental repercussions with regard to the retailer's reputation.

The criteria perceived as the most important from the 1960s to the 1980s were quality, delivery and performance history (Dickson, 1966; Mehta, Khurana, Chhabra, Roa & Kiser, 1981). By the 1990s quality, reliability, price, lead-time and service were viewed as the most critical criteria (Ellaram, 1990; Barua, Ravindran & Whinston, 1997:123) and from 2000 to 2010 the most important criteria were quality, delivery, price, technical capabilities, flexibility, process improvement, shorter lead-time, technology, performance, service and reliability (Liu, Ding & Lall, 2000:149; Kahraman, Cebeci &

Ulukan, 2003:382; Huang & Keskar, 2007; Sen, Basligil, Sen & Baracil, 2009; Wu & Weng, 2010:394). As from 2011, the criteria firms have used to select suppliers are innovation, relationship, price, delivery, product, technological capabilities, financial position, quality, on-time delivery, risk factors and geographic location (Pal, Gupta & Garg, 2013:2670; Kumar Kar, 2014; Hosseini & Khaled, 2019:217; Makhitha, 2017:421; Gupta & Barua, 2018;Parkouhi, Ghadikolaei & Lajimi, 2019:1127). During decision making, criteria inform suppliers of the value of the service the retailers expect, and can also be used by the retailer to respond to any existing trends in the market (Banaeian, Mobli, Nielsen & Omid, 2015:150).

Procurement is an important activity in a supply chain, as the buyers are the decision makers for the retailer, which involves employing criteria that select suppliers and providing suppliers with the opportunity to evaluate their ability to meet these criteria (Kar & Pani, 2014:89; Makhitha, 2017:420). Ng (2008:1059) posits that selecting efficient suppliers can have an impact on formulating a successful retailer. Supplier selection criteria can serve as a strategy to obtain a competitive advantage (Abdel-Basset, Manogaran, Mohamed & Chilamkurti, 2018:20).

iv. **Strategic sourcing**

Strategic sourcing continues to be a retail trend because an integrated alliance between the supplier and retailer sustains the buying firm's competitive advantage (Sarkar, 2018). Strategic sourcing relies on a partnership between the retailer and the supplier in which both parties' objectives are aligned to meet consumer requirements (Mentzer, Min, Zacharia, 2000:551). The partnership survives with strong alliances, long-term relationships, supplier development programmes and communication between the parties (Faisal & Raza, 2016:435). The outcome of strategic planning results in suppliers delivering high quality products leading to high quality finished products, reduced costs, on-time deliveries and improved flexibility of suppliers in cases where supply and demand is unpredictable (Su *et al.,* 2009:86).

2.6 RETAIL FUTURE OUTLOOK

The South African retail industry has grown in the past years, locally and internationally. With the increase in the number of stores around the country and the

continent, growth would not be possible without sound retailer and supplier relationships. Nair (2019:31) holds that survival in international markets is only possible with the assistance of a supply base that has the capabilities to offer service internationally.

Table 2.2: Retail Future Outlook: Locally and Globally

Local Future Outlook	Global Future Outlook
Rapid growth in digital e-commerce.	E-commerce sales expected to overtake in-store sales by 2024 with retailers running on artificial intelligence alone.
Development in logistics and supply chains through digital channels.	Customer empowerment and greater influence on products.
Investments in digital platforms in-store to create a more integrated customer experience.	Shared value between suppliers and retailers.
Development of small retailers to become partners to improve global position and to meet the criteria required by the large retailers.	Selecting suppliers that have smarter delivery processes and can promise to offer quicker options.
Future supplier selection should include time to supply failure and financial loss due to disruptions.	New supply chains need to be highly skilled and forward thinking.
Large retailers making more use of small retailers as innovation becomes an important criterion in choosing suppliers.	New innovative technologies to increase flexibility of suppliers thereby increasing chances of being selected.
Environment factors will be the most prominent criteria in green supplier selection process for small and large retailers.	Request for environmentally friendly, collaborative and innovative supplier selection process to increase sustainability.

Source: Gupta and Barua (2018); Flexe (2019); Hosseini and Khaled (2019) and Ungerer (2019)

South Africa's leading retailers continue to compete in global markets. As predicted in Table 2.2, retailers will be able to strategize and plan to meet local future needs, as well as the global predictions to strive to be excellent retailers.

Supplier selection processes prevent defects from occurring and manage the cost structures of both new and current suppliers. The growth in technologies should assist in meeting suppliers', retailers' and customers' needs accurately and rapidly in the future. The in-depth communication and collaboration assists in understanding the others' needs and this will result in continuous improvement and customer satisfaction.

2.7 COMPETITVE ADVANTAGE IN THE RETAIL INDUSTRY

Competitive advantage within the retail context is when the retailer offers better performance and is able to attract higher retail sales than other retailers (Dibb, Simkin, Pride & Ferrell, 2016:38). Competitiveness can be directly linked to increased market share and is therefore key to a retailer's viability (Neirotti & Raguseo, 2017:143). According to Barney and Hesterley (2015:30), a firm has a competitive advantage when a retailer is able to create more value than its competitors through cost savings and innovation and by providing the customer with superior service. Conventional wisdom suggests that customers are willing to pay more for superior customer service (Kondasani & Panda, 2015:454). A retailer's competitive advantage can also be measured by the higher value that retailer is able to create compared to competitors. Competitive advantage factors include high product quality, rapid delivery, low prices, excellent service, or a feature not offered by competitors (Lamb, Hair & McDaniel, 2019:273). Chopra and Meindl (2013:31) posited that the retailer could also achieve competitiveness by prioritizing technology improvement, flexibility and on-time delivery.

Most retailers' strategies to achieve competitiveness are technological innovations that provide the retailer with the capacity to keep up with customers' increasing demands, payment processes, online transactions and supply chain development (Pantano, Priporas & Stylos, 2018:150). Competitive strategy within the context of this study involved ascertaining how the retailer anticipates meeting the customers' demands by improving the supplier relationship to encourage the supplier to effectively and efficiently deliver products and services.

To achieve competitiveness, the retailer and the supply chain network must work together to formulate a coordinated competitive strategy (Chopra & Meindl, 2013:33). Retailers that have the capabilities to make the product available to consumers and

deliver at a high speed are able to win the majority of the market share (Shoprite Holdings Ltd Report, 2019). The increase in customer demand has caused retailers to prioritize quality, availability and high speed delivery of products to customers as important criteria that contribute to achieving an advantage and increasing retailers' revenue (Badenhorst-Weiss *et al.,* 2018:84).

Conversely, there are numerous factors that negatively affect a company's competitiveness, such as lack of joint coordination, processes and resources, lack of information flow upstream and downstream, lack of supply chain facilities planning and transport and transaction costs (Lee, Shin, Haney, Kang, Li & Ko, 2017:128). Several studies (Kahraman, Cebeci & Ulukan, 2003:384; Makhitha, 2017:424; Yadav & Sharma, 2016:335) indicate that the high costs of suppliers will cause the retailer to have high product prices, which will be at the cost of loss of customers to competitors. Without identifying specific criteria, suppliers will not know the areas of importance to the retailer. This will lead to suppliers not satisfying all the retailer's requirements and will affect the retailer's regional markets and global competitive position (Banaeian *et al.,* 2015:150; Abdel-Basset *et al.,* 2018:20).

One way to overcome high prices would be to successfully manage cross-functional processes. A cross-functional team is made up of representatives from focal supply chain partners that integrate and assist the retailer to attain set goals (de Oliveira, Pimenta, Hilletofth & Eriksson, 2016:410; Lambert & Enz, 2017:2). This will allow the retailer to invest in personnel that have years of experience in buyer and supplier relations and the supply chain network will assist retailers to increase their competitiveness, profits and customer satisfaction (Lambert & Enz, 2017:1). Supply chain activities are influential in the retailer's competitiveness; the retailer should therefore select suppliers with characteristics that will positively influence the competitiveness of the business, as this is essential for survival (Chen, 2011:1655). In the study conducted by Rezaei, Nispeling, Sarkis and Tavasszy (2016:577) regarding the importance of criteria when selecting suppliers, the authors agree that "supplier selection is a strategic decision that significantly influences a retailer's competitive advantage". Selecting suppliers based on specific criteria will allow the retailer to evaluate the potential supplier's performance. Having a competitive advantage provides an overview that the company is responsive and efficient.

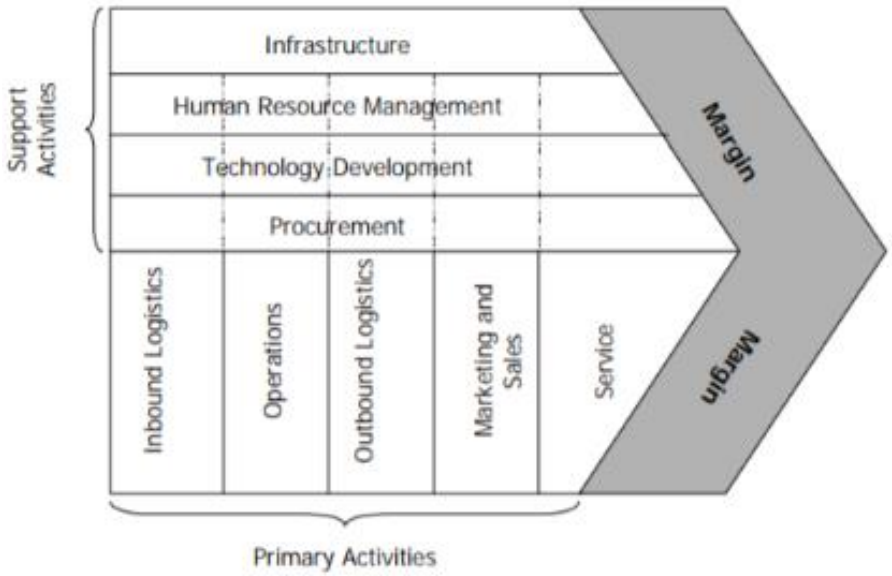
The key to competitive success relies on the retailer's ability to ensure that its products and services are unique (Magretta, 2012:17). In these times, retailers seek partners that add value to their business processes, whether in costs, product form, variety, flexibility or service.

2.7.1 The importance of value chain in retail

A value chain is a sequence of business activities that create value, from the sourcing of raw materials to the final product sales (Barney & Hesterley, 2015:91). Each step in the chain adds a portion of value that affects the entire production process (Guabiroba, da Silva, Cesar & da Silva, 2017:3930). For instance, Pratap (2018) mentions that a vital aspect of Walmart's value chain is its strategic partnerships with its suppliers, which provides them with opportunities to enforce low prices, coordinate technology systems and enforce on-time delivery within the supply chain in exchange for bulk purchases and long-term contracts.

According to Porter (1985), a competitive advantage is when a firm's profitability and sustainability is higher than that of rival firms. A retailer can gain an advantage based on higher prices, lower costs, or both; the difference is in the activities being performed (Magretta, 2012:212).

Competitive advantage implies that a firm's value chain is different and better than the industry average (Magretta, 2012:17). In order to achieve a competitive advantage, the value chain should work towards meeting the goals and requirements of the end user. Companies should compete to be unique in the value created, as this is reflected in the different sets of needs of various consumers. It is about focusing on creating superior value for the target market and not on imitating and matching rivals (Magretta, 2012:30). Aygun and Oeser (2017:131) explain how imperative it is to establish a competitive strategy, as it structures and plans retail processes to gain profits and meet the customers' needs.



Source: Porter (1985)

Figure 2.3: Porter's value chain

Porter's value chain, as indicated in Figure 2.3, is a firm's value system that consists of interdependent activities, with each link's performance affecting the cost or effectiveness of other activities. Porter and Millar's (1985) study revealed that in order to gain a competitive advantage, firms should perform their activities at lower costs than competitors or compete to be unique by means of innovation. In the context of retail, the value chain is a set of activities that is performed to develop the product, manage inventory and distribute inventory and fil store shelves (Hanks, 2009). According to Wu and Wu (2015:183), value chain activities, with the collaboration of the supplier and retailer relationships, motivate for overall low costs, improve communication of retail requirements, offer high quality to customers, maintain growth and enhance competitiveness.

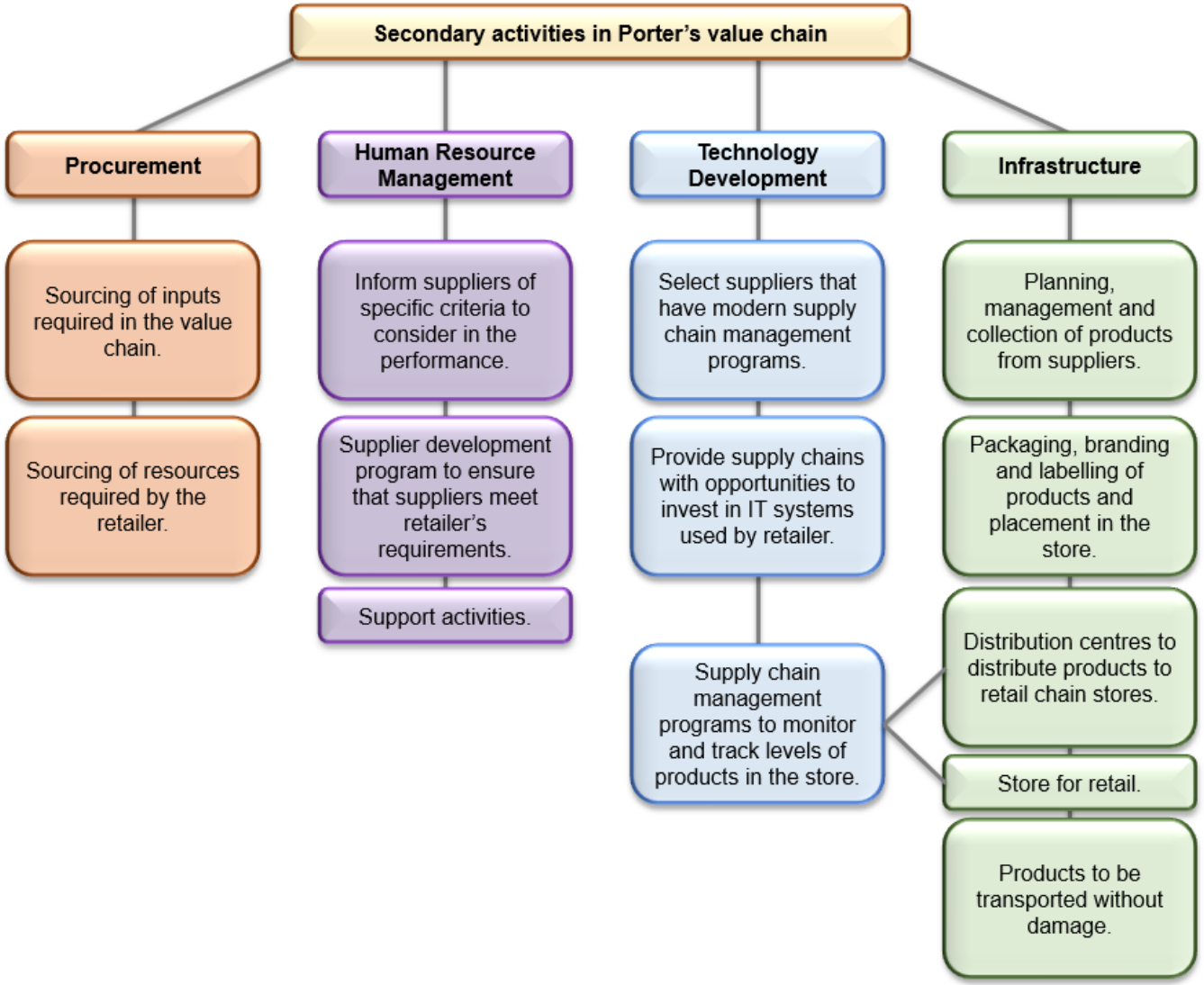
The value chain activities depicted in Figure 2.3 are the physically and technologically distinct activities a firm performs. A firm's value chain is composed of nine generic categories of activities that are linked together in characteristic ways. These categories each comprise inputs, transformation processes and outputs. According to Porter (1985), the primary activities performed in the retail industry are concerned with the delivery of a product or service, and are grouped into five main areas: inbound logistics; operations; outbound logistics; marketing and sales and service. There are

four main areas of support activities, namely procurement, technology development, human resource management and infrastructure.

Table 2.3: Primary activities in Porter's value chain

Inbound Logistics	Operations	Outbound Logistics	Marketing and Sales	Services
Supplier selection and arranging the long-term contracts.	Collecting the products from suppliers.	Distribution centres send products to the various retail chain stores.	Advertising and sales.	Quality products sold to consumers.
Specifying the criteria important to the retailer.	Inspecting products.	Storage in warehouse or stores.	Induce buyers to purchase products.	Installation and training.
Provide supplier with a purchase order of required products.	Sorting, selecting, packaging, dispatching products to the chain's distribution centres.	Sales channels through retail chain stores.	Facilitate purchases.	Inferior products returned to supplier.
Receiving, storing and disseminating inputs.	Equipment maintenance.	Online sales through websites.		Requested delivery considered at an extra cost.
Coordinate transactions with suppliers and make payments for purchased products.	Value added activities such as branding and labelling.	Delivery vehicle operations.		Offering high quality products throughout the year.
Vehicle scheduling.				Support activities.

Source: Desai (2015)



Source: Koc and Bozdag (2017:561)

Figure 2.4: Secondary activities in Porter's value chain

Primary activities listed in Table 2.3 are linked to support activities in Figure 2.4, which assist to improve their effectiveness or efficiency. Linking these activities allows the retailer to understand the importance of the value chain. This ensures the achievement of a competitive advantage.

In the current study, the value chain consists of the suppliers from which the retailer purchases products and services. These suppliers' performance affects the retailer's competitive advantage. In order for the retailer to enhance its performance, it needs to strategize its supplier selection decisions and ensure that the value chain strives to meet requirements. This can be achieved by selecting suppliers based on specific criteria. It is crucial to maintain a competitive advantage in the South African retail industry by performing the primary and secondary activities to ensure the chain adds value while sustaining low costs.

2.8 CHAPTER SUMMARY

In this chapter, the resource based view theory was used to analyse the effects of supplier selection on the retailer's performance. Using resources and capabilities efficiently and effectively will assist the firm to sustain a competitive advantage. South African retailer growth is increasing globally and success could be achieved by building long-term relationships with suppliers to ensure that the retailer sustains its competitive position in the market. Supplier selection decisions have an influence on the relationship between the buyer and the supplier. Being vigilant of the retail trends can influence retailer's future decisions, which will result in enhancing the retailer's performance. Suppliers should also strive to meet the retailer's customer requirements.

This chapter discussed the identification of the core competencies that have an influence on retailers' performance. Suppliers are can assist the retailer to achieve and sustain a competitive advantage. South African retailers should make the best supplier selection decisions in order to compete globally. Suppliers should be made aware of the criteria against which they are being measured.

The next chapter examines the nature and importance of supplier selection, as well as the criteria to include in supplier selection. The impact that suppliers have on the

efficiency, effectiveness and competitiveness of the retailer is addressed. Reference is also made to supplier partnerships and relationship management.

CHAPTER THREE

THE EFFECT OF SUPPLIER SELECTION ON THE RETAILER'S PERFORMANCE

3.1 INTRODUCTION

To fully understand the effect supplier selection has on the retailer's performance, it is necessary to ascertain the role of supply chain management (SCM) and logistics management on the retail industry. Prior research pertaining to supplier selection decisions as a source of competitive advantage has largely been limited to the automotive industry. For this reason, this study explored the criteria to consider for the selection of suppliers in the NMB retail industry.

This study had four main objectives. Firstly, understanding supplier selection processes by explaining SCM and logistics management in order to ascertain the link between suppliers and retailers. Secondly, it was important to define the significance of supplier selection decisions in the purchasing function. Thirdly, to ascertain the effect of supplier selection on the retailer's performance and how it can be strategized to gain a competitive advantage. Finally, it envisioned identifying the criteria used to select suppliers and to use these criteria for supplier performance evaluation.

3.2 LINKING SUPPLY CHAIN MANAGEMENT TO SOURCING

Suppliers have a significant influence on the retailer's ability to sustain a competitive advantage in ever-changing markets (Manerba & Perboli, 2019:30). The supplier and retailer partnership directly affects the retailer's success (Jajja, Asif, Montabon & Chatha, 2019:339). It is essential for the retailer to strategically select suppliers and evaluate their performance to ensure continuous improvement.

Supplier selection decisions can be used to ensure that the chosen suppliers are able to deliver the service required by the retailer (Suraraksa & Shin, 2019:2). Success is not achieved in isolation; business relationships are built to support each other in gaining a competitive advantage (Bai, Kisu-Sarpong, Ahmadi, Sarkis, 2019:1). Therefore, the relationships between the retailers and the suppliers are of high importance, as cooperation allows for the achievement of low costs, high quality and

increased competitiveness (Amoako-Gyampah, Boakye, Adaku & Famiyeh, 2019:160).

3.2.1 Supply chain management

According to Min, Zacharia and Smith (2019:45), a supply chain consists of strategic coordination of traditional business functions between all the linked suppliers in order to fulfil the long-term performance of individual companies and the supply chain as a whole. Supply Chain Management encompasses the planning, coordination and management of upstream and downstream linkages in the various processes across the supply chain (Ayers & Odegaard, 2018:9). Sound collaboration among the performers within the supply chain can promote efficiency and effectiveness by maximising its value to the customer (Nicasio, 2019). Supply Chain Management is the process that controls all activities in the business in order to gain a competitive advantage (Nicasio, 2019) by increasing turnover and reducing costs.

In the 1990s, as globalisation created increased competition, customers expected more value for lower prices and more customised products (Kotler, 1997). Competitiveness evolved from processing real-time information to being able to respond to customers' personalised requests by utilising the supply chain (Min *et al*., 2019:50). Coordination between supply chains is a strategic tool used to provide superior quality, customer service and competitiveness, which begins with the selection of appropriate suppliers (Sarvestani, Zadeh, Seyfi & Rasti-Barzoki, 2019:73).

According to Min, Zacharia and Smith (2019:45), a supply chain consists of the strategic coordination of traditional business functions between all the linked suppliers in order to enhance the long-term performance of individual companies and the supply chain as a whole. Logistics is the process of efficiently synchronising the supply and demand of raw materials and finished goods between the supply chain networks (Sweeney, Grant & Mangan, 2018:869). Procurement, as a logistics activity, selects the suppliers from whom the retail buyer purchases the correct goods or services at a reasonable price, of the best quality and at the required quantities to reach them at the right place and at the right time (Hosseini & Khaled, 2019:207).

Supplier selection is an important element of SCM because the retail buyer is directly responsible for selecting and ordering the products sold to consumers (Agakishiyev,

2016:418). The retail buyer has to select an integrated supply chain that is of the standard demanded by the retailer (Florescu, Ceptureanu, Cruceru & Ceptureanu, 2019:3). The performance of every element of the supply chain influences the retailer's performance. The selection of the correct suppliers will provide opportunities for the retailer to reduce costs across the supply chain.

3.2.2 Logistics management

Logistics is a term used in businesses in a number of different industries. Logistics is the process of efficiently synchronising the supply and demand of raw materials and finished goods between the supply chain networks (Sweeney, Grant & Mangan, 2018:869). The Council of SCM Professionals (2019) defines logistics management as "that part of SCM that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers' requirements". It is interesting to note that sourcing and procurement, production planning and scheduling, warehousing, distribution and customer service are logistics activities performed in a firm (Hu, Lui & Shu, 2018:218).

The link between logistics management and supplier selection is that when the retail buyer selects a good supplier that offers coordination, transparency and negotiation, the planning of goods between the supply chain becomes efficient and effective (Yeniyurt, Wu, Kim & Cavusgil, 2019:3). With aligned strategies, the supplier should be able to deliver high quantities on time, at the location designated by the retailer, at a reasonable price (de Villiers, Nieman & Niemann, 2017:23).

3.2.3 Procurement and purchasing strategies

Procurement, as a logistics activity, is the process whereby the retail buyer purchases the correct goods or services that are of best quality and at the required quantities at a reasonable price to reach them at the designated place at the right time (Hosseini & Khaled, 2019:207). The procurement process links the supply chain to ensure that each product is of the quality standard required by the retailer (de Villiers *et al.,* 2017:21).

The retail buyer spends about 70% of the total business turnover on the purchase of goods and services (Rezaei, Nispeling, Sakris & Tavasszy, 2016:577). The advantage of choosing the correct supplier prevents dealing with supply risks, high costs, unexpected poor quality of products and inferior supplier performance in the future (Bera, Jana, Banerjee & Nandy, 2019). The aim is to determine the retailer's purchasing needs, select a supplier that is able to reduce costs and improve the quality of products and ensure suppliers deliver as expected (Hu & Dong, 2019:288). Purchasing and procurement is a critical step in supplier selection decisions.

Strategic purchasing can be a link in attaining a competitive advantage by only selecting suppliers that have a reputation for on-time delivery, shorter lead-time, low costs and high quality (Matuka, Nilsson & Talimy, 2016:1). Selecting suppliers that have a superior performance reputation results in retail customers receiving high quality final products and services, thus reducing returns and increasing turnover (Yu, Shao, Wang & Zhang, 2019:1).

The selection of suppliers is a critical decision for the buying firm, and the decision should be taken cautiously (Rezaei *et al.,* 2016:578). Previously, suppliers were selected based on which supplier offered the lowest price (Barua, Ravindran & Whinston, 1997:123). However, there are numerous factors that are important, such as whether or not to make the products rather than buy the products from suppliers, negotiate a fair price and high quality (Sarvestani *et al.,* 2019:73).

The purchasing department is responsible for selecting the correct supplier. For instance, if the supplier fails to deliver quality products on time, the buyer is responsible, as the buyer chose the supplier (Newell, Ellegaard & Esbjerg, 2019:394). The purchasing department's most important responsibilities are to perform supplier selection and evaluation, as these functions affect the costs, organisational finances and overall performance to ensure that the retailer meets its customers' requirements (Newell *et al.,* 2019:394).

Purchasing is a core competency of the retailer's performance (Wang, Dang Vu & Zeng, 2018). Purchasing personnel select the suppliers that are part of the supply chain and the supply chain's coordination, capabilities and performance has an effect on the retailer's success (Sweeney *et al.,* 2018:856).

Knowledge of supplier selection criteria would be beneficial for the supplier. With this information they will be able to benchmark their services to assure the retailer that they meet the required standards (Dobos & Vorosmarty, 2019:375). The retailer will then be able to evaluate the chosen suppliers to ensure that their performance is of the required standard and begin to build long-term relationships between the parties. With these criteria, the supplier and retailer are able to align their objectives to achieve better outcomes (Guarnieri & Trojan, 2019:351).

Source: Researcher's own construction

Figure 3.1: Process of supplier selection

Figure 3.1 indicates the process of supplier selection. Each of these stages is linked to the next, which indicates the importance of selecting suppliers that can assist the retailer to improve its effectiveness and efficiency. These links can assist the retailer to understand the significance of supplier selection. Focusing on supplier selection can ensure the achievement of a competitive advantage.

3.2.3.1 Supplier selection challenges

Previously, the buyers' focus was on reducing costs when purchasing products and services and ensuring that the supplier delivered the products on time (Birou & Fawcett, 1993). Nowadays, more responsibility is given to buyers when selecting suppliers, such as the freedom to choose those suppliers with whom the company can collaborate, innovate and build long-term relationships (Bilińska-Reformat, Kucharska, Twardzik & Dolega, 2019:3). However, there are numerous challenges the purchasing department faces when dealing with the suppliers, some of which are discussed in the ensuing sections.

i. **Customer expectation**

Suppliers should work towards delivering the best quality products at the lowest possible prices (Zhang, Cao & He, 2019:929). Buyers should ensure that they select suppliers that will improve their effectiveness and are able to reduce their costs

(Yadavalli, Darbari, Bhayana, Jha & Agarwal, 2019:4). Problems arise when suppliers struggle to keep up with customer demand.

ii. **Quality and compliance**

It is important to measure the quality of the supplier's product; more emphasis should be placed on the importance of high quality (Johnson, 2019:21). Firms should offer incentives and reward their suppliers that offer the highest quality standards, which will encourage better service (Liu, Gao & Ma, 2019:295).

iii. **Risk management**

In cases where the buyer has chosen a supplier that fails to deliver as promised, the purchasing firm will be faced with market risks, potential fraud, cost, quality and delivery risks, inability to satisfy customer demands, rising demand, returns of inferior products and economic uncertainty that threatens small suppliers and strikes that disrupt operations and the transportation of goods (Alikhani, Torabi & Altay, 2019:72). It is imperative to predict risk factors in time and engage in relationships with tier-two suppliers (Crawshaw, 2017).

iv. **Globalisation**

With the increase in the number of South African retailers extending into global markets, it is imperative to perform operational processes successfully by developing suppliers within the countries in which they operate or globalise their local suppliers (Burton, 2015). The issues would be selecting suppliers that have products that are aligned with the standards of the retailer and their ability to be global suppliers, as these decisions affect the retailer's reputation and brand image (Burton, 2015).

v. **Strategic Procurement**

The challenge in procurement is understanding the requirements of all functional areas. The procurement process needs to be more structured and collaborative in order to meet the needs of the business as a whole (Bhuvaneswaran, 2019). The company can strategically engage in cross-functional activities with purchasing, user

departments and focal suppliers to provide different perspectives (de Oliveira, Pimenta, Hilletofth & Eriksson, 2016:405).

vi. **Supplier related issues**

The challenge that is of significant importance and that needs to be dealt with is supplier management. The retail buyer should inform the suppliers of criteria required and should be able to identify and select the appropriate suppliers (Sudrajat, Paramartha & Purba, 2019:30). The retailer should also evaluate their suppliers' performance to ensure their continued delivery of acceptable products (Bhuvaneswaran, 2019).

Source: Researcher's own construction

Figure 3.2: Supplier selection challenges when dealing with the supply chain

Figure 3.2 outlines the challenges that procurement faces when dealing with the supply chain. The implementation of procurement is a challenging task and is a significant responsibility that could affect the reputation and profit margins of the retailer if not properly executed. It will be beneficial for the purchasing manager to strategically plan for procurement activities to forge better relationships with suppliers.

3.3 THE IMPORTANCE OF SUPPLIER SELECTION DECISIONS

In a competitive environment, supplier selection can have a significant impact on the retailer's competitive position (Mohammed, Harris & Govindan, 2019:1). Supplier selection is a process whereby the buying firm determines which supplier should be awarded the contract. The retailer's profitability depends on the suppliers chosen to be part of the supply chain network (Lammi, 2016:1). The suppliers should be efficient and effective to assist the retailer to gain a competitive advantage.

Suppliers have a significant role in a retailer's success. Retailers are unable to remain competitive without an efficient supply network. It would be beneficial for the retailer to include focal suppliers in their strategic planning (Gharakhani, 2012:3215). Supplier selection decisions can ensure analysing strategies for lower costs, improved quality, increased product availability, shorter lead-time and improved customer service.

3.3.1 Supplier selection

Supplier selection is a process of identifying and evaluating potential suppliers that have the capability and value to perform to the retailer's expectations (Torres-Ruiz & Ravindran, 2019:212). According to Badenhorst-Weiss *et al.* (2018:83), managing an organisation's supply base, (including the selection of its suppliers), is a critical process within business firms in all industries, including retail. The authors are of the opinion that by choosing the correct supplier, the objectives of economic prices, desired quality and short delivery lead-time are easily achieved (Zeydan, Colpan & Cobanoglu, 2011:2741). The selection of a supplier involves measuring the capability of potential suppliers with the use of attributes, criteria or factors to ensure that each supplier has the ability to align with the focal firm's objectives (Makhitha, 2017:420).

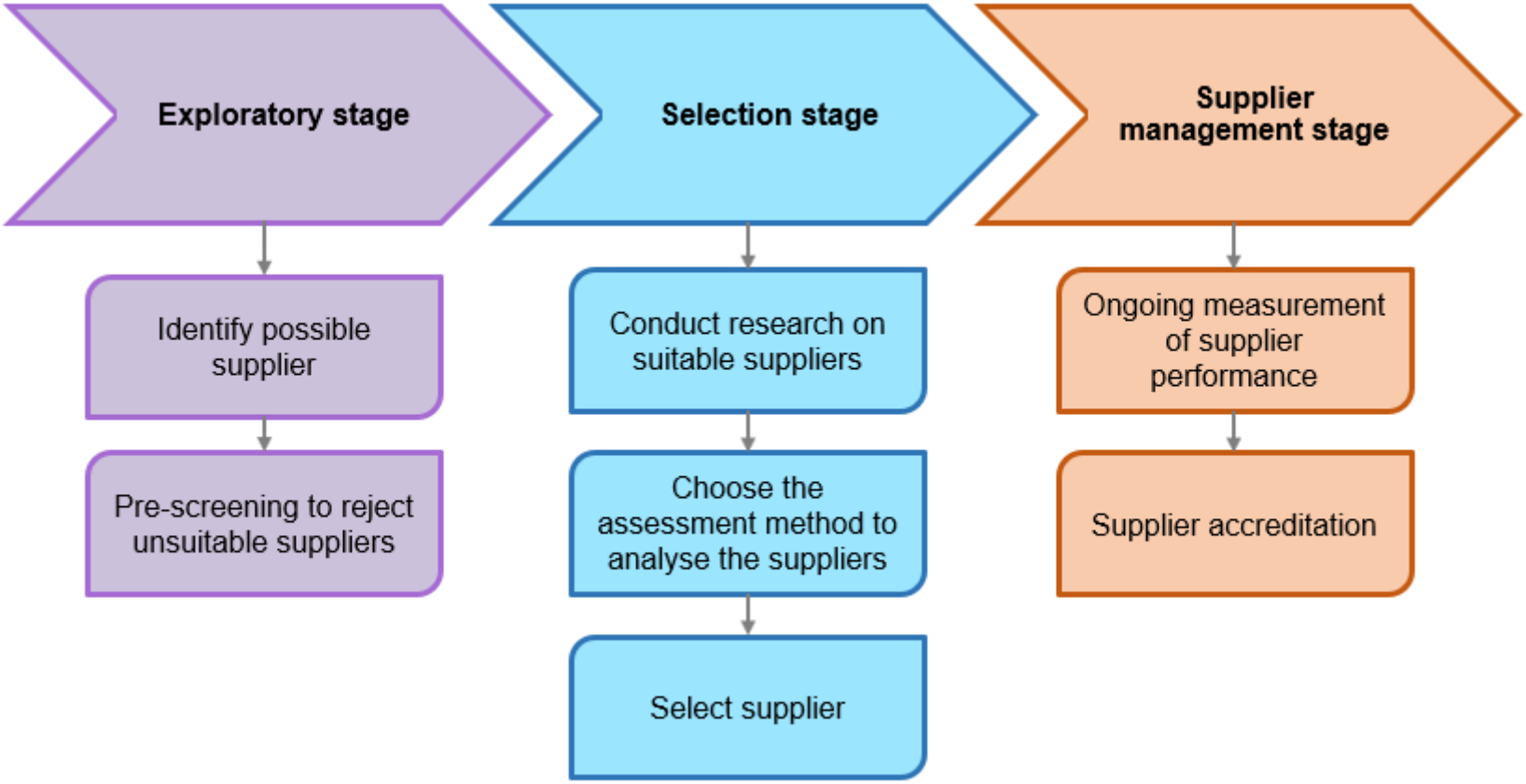
With the increased need for shorter product cycles, businesses are considering sustainable supplier selection as a critical factor for the success of retailer's long-term

performance (Yu *et al.,* 2019:1). Sustainable supplier selection has increased importance in order to meet societal and individual needs (Xu, Qin, Liu & Martinez, 2019:273). The use of economic, environmental and social performance of incoming goods should be a goal of the retailer, as well as its entire supply chain (Alikhani *et al.,* 2019:70). Supplier selection is influenced by numerous factors and the retail industry needs to specify the criteria that are most significant.

3.3.2 Supplier selection process

The purchasing function includes the important process of selecting suppliers (Badenhorst-Weiss *et al.,* 2018:83). The purchasing department is also involved in evaluating and developing current supplier performance to ensure continuous improvement (Yawar & Seuring, 2018:229). The process of selecting suppliers is a way of identifying strategies for analysing costs and potential relationships with the aim of selecting the best supplier (Sarvestani *et al.,* 2019:73).

After the retailer has established its supplier selection criteria, then the selection process begins, which includes three stages, namely the exploratory stage, the selection stage and supplier management.



Source: Badenhorst-Weiss *et al.* (2018:90)

Figure 3.3: Seven steps involved in the supplier selection process

Figure 3.3 depicts the steps in the supplier selection process. The exploratory stage involves identifying and shortlisting potentially suitable suppliers to eliminate those that are unsuitable (Cole & Aitken, 2019:2). The selection stage includes investigating those potentially suitable suppliers by analysing the suppliers with the criteria required by the retailer (Johnson & Flynn, 2015:367). Once all these steps have been satisfied, the supplier is selected with the approval of the cross-functional team to gain different perspectives from internal users of the goods or service (Meschnig & Kaufmann, 2015:774). The supplier management stage involves the ongoing measurement of the supplier's performance to ensure that the supplier meets or exceeds the retailer's expectation and continues to improve its service (Torres-Ruiz & Ravindran, 2019:211).

During the supplier selection process, firms strategically establish which suppliers are suitable to meet their requirements. Selection criteria can be used to determine which suppliers will be beneficial to the retailer, thus achieving a competitive advantage.

3.4 SUPPLIER SELECTION CRITERIA IN THE RETAIL SECTOR

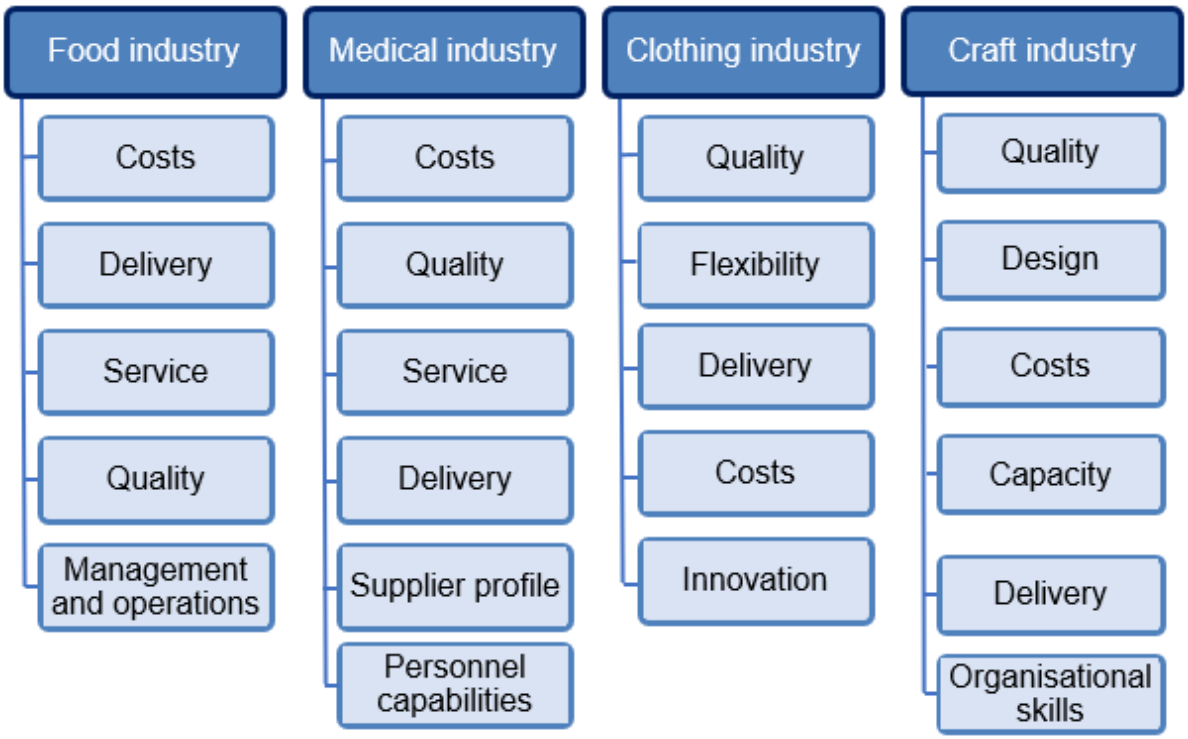
Supplier selection is the process of establishing which suppliers meet the criteria and will be capable of supplying the retailer with products (Hosseini & Khaled, 2019:207). Makhitha (2017:420) posits that it is beneficial for the retailer to employ supplier selection criteria that are tailored to its specific needs. In these times when competitiveness is constantly evolving in markets, there are cases where supplier selection criteria differs from one business to another (Faraz, Sanders, Zacharia & Gerschberger, 2018:6226). The ensuing section presents a discussion of the importance of supplier selection criteria and how these criteria can assist the buying firm to sustain a competitive advantage.

3.4.1 The importance of supplier selection criteria

Dickson (1966) holds that quality, delivery, performance history and warranties and claims policies are the most important criteria to use when selecting suppliers. Later, literature had to adapt the criteria, as just-in-time manufacturing was increasing, which led authors to pay attention to economic performance, financial stability, trust, management attitude/outlook for the future, strategic fit, capability across levels and functions of the buyer and supplier firms (Ellram, 1990). In a study conducted by Weber, Current and Benton (1991), production facilities and capabilities, geographic

location, financial position, reputation and position in the industry became less important criteria to consider for supplier selection. However, the importance of a criterion should depend on the type of business. Over the years, quality, delivery and price are listed the most important criteria for most businesses (Cheraghi, Dadashzadeh & Subramanian, 2004:91; Chen, 2011:1652; Kar & Pani, 2014:95; Rezaei *et al.,* 2016:578; Mokadem, 2017:238).

The retail sector is made up of divisions such as general dealers, food, beverages and tobacco, pharmaceuticals and medical goods, cosmetics and toiletries, clothing, footwear and leather goods, textiles, household furniture, appliances and equipment (Stats SA, 2019). It is clear that different businesses should use different criteria that meet their special needs.



Source: Chiromo, Nel & Binda (2015); Makhitha (2017); Ramlan, Bakar, Mahmud and Ng (2016); Forghani, Sadjadi & Moghadam (2018).

Figure 3.4: Supplier selection criteria differ based on industry

Figure 3.4 indicates the different criteria used in various industries. The criteria are listed based on the importance assigned to them in literature. Results emphasise that firms should not assume that the same supplier selection criteria could be used in all

industries. The retailers' needs should be analysed and the purchasing function should establish the correct criteria for the type of retailer.

3.4.2 Criteria used in supplier selection

Criteria are used to decide if the supplier has the ability to meet the retailer's requirements (Bugwandin, 2017:23). Retailers should select suppliers that can meet and exceed their expectations. In this section, emphasis is on the criteria found in literature and the ensuing section elaborates on the specific criteria identified for this study.

The supplier selection criteria most often used in literature are supplier reliability, SCM, reverse logistics, technology, broad-based black economic empowerment, capabilities, responsiveness and motivation, geographic location, supplier reputation, warranty and claim policies, trade restrictions, research development risk perception, conflict resolution systems, certification and standards, sustainability and resilience. The following is a list of current criteria that have gained popularity.

i. As a criterion, *SCM* is important in supplier selection due to its role in building long-term relationships with suppliers and being aware of their problems, achievements, needs and areas for improvement (Liu *et al.,* 2019:292). Knowledge of suppliers and supplier's criteria when sourcing could be beneficial in selecting the retailer's suppliers (Badenhorst-Weiss *et al.,* 2018:87).

ii. Retailers have to ensure that the selected supplier has *high technical skills and co-design capabilities* to be able to assist the retailer when needed (Seckin & Sen, 2018:87). The supplier's current responsiveness may influence the buyer to select the same supplier for future orders (Badenhorst-Weiss *et al.,* 2018:88).

iii. According to Pereira, de Oliveira, Gomes and Araujo (2019:4193), the decision with regard to the supply chain's *geographic location* is influenced by just-in-time, retail location, competitor's location, transportation costs and lead-time. The further the suppliers are located from the retailer the longer the lead-time and the more stock the retailer has to carry (Badenhorst-Weiss *et al.,* 2018:88).

iv. *Technological development and research* as a criterion should be considered, as this will encourage continuous improvement of supplier products and performance (Parkouhi, Ghadikolaei & Lajimi, 2019:1126). A supply chain that strives to be innovative has a positive influence on information exchange, coordination, inter-firm integration and supply chain responsiveness (Yeniyurt *et al.,* 2019).

v. Utilising *sustainability* as a criterion in decision making for suppliers is a relatively new factor. Sustainability is the management of all activities in a supplier with the consideration of economic, social and environmental factors (Mohammed *et al.,* 2019). In the retail industry, sustainability as a criterion when choosing suppliers will inform them of the importance of combining social, economic and environmental criteria rather than viewing them individually (Guarnieri & Trojan, 2019:348).

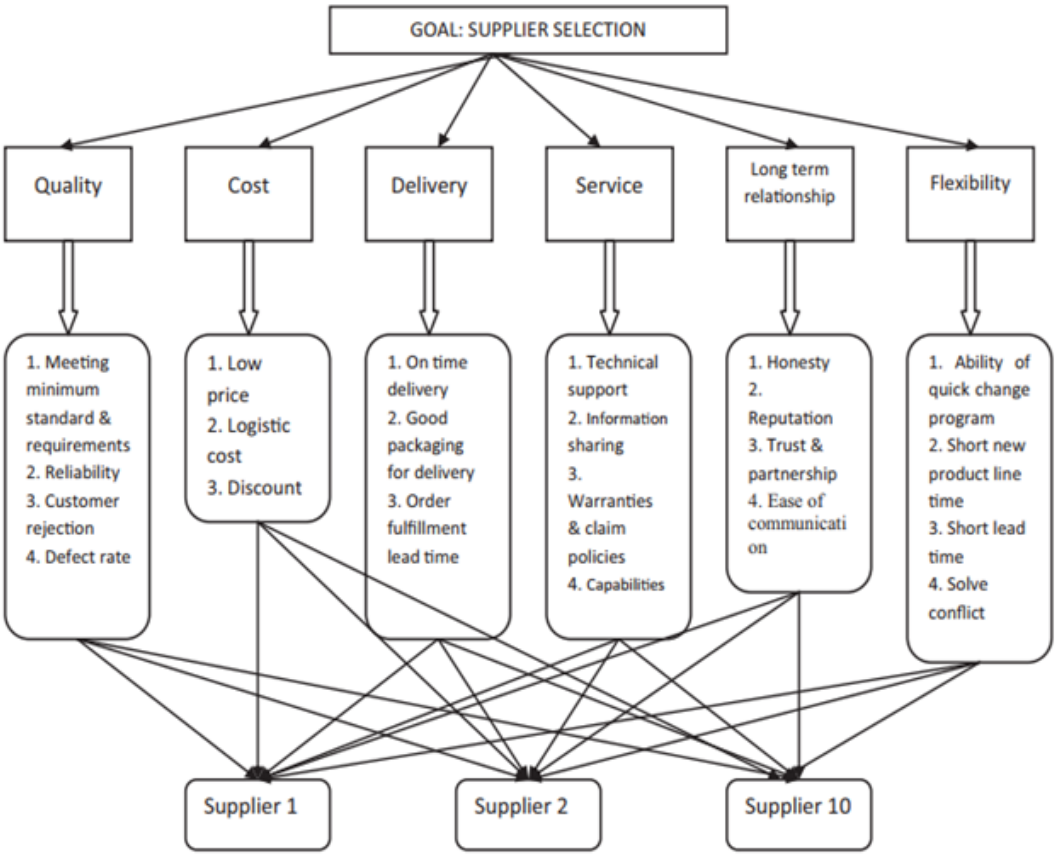
vi. Alikhani *et al.* (2019:72) posited that *risk factors* should be used as a supplier selection criterion. Acknowledging the supply risks prior to selection will result in the supplier strategizing structures to minimise supply chain risks (Alikhani *et al.,* 2019:70).

vii. *Resilience* as a criterion in supplier selection was least considered until recently. Resilience is the ability of the supply chain to be able to adapt, respond and overcome disruptions that may occur due to changes in the environment (Shishodia, Verma & Dixit, 2019:466). The buyer needs a supply chain that can return to its best performance after dealing with any disruptions (Parkouhi *et al.,* 2019:1124).

3.4.3 Supplier selection criteria

There are numerous supplier selection criteria mentioned in literature. In this section, supplier selection criteria specified for this study are discussed and the proposed theoretical framework for supplier selection in the NMB retail industry is presented. As discussed previously, based on research undertaken by Chiromo *et al*. (2015), the important attributes to consider when selecting suppliers are quality, on-time delivery, flexibility, price, service, financial status and environmental issues, ethics and social

responsibility. In order to meet specific criteria, suppliers will have had to meet a range of sub-criteria.



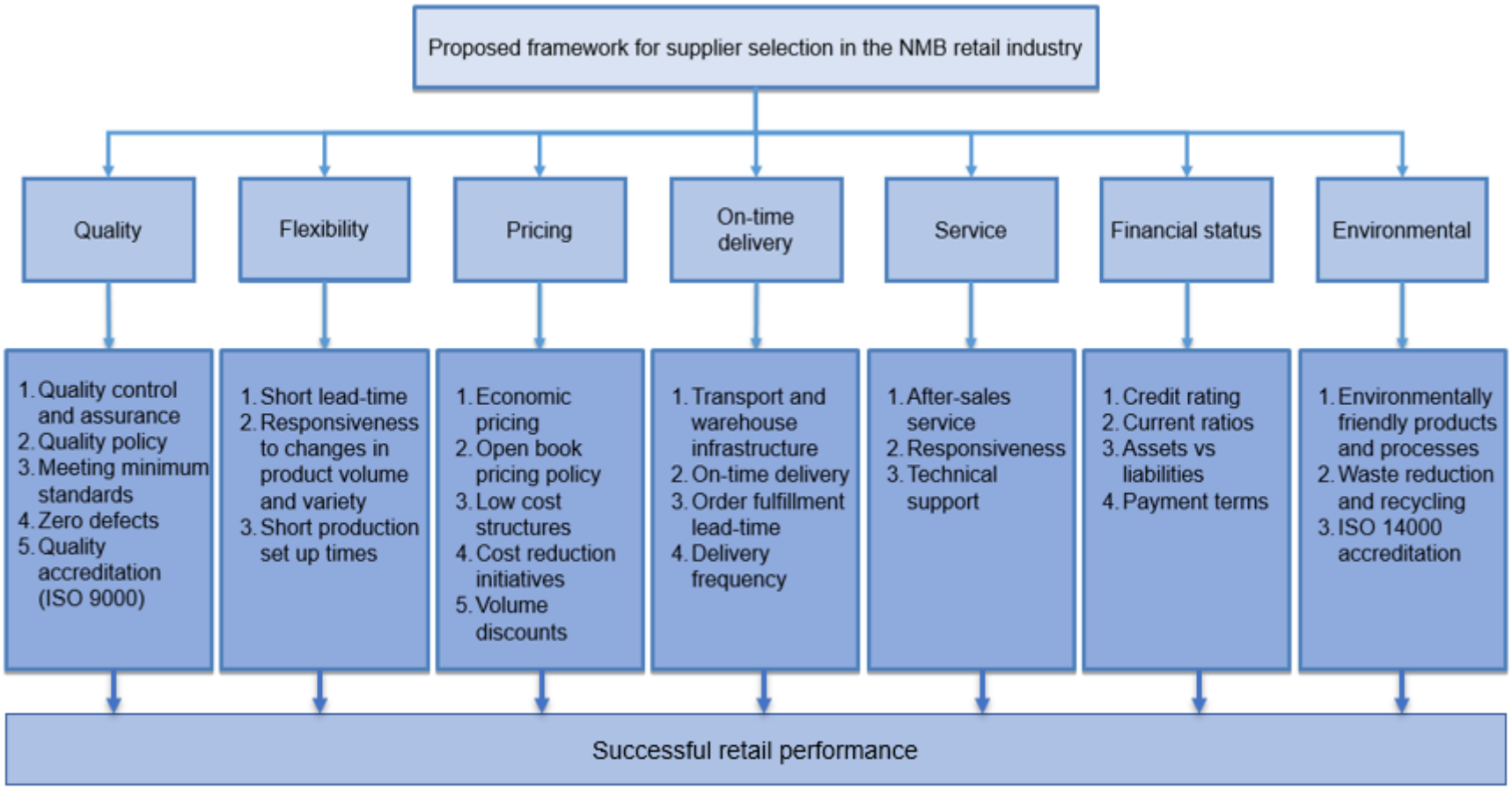
Source: Yadav and Sharma (2016:338)

Figure 3.5: AHP model for supplier selection within the automobile industry

In Figure 3.5, Yadav and Sharma (2016) used the analytic hierarchy process (AHP) to select suppliers. Yadav and Sharma's (2016:326) upper level of the hierarchy represents the overall goals that the company envisages achieving by means of the suppliers that are eventually selected. The purchasing managers express their preferences of particular criteria and then apply Saaty's (1980) 1-9 scales. These preferences are quantified and weights are derived for each criterion. The model Yadav and Sharma (2016:326) proposed provided a simple and practical way to ascertain the way in which the alternatives change with regard to the importance of the criteria or sub-criteria.

With the main objective of this study in mind, the researcher considered the use of Yadav and Sharma's (2016) AHP model (Figure 3.5), as well as a number of the

criteria identified by Chiromo *et al*. (2015) in the development of the proposed theoretical framework for supplier selection in the NMB retail industry illustrated in Figure 3.6.



Source: Researcher's own construction

Figure 3.6: Proposed theoretical framework for supplier selection in the NMB retail industry

Figure 3.6 depicts the proposed theoretical framework for supplier selection in the NMB retail industry. The supplier selection criteria to be considered for this study relate to quality, flexibility, pricing, on-time delivery, service, financial status and the environment. Each criterion consists of a set of sub-criteria that reflects a specific range of requirements to which the supplier must adhere in order to meet or exceed the retailer's expectations.

3.4.3.1 Quality

Initial studies identified product quality as a single supplier selection (Rezaei *et al.,* 2016:580). Product quality covers the conformance, performance, reliability and functionality of the product (Soares, Soltani & Liao, 2017:124). A key factor in supplier selection is to select the supplier with the best quality products (Lan & Lin, 2019:231). It is thus important that quality levels offered by suppliers meet the minimum quality specifications of the retailer, as this directly influences its customer satisfaction levels and overall business operations.

Quality management systems are utilised to manage all aspects of quality (Badenhorst-Weiss *et al.,* 2018:127). For instance, total quality management is a philosophy aimed at ensuring that all parties in the supply chain (including customers) are striving towards continuous improvement (Santos, Murmura & Bravi, 2019:36). Purchasing personnel should select suppliers that provide defect-free products and services to customers; synchronisation throughout the supply chain builds long-term relationships with reliable suppliers (Momeni, Yaghoubi & Aliha, 2019:529).

A second quality management system is the six sigma system, which ensures that suppliers strive for near perfection, continuous improvement and the elimination of any defects. The International Organisation of Standardisation (ISO) focuses on quality control processes that will ensure that the customers' requirements are met (Vanichchinchai, 2019:23). Numerous business firms would only select suppliers that are ISO 9000 accredited, as these suppliers' processes guarantee the supply of defect-free products (Biswas, 2019).

The quality of products delivered can affect the producers' reputation and the trust customers place in the product (Lan & Lin, 2019:238). In order to achieve high quality

products at a low cost, purchasing should select suppliers of good quality (Chen, Wang & Tan, 2019:1).

3.4.3.2 Flexibility

The core reason for flexibility is to satisfy customers when demand is uncertain (De Mol, Bronselaer & De Tre, 2017:123). According to Cheng, Fu and Lai (2018:23), the retailer must select a supplier that has a sound reputation with regard to changes in time, effort, costs and performance and is able to adapt to uncertainties. For instance, change in time refers to the supplier's willingness to offer a shorter lead-time, while changes in costs could relate to the supplier's buy-in to lower its cost structures, thereby offering lower prices to the retailer (Badorf, Wagner, Hoberg & Papier, 2019:7).

According to Badenhorst-Weiss *et al.* (2018:86) and Yadav and Sharma (2016:336), selected suppliers should be flexible to changes in volume, variety, mix and new products in line with the retailer's demand. Flexibility in terms of changes to volume and variety refers to the supplier's ability to accommodate requests for increased orders and a wider range of product options (Govindan, Cheng, Mishra & Shukla, 2018:343). Supplier flexibility is of the utmost importance to the retailer, as an increase in demand may require a shorter delivery lead-time than the initial delivery lead-time agreed upon with the supplier (Bianchini, Benci, Pellegrini & Rossi, 2019:1195). It can thus be concluded that supplier flexibility directly affects the customer service levels, as well as the profitability of the retailer.

3.4.3.3 Pricing

Pricing criteria are referred to as determinants for analysing the supplier's material costs, direct and indirect overheads, manufacturing costs and transportation costs (Shishodia *et al.,* 2019:468). A new quantity discount scheme is used where selected suppliers allow monthly orders to be financed based on the annual order quantities (Megahed & Goetschalckx, 2019:198). Gaining such an understanding will enable the retail buyer to determine the fairness of a supplier's pricing. This is important, as a business firm's profitability and competitiveness in the market place is directly influenced by its cost structure, which is largely influenced by the prices paid to its supplier base (Sarvestani *et al.,* 2019:72). Most suppliers regard price, quality, range

and service as a combined criterion, which reduces the entire cost for consumers and offers a better product (Nair, 2019:37). Substantial savings and higher profit margins can thus be achieved.

3.4.3.4 On-time delivery

With increased development in the retail industry, on-time delivery is increasingly important. Retailers expect demand-driven performance from their supply base and reduced delivery time in order to remain competitive (Adivar, Hüseyinoğlu & Christopher, 2019:258). Suppliers should be reliable in delivering the products as promised. The increase in omnichannel retail offers customers the opportunity to track and trace products through the supply chain network (Adivar *et al.,* 2019:258). Selecting suppliers that achieve on-time delivery of goods positively affects customer service levels, sales turnover and the retailer's profitability (Lu, Sun, Wang & Wu, 2019:995). Badenhorst-Weiss *et al.* (2018:85) posited that late delivery negatively affects product availability and the overall success of the business; it creates dissatisfaction among customers and may influence their loyalty to the retail store.

The supply chain assumes that the retailer does not mind delays but late deliveries come at a cost to the retailer if the product is not on the shelves at the expected time (Marion, 2019). De Villiers *et al.* (2017:25) posited that the potential supplier's transport and warehouse facilities, as well as its inventory policy should be analysed to ensure that the supplier is able to deliver on time. This information can be sourced from its current customers.

3.4.3.5 Service

Customer service has an influence on the potential suppliers. The level of service their firms receive from their supply base impacts directly on their operations and the level of service they offer their customer base (Scheidt & Chung, 2019:223). The type of services retailers expect from their supply base include ordering when convenient for the retailer, sharing information about product quantity, providing reliable and on-time delivery, technical support, quick resolution of claims and complaints, early warning of delivery changes or disruptions and their capabilities must continually provide the service that was promised (Badenhorst-Weiss *et al.,* 2018:86).

3.4.3.6 Financial status

An increasing concern that retailers have when selecting new suppliers is the financial capability of the supplier. The financial status of the supplier refers to its economic stability (Koganti, Menikonda, Anbuudayasankar, Krishnaraj, Athhukurid & Vastav, 2019:66). Dealing with financially stable suppliers reduces the risk of supply disruption, as it has an effect on its delivery capabilities (Yu, Ramanthan & Nath, 2014:26). According to de Villiers *et al.* (2017:24), having a weak financial status creates the risk that the supplier will go out of business, does not have the resources to invest in new technology and research, or may supply inferior quality products and provide poor delivery performance.

Financially strong suppliers are in a position to offer retailers a better value package beyond an attractive price and thus build confidence with the retailer (Adjei, 2018:22). They may offer additional benefits, such as greater discounts and advantageous payment terms (Shalke, Paydar & Hajiaghaei-Keshteli, 2018:21). According to Sting, Stevens and Tarakci (2019:116), buyers can examine various financial measures, such as credit rating, profitability, inventory turnover and current ratios to gauge the supplier's financial status prior to selection.

3.4.3.7 Environmental issues

Environmental management has become a prioritised responsibility at an increasing number of firms in their quest to protect the environment. The retailer's environmental performance is affected by its supply chain's environmental performance (Kannan, Khodaverdi, Olfat, Jafarian & Diabat, 2013:355). According to Haeri and Rezaei (2019:768), the concept of being environmentally friendly emerged from firms becoming more environmentally protective. However, as criteria environmental issues are limited. Guarnieri and Trojan (2019:348) hold that social, economic and environmental criteria must be included in the evaluation and selection of suppliers. For instance, environmental characteristics include the amount of harmful materials released by a supplier's processes and a supplier's capability for green design. Economic characteristics include a supplier's rate of development and cost reduction capability (Haeri & Rezaei, 2019:770).

In the selection process, green retailers select suppliers that opted for ISO 14000 accreditation, which requires businesses to establish an environmental management system that assures that they have met the minimum environmental criteria (Gawaikar, Bhole & Lakhe, 2018:638). Business firms often compel their suppliers to utilise processes and products with a green supply chain in order to remain competitive (Lu *et al.,* 2019:995). It is equally important to select suppliers that display ethical behaviours, are environmentally sensitive and socially aware and responsible (Haeri & Rezaei, 2019:771).

It is evident that retailers should have a framework that specifies the supplier selection criteria, as that will allow the supplier to set standards and goals that are aligned with the retailer's expectations. Alternatively, these criteria will assist businesses in the retail industry to choose potential suppliers, as well as measure their suppliers' performance for the duration of the contract.

3.5 RETAIL PERFORMANCE

As most supply chains are becoming an extension of the retailer, it is important for the retail firm to strategically select suppliers that can continually improve their performance. A method to ensure a successful outcome of retail performance would be to measure the performance of the supply chain (Khan, Chaabane & Dweiri, 2019). Suppliers of retailers are under pressure to deliver products free from defects, as most retailers add limited value to the final products (Bag & Foropon, 2019:863). The retail stores are where the customers purchase the final products (Tunuguntla, Basu, Rakshit & Ghosh, 2019:119).

Retailers gain an advantage by developing long-term collaborations and trusting relationships with suppliers (Marshall, McCarthy, Claudy & Mc Grath, 2019:1087). All companies that are part of the supply chain are linked together to provide the retailer with the highest possible quality products and services to meet the retailer's requirements. Each supplier in the supply chain adds value to the final product. A supplier can succeed by collaborating with the retailer to ensure their goals are aligned. Suppliers can compete with on-time delivery, high quality, flexibility, low risks and low prices in order to be responsive to the retailer. According to Hänninen and Smedlund (2019:37), an opportunity to gain a competitive advantage will be to engage

in collaborative relationships with suppliers that will enhance the retailer's performance. More emphasis should be placed on selecting suppliers strategically to improve the retailer's performance.

The retailer's performance is evidence of the retail firm's success. Based on relevant literature, supplier selection is a factor that affects retail firms (Wang, Grosse-Ruyken & Erhun, 2018:330). The chosen supplier can affect the retailer's performance negatively by delivering poor quality products, having a poor reputation, lack of availability and high costs (Bag, Gupta & Foropon, 2019:265). The choice of suppliers should be strategically planned to meet the retailer's needs.

When firms explore ways to improve their performance, they should consider identifying supplier selection criteria that best suit their needs. Supplier selection criteria can improve the retailer's performance with product availability, quality and throughput performance, as with criteria being communicated, suppliers are aware of the retailer's requirements (Adivar *et* al., 2019:259). The retailer will find it difficult to meets its customer demands if the firm offers products of a poor quality. As mentioned previously, the increase in SCM as a criterion is evidence that it does have an effect on retail performance. The retailer can utilise criteria to improve its performance by informing potential suppliers of the criteria it has identified as important.

3.6 STRATEGIES TO IMPROVE RETAILER'S PERFORMANCE

The following section presents a discussion of the strategies retailers can implement to improve their performance. The importance of buyer and supplier relationships is discussed as well as the importance of supplier development strategies.

Strategic sourcing is an important aspect of purchasing that includes buying from suppliers, reducing costs and increasing quality in order to gain the firm a competitive advantage and build long-term relationships (Jain, Hazra & Cheng, 2019). To be successful, retailers should consider strategies that will ensure their improved performance. Supplier relationship management is an interaction between the buyer and its supply base to gain a competitive advantage with assistance from each other's resources (Amoako-Gyampah *et al.,* 2019:160). It is imperative to ensure that the buyer strategically selects suppliers that are capable of improving the retailer's

performance. Supplier selection is a core competency that affects the retailer's performance.

In this section, the relationship between the supplier and the buyer is discussed to strategize remedial action to improve the retailer's performance, including collaboration, alliance partnerships and development programs that will assist the supplier to ensure that the retailer gains a competitive advantage.

3.6.1 The importance of buyer-supplier relationships

The buyer and supplier relationship refers to a collaboration between parties to reduce costs, enhance quality and develop new products efficiently in order to gain a competitive advantage in the market (Newell, Ellegaard & Esbjerg, 2019:389). Strategies that could improve the buyer and supplier relationship would be collaboration, long-term trust, transparency and cooperation between the parties (Newell, Ellegaard & Esbjerg, 2019:390).

A sound relationship will allow for all organisations involved to be successful. This will be possible through the empowerment of knowledge (Sener, Barut, Oztekin, Avcilar & Yildirim, 2019:88). Supply chain integration may motivate for information sharing, which will result in the improvement of the firm's competitiveness (Sener *et al.,* 2019:88).

A strategic alliance is a relationship that can assist the retailer to improve its performance. A strategic alliance allows a firm to access the strengths and capabilities of its suppliers (Link & Antonelli, 2018). A firm's sourcing strategy should be to select a supplier that has the characteristics that will be beneficial in a long-term partnership. A strategic alliance can serve as a form of capability that assists the retailer to be competitive (Jain *et al.,* 2019). Relevant information should be shared between the buyer and the supplier for the alliance to be viewed as strategic.

3.6.2 Supplier development strategies

After selecting the supplier, the buyer has to strategize with the supplier to engage in development programs that assist the supplier to meet the retailer's requirements (Jones & Comfort, 2019.132). These programs can be utilised to monitor the supplier's performance to reduce risks of supplier training and assessment and provide the

retailer with the opportunity to invest financially in the supplier's capabilities (Cole & Aitken, 2019:4). Supplier development addresses issues and provides the opportunity to build a desirable future. Supplier development can be utilised to improve the firm's quality, and social and economic dimensions. This concept ensures continuous improvement for both the buyer and the supplier (Bilińska-Reformat, Kucharska, Twardzik & Dolega, 2019:3).

Supplier development initiatives are when the retail buyer strategizes methods to improve the supplier's performance, thereby increasing its profits (Gosling, Abouarghoub, Naim & Moone, 2019:505). The authors also posited that the close relationship and direct involvement between retailer and supplier provides the opportunity for supplier development programs, which are beneficial to both buyer and supplier as they increase their coordination and performances and improve their customer satisfaction and trust, which can only be possible by selecting the suppliers wisely (Cole & Aitken, 2019:4).

3.7 SUPPLIER PERFORMANCE EVALUATION

The following section presents a discussion of the role of suppliers in the retailer's performance, the importance of supplier evaluation and the consequences of inferior supplier performance.

The outcome of the supplier's performance influences the performance ability of the retail firm and includes measuring, analysing, managing and evaluating the performance of the supplier after delivery (Maestrini, Luzzini, Maccarrone & Caniato, 2017:301). The reason for retailers evaluating a supplier's performance is to ensure that the supplier's activities aligned with the retail firm's standards in order to reduce costs, reduce risks and continually improve customer service (Bai *et al.,* 2019:2).

Once a new supplier enters the retailer's supply base, there are specific criteria to be met, such as quality, flexibility, on-time delivery, pricing and service levels that the supplier should maintain, whereas a current supplier's performance tends to not be evaluated to the same degree (Rezaei *et al.,* 2016:579). The aim of this study was to ensure that criteria utilised to select new suppliers are also utilised to evaluate the existing supplier's performance.

Inferior supplier performance affects the ability of the retailer to satisfy its consumers. According to Rezaei *et al.* (2016:581), employing a framework that reflects decision making criteria will assist in ensuring that both parties are aware of the retailer's expectations. This enables suppliers to strategize and benchmark themselves against these criteria. The criteria used in the selection of suppliers also allows the supplier to measure its performance and search for new methods to improve. The retailer utilised its criteria to select suppliers, and should use the same criteria to measure the performance of their current suppliers for the duration of the contract (Khan, Chaabane & Dweiri, 2019:24). As a barometer, criteria inform the retailer if the performance of its supply base is in line with its expectations.

The reason for supplier performance measurement is to make poor performing suppliers aware of their inferior performance (Maestrini *et al.,* 2017:299). Once suppliers are aware of inferior performance levels, they are able to use those specific criteria to improve their performance. Maestrini *et al.* (2017:299) is of the opinion that in cases where the supplier fails to improve its performance within the agreed time frame, the retailer will be faced with the decision of whether or not to replace the supplier with one that is more capable of meeting expectations. This view is supported by Xie, Liang and Zhou (2016:2) who add that the use of partner selection (supplier selection) and partner control (supplier performance evaluation) must be decided together to be able to identify risky suppliers that can prevent the supply chain from achieving superior performance. It is for this reason that this study reflected on specific criteria to consider when measuring supplier performance to ensure that the suppliers are aware of the retailer's requirements.

Measuring the performance of suppliers assists the retailer to remain competitive by reducing costs, improving product quality and improving on-time delivery (Zou, Brax, Vuori & Rajala, 2019:540). Evaluating suppliers also assists the retailer to rank their suppliers, which creates competitiveness, which can encourage suppliers to improve their service (Mokhtar, Genovese, Brint & Kumar, 2019:50 2019:44).

Retailers must strike a balance between the customer's need for a product or service and the supplier's ability to perform (Asian, Pool, Nazarpour & Tabaeeian, 2019). The literature suggests that the retail firm's consistent performance depends on the performance of its supply base (Soares *et al.,* 2017:137). Constant evaluation of

suppliers will benefit the retail firm in terms of identifying trustworthy suppliers, reducing transaction costs and providing detailed information about a supplier's capabilities and reliability (Xie *et al.,* 2016:2). This, in turn, emphasizes the need for the retailer to utilised specific criteria when selecting suppliers, as well as when evaluating their current suppliers to ensure they are meeting the required standards (Luthra, Govinda, Kannan, Mangla & Garg, 2017:1689). Developing a long-term relationships with suppliers is recommended, as the retailer will be able to monitor the suppliers' performance and immediately address any unacceptable behaviour (Short, Toffel & Hugill, 2016:1882).

Effective monitoring of the supply chain's performance is important for controlling the level of quality of the finished products. Musarra, Robson and Katsikeas (2016:10) define monitoring within the retail context as a method that allows the retailer to control the performance levels offered by the suppliers. The two mechanisms to drive monitoring are process and output monitoring. Musarra *et al.* (2016:11) posited that the retailer, with the use of process monitoring, can have a significant influence on the supplier's performance to ensure that the desired goals are attained. Alternatively, the retail firm can influence the supplier by output monitoring. Output monitoring is when the focal firm monitors the visible effects of the supplier's actions (Musarra *et al.,* 2016:11). These mechanisms allow the retailer to consistently control their suppliers' performance, which ensures that the supplier continuously meets the retailer's standards and demands (Mokhtar *et al.,* 2019:50).

Inferior supplier performance affects the retail firm's efficiency and effectiveness, which impacts negatively on their quest to create a competitive advantage (Liu & Atuahene-Gima, 2018:7). Poor supplier performance gives rise to problems such as inadequate product quality and late deliveries, which affects customer satisfaction (Nuruzzaman, 2015:224). Crisis management situations, unsatisfactory customer experiences, shrinking sales and profit margins, as well as increased operating costs are thus prevented when the retailer selects its suppliers based on a specific range of criteria (Ramanathan & Ginasekaran, 2014:258).

Inferior supplier performance could be caused by misunderstandings between the retailer and the supplier due to a failure to continuously monitor supply chain risks, such as untimely delivery, disruption of information sharing or uncertainty across the

supply network (Musarra *et al.,* 2016:18). Firms need to identify high risks in the supply chain, for instance delayed deliveries or inferior products, and develop contingency plans for when changes are made to schedules and share information pertaining to the changes that contribute to the supplier's performance (Zou *et al.,* 2019:526). In a retailer and supplier relationship, the cause of failure may be as a result of failing to recognise the importance of distributing information upstream and downstream in the supply chain (Ross, Kuzu & Li, 2016:967). Suppliers need to be provided with reliable and up-to-date information in order to support decisions made by the retail firm.

The use of criteria in the selection and evaluation processes offers the opportunity to identify risks early in the supply chain process and still be able to accurately fulfil the consumer's requirements.

3.8 CHAPTER SUMMARY

In this chapter, the link between SCM and supplier selection was discussed to enable an understanding of sourcing. Supplier selection challenges were utilised to identify the influence they have on supplier selection and the retailer's competitive advantage. Supplier selection decisions have an influence on the relationship between the buyer and the supplier. Remaining aware of retail trends can influence a retailer's future decisions, which could result in enhanced performance. Suppliers should also strive to meet the retailer's customers' requirements.

The following chapter focuses on the research design and methodology that was utilised in the study. The sample, development of the measuring instrument and data analysis procedures that were used in the study are also discussed.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 INTRODUCTION

The previous chapter reviewed literature pertaining to the effect supplier selection has on the retailer's performance, linking supply chain management to sourcing, supplier selection criteria and supplier performance evaluation. In order to successfully address the research objectives, the research design identified the methods adopted in this study. The sampling and data collection methods most suitable for this study are discussed, as well as the measuring instrument and data analysis techniques that were utilised.

4.2 RESEARCH PARADIGMS

The research paradigm is the outline that guides the research and is based on philosophies and assumptions about the world and the nature of knowledge (Collis & Hussey, 2014:43). Kuhn (1962:76) asserted that a paradigm is a framework shared by scientists of beliefs, values and morals utilised to examine and solve problems. Corry, Porter and McKenna (2018) posit that a paradigm is a set of ideas, assumptions and beliefs held by a group and utilised to study and interpret knowledge in order to resolve a problem. Paradigms are thus tools that allow a researcher to gain in-depth understanding of the model of a study (Babbie, 2016:31; Kelly, Dowling & Millar, 2018:10).

The two main research paradigms are positivist and interpretivist (Phothongsunan, 2019:255). Creswell (2014:19) and Struwig and Stead (2013:5) hold that positivism is often applied to collect quantitative data and enables researchers to identify and explain human behaviour. Positivism is defined by the belief that reality is independent of people and is not influenced by the act of examination (Kovács, Kiss, Kassai, Pados, Kaló & Rácz, 2019:357). According to Collis and Hussey (2014:43) and Kelly *et al.* (2018:11), the positivistic research paradigm's aim is to unfold theories originally from empirical research and social phenomena, which can be measured by means of statistical analysis.

Kankam (2019:3) posits that as positivism is a research paradigm, it holds the views of what is perceived as truth. Within a study, positivism is able to explain the relationships between the research variables and verify the hypotheses testing in search of the truth (Kelly *et al.,* 2018:11). This paradigm is associated with quantitative research that tests by means of experimental studies, surveys and cross-sectional and longitudinal studies (Kamal, 2019:1390). Positivism has a high level of reliability and validity as it is a highly structured approach that provides findings representative of the population.

Conversely, an interpretivist paradigm is usually applied within qualitative research, which involves interviews, observation and oral histories (Creswell, 2014:26). Interpretivism is based on the belief that social reality is in our minds but subjective and is shaped by perceptions and social phenomena (Creswell, 2014:19; Collis & Hussey, 2014:44; Kankam, 2019:2). Interpretivism is associated with methodologies such as hermeneutics, case studies, action research and more (Creswell, 2014:19). This paradigm has a low level of reliability and validity as it is focused on observing the social reality to better understand the respondents through the mind of the researcher. Positivist and interpretivist paradigms may be similar in terms of the regularity of human behaviour but positivism is based on laws of cause and effect, while interpretivism is based on themes and patterns of social interaction (Antwi & Hamza, 2015:219).

This study adopted a positivistic research paradigm as it was necessary to determine the specific criteria to consider when selecting suppliers for the retail industry. The positivist paradigm was considered appropriate for this study as it enabled the discovery and explanation of the problem statement, the sample size required and the establishment of specific criteria used in the pursuit of suitable suppliers.

4.3 RESEARCH DESIGN AND APPROACHES

Researchers choose a research design that suits the way in which the study is to be conducted by taking into account when, where and how the data will be collected. Cooper and Schindler (2014:82) hold that the research design also indicates the methods and procedures to be followed when collecting and analysing data. Thus, the research design dictates the research methodology.

4.3.1 Research design

The research design is used to integrate the various sections of the study to ensure that the research problem is addressed (Struwig & Stead, 2013:111). The research design can take form in four types of research studies, namely exploratory, causal, descriptive and explanatory (Saunders, Lewis & Thornhill, 2019). Exploratory research is aimed at generating the evidence through observations, focus group interviews and historical analysis on order to collect full-scale information pertaining to a topic about which little is known (Hallingberg, Turley, Segrott, Wight, Craig, Moore, Murphy, Robling, Simpson & Moore, 2018:5). Causality is used in quantitative studies to determine a relationship between two variables and the manner in which one variable helps to predict the current value of the other variable (Moussa, 2016:17). Research that is descriptive presents what is known as capacities, needs, methods, practices and research populations in order to identify the phenomena or patterns in the data based on frequencies, or the mean and standard deviations (Loeb, Dynarskd, McFarland, Morris, Reardon & Reber, 2017:1). According to Hew, Lan, Tang, Jia and Lo (2019:959), explanatory research design is a measure of the relationship between the variables.

A descriptive and explanatory research design was used in this study. A descriptive design allowed the understanding of the demographic information, as well as the general retail information in the questionnaire. It also allowed the identification of the what, how and who answers, as they provide retailers with information on how to select suppliers. Explanatory research helped to understand the effect that supplier selection criteria have on the retailer's performance by covering the benefits of selecting suppliers with the use of criteria. The ensuing section focuses on the research approaches.

4.3.2 Research approaches

The two main research approaches are quantitative and qualitative. The use of both research approaches is known as mixed methods research and is discussed in an ensuing section.

4.3.2.1 Qualitative

The qualitative research approach is defined as an approach that allows the researcher to gather information pertaining to historical experiences, thoughts and opinions of qualified participants for the researcher to be flexible in the research process (Creswell, 2014:241). The qualitative research approach is known as a phenomenological design, which allows the researcher to gain in-depth understanding by looking at the world through the eyes of those who experienced it.

The various types of research approaches used in a qualitative study include ethnography, narrative, phenomenological, grounded theory and case study. Ethnography is defined as the scientific study of the religions, culture, society and customs of people by living within those cultures to gain a deeper understanding of the lives of those people (Pelto, 2016:22). Narrative analysis focuses on people's lives and the manner in which they tell their own stories, which allows the participants to reflect on historical events or past behaviour (Wang & Geale, 2015:196). Phenomenological research is the interpretation of human experience aimed at developing a greater understanding of the participants' lives (Mayoh & Onwuegbuzie, 2015:91). Grounded theory is an inductive methodology that begins as a grounded substantive theory that is applicable only in the specific data in which the theory was developed (Silverman, 2016:347). Case study is the research of a group of people, documents or businesses that allows the research to gather in-depth information about a specific phenomenon (Hollingsworth, 2019:12). Phenomenological study was deemed appropriate for this specific study; it allowed retail buyers to share their experiences and strategies pertaining to how they make decisions when selecting suppliers.

Qualitative methods depend on the participants' views, skills and relationships, which makes it difficult to generalise from the data that is collected (Mungai, 2019:38).

4.3.2.2 Quantitative

The quantitative research approach is defined as a statistical measurement and mathematical analysis of data that is collected, which allows the researcher to gather information by means of questionnaires and surveys or by manipulating pre-existing statistical data (Creswell, 2014:241). The quantitative researcher analyses social

behaviour by exploring the relationships between variables by means of calculations, the emergence of patterns and statistical techniques to interpret the findings (Rahman, 2017:105).

The benefits of the quantitative research approach are that the data analysis requires less time than other approaches and the data is collected from a large sample that is randomly selected (Basias & Pollalis, 2018:92). This research approach allows for greater objectivity and accuracy of results and ensures high validity and reliability (Rahman, 2017:106). The use of standard means allows comparisons of other studies and eliminates any chances of personal bias, as the respondents are unknown (Maxwell, 2016:21). However, quantitative research methods are criticised in that the respondents may interpret the world around them without considering the natural world (Mungai, 2019:38). Another criticism is that quantitative research methods do not provide in-depth answers or explanations of answers, which gave rise to the mixed methods approach (Powell, 2019).

4.3.2.3 Mixed Methods

The mixed research method is a combination of qualitative and quantitative methods. According to Alston and Bowles (2018), the choice of methodology depends on the purpose of the study, the background and the beliefs about the research required for the study. The reason for the mixed methods being appropriate depends on the research questions and the issues relevant to the study (Antwi & Hamza, 2015:223). Qualitative and quantitative methods should be related to each other and there should be a need to provide more methodological details about the study (Bryman, Bell, Hirschsohn, Dos Santos, Du Toit, Masenga, Van Aardt & Wagner, 2016:66).

Mixing both research methods allows the researcher to consider the strengths and weaknesses of each method to provide an in-depth understanding of the findings (Ghiara, 2019:4). Mixed method research enhances the positive values of the quantitative and qualitative views of the participants to protect the study from the limitations inherent in each research approach (Antwi & Hamza, 2015:223).

Table 3.1: Quantitative, Qualitative and Mixed Research Approaches

Orientation	Quantitative Approach	Qualitative Approach	Mixed Methods Approach
Paradigm	Positivism	Interpretivism	Pragmatism
Research Purpose	Numerical description Causal explanation Prediction	Subjective description Empathetic understanding Exploration	Utilising both qualitative and quantitative research offers better understanding of the research questions
Methodology	Experimental/Manipulative	Hermeneutical/Dialectical	Both
Research Methods	Empirical examination, measurement, hypothesis testing, structured protocols and questionnaires	Ethnographies, case studies, narrative research, interviews, focus group discussion, observations and field notes	Both
Nature of Data Instruments	Variables, structured and validated data collection instruments	In-depth interviews, participant observation and open-ended questions	Both open- and close-ended questions
Data Analysis	Identify statistical relationships among variables	Utilises descriptive data and searches for patterns	Both qualitative and quantitative data and analysis
Findings	Formal statistical report	Informal narrative report	Provides both statistical and narrative reports

Source: Antwi and Hamza (2015:222)

Table 3.1 presents a comparison of the quantitative, qualitative and mixed methods approaches. The research approach used for this study was quantitative, as it allowed for accurate information to be collected. The quantitative research design was used in this study to collect from a large number of the population in order to statistically analyse the relationships between the research variables.

A quantitative research design was used in this study to develop the specific criteria to consider when selecting suppliers for the retail industry. The quantitative research approach is defined as a statistical and mathematical analysis of data that allows the researcher to gather information by means of questionnaires and surveys or by manipulating pre-existing statistical data (Creswell, 2014:241). This approach enabled the formulation and explanation of the problem statement, the sample size required and the establishment of the specific criteria used in the selection of suppliers. The section that follows presents a discussion of sampling.

4.4 SAMPLING DESIGN

Sampling is the process of selecting a part of the population as a sample to represent the entire population (Lohr, 2019:3). The goal is to collect samples that provide an accurate representation of the population to statistically collect data (Wills, Roecker and D'Avello, 2018). It involves defining the target population, selecting a sample frame, choosing sampling techniques, determining a sample size, collecting data and assessing the response rate.

4.4.1 Target population

A population is a set of persons or objects of interest requested by the researcher to participate in the study (Majid, 2018:3). The target respondents in this study had to be part of the team that deal with selecting suppliers and deal with retailers in management positions from senior management to middle management and supervisory levels. The selected management members ranged from operations managers and procurement directors to buyers, sales associates and merchandise managers from the buying businesses. With this structure, a wide range of knowledge was accessed. The retailers included general dealers, food, beverages and tobacco, pharmaceuticals and medical goods, cosmetics and toiletries, clothing, footwear and leather goods, textiles, household furniture, appliances and equipment, hardware,

paint and glass and sports in order to conduct a broad investigation. Nelson Mandela Bay's large companies listed in the Business Chambers' Guide (2019) numbered 670. The next section discusses the sampling frame.

4.4.2 Sampling frame

A sampling frame, as defined by Lohr (2019:3), is a list of all units in the population from which the random sample was selected. Nelson Mandela Bay Business Chamber lists 670 large companies. In the ensuing section, the sampling technique is discussed to determine the sample size used in this study.

4.4.3 Sampling techniques

Researchers use either a probability or non-probability sampling technique. Probability sampling is defined as a method whereby the entire chosen population has an equal chance of being selected for inclusion in the sample (Kim & Wang, 2019:177), whereas non-probability sampling is a technique whereby the selection of individuals within the population is unknown. Non-probability sampling techniques include convenience, judgmental, quota and snowball sampling (Collis & Hussey, 2014:132; Struwig & Stead, 2013:120; Bryman & Bell, 2011:181).The selection of sampling units is random, which implies that some individuals in the population are not given an equal chance of being selected (Stratton, 2019:228). This study employed a probability sampling technique.

The probability sampling method selects larger representative samples for social research, which includes techniques such as simple random sampling, cluster sampling, stratified random sampling and systematic sampling (Lohr, 2019:26). A simple random sample is one in which every person or object in the population has an equal chance to be part of the sample (Singh, 2018). In a cluster sample, the subject is systematically selected from the overall target population (Stratton, 2019:227). Stratified random sampling is a technique that divides individuals in the population into different strata and each stratum may be sampled equally (Wills *et al.,* 2018). In systematic sampling every person from the target population is chosen for the sample (Stratton, 2019:228).

Due to the study being quantitative in nature, simple random sampling was utilised as a sampling technique as it allowed each retailer in the population an equal chance to be selected. It was thus a simple task to select the sample of retail stores in the NMB (Wills *et al.,* 2018).

4.4.4 Sample size

The size of a sample is the estimated number of individuals that can adequately represent the overall population of the study (Taherdoost, 2017:237). The sample size that is chosen should allow the researcher sufficient opportunities to collect random findings from the population (Majid, 2018:5). A large sample size is used for accurate and reliable collection of data from a large population (Zamboni, 2018).

To determine the sample size of a study, the researcher should consider the size of the population, the reliability of the data being accurate, the cost and time limitations, the confidence level that the margin of error is accurate and the standard deviation to expect in the data (Zamboni, 2018). For this study the respondents were chosen from among the NMB Business Chamber's 670 large companies. A sample size of 248 respondents (operations managers/ procurement directors/ buyers/ sales associates/ merchandise managers/ senior buyers) was deemed sufficient for this study. This number was calculated using Raosoft sample size calculator at 95% confidence level and a 5% margin of error. The following section discusses the data collection.

4.5 DATA COLLECTION

This section focuses on the methods used to collect relevant data. The research instrument's cover letter and the questionnaire design are discussed.

4.5.1 Research instrument's cover letter

An explanation of the purpose and the importance of the study was provided in a cover letter. In Appendix A, the cover letter outlined the informed consent and made respondents aware that participation was voluntarily. This letter assured respondents that confidentiality and anonymity would be guarded and included instructions on how to complete the questionnaire. The researcher's contact details were included for further questions.

4.5.2 Questionnaire design

According to Debois (2019), a questionnaire is an instrument given to the subject to respond to written or oral questions. In this study, the researcher used the questionnaire to collect data from individuals involved in supplier selection decisions (operations managers, procurement directors, buyers, sales associates and merchandise managers).

The primary data was gathered by means of a survey strategy in the form of an online survey monkey, as well as hand distributed questionnaires to retailers for an improved response rate. A letter that served as a gatekeeper's letter was given to retail senior management requesting permission to access the companies' employees to complete the study's questionnaire either online or manually. A link to the online survey monkey was emailed to management who were directly involved in the selection of suppliers for clearance of the study, while others were delivered by hand.

A closed-ended research questionnaire was used to address the research objectives. Section A of the questionnaire consisted of questions answered by means of a nominal to collect respondents' demographic information, as well as the general retail firms' information (8 items). Sections B to F consisted of multi-term measures that were anchored on a 5-point Likert ordinal scale. Section B sought to establish the level of importance assigned to established supplier selection criteria (7 items). Section C asked questions pertaining to the challenges that retailers face when selecting suppliers (9 items), Section D asked questions pertaining to the benefits of selecting suppliers by means of criteria (9 items), Section E asked questions pertaining to whether or not the use of supplier selection criteria has an effect on the retailer's performance (6 items) and Section F asked questions pertaining to the strategies needed to improve the retailer's performance (5 items). The ensuing section presents a discussion of data analysis.

Data was collected from 257 respondents by means of hand distributed questionnaires, as well as from an online survey monkey. A link was sent to NMB Business Chamber's retail businesses. The total number of returned and usable questionnaires was 248 (71 from the online survey monkey and 177 of the hand

distributed questionnaires), yielding a response rate of 96.5% calculated as follows: response rate = (248/257) x 100.

This study covered retail businesses operating in the NMB. Self-administered questionnaires were utilised to collect data from respondents. With the use of an online survey monkey as well as hand delivered questionnaires, the collection of data was less costly and time consuming than it would have been if others ways had been employed.

4.6 DATA ANALYSIS

In order to analyse the data collected from the respondents in a quantitative study, either descriptive and/or inferential statistical analysis is employed. Descriptive statistics describe and summarise the value of data by measuring the central tendency by means of the mean, median and mode (Brownstein, Adolfsson & Ackerman, 2019). Descriptive statistics summarise the frequency of values by means of tables and graphs (Guetterman, 2019:2).

Inferential statistics test if there are any inferences between the research variables (Guetterman, 2019:2). Inferential statistics check if the inferences are random or systematic in order to make a reasonable conclusion about the entire population (Calin-Jageman & Cumming, 2019:271). In this study, a combination of descriptive and inferential statistics was utilised to analyse the quantitative research data that was collected. Descriptive statistics were used to analyse and summarise the respondents' and retail firms' demographic data and inferential statistics were used to test the research hypothesis. The primary hypothesis of this study stated that: "having established supplier selection criteria has a significant effect on the retailer's performance".

The quantitative research data was analysed using EFA and regression analysis. According to DiFabio, Slater, Norte, Goetschius, Hart and Herterl (2019:146), EFA is a powerful method used to summarise and arrange data by regrouping variables based on shared variances. It indicates the proportion of variance contribution from each research factor by means of factor analysis (Hidayat, Habibi, Saad, Mukminin & Idris, 2018:153). In the current study, EFA was utilised to regroup and reduce the

number of factors or questionnaire items. EFA and regression analysis was performed using SPSS version 26 to analyse the data collected in this study. The next section focuses on the reliability and validity of this study.

4.7 RELIABILITY AND VALIDILITY

To ensure that the measuring instrument used in this study measured the required empirical data accurately, the information gathered from the questionnaires had to be reliable and valid. Good research is when the study produces valid data using reliable methods of collection and results in accurate findings (Taleb-Berrouane, Khan & Amyotte, 2019:5).

4.7.1 Reliability

Reliability is another term for consistency. Struwig and Stead (2013:120) hold that if a test is taken multiple times with a specific measuring instrument and yields the same results, then the test is reliable. There are three forms of reliability, namely stability of the test, the equivalence of the test and the internal consistency of the test (Cooper & Schindler, 2014:359). Stability refers to the test producing consistent answers with repeated administration to the same person. Equivalence is concerned with variations at a specific point in time among various observers and samples are thus concerned with variance unrelated to time. Internal consistency refers to the similarity of the questions contained in the test (Fruhstorfer, 2019:1029). Cronbach's alpha was used to measure the internal consistency between the respondents' true answers and the reliability of the research variables.

4.7.1.1 Pilot study

A pilot study was conducted before the final questionnaire was sent to the respondents. According to Gronkjaer, Berg, Sondergaard and Moller (2019:3), testing the questionnaire prior to the main study allows the researcher to eliminate misunderstandings and to ensure that the measuring instrument focuses on the important details. In the current study, the purpose of conducting a pilot study was to ensure that there was consistency and relevance between the questionnaire and the research study. The measuring instrument was tested on 21 retail businesses in the Baywest Mall in Port Elizabeth. Pre-testing allowed the researcher to observe the ease

with which the respondents understood the questions asked in the questionnaire, the time required to complete the questionnaire and to ascertain if there were any issues that needed to be addressed. The pilot study's feedback led to the researcher reducing the length of the questionnaire from 39 questions to 36, as those three questions had not been included in the online survey monkey. After the pilot study adjustment, the questionnaire was finalised (see Appendix A).

4.7.2 Validity

Validity is the degree to which the measuring instrument measures what the researcher set out to measure (Struwig & Stead, 2013:120). There are five perspectives of validity, namely content validity, criterion validity, construct validity, convergent validity and discriminant validity. Content validity measures the extent to which the content of the items represents the investigative questions that guided the study. Criterion validity measures the degree to which the criterion of the study is successful in predicting a phenomenon (Pedhazur & Schmelkin, 1991:32). Construct validity measures how well the test represents the underlying item or construct being measured (Cooper & Schindler, 2006:319). Convergent validity refers to the relationship between similar measuring instruments of a similar concept (Ehrenbrusthoff, Ryan, Gruneberg & Martin, 2018:74). Discriminant validity refers to confirming that the concepts that are supposed to not be related are indeed not related and do not correlate strongly, therefore confirming the uniqueness of the results (Bryman & Bell, 2011:39; Frank & Sarstedt, 2018:3). This study established the presence of convergent validity using a minimum average factor loading value of 0.7. The presence of discriminant validity was established by comparing the average variance extracted values (see Table 5.17) against the squared correlation coefficient values (see Table 5.18). For discriminant validity, if the AVE values are greater than the squared correlation coefficient values, that provides evidence of discriminant validity.

4.8 ETHICAL CONSIDERATIONS

All research should align with the requirements of the Research Ethics Committee, which protects the environment or subjects from any harm (Arifin, 2018:30). In the cover letter (see Appendix A), the respondents were provided with all the relevant

information pertaining to the purpose of the study and the use of the information for a Master's degree research project. Precautions were taken to ensure that there were no negative effects on the environment by hand delivering questionnaires and utilising an online monkey questionnaire survey so that the respondents could remain anonymous. Participation was voluntary and the respondents were informed of their right to withdraw from the survey at any time during the study without incurring any penalty. Approval and ethical clearance to conduct the research was granted by the Nelson Mandela University's Research Ethics Committee with the clearance number H19-BES-LOG-094 (see Appendix E).

4.9 CHAPTER SUMMARY

This chapter focused on the research design and methodology utilised in the study. For this study, a positivist research paradigm and a quantitative research approach were followed. The study utilised a simple random probability sampling technique to select respondents from the retailers affiliated to the NMB Business Chamber and followed a survey research approach to collect data from a sample of 248 respondents by means of a structured research questionnaire. The collected data was tested using both descriptive and inferential statistics. For the data analysis, an EFA was performed using SPSS version 26 to reduce the questionnaire items, of which there were initially too many, and a regression analysis was performed to test the research hypothesis. Reliability and validity were discussed, as well as the ethical considerations. The following chapter (Chapter 5) presents the findings and the data analysis of this study.

CHAPTER FIVE

EMPIRICAL FINDINGS OF THE STUDY

5.1 INTRODUCTION

The previous chapter reviewed the research methodology that was used for this study. It covered research paradigms, research design, sampling design and data collection and mentioned that SPSS version 26 was used to analysis the descriptive statistics. The EFA results were calculated using SPSS version 26 in order to reduce the measurement items for the research variables. The Statistical Package for Social Sciences (SPSS version 26) was used to perform the Kaiser-Meyer-Olkin and Bartlett's tests. Regression analysis was conducted by means of SPSS version 26, which served as a comparison measure for the hypothesis test. This chapter outlines the empirical findings of the study based on the responses to the questionnaire. The descriptive statistics results are discussed hereunder.

5.2 DESCRIPTIVE STATISTICS

Descriptive statistics is the art of analysing data to explain the findings of the survey (Selvamuthu & Das, 2018:63). Descriptive statistics were presented by way of summary statistics as tables and graphical descriptions, namely graphs and charts. This information includes respondents' position in the organisation, type of job in the organisation, gender, age, educational qualifications, size of the organisation, years' of experience and retail activity.

5.2.1 Respondents' position in the organisation

The position of the respondent in the retail firm can influence the respondent's participation in making decisions with regard to supplier selection criteria. Senior management members make strategic planning decisions and middle management and supervisory personnel make practical decisions, as they deal directly with the suppliers. The respondents that have a direct involvement with supplier selection thus provided reliable information.

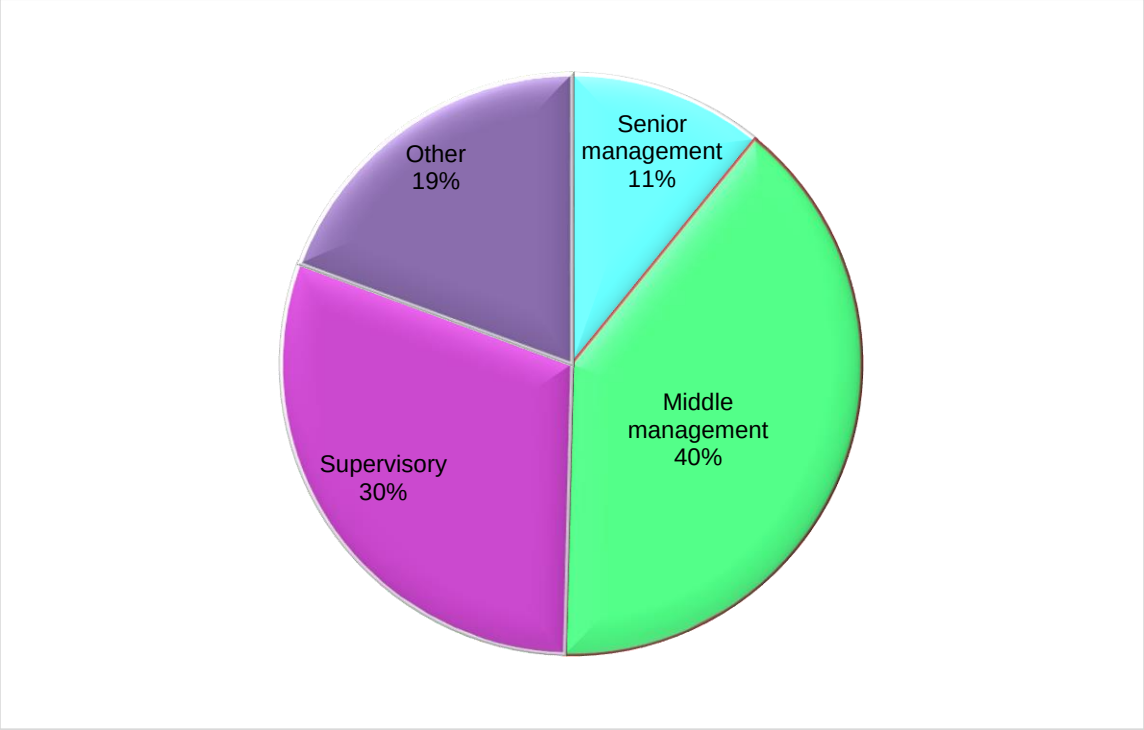


Figure 5.1: Respondents' position in the organisation

Figure 5.1 depicts the respondents' position in the organisation. It reveals that most (40%) of the respondents were from middle management, 30% were from the supervisory level, 11% were senior managers and 19% chose other. These findings were consistent with a study conducted by Badenhorst-Weiss *et al*. (2018:23), in which it was found that top management, middle management and the supervisory level personnel contribute to varying degrees to supplier selection and can influence the importance of criteria. It was therefore imperative for this study to request information pertaining to the respondents' position in the organisation. The ensuing section presents a discussion of the job type in the organisation.

5.2.2 Job type in the organisation

The type of job performed in the organisation can influence the respondent's participation in making decisions pertaining to supplier selection criteria. Therefore, the respondents were requested to provide their job type in the organisation.

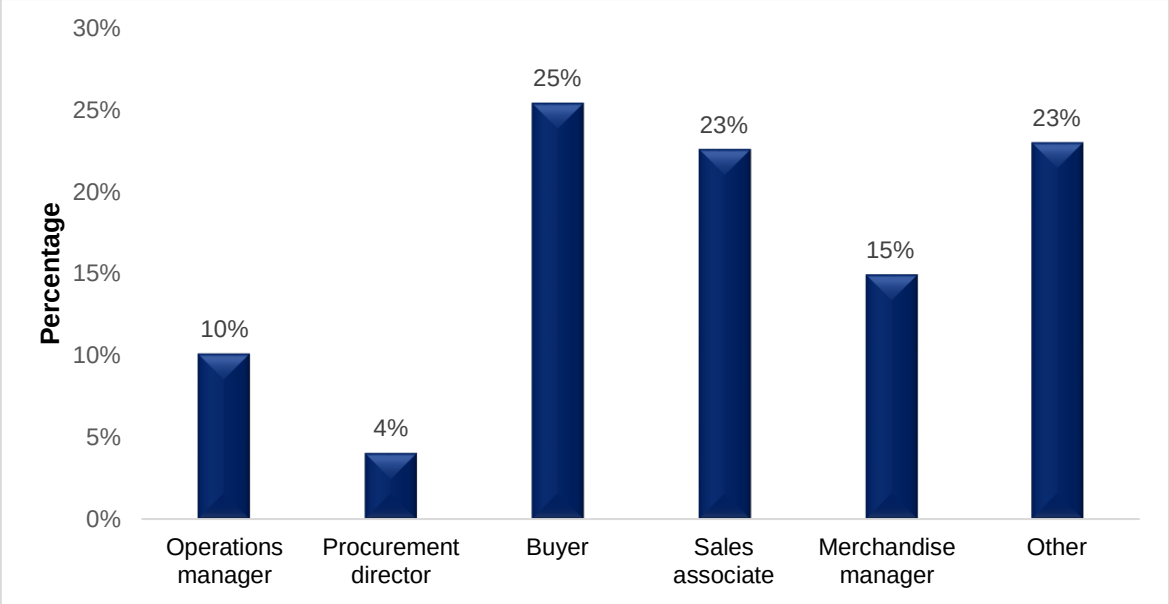


Figure 5.2: Respondents' job type in the organisation

As depicted in Figure 5.2, the results pertaining to the type of job performed in the NMB retail industry were that 10% of the respondents were operations managers, 4% were procurement directors, 25% were buyers, 23% were sales associates, 15% were merchandise managers and 23% performed jobs other than those mentioned. Most (25%) of the respondents were buyers that make the decisions regarding supplier selection. It was important to request the job type of the respondents to view the respondents' level of participation in supplier selection. A review of literature found that buyers are more involved with suppliers and in supplier selection decisions than other personnel (Wang, Dang, Vu & Zeng, 2018). The section that follows discusses the gender distribution of the respondents.

5.2.3 Gender Representation

The gender of the retail managers can influence the manner in which the suppliers are selected, such as the importance of criteria, the prediction of challenges, whether or not the criteria affect retail performance and strategies to improve retail performance. The gender perspectives differ with regard to supplier selection decisions.

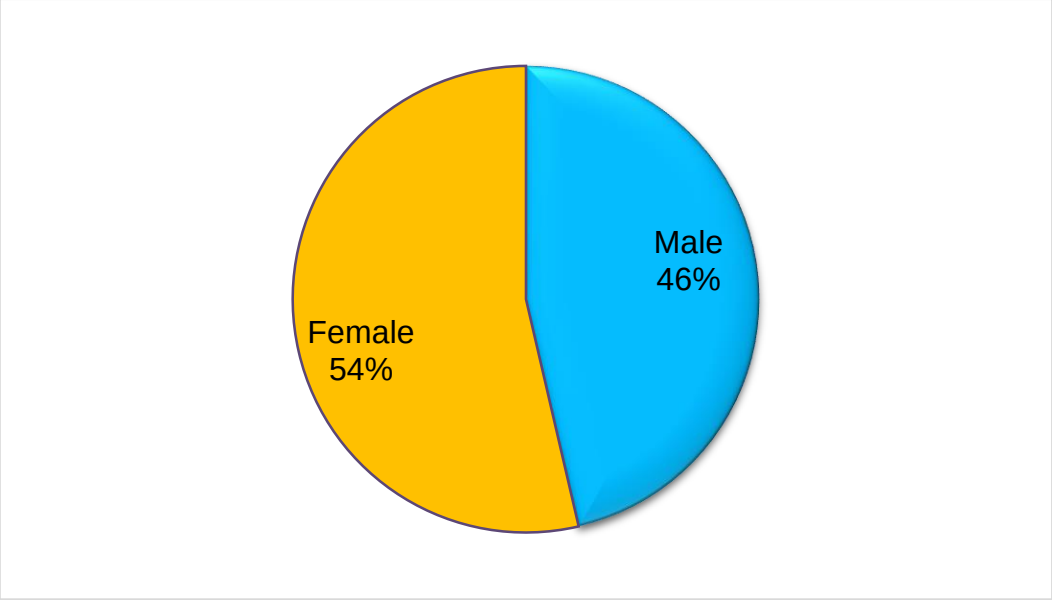


Figure 5.3: Distribution by Gender

As shown in Figure 5.3, the respondents were requested to specify their gender. The results indicate that 54% of the respondents were female and 46% were male. Over the years there has been change in the employment of females for purchasing positions in the retail industry. The next section focuses on the respondents' age groups.

5.2.4 Respondents' age group

The respondents' age could influence their decisions with regard to supplier selection. The age groups were set as 15-20, 21-30, 31-40, 41-50, 51-60 and over 60. The respondents were requested to specify their age group.

Table 5.1: Respondents' age group

Age group	Frequency	Percentage
15-20	2	1%
21-30	33	13%
31-40	95	38%
41-50	89	36%
51-60	29	12%
Over 60	0	0%
Total	**248**	**100%**

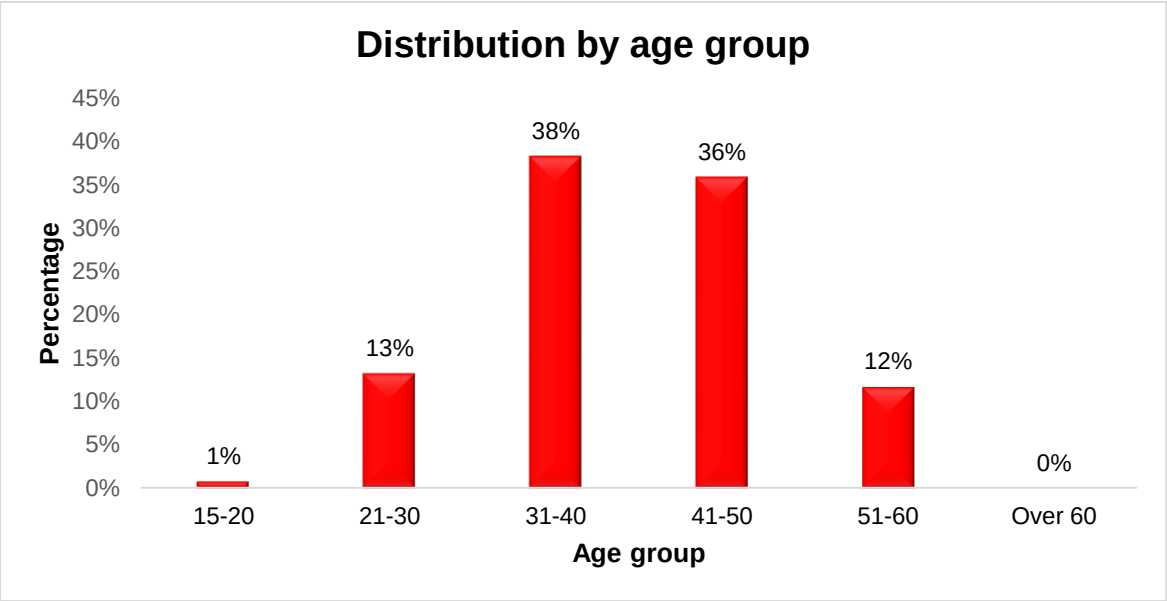


Figure 5.4: Distribution by age group

Table 5.1 and Figure 5.4 depict the respondents' age group. They reveal that most (38%) of the respondents are between the ages of 31 and 40, while 36% are between the ages of 41 and 50, 13% are between the ages of 21 and 30, 12% are between the ages of 51 and 60 and none of the respondents were over 60 years old. Based on Annexure D, the age of the respondents had an influence on the study.

5.2.5 Educational qualification

The respondents' educational qualification could have influenced their decision-making with regard to the selection of suppliers. The respondents were therefore requested to provide their educational qualification as depicted in Table 5.2 and Figure 5.5 hereunder.

Table 5.2: Educational qualification

Educational qualification	Frequency	Percentage	Cumulative	
Grade 11 and lower	5	2%	5	2%
Grade 12	81	33%	86	35%
Diploma	99	40%	185	75%
Bachelor's degree	56	23%	241	97%
Postgraduate degree/diploma	5	2%	246	99%
Other	2	1%	248	100%
Total	**248**	**100%**		

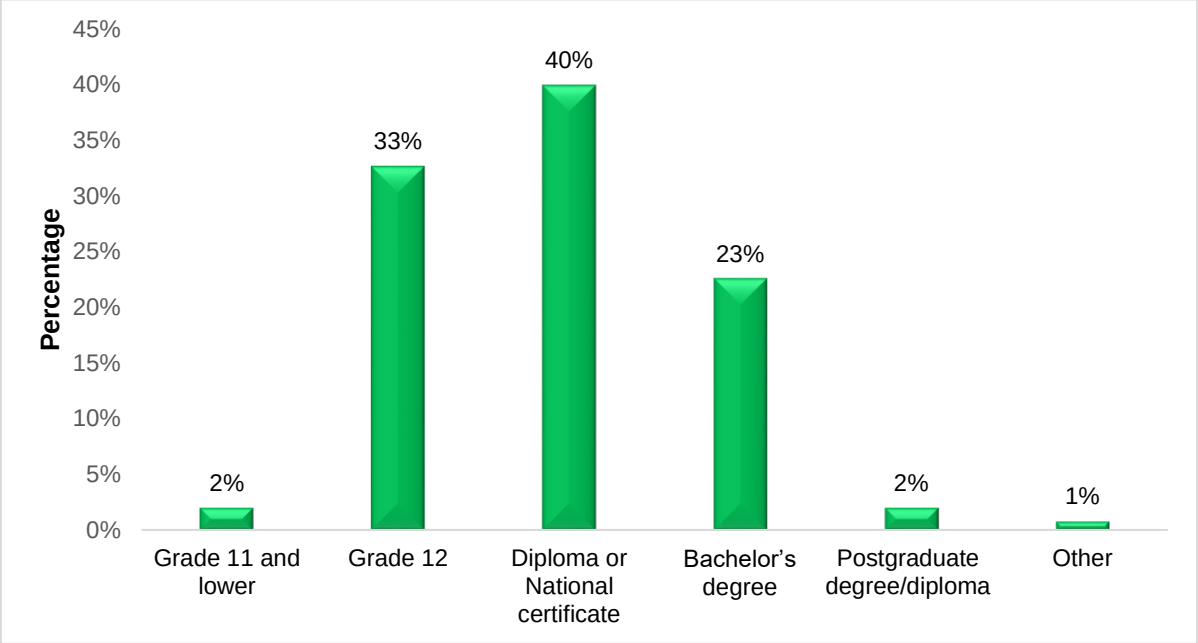


Figure 5.5: Educational qualification

As depicted in Table 5.2 and Figure 5.5, the respondents were asked to provide their highest educational qualification. As depicted, most (40%) of the respondents were holders of either a diploma or a national certificate, 33% had Grade 12 as their highest achievement and 22% held a bachelor's degree. Postgraduate degree holders and Grade 11 and lower constituted 2%, while only 1% of the respondents had another educational qualification. Rajvanshi and Mittal (2018:43) posit that personal characteristics such as gender, age, qualification, years of experience, occupation, financial status and personality all influence the buyers' decisions. As stated in previous literature, buyers should have an educational qualification or experience in order to make these decisions.

5.2.6 Organisations' staff complement and size

The size of the organisation is depicted in Figure 5.6 hereunder. This section requested that the respondents indicate the number of employees within the organisation ranging from small (1 to 50 employees), to medium (51 to 200 employees) and large (more than 200 employees).

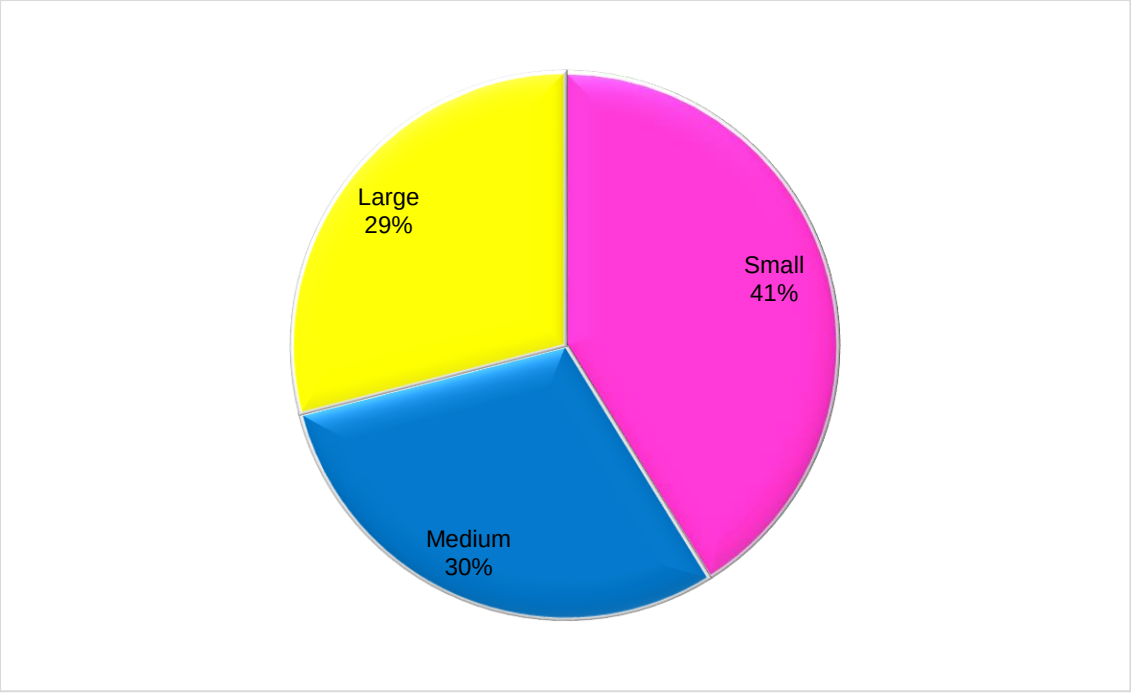


Figure 5.6: Size of the organisation

As indicated in Figure 5.6, 41% of the respondents were employed by small (1 to 50 employees) organisations, 30% were employed by medium (51 to 200 employees)

organisations and 29% were employed by large (more than 200 employees) organisations.

5.2.7 Years of experience involved in the supplier selection process

The respondents were asked to provide their years of experience, as this could influence the respondents' participation in making decisions with regard to supplier selection criteria. The years of experience were grouped as a year or less, 2-5 years, 6-10 years, 11-15 years and 16 years and more.

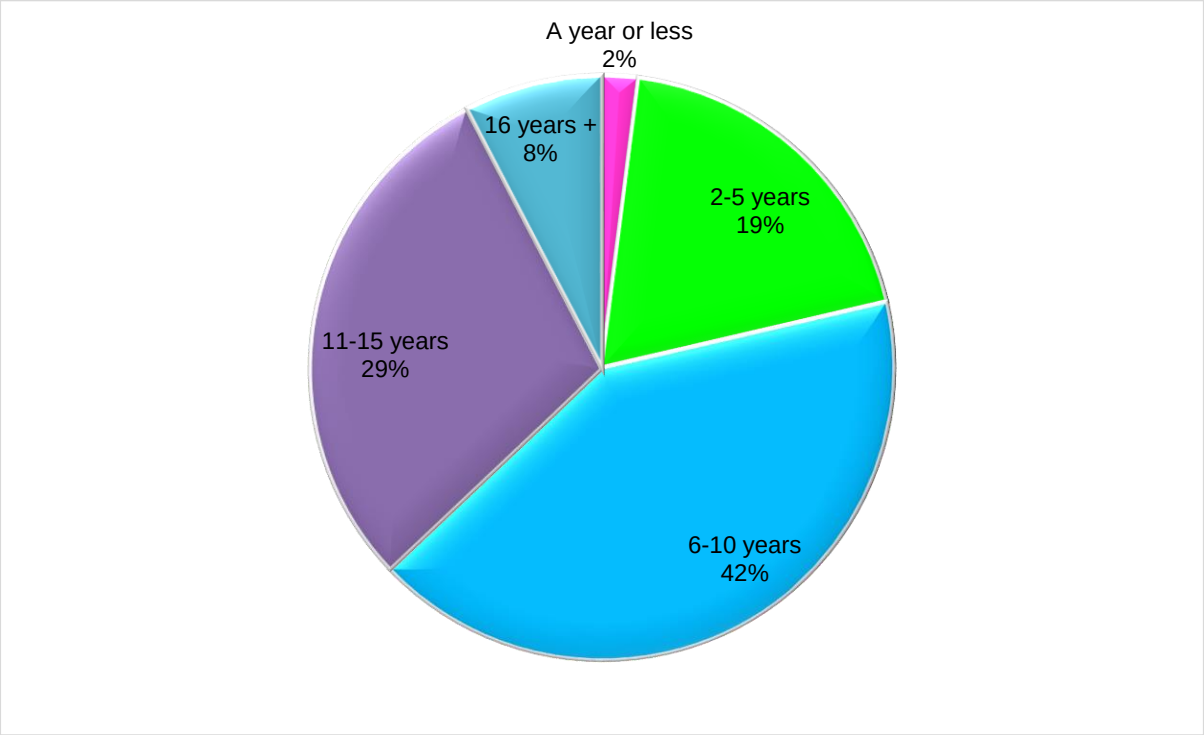


Figure 5.7: Years of experience involved in the supplier selection process

Figure 5.7 indicates the respondents' years of experience in the supplier selection process. It reveals that most (42%) of the respondents have 6-10 years of experience in the supplier selection process, while 29% of the respondents had 11-15 years of experience, 19% had 2-5 years, 2% had a year or less and 8% had 16 or more years of experience. As mentioned previously, the years of experience in the purchasing department could have an influence on the buyer and supplier relationship and the ways in which suppliers are selected (Lambert & Enz, 2017:1; Chen, 2011:1655). The more experience one has in supplier selection the more prepared one is for certain situations.

5.2.8 Type of retail activity

The type of retail activity in which the respondents were involved is depicted in Figure 5.8 below, namely general dealer, food, beverages and tobacco, pharmaceuticals & medical goods, cosmetics & toiletries, clothing, footwear & leather goods, textiles, household furniture, appliances & equipment, hardware, paint & glass, sport and other.

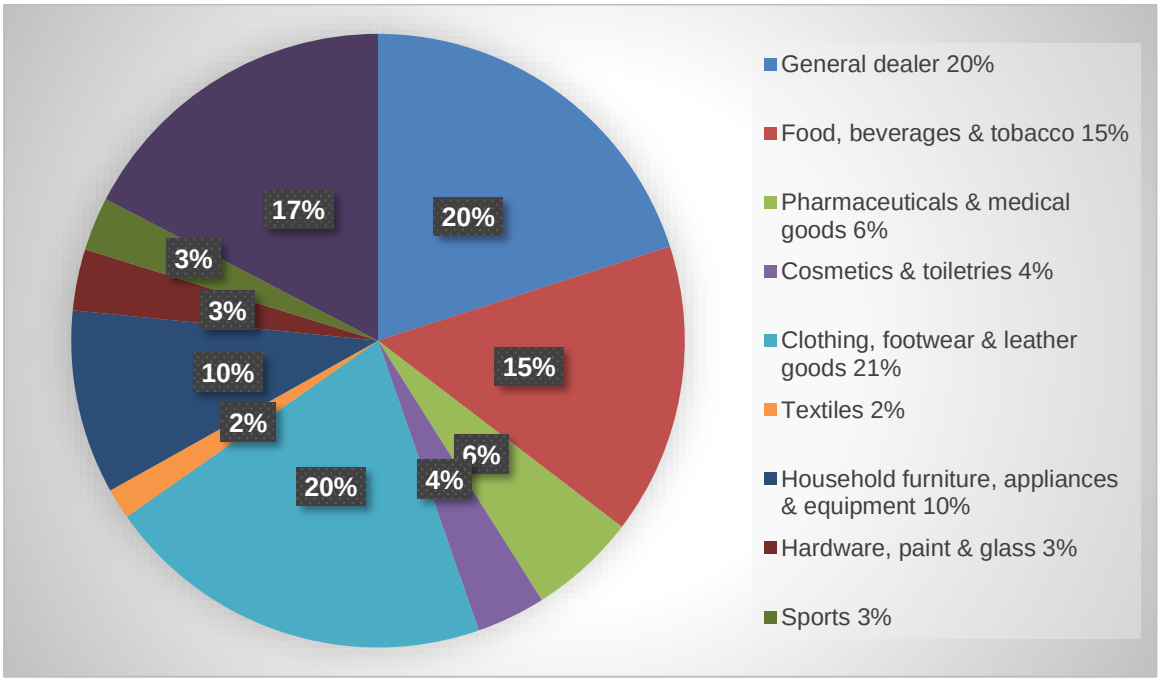


Figure 5.8: Different types of retail activity

Figure 5.8 illustrates the various types of retailer in this industry. The retail activity with the highest percentage was clothing, footwear and leather goods with 21% and the lowest was textiles with 2%. The findings reveal that the majority (21%) of the sample businesses were in the clothing, footwear and leather industry.

The various types of retailers in this industry were previously presented under descriptive analysis. The following section discusses the inferential statistical analysis and covers the EFA results, measurement accuracy assessment and regression analysis. The research data was analysed using EFA, which is discussed next.

5.3 THE EXPLORATORY FACTOR ANALYSIS (EFA) RESULTS

According to DiFabio, Slater, Norte, Goetschius, Hart and Herterl (2019:146), the EFA is a powerful method used to summarise and arrange data by regrouping variables

based on shared variance, which results in smaller tests. The EFA was used in this study to reduce the 13 questionnaire measurement items used to group the research variables. EFA and regression analysis was performed using SPSS version 26 to analyse the data in this study.

Descriptive statistics were used to statistically summarise the collection of information from the respondents in this study and inferential statistics were used to understand the relationships between the variables, whereas EFA was used to reduce possible correlated variables into a set of data values.

Sections B to F consisted of multi-term measures that were anchored in a 5-point Likert ordinal scale. To determine Section B supplier selection criteria, the respondents were given a scale to indicate whether a criterion was not important at all, slightly important, moderately important, very important, or extremely important. Sections C to F (challenges, benefits, retailer's performance and strategies to improve retail performance) scale ranged from strongly disagree to disagree, neutral, agree and strongly agree. However, three questions were removed from the data collection, as 'F6- Developing suppliers is a strategy to improve retail performance', 'F7- Constantly monitoring supplier performance is another way to improve retail performance' and 'F8- Effectively using the same criteria to evaluate and select suppliers improves retail performance' were left out of the online survey monkey.

The Kaiser-Meyer-Olkin (KMO**)** measure of sampling adequacy is a statistic that indicates the proportion of variance in the variables that might be caused by underlying factors (Gabriel, Hoch & Cramer, 2019:545). For this study, KMO was performed in SPSS version 26. High values (close to 1.0) generally indicate that a factor analysis may be useful with the data (Gabriel *et al*., 5019:545). A value greater than 0.5 indicates acceptable sampling (Kiriinya, Ngugi, Mwangangi & Odhiambo, 2018:46). The KMO values were 0.938 for Sections B to F. The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) is a statistic that indicates whether or not there are sufficient items for each factor. The value should be higher than 0.7. Bartlett's test is used to check that the original variables are sufficiently correlated. This test should come out significant ($p < 0.05$), if not, factor analysis will not be appropriate. Results indicated that the Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.9385 and

Bartlett's test of sphericity p-value = 0.000 (χ^2 = 8520.37, df = 630) and was statistically significant. This implied that EFA could be done.

Table 5.3: Eigenvalues- Supplier selection criteria

Factor	Eigenvalue	% Total Variance	% Cumulative
1	4.186	59.8	59.8
2	0.945	13.5	73.3
3	0.578	8.3	81.6
4	0.474	6.8	88.3
5	0.348	5.0	93.3
6	0.281	4.0	97.3
7	0.188	2.7	100.0

Table 5.3 above presents the eigenvalues calculated by the SPSS version 26. With the first factor the eigenvalue was greater than 1 and the rest were lower than 1. The first factor with an eigenvalue of 4.186 represents 59.8% of the total variable of the importance of the criteria data set. The second and third factors with eigenvalues of 0.945 and 0.578 respectively represent 13.5% and 8.3% respectively of the total variable of the importance of the criteria data set.

The eigenvalue represents the total amount of variance that can be explained by a given principal component. Beginning with the first component, each subsequent component is obtained from partialling out the previous component. Therefore, the first component that explains the most variance is 59.8% of the total variance, and the last component that explains the least is 2.7%. As we extracted the same number of components as the number of items, the initial eigenvalues are the same as the extraction sums of squared loadings.

The goal of running EFA was to reduce the set of variables by selecting the optimal number of components, which is usually smaller than the total number of items. A criterion for choosing the number of components is to take those that have eigenvalues greater than 1. Table 5.3 above indicates that only the first component had an

eigenvalue greater than 1. This can be confirmed by the scree plot below (Figure 5.9), which plotted the eigenvalue (total variance explained) by the component number.

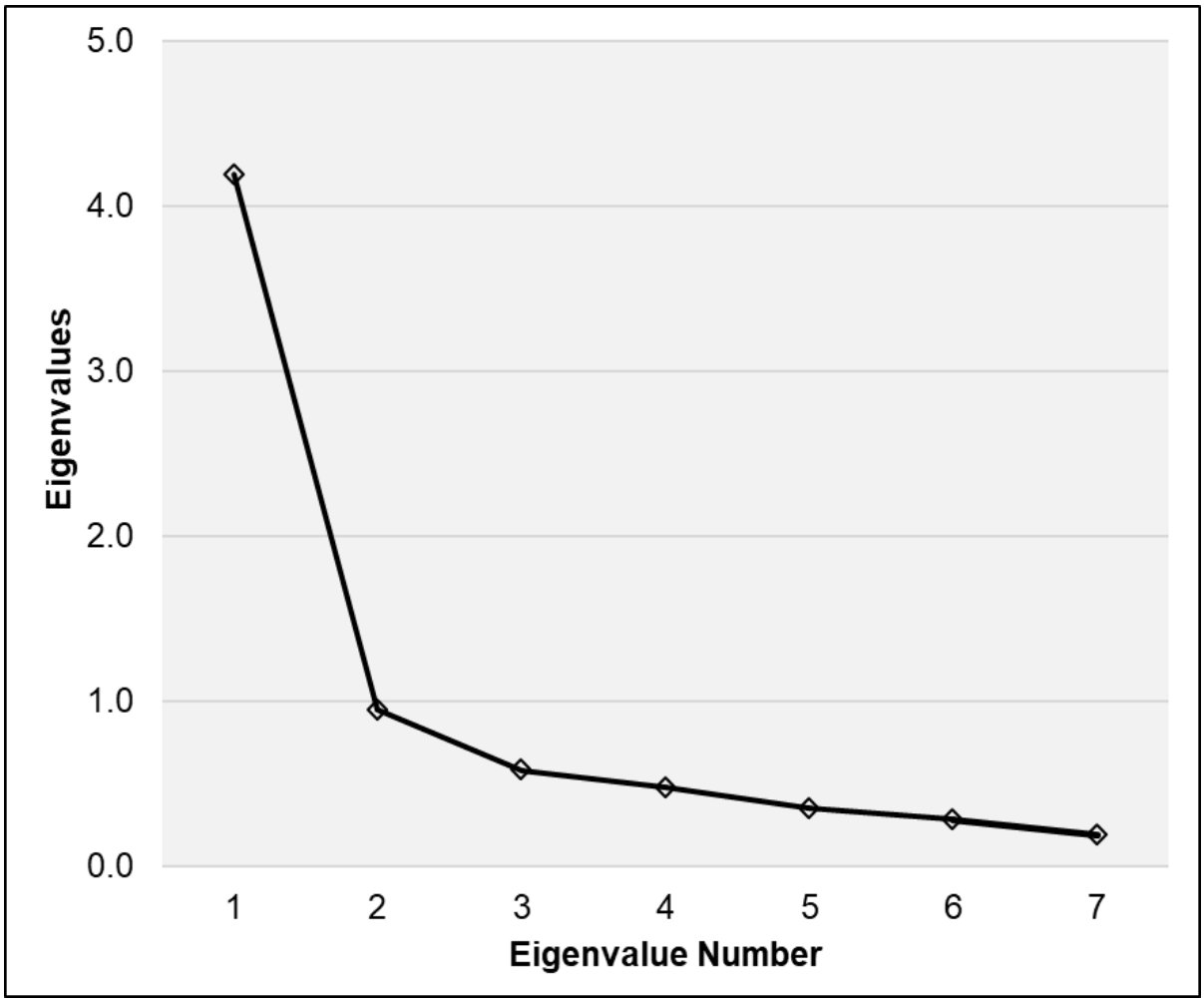


Figure 5.9: Scree plot - Supplier selection criteria (n = 248)

It can be observed from the scree plot above that at Component 2, there is an “elbow” joint. This is the marking point where it is perhaps not beneficial to continue further component extraction. There are a number of conflicting definitions of the interpretation of the scree plot but some suggest to take the number of components to the left of the “elbow”. Following this criterion, one would pick only one component. Others suggest that the total variance explained by all components should be between 70% and 80% variance, which in this case would mean two or three components.

Table 5.4: EFA loadings (1 Factor Model) - Supplier selection criteria

Item	Factor 1
The supplier's ability to adapt to meet retailers' changing demands.	0.868
The suppliers deliver on time.	0.850
Reliable suppliers who are able to meet a retailer's specifications.	0.849
Products are of the quality standards required by the retailer.	0.800
The supplier's willingness to negotiate for low prices.	0.764
The fulfilment of a supplier's environmental responsibilities.	0.690
The financial status of suppliers	0.537

Based on the first criterion, one factor was extracted and the results are presented in the table above. The findings in Table 5.4, reveal that suppliers' flexibility, on-time delivery, reliability, product quality, pricing, environmental responsibility and concern, as well as their financial status are considered the important selection criteria that the retailers in NMB should consider. From the findings, it is clear that a supplier's flexibility criteria (Item 1) is considered the most important, as it has the highest factor loading, followed by on-time delivery (Item 2) and supplier's reliability (Item 3) with factor loadings of 0.850 and 0.849 respectively; environmental responsibilities (Item 6) and financial standing (Item 7) are considered the least important supplier selection criteria among retailers in NMB with factor loadings of 0.690 and 0.537 respectively. Unlike previous studies conducted by Cheraghi, Dadashzadeh and Subramanian (2004), Chen (2011), Kar and Pani (2014), Rezaei *et al.* (2016) and Mokadem (2017) that listed quality, delivery and price as the most important criteria for most businesses, the current study lists product quality (Item 4) and pricing (Item 5) as moderately important supplier selection criteria in the NMB retail sector.

Table 5.5: EFA eigenvalues - Challenges (n = 248)

Factor	Eigenvalue	% Total Variance	% Cumulative
1	4.819	53.5	53.5
2	1.572	17.5	71.0
3	0.717	8.0	79.0
4	0.582	6.5	85.4
5	0.461	5.1	90.6
6	0.298	3.3	93.9
7	0.252	2.8	96.7
8	0.189	2.1	98.8
9	0.111	1.2	100.0

Table 5.5 above indicates that the first component explains the most variance at 53.5% of the total variance and the last component explains the least at 1.2%. The first two factors explain 71.0% of the total variance.

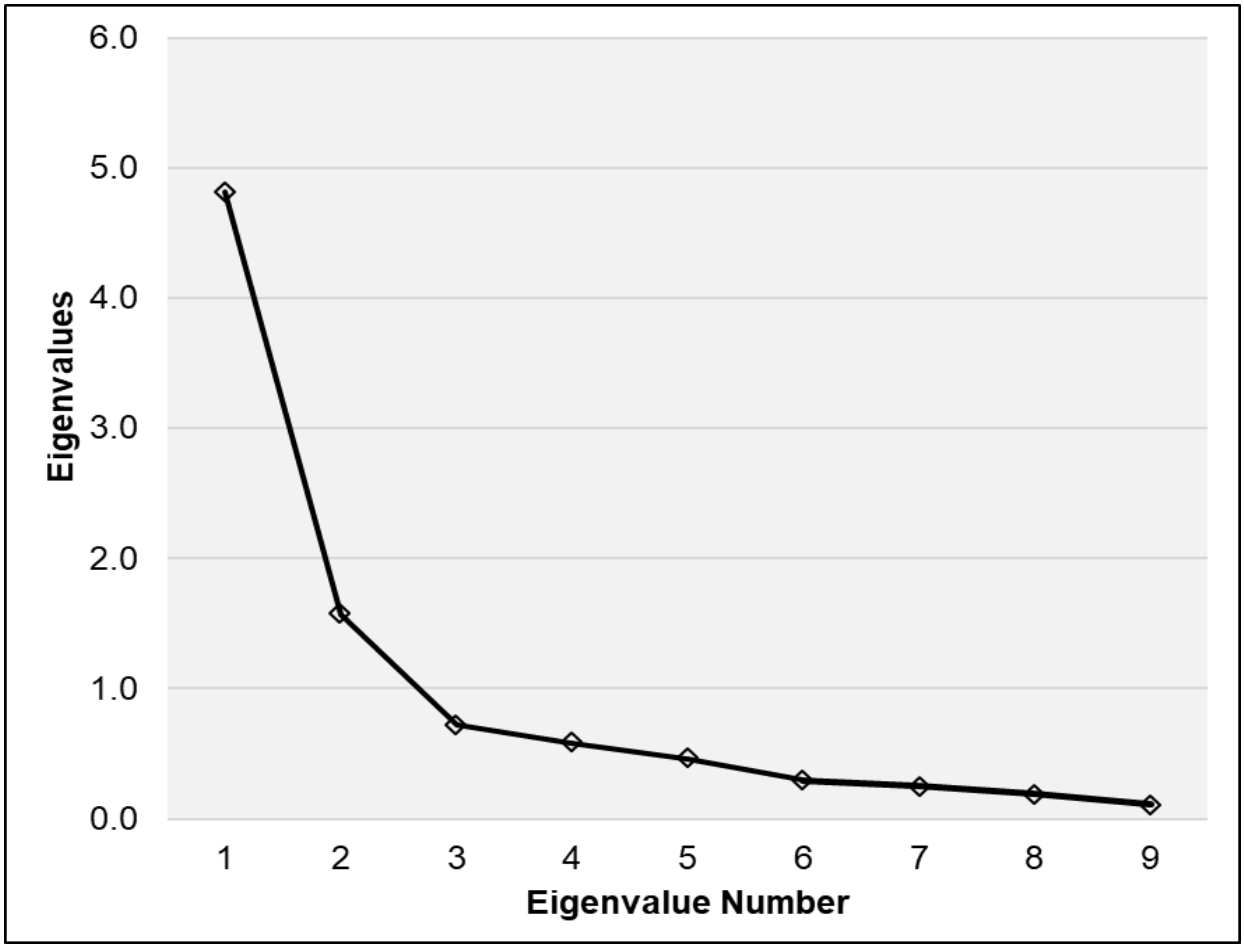


Figure 5.10: Scree Plot - Challenges (n = 248)

Table 5.5, above indicates that the first two components have eigenvalues greater than 1 and the scree plot above (Figure 5.10) indicates an “elbow” joint at Component 3, implying that two factors were extracted.

Table 5.6: EFA Loadings for Challenges (2 Factor Model) (n = 248)

No.	Item	Factor 1	Factor 2
1	There is no collaboration between suppliers and retailers.	0.913	0.105
2	There is lack of transparency between the suppliers and retailers.	0.912	0.205
3	Our suppliers have limited knowledge of our objectives as the retailer.	0.864	0.190
4	Our suppliers do not communicate their financial status.	0.820	0.112
5	The suppliers are associated with operational risks that prevent the retailer from meeting customers' demands.	0.771	0.219
6	The suppliers fail to meet customers' expectations.	0.754	-0.068
7	Poor supplier performance negatively affects the retailer's performance.	0.081	0.836
8	Late deliveries by our suppliers negatively affects our performance as retailers.	0.106	0.832
9	Our suppliers do not use joint cross-functional teams to strategically meet customer demand.	0.393	0.653
	Expl.Var	4.419	1.972
	% of Total	0.491	0.219
	Percentage of Total Variance Explained = 71.0%		

Table 5.6 above indicates the extraction results based on the supplier selection criteria discussed previously. Two factors were extracted, factor one (hereafter referred to as challenge 2a) and factor two (hereafter referred to as challenge 2a). The results in Table 5.6 indicate that items one to six were highly correlated with factor 1 with factor loadings between 0.754 and 0.913 and therefore constituted factor one (the key challenges) and items seven to nine were highly correlated with factor 2 (factor loadings between 0.653 and 0.836) and therefore constituted component two (secondary challenges). From the findings, it can be clearly seen that lack of

collaboration between suppliers and retailers is the most significant challenge (with a factor loading = 0.913), followed by lack of transparency between suppliers and retailers (factor loading = 0.912), supplier's limited knowledge of retailer's objective (factor loading = 0.864), suppliers' not communicating their financial status (factor loading = 0.820), supplier's operational risk (factor loading = 0.771) and suppliers failing to meet customers' expectations (factor loading = 0.754), as the six most significant supplier selection related challenges faced by retailers. The findings also identified three secondary supplier selection related challenges, namely poor performance by supplier, late deliveries and suppliers not using joint functional teams to meet customer demand.

Table 5.7: EFA - Eigenvalues - Benefits (n = 248)

Factor	Eigenvalue	% Total Variance	% Cumulative variance
1	6.429	71.4	71.4
2	0.802	8.9	80.3
3	0.432	4.8	85.1
4	0.388	4.3	89.5
5	0.279	3.1	92.6
6	0.251	2.8	95.3
7	0.185	2.1	97.4
8	0.153	1.7	99.1
9	0.081	0.9	100.0

Table 5.7 above indicates the eigenvalues, percentage total variance and cumulative variance explained by each measuring item for the benefits variable. The first component has an eigenvalue of 6.429, which is greater than 1 and explains 71.4% of the data set variance. The second component with an eigenvalue of 0.802 explains 8.9%, the third, with an eigenvalue of 0.432 explains 4.8% and so on. This is reaffirmed by the scree plot hereunder (see Figure 5.11), which plots the eigenvalues vs. the component number.

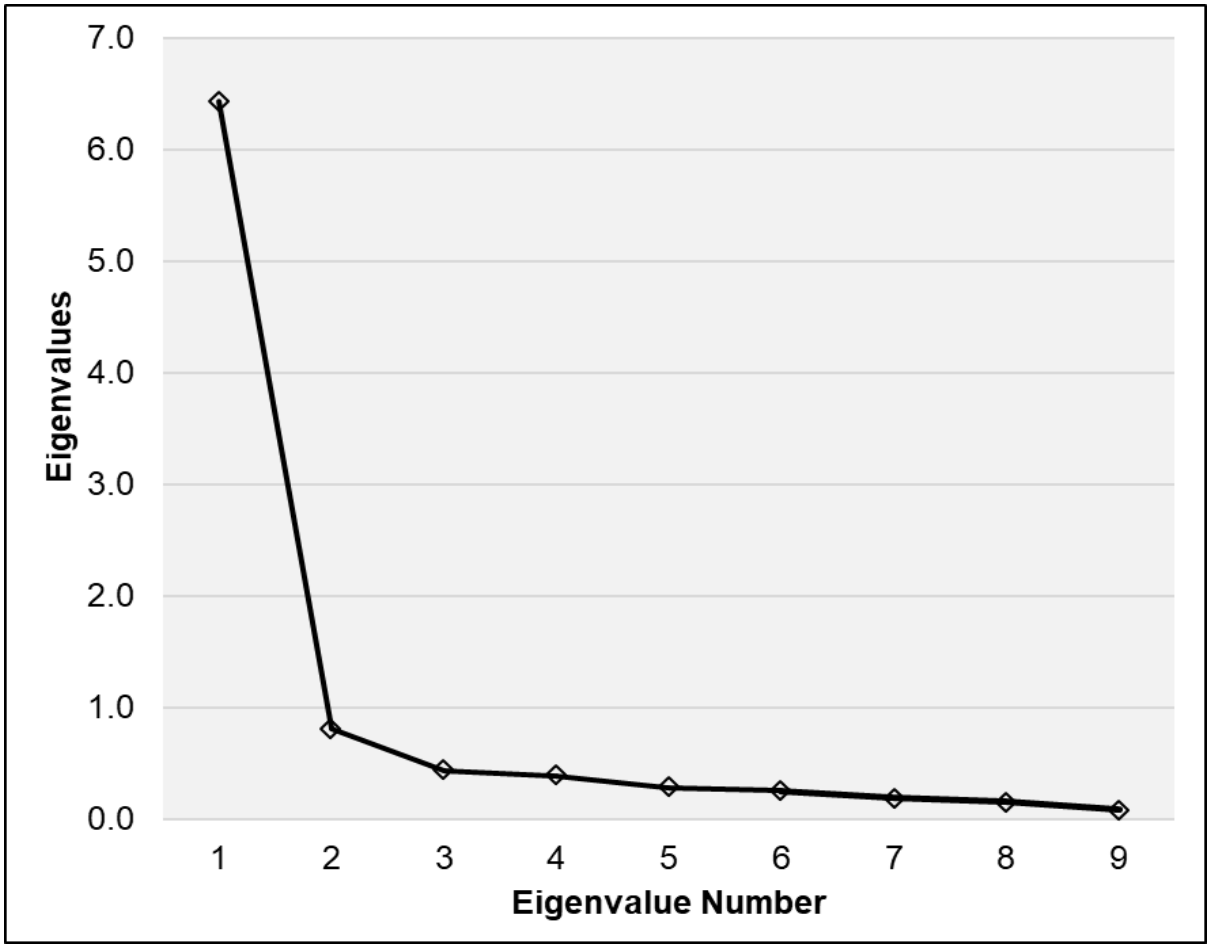


Figure 5.11: Scree Plot - Benefits (n = 248)

Table 5.7 indicates that only the first component has an eigenvalue greater than 1 and the scree plot above (see Figure 5.11) indicates an “elbow” joint at Component 2, implying that one factor may be extracted.

Table 5.8: EFA Loadings (1 Factor Model) - Benefits (n = 248)

No.	Item	Factor 1
1	High product quality assists the retailer to sustain its competitive advantage.	**0.909**
2	The retailer can be competitive if the supply chain strives to be efficient and effective.	**0.894**
3	Rapid delivery assists the retailer to sustain its competitive advantage.	**0.888**
4	Technological innovations provide retailers with the capacity to keep up with customer demand.	**0.869**
5	Excellent service assists the retailer to sustain its competitive advantage.	**0.867**
6	The alignment of supply chain network goals with the goals of the retailer has a positive effect on the competitiveness of the retailer.	**0.800**
7	Flexible suppliers can add value to the retailer.	**0.797**
8	Supplier selection criteria decision is a strategy to improve retailer performance.	**0.790**
9	The use of supplier selection criteria contributes to an increase in the retailer's revenue.	**0.780**
	Percentage of Total Variance Explained = 71.4%	

Table 5.8 indicates factor loadings after one factor was extracted. Results indicates that Item 1 had the highest correlation of 0.909 with Component 1 and Item 9 the lowest at 0.780.

Table 5.9: Eigenvalues- Retailer's performance

Factor	Eigenvalue	% Total Variance	% Cumulative
1	3.575	59.6	59.6
2	0.899	15.0	74.6
3	0.485	8.1	82.7
4	0.455	7.6	90.2
5	0.393	6.6	96.8
6	0.193	3.2	100.0

Table 5.9 indicates eigenvalues, percentage total variance and cumulative variance explained by each measuring item for the retailer's performance variable. Results indicate that the first component had an eigenvalue of 3.575 and explained 59.6% of the data set variance. The second component had an eigenvalue of 0.899 and explained 15.0%, the third component, with an eigenvalue of 0.485 explained 8.1% and so on. This was reaffirmed by the scree plot in Figure 5.12, which plotted the eigenvalues vs. the component number.

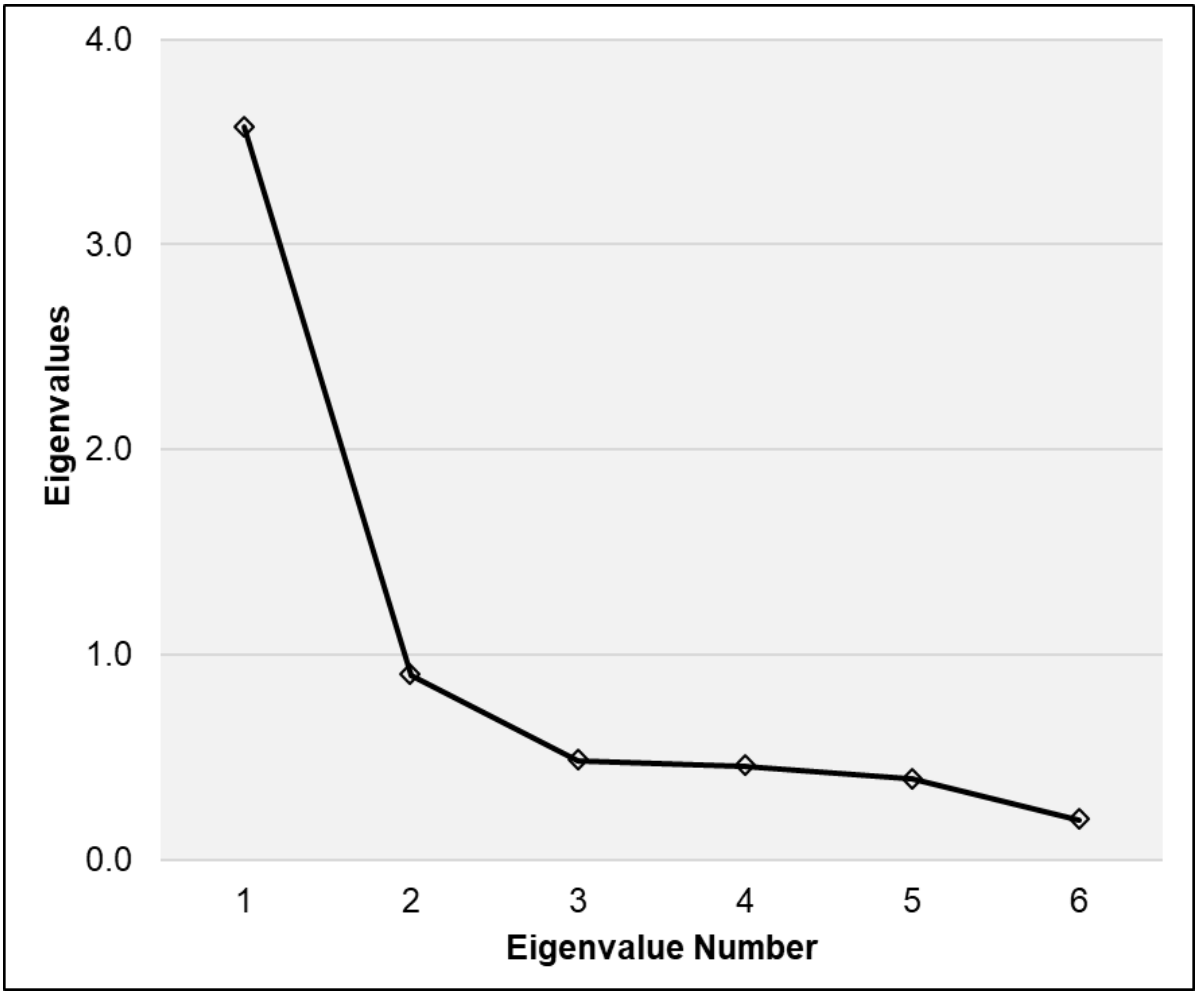


Figure 5.12: Scree Plot – Retailer's performance (n = 248)

Table 5.9 above indicates the results for six extracted components and shows that only the first component had an eigenvalue greater than 1, implying that one factor may be extracted. This scree plot in Figure 5.12 for the eigenvalue vs. the component number indicates an "elbow" joint at Component 2, reaffirming that one factor could be extracted.

Table 5.10: EFA Loadings (1 Factor Model) – Retailer's performance (n = 248)

No.	Item	Factor 1
1	Low prices of suppliers have an effect on the retailer's profit growth.	**0.828**
2	Inferior quality products from suppliers have an effect on the retailer's performance.	**0.822**
3	The use of criteria in supplier selection help to improve the performance of the retailer.	**0.817**
4	Suppliers' ability to respond to changes in product volume and variety has an effect on the retailer's revenue.	**0.812**
5	Supplier product complying with the retail environmental requirements assists in improving the retailer's market share.	**0.772**
6	The suppliers are resilient in avoiding disruption in order to meet the retailer's needs.	**0.540**
	Percentage of Total Variance Explained = 59.6%	

Table 5.10 above indicates the factor loadings after one factor was extracted. Results indicate that Item 1 has the highest correlation at 0.828 with Component 1 and Item 6 the lowest at 0.540.

Table 5.11: EFA Eigenvalues - Improvement Strategies (n = 248)

Factor	Eigenvalue	% Total Variance	% Cumulative Variance
1	3.929	78.6	78.6
2	0.437	8.7	87.3
3	0.244	4.9	92.2
4	0.218	4.4	96.6
5	0.172	3.4	100.0

Table 5.11 above indicates eigenvalues, percentage total variance and cumulative variance explained by each measuring item for the *strategies to improve retailer performance* variable. Results indicate that the first component had an eigenvalue of 3.929 and explained 78.6% of the data set variance. The second component had an

eigenvalue of 0.437 and explained 8.7%, the third component, with an eigenvalue of 0.244, explained 4.9% and so on. This table also indicates that only the first component had an eigenvalue greater than 1, implying that one factor could be extracted.

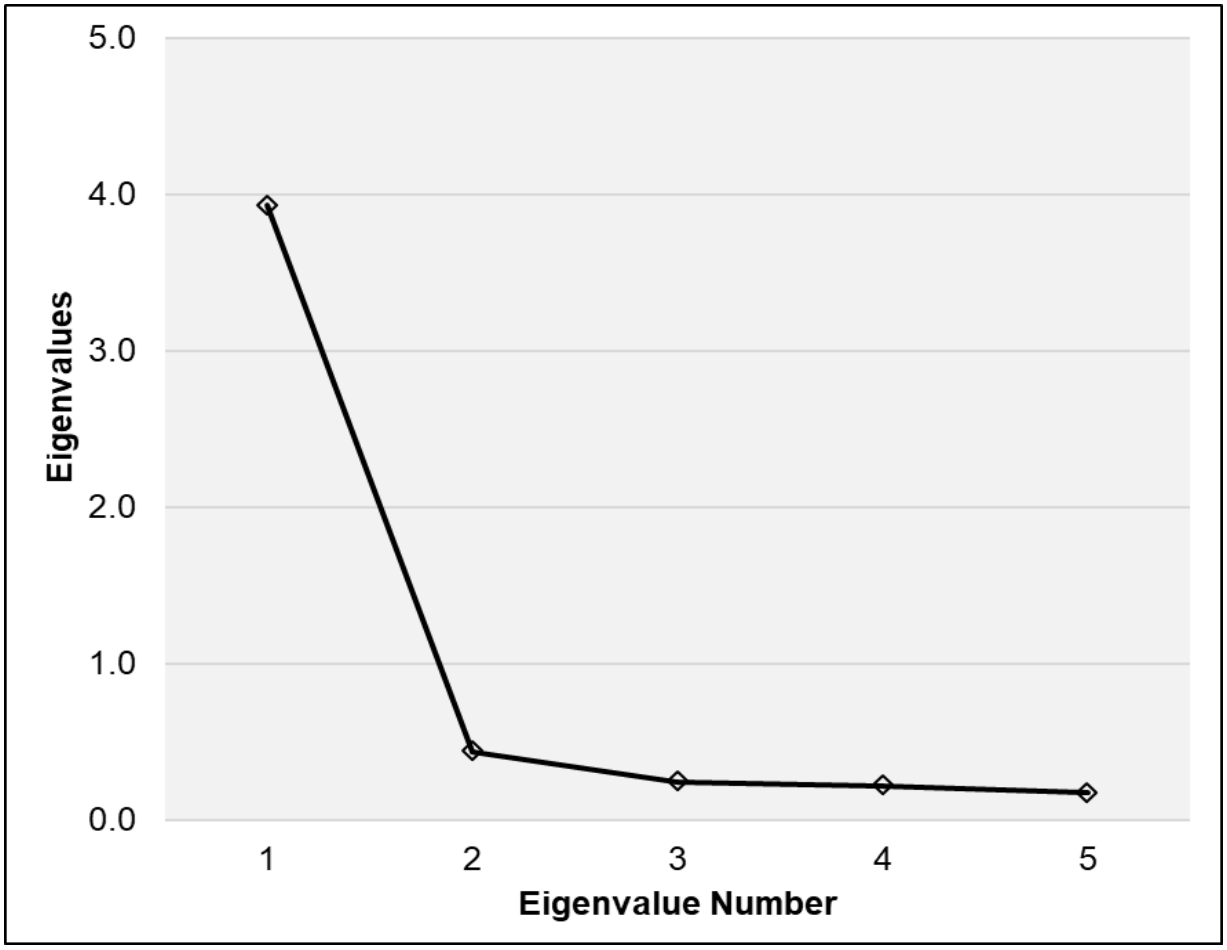


Figure 5.13: Scree Plot - Improvement Strategies (n = 248)

The scree plot above in Figure 5.13 for the eigenvalue vs. the component number indicates an “elbow” joint at Component 2, which meant that one factor could be extracted.

Table 5.12: EFA Loadings (1 Factor Model) - Improvement Strategies (n = 248)

No.	Item	Factor 1
1	Strategic alliances positively affect the buyer-supplier relationship.	**0.906**
2	Long-term partnership between suppliers and retailers allows both parties to gain a competitive advantage in the market.	**0.894**
3	Supplier relationship management can be used as a strategy to improve the retailer's performance.	**0.890**
4	Information sharing between the buyers and the suppliers is being practiced.	**0.889**
5	There is collaboration between the retailer and suppliers.	**0.852**
	Percentage of Total Variance Explained = 78.6%	

The table above shows factor loadings after extracting one factor was extracted and results are presented in the table above. Results show that Item 1 has the highest correlation of 0.906 with Component 1 and Item 5 the lowest is 0.852.

5.4 MEASUREMENT ACCURACY ASSESSMENT

In order to measure the accuracy of the measuring instrument, reliability and validity tests were included. The reliability of the questionnaire was measured with Cronbach's coefficient alpha and the validity was measured with the coefficient correlation hypothesis test. The next section presents a discussion of the reliability and validity tests performed in this study.

5.4.1 Reliability tests

The reliability was measured to ensure the consistency of items in the measuring instrument. This study used Cronbach's coefficient alpha to measure the reliability.

5.4.1.1 Cronbach's coefficient alpha

Cronbach's alpha is used to measure the tests and scales to ensure they are reliable (Taber, 2018:1283). Cronbach's coefficient alpha reflects the correlation between items through the analysis of responses (Gottems, Carvalho, Guilhem & Pires, 2018). Most common internal consistency techniques to establish the mean reliability

coefficient is to find the average of the items. Due to the questionnaire employing questions that could be answered with a Likert-type scale, an opportunity was presented to measure the reliability by means of Cronbach's alpha.

Cronbach's alpha is a measure of internal consistency and perhaps the most often used and reported. "Cronbach's alpha can be interpreted as the percentage of variance the observed scale would explain in the hypothetical true scale composed of all possible items in the universe. Alternatively, it can be interpreted as the correlation of the observed scale with all possible other scales measuring the same thing and using the same number of items" (Garson, 2016:43).

Cronbach's alpha ranges from 0.00 (no reliability) to 1.00 (perfect reliability), although it is possible to obtain negative values for alpha (Taber, 2018:1278), although several scholars (Esmaeilpoorarabi, Yigitcanlar, Kamaruzzaman & Guaralda, 2020:5; Che-Hung & Ko, 2020:20) argue that guidelines for interpreting alpha can be misleading and harmful to research practice. Numerous researchers follow the accepted standard of alpha value of 0.70 and above for research, and 0.90 and above for professionally developed scales and tests (Hertenstein. Feige, Gmeiner, Kienzler, Spiegelhalder, Johann, Jansson-Frojmark, Palagini, Rucker, Riemann & Baglioni, 2019:98; van der Merwe, Saayman & Botha, 2019:45; Ahmed, 2020:385). Cronbach's alpha is also reported if a given item is deleted from the scale.

Table 5.13: Reliability test

Reliability	Interpretation
0.90 and above	Excellent reliability; at the level of the best standardized tests
0.80 – 0.90	Very good for a classroom test
0.70 – 0.80	Good for a classroom test; in the range of most. There are probably a few items that could be improved.
0.60 – 0.70	Somewhat low. This test needs to be supplemented by other measures (e.g., more tests) to determine grades. There are probably some items that could be improved.
0.50 – 0.60	Suggests the need for revision of the test, unless it is quite short (ten or fewer items). The test definitely needs to be supplemented by other measures (e.g., more tests) for grading.
0.50 or below	Questionable reliability. This test should not contribute heavily to the course grade and it needs revision.

Source: Nunnally (1967:172)

Table 5.14: Table indicating overall Cronbach's alpha and the value of Cronbach's alpha if each of the items is removed from the scale

	Supplier selection criteria	Challenges	Benefits	Retailer's performance	Strategies to improve retail performance
Overall Cronbach's alpha	0.88	0.88	0.95	0.86	0.93
	Cronbach's alpha values if each of the items is removed from the scale				
Item 1	0.86	0.88	0.95	0.82	0.91
Item 2	0.84	0.86	0.94	0.82	0.91
Item 3	0.86	0.89	0.94	0.82	0.91
Item 4	0.85	0.88	0.94	0.83	0.92
Item 5	0.85	0.85	0.95	0.83	0.91
Item 6	0.89	0.85	0.94	0.87	
Item 7	0.87	0.85	0.94		
Item 8		0.86	0.95		
Item 9		0.89	0.95		

Table 5.14 above indicates the results for overall Cronbach's alpha and its value if each of the items is removed from the scale. Results indicate that the overall alpha for the level of importance of the established supplier selection criteria value was 0.90, challenges were 0.88, benefits were 0.95, retailer's performance was 0.86 and the improvement strategies to improve retail performance were 0.95. As the value of alpha was greater than the accepted value of 0.70 and removal of any item would not improve the value of the overall alpha, the items were maintained and used to measure the respective latent variables.

Table 5.15: Component summary statistics

Component	Mean	Std. dev.
Supplier selection criteria	3.93	0.75
Challenges	3.10	0.87
Key challenges (Challenges 2a)	2.94	1.06
Secondary challenges (Challenges 2b)	3.42	0.92
Benefits	4.02	0.79
Retailer's performance	3.84	0.76
Strategies to improve retail performance	3.87	0.83

Table 5.15 presents the summary of the statistics for the various components. For supplier selection criteria, a five-point Likert scale was used to determine the level of importance, and 1 = Not important at all, 2 = Slightly important, 3 = Moderately important, 4 = Very important and 5 = Extremely important. For challenges, benefits, retailer's performance and strategies to improve retail performance the five-point Likert scale used was 1 =Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly agree. A mean that is between 1.00 and 1.79 is very negative, 1.80 to 2.59 is negative, 2.60 to 3.40 is neutral, 3.41 to 4.20 is positive and a mean between 4.21 and 5.00 is very positive (see Annexure C). The average findings indicated that supplier selection criteria, supplier selection benefits, retailer's performance and strategies to improve retail performance were moderately important. For challenges that retail firms face with suppliers, the respondents indicated an average neutral answer. The next section discusses the validity tests.

5.4.2 Validity tests

Validity is the way in which the measuring instrument measures what the researcher set out to measure (Struwig & Stead, 2013:120). This is described as the degree to which it measured what was supposed to measure. There are five perspectives of validity, namely content validity, criterion validity, construct validity, convergent validity and discriminant validity. This study measured convergent validity using the average factor loadings and discriminant validity by comparing the average variance extracted

values (presented in Table 5.16) against the squared correlation coefficient values (see Table 5.17).

5.4.2.1 Convergent validity

Table 5.16: Convergent Validity

Factor	Average Factor Loadings	Average Variance Extracted (AVE)
Criteria	0.765	0.585
Challenges	0.704	0.496
Benefits	0.844	0.712
Retailer‘s performance	0.765	0.585
Strategies	0.886	0.785

Note: criteria = supplier selection criteria, challenges = challenges retailers face with regard to suppliers, benefits = benefits of using established supplier selection criteria, strategies = strategies to improve the retailer’s performance

Table 5.16 above indicates the average factor loading, (which can be interpreted as the shared correlation of each item with the principal component or research variable), and the square of each loading, which represents the proportion of variance explained (average variance extracted) by a particular component. As indicated in Table 5.16, all the average factor loadings were between 0.704 and 0.886, which is above the recommended value of 0.7 (Jung & Siedlecki, 2018). This indicates that all the research items in this study had a minimum shared correlation of 70% with the principal research variables, thus suggesting the existence of convergent validity.

5.4.2.2 Discriminant validity

Discriminant validity refers to confirming that the concepts that are supposed not to be related are indeed not related and do not correlate strongly, therefore confirming the uniqueness of the results (Bryman & Bell, 2011:39; Frank & Sarstedt, 2018:3). As noted earlier, discriminant validity in this study was measured by comparing the average variance extracted (AVE) values (Jung & Siedlecki, 2018), presented in Table 5.16, against the squared correlation coefficients values provided in Table 5.17, below.

Table 5.17: Squared correlation coefficients matrix

Factors	Criteria	Challenges	Benefits	Retailer's performance	Improvement Strategies
Criteria	1.000				
Challenges	0.123	1.000			
Benefits	0.460	0.080	1.000		
Retailer's performance	0.377	0.114	0.697	1.000	
Strategies	0.437	0.107	0.661	0.591	1.000

Note: criteria = supplier selection criteria, challenges = challenges retailers face with regard to suppliers, benefits = benefits of using established supplier selection criteria, strategies= strategies to improve the retailer's performance.

Table 5.17 presents the squared correlations coefficient matrix findings between the supplier selection criteria, benefits, challenges, retailer's performance and the strategies to improve retail performance. As seen in Table 5.16, the AVE values of 0.585; 0.496; 0.712; 0.585 and 0.785 are all above the squared correlation coefficient values presented in Table 5.17. This confirms the existence of heterogeneity and uniqueness between this study's research variables (Jung & Siedlecki, 2018:143). This implies the existence of discriminant validity.

5.4.3 Hypotheses tests

The hypothesis of this study was tested to validate that there is a relationship between supplier selection criteria and retailer performance. These criteria relate to quality, flexibility, pricing, on-time delivery, service, financial status and environmental consciousness. The hypothesis was formulated to determine the influence of these criteria on the retailer's performance. The hypothesis of this study stated that utilising established supplier selection criteria has a positive effect on the retailer's performance.

H_0: Having established supplier selection criteria has no significant effect on the retailers' performance

H_1: Having established supplier selection criteria has a significantly positive effect on the retailers' performance

The supplier selection criteria were the independent variables and the retailer's performance was the dependent variable. As noted earlier, a regression analysis was performed to test this study's research hypothesis.

5.5 REGRESSION ANALYSIS

A linear regression was performed to determine if having established supplier selection criteria has a significant effect on the retailer's performance. Regression analysis is a method that expresses the relationship between dependent and independent variables (Foley, 2018). The two variables in this study were supplier selection criteria (independent variable) and retailer's performance (dependent variable). The relationship between these variables was measured by means of correlation coefficient (R). A value that is closer to one represents a strong and positive relationship and a correlation coefficient that is equal to zero means that there is no relationship between the variables (Napitupulu, Rahim, Abdullah, Setiawan, Abdillah, Ahmar, Simarmata, Hidayat, Nurdiyanto & Pranolo, 2018:5).

Table 5.18: Regression Analysis Results

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.614	0.377	0.374	0.59937

Table 5.18 indicates the coefficient of determination, R^2, which measures the proportion of variation in the observed values of the dependent variable explained by a set of independent variables in the regression (Shoufan, 2019:452). The findings presented in Table 5.18 indicate that $R^2 = 0.377$, which indicates that the independent variable (supplier selection criteria) accounts for 37.7% of the variation in the dependent variable (retailer's performance).

Table 5.19: Regression ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	53.407	1	53.407	148.665	0.000
Residual	88.374	246	0.359		
Total	**141.781**	**247**			

Table 5.19 depicts the regression analysis considering the sum of square, F-test value and significance level. The computed F-test value of 148.665 was greater than the critical value of 12.3, and was significant at p = 0.000, which is less than 0.05. Therefore, the study rejects the null hypothesis that coefficients are zero and concludes that the independent variable (supplier selection criteria) was significantly associated with the dependent variable (retailer's performance).

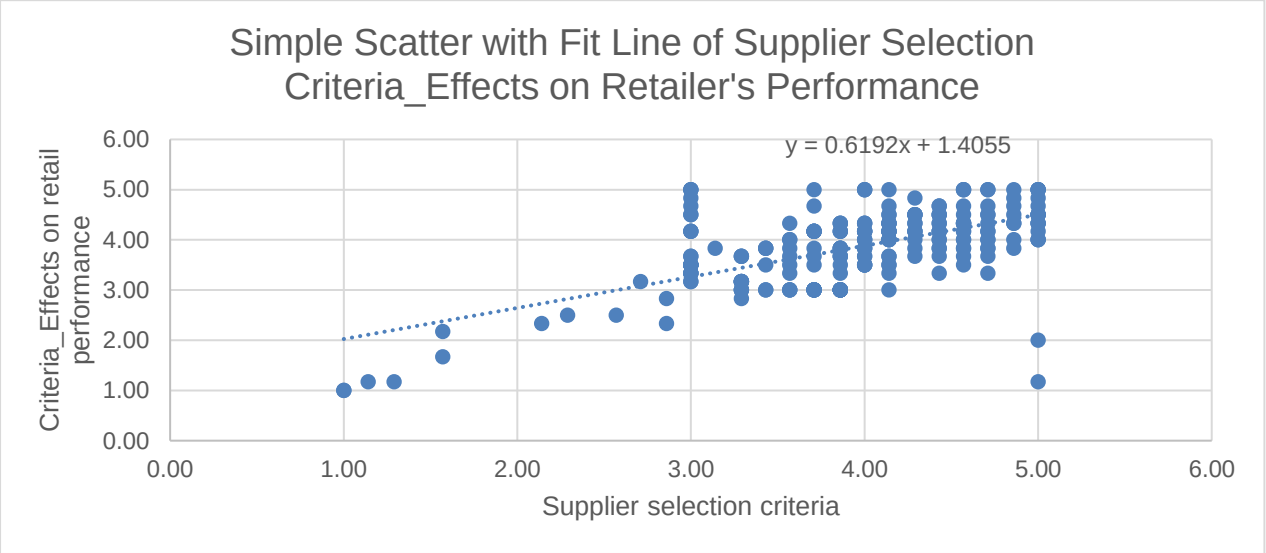


Figure 5.14: Regression Analysis

Figure 5.14 indicates the linear regression line fitted together with the scatter plot for the original data. Y = retailer's performance and X = supplier selection criteria, with the regression line estimated as Y = 1.405 + 0.619x. The linear regression revealed a significant relationship between supplier selection criteria and retailer's performance, as discussed hereunder.

Table 5.20: Regression Results

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	1.405	0.203		6.916	0.000
Supplier Selection Criteria	0.619	0.051	0.614	12.193	0.000
a. Dependent Variable: retailer's performance					

In Table 5.20, the beta coefficient of 0.619 and the p-value of 0.000 indicates that having established supplier selection criteria has a significantly positive effect on the retailer's performance. The findings are consistent with the RBV theory, which holds that suppliers' resources may be viewed as an extension of the retailer in order to gain a competitive advantage (rents) (Barney & Mackey, 2018:359). In other words, having established supplier selection criteria in place can serve as the retail firm's core competence that can assist them to select competent suppliers, which in turn can assist to improve the retailer's performance.

5.6 CHAPTER SUMMARY

This chapter discussed the descriptive analysis of the data that was gathered and presented the exploratory factor analysis results. The measurement accuracy assessment covered the reliability and validity tests, which were used to support and validate the study's results. The relatively high Cronbach's alpha, greater than the recommended threshold value, confirmed the internal consistency of the measurement items used in this study's questionnaire. The study also established the existence of both convergent and divergent validity. The empirical findings of this study identified suppliers' flexibility as the most important criterion, followed by on-time delivery and supplier's reliability. Environmental responsibilities and financial status of suppliers were listed as the least important criteria when selecting suppliers in the NMB retail industry. The regression analysis was used to test the research hypothesis. The study confirmed that having established supplier selection criteria has a fairly strong positive and a highly significant effect on the retailer's performance. The next

chapter (Chapter 6) presents the conclusions that were drawn and the recommendations that were made.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 INTRODUCTION

Chapter 5 presented the empirical findings of the study. This chapter summaries the theoretical and practical implications of the key findings and provides conclusions and recommendations for each chapter. It also provides guidelines of how the study's objectives were achieved and outlines the managerial implications and limitations for retail directors, procurement and logistics managers, researchers and policy makers, while suggesting potential areas for future research.

6.2 SUMMARY OF THE KEY FINDINGS

Over the years supplier selection criteria have been identified, mostly for manufacturing firms. This study sought to determine supplier selection criteria for the retail industry. The purpose of this study was to determine the current criteria employed for supplier selection in the NMB retail industry, the benefits of selecting suppliers who meet the specific criteria, the challenges that retailers face when selecting suppliers and to identify strategies that retailers should implement to improve their performance. This study's findings will contribute to the retail industry literature and can be used for future research. It can be assumed that this study will assist retail procurement and policy makers in understanding the benefits of selecting suppliers with the use of specific criteria. The recommendations are expected to inform the retail industry of ways to improve performance.

The framework of the study constituted two research variables, namely supplier selection criteria and retail performance. For instance, the RBV theory was used to theoretically explain the relationship between supplier selection and its influence on the retailer's performance. From the RBV literature, the VRIO framework assesses if the resources meet the retailer's requirements and the dynamic capabilities focus on using resources efficiently and effectively in order to achieve and sustain a competitive advantage in changing environments.

- The purpose of this study was to determine specific criteria to consider when selecting suppliers in the NMB retail industry. This was achieved by means of the secondary objectives discussed hereunder.

- In this study, the current supplier selection criteria used in the retail industry were identified. Chapter 3 identified quality and price as the most important criteria, while resilience was listed as the least common criteria. Chapter 5 of the current study identified supplier's flexibility, on time delivery and reliability as the most important criteria, while environmental responsibility and a supplier's financial standing were reported as the least important supplier selection criteria for retailers in NMB. The first secondary objective of this study was therefore achieved.

- The study identified the challenges that retailers face when selecting suppliers. Chapters 2 and 3 discussed the challenges that retailers are faced with when selecting suppliers. The empirical findings in Chapter 5 identified lack of collaboration between suppliers and retailers, lack of transparency between suppliers and retailers, suppliers' limited knowledge of a retailer's objectives, suppliers not communicating their financial status, suppliers' operational risks and suppliers failing to meet customers' expectations as the six main supplier selection related challenges faced by retailers in NMB. Retailers should constantly strive to improve their performance. The second secondary research objective was therefore achieved.

- The study aimed to assess the effects that supplier selection criteria have on the retailer's performance. Theoretically, supplier selection criteria influence the retailer's performance as discussed in Chapters 2 and 3. The empirical findings (Chapter 5) reported a fairly strong positive and significant effect of having established supplier selection criteria on the retailer's performance. As such, the third research objective was achieved.

- The research identified strategies that retailers should implement to improve their performance. The influence of supplier selection criteria on retail performance was discussed in Chapters 2 and 3. The empirical findings in

Chapter 5 indicate that retailers should employ strategies to improve their performance. This objective was also achieved.

6.3 CONCLUSIONS

The current study primarily sought to develop a framework to guide retailers in NMB with their supplier selection process. This study sought to identify the criteria used to select suppliers and assess the effects of having established supplier selection criteria on retailers' performance in NMB. The study also sought to identify the challenges faced by retailers when selecting suppliers and suggest strategies to help improve retailers' performance. Based on the quantitative analysis results, this study came to the conclusions discussed hereunder.

- A supplier's flexibility, on-time delivery and reliability are the most important supplier selection criteria identified among NMB retailers. Unlike the previous studies that were reviewed that regarded quality and pricing as the most important supplier selection criteria, the current study concluded that product quality and pricing were of moderate importance to NMB retailers. It would appear that the retailers in NMB are least concerned with the supplier's environmental responsibility and financial status when selecting their suppliers. As such, this study concluded that retailers in the NMB retail industry are guided by a particular range of supplier selection criteria.

- The key challenges in the NMB retail industry are a lack of collaboration and transparency between suppliers and retailers, suppliers' limited knowledge of retailers' objectives, suppliers not communicating their financial status, suppliers' operational risks and suppliers failing to meet customers' expectations. Poor performance by suppliers, late deliveries and suppliers not using joint functional teams to meet customer demand are regarded as the secondary challenges faced by retailers when selecting their suppliers in NMB.

- The study also concluded that NMB retailers can improve their performance by establishing supplier selection criteria that are most important to them to ensure improvement in the retail industry, as well as during the post selection stage.

- The current study proposed a new framework that can guide retailers when selecting their suppliers.

6.4 MANAGERIAL AND POLICY IMPLICATIONS

Highlighting the practical implications of this study to the retailer owners, procurement and logistics managers and policy makers is an important part of the retail research. This study found that the supplier selection criteria could be used to improve a retailer's performance. This study's findings could therefore assist retail owners, procurement and logistics managers to utilise criteria when selecting suppliers in order to better their retail revenue and service.

The use of supplier selection criteria can have a positive influence on the retailer's performance, as mentioned previously in this study. This ensures that the retail buyers use the most important criteria, namely a supplier's flexibility, on-time delivery and reliability when selecting suppliers and utilise the same criteria to enhance their retail performance. This emphasises the importance of having established supplier selection criteria and the importance of the suppliers' continuous improvement. Using a specific set of criteria when selecting suppliers has the benefits of encouraging strategizing for the improvement of the retailer, increasing the competitiveness of the retailer and aligning the supply chain network's goals with the retailer's goals to enhance the retailer's revenue flow.

A retailer that informs the supplier of the criteria identified as the most and moderately important, (that is a supplier's flexibility, on-time delivery, reliability, product quality and pricing) will ensure that the supplier meets the requirements. As mentioned in relevant literature, suppliers are an extension of the retail firm and perform a part in its success. The more the retail industry's economic growth increases, the more the GDP of the country increases, thus addressing the issues of unemployment and poverty in South Africa. The linear relationships between the research variables can assist retail managers and owners with regard to the criteria to prioritise and emphasise during and after the supplier selection process.

6.5 CONTRIBUTION AND IMPLICATIONS

The primary objective of this study was to develop a framework to guide retailers in their selection of suppliers. This study developed a framework that could assist retailers in the NMB with the selection of their supply base to meet a specific range of criteria, as well as to meet the retail firm's expectations. The findings highlighted the benefits of choosing suppliers in line with these criteria, identified the current supplier selection criteria in the retail industry and the challenges that retailers face when selecting suppliers, assessed the effects that established supplier selection criteria have on the retailer's performance and identified strategies that retailers should implement to improve their performance. The findings of this research serve as the anchor of the managerial framework for retail suppliers to improve their performance and enables them to make the necessary adjustments in specific areas of performance. The outcome of the study can be useful to retail firms in terms of their supplier development and supplier performance measurement initiatives.

This study established that retailers' use of supplier selection criteria can improve their performance in changing markets. It confirmed that suppliers can use these (supplier's flexibility, on-time delivery, reliability, product quality and pricing) criteria to benchmark themselves to ensure that they deliver standard products. This study proposed that the retailers utilise the same supplier selection criteria to evaluate their suppliers' performance post selection. It can also be used as a strategy to develop current suppliers to ensure that they continue to deliver high quality products. Strategic sourcing will be easier as the suppliers will be aware of the criteria against which they are being assessed. This study proposed a managerial framework to help guide the NMB retailers during and after their supplier selection process, as indicated in Figure 6.1.

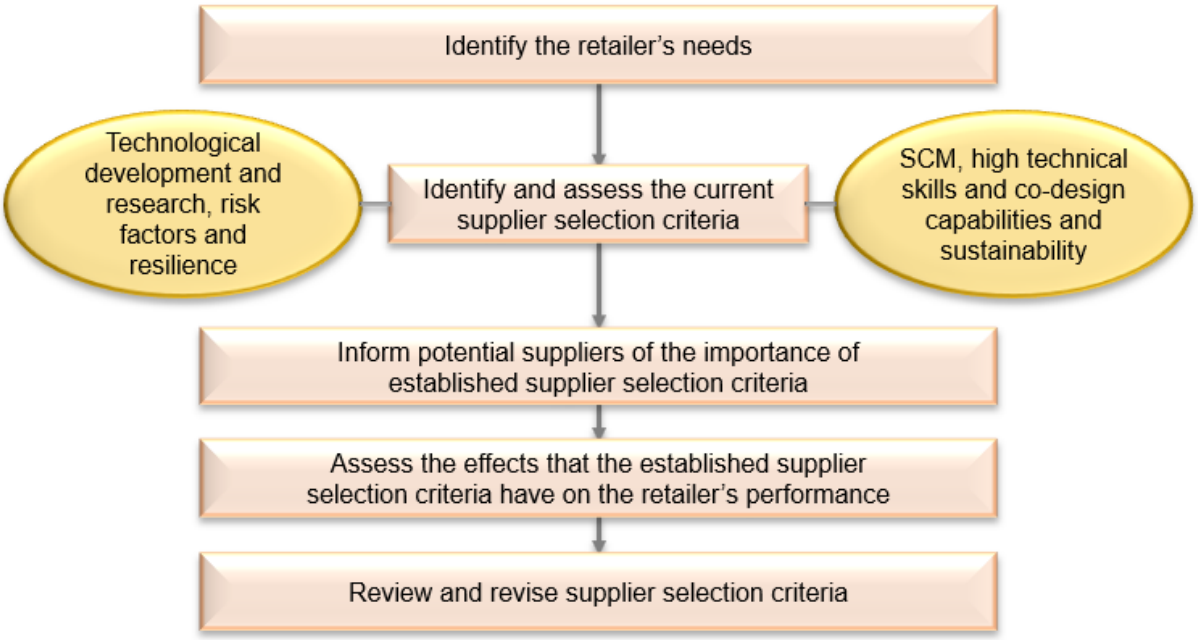


Figure 6.1: Proposed managerial framework for supplier selection in the NMB retail industry

Figure 6.1 presents the proposed managerial framework for supplier selection in the NMB retail industry. This framework is a guide for retail owners and procurement and logistics managers to select their suppliers. This study's findings provided evidence that the retail industry should be guided in their selection of suppliers as criteria have an effect on the retailer's performance. With the regression analysis and hypothesis tests, the empirical findings have proven to have a linear relationship and ensure that this study proposes that this framework is acceptable in research.

The current study identified a framework for supplier selection to guide retail firms to utilise identified criteria for improving their performance. A study conducted by Badenhorst-Weiss *et al*. (2018) provided a framework for the supplier selection process. Their framework focused on identifying possible suppliers, conducted research into suitable suppliers, selecting suppliers and measuring supplier performance. However, their framework did not include identifying the retailer's needs, identifying and assessing the current supplier selection criteria and reviewing supplier performance with the same (key) supplier selection criteria. All these facets affect the retailer's performance. Chiromo *et al*.'s (2015) study focused on selecting the best supplier but there was no link between identifying criteria and evaluation with the same criteria as a strategy to improve the firm's performance.

The current study's supplier selection framework emphasises that retail owners, procurement and logistics managers should use supplier selection as a means to improve the retail firm's performance. A method to employ for successfully improving retail performance through supplier selection would be to implement the following steps discussed hereunder.

Step 1: Identify the retailer's supplier selection needs

The retail buyer should identify the company's needs. For a retailer to select a specific supplier, it should be certain that the supplier has the ability to meet and exceed its expectations. However, there are challenges the buying firm faces when selecting suppliers, such as customer satisfaction, high quality standards, risk management, globalisation, strategic procurement and supplier related issues. The benefit of identifying the retailer's needs will build an understanding of how to solve the challenges retailer's face when selecting suppliers.

Step 2: Establish and assess the current supplier selection criteria in the retail industry

This stage requires establishing the supplier selection criteria that are important to the retail firm. The supplier selection criteria vary based on the type of products or services offered by the retailer. Having quality, flexibility, pricing, on-time delivery, service, financial status and environmental responsibility as established supplier selection criteria that are customised to the retailer's needs can assist the suppliers to meet the high standards expected by the retailer, as suppliers are aware of the requirements. The standards of product quality, flexibility, on-time delivery, reliability and environmental responsibility are perceived as important criteria in the retail industry.

Assessing the current supplier selection criteria in the retail industry should be considered when choosing suppliers. This will provide the opportunity for the retail firms' owners and managers to research current competitors' criteria and use those criteria to benchmark their own performance. Using supplier selection criteria when selecting and evaluating suppliers has the benefits of improving the retailer's performance, sustaining a competitive advantage, meeting customers' demands, increased revenue and value added to the retailer.

The benefits of choosing suppliers that are in line with the criteria provides the opportunity for improved retail performance, increased competitiveness in the market, satisfying customer demand, increased revenue and added value to the retailer. A limitation is that some criteria may weigh higher than others in their importance to the retailer. Another limitation of criteria is that if the needs of consumers change, the criteria employed to select suppliers may change to adapt to the consumers' new demands. However, the retailer can limit these issues by predicting customers' future needs and keeping pace with trends. Supplier selection criteria can be used as a strategy to improve a retailer's performance. With knowledge of supplier selection criteria, both parties are aware of expectations while building strategic alliances, and long-term relationships.

Step 3: Inform potential suppliers of the importance of established supplier selection criteria

In this stage, the retail firm should share established supplier selection criteria with potential suppliers so that they are aware of what is expected of them. This step requires insight from the retailers with regard to what they require from their suppliers. It also requires collaboration between the retailer and the supplier to ensure that their goals are aligned. A supplier that has the same objectives as its customer (retailer) will likely be awarded the contract.

Step 4: Assess the effects that the established supplier selection criteria have on the retailer's performance

Supplier selection criteria can be used as a strategy to improve the retailer's performance. The supplier's awareness of the established selection criteria will allow preparation to meet the retailer's needs. Supplier development and relationship management is imperative for the retailer's success. The findings of this study confirm that established supplier selection criteria have an effect on the retailer's performance and that supplier relationship management, strategic alliances, collaboration, information sharing and building long-term relationships are strategies to improve a retailer's performance.

Step 5: Review and revise supplier selection criteria

As stated in this study, the retail managers need to review and revise the supplier selection criteria to remain competitive in the retail industry. This study also encourages the use of these supplier selection criteria to evaluate the current supplier performance to ensure that all suppliers are monitored and continually deliver high quality products in a timely manner in order to meet the retailer's changing demands without an increase in costs and risks. Retail directors, procurement and logistics managers are thus able to constantly meet their customers' needs and discover ways of improving their retail performance.

6.6 RESEARCH LIMITATIONS

The study addressed the research objectives but a limitation to the study was that the sample focused on the NMB in South Africa. Another limitation was that this study did not measure retailers on the same level in terms of sales (top leading retailers) in South Africa. The study was conducted with these specific criteria in mind, namely quality, flexibility, pricing, on-time delivery, service, financial status and environmental issues.

6.7 FUTURE RESEARCH

Future studies can be undertaken to investigate the long-term influence of supplier selection criteria on retail performance. Strategies that can be used to improve retail performance need to be investigated for the retail industry to be more efficient and effective in gaining a competitive advantage. Future research can expand into other cities and provinces. The type of products or top leading national stores can be compared to one another by searching for the criteria used in a particular national store. There are many more current criteria that can be considered, such as resilience, sustainability and supply chain management, technical skills and co-design capabilities, just-in-time, technological development and research and risk factors. Given the importance of supplier relations, suppliers' perspectives on which are the important criteria to be considered should be taken into account.

6.8 RECOMMENDATIONS

The objective of this study was to develop a framework that reflects specific criteria to consider for the selection of suppliers to improve NMB's retail performance. This section recommends ways in which to improve retail performance. The supplier selection criteria have a significant effect on the retailer's performance.

This study indicated a positive effect of supplier selection criteria on retailer's performance. It should also assist retailers to meet their own customers' demands by ensuring that selected suppliers align their goals with the retailer's goals. Retailers need to share the criteria identified as important with potential suppliers so that they can align themselves with those requirements.

The suppliers can use supplier selection criteria to benchmark their performance to ensure that they focus on the criteria considered as important by the retail firm. The retailer's criteria can be used in supplier development programmes to ensure that suppliers continue to meet retailers' requirements. The government needs to establish strategies and policies that can improve the retailers, as well as the supplier's willingness to meet and exceed the retailers' expectations. This study's empirical findings can guide the government to consider establishing supplier selection criteria and include them in policies and strategies for the retail industry.

6.9 CHAPTER SUMMARY

This chapter determined the supplier selection criteria for the retail industry. It confirmed that supplier selection criteria have a positive effect on retail performance. This is evidence that there is a relationship between supplier selection criteria and retail performance. This chapter showed that the objectives of the study were achieved. It was confirmed that supplier selection criteria are important. This study also confirmed that there are challenges between suppliers and retailers and that it is beneficial to have supplier selection criteria. It was confirmed that establishing supplier selection criteria positively and significantly affects the retailer's performance.

Based on these findings, the current study proposed a supplier selection framework, which is a key contribution of this study. The steps to implement the framework for retail owners and procurement and logistics managers were mentioned, as well as the

contribution of this study to the existing body of knowledge. The steps are to identify the retailer's needs, establish and assess the current supplier selection criteria in the retail industry, inform potential suppliers of the importance of established supplier selection criteria, assess the effect that the established supplier selection criteria have on the retailer's performance and review and revise the supplier selection criteria when evaluating supplier performance. The contribution that this study has made to existing literature is that it provides supplier selection criteria that can be used in the retail industry.

The study recommended that retailers identify important supplier selection criteria and share these criteria with potential suppliers. It was also recommended that the same criteria be used to evaluate current supplier performance, which provides the suppliers with criteria to benchmark their firms. A limitation of the study was that it focused on one city in South Africa. Any future research can expand to the rest of the country. The study was also limited to the specific criteria of quality, flexibility, pricing, on-time delivery, service, financial status and environmental issues. There are numerous other criteria to consider, such as resilience, sustainability and supply chain management, technical skills and co-design capabilities, just-in-time, technological development and research and risk factors. Given the importance of supplier relations, suppliers' perspectives on which are important criteria should also be considered.

Future studies can investigate the long-term influence of supplier selection criteria on retail performance. Strategies that can be used to improve retail performance need to be investigated for the retail industry to be more efficient and effective and to gain a competitive advantage. Studies should also consider testing supplier selection criteria over the long-term. This chapter confirmed the achievement of the goals.

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APPENDIX A: COVER LETTER

Dear Respondent

27 May 2019

I am Ms A. Mavela, a registered Masters of Commerce (M.Com) student in the Department of Logistics Management at the Nelson Mandela University. My research topic is “A framework that reflects specific criteria to consider for the selection of suppliers to improve the Nelson Mandela Bay (NMB) retail performance”. The ethics clearance reference number is **H19-BES-LOG-094** and has been approved by the Faculty Research Ethics Committee.

A questionnaire has been formulated to collect information on supplier selection criteria, supplier selection decisions, supplier selection benefits and strategies to improve performance in the retail industry.

It will take about eight minutes to complete the enclosed confidential questionnaire. The decision to take part in this study is voluntary and you are welcome to withdraw at any time with no consequences. Your responses will remain anonymous throughout the study, and will be greatly appreciated. My supervisor is Prof Progress Hove-Sibanda (Progress.Hove-Sibanda@mandela.ac.za) and co-supervisor is Mr Gavin Cook (gavin@mandela.ac.za).

Thank you in advance for your cooperation. Your opinions are very important to me.

Kind regards
Asisindise Mavela
Email address: amavela@mandela.ac.za

APPENDIX B: QUESTIONNAIRE

QUESTIONNAIRE

Dear respondent,

A FRAMEWORK FOR SUPPLIER SELECTION IN THE NELSON MANDELA BAY RETAIL INDUSTRY

Ms A. Mavela is a registered MCom student in the Department of Logistics Management at the Nelson Mandela University. This research develop a framework that reflects specific criteria to consider for the selection of suppliers to improve the NMB retail performance. Supplier selection is the process of distinguishing which suppliers meet its criteria and will be capable to supply the retailer with products. The completion of this questionnaire will remain anonymous. Thank you very much for your willingness and time to complete this questionnaire.

SECTION A: BIOGRAPHICAL INFORMATION

(Please mark with an X where applicable)

A1. Please indicate your position in the organisation

Senior management	1
Middle management	2
Supervisory	3
Other, please specify_____	4

A2. Please indicate your type of job in the organisation

Operations manager	1
Procurement director	2
Buyer	3
Sales associate	4
Merchandise manager	5
Other, please specify_____	6

A3. Please indicate your gender

Male	1
Female	2

A4. Please indicate your age group (Years)

15-20	1
21-30	2
31-40	3
41-50	4
51-60	5
Over 60	6

A5. Please indicate your highest educational qualification(s)

Grade 11 and lower	1
Grade 12	2
Diploma or National certificate	3
Bachelor's degree	4
Postgraduate degree/ diploma (e.g. Honours/ Masters)	5
Other, please specify_____	6

A6. Employment size of organisation

Small (employing 1 to 50 employees)	1
Medium (employing 51 to 200 employees)	2
Large (employing more than 200 employees)	3

A7. Years of experience involved in the supplier selection process

A year or less	1
2-5 years	2
6-10 years	3
11-15 years	4
16 years +	5

A8. Type of retailing activity

General dealer	1
Food, beverages & tobacco	2
Pharmaceuticals & medical goods	3
Cosmetics & toiletries	4
Clothing, footwear & leather goods	5
Textiles	6
Household furniture, appliances & equipment	7
Hardware, paint & glass	8
Sports	9
Other, please specify_____	10

SECTION B: SUPPLIER SELECTION CRITERIA (Please mark with an X the level of importance of the following supplier selection criteria listed below) Likert scale: 1=Not important at all, 2=Slightly important, 3=Moderate important, 4=Very important, 5=Extremely important

B1.	Products are of the quality standards required by the retailer.	1	2	3	4	5
B2.	The supplier's ability to adapt to meet retailers changing demands.	1	2	3	4	5
B3.	The supplier's willingness to negotiate for low prices.	1	2	3	4	5
B4.	The suppliers deliver on-time.	1	2	3	4	5
B5.	Reliable suppliers who are able to meet retailer's specifications.	1	2	3	4	5
B6.	The financial status of suppliers	1	2	3	4	5
B7.	The fulfilment of supplier's environmental responsibilities.	1	2	3	4	5

	SECTION C: CHALLENGES (Please mark with an X where applicable) Likert scale: 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly agree					
C1.	The suppliers fails to meet customer expectations.	1	2	3	4	5
C2.	The suppliers are associated with operational risks that prevent retailer to meet customer demands.	1	2	3	4	5
C3.	Late deliveries by our suppliers negatively affects our performance as retailers.	1	2	3	4	5
C4.	Our suppliers do not use joint cross-functional teams to strategically meet customer demand.	1	2	3	4	5
C5.	Our suppliers have limited knowledge of our objectives as the retailer.	1	2	3	4	5
C6.	There is lack of transparency between the suppliers and retailers.	1	2	3	4	5
C7.	There is no collaboration between suppliers and retailers.	1	2	3	4	5
C8.	Our suppliers do not communicate their financial status.	1	2	3	4	5
C9.	Poor supplier performance negatively affects the retailer's performance.	1	2	3	4	5
	SECTION D: BENEFITS					
D1.	Supplier selection decision is a strategy to improve retailer performance.	1	2	3	4	5
D2.	The retailer can be competitive if the supply chain strives to be efficient and effective.	1	2	3	4	5
D3.	High product quality assists the retailer to sustain its competitive advantage.	1	2	3	4	5
D4.	Rapid delivery assists the retailer to sustain its competitive advantage.	1	2	3	4	5
D5.	The alignment of supply chain network goals with the goals of the retailer have a positive effect on the competitiveness of the retailer.	1	2	3	4	5
D6.	Excellent service assists the retailer to sustain its competitive advantage.	1	2	3	4	5

D7.	Technological innovations provides retailers with the capacity to keep up with customer demand.	1	2	3	4	5
D8.	The use of supplier selection criteria contributes to the increase in retailer's revenue.	1	2	3	4	5
D9.	Flexible suppliers can add value to the retailer	1	2	3	4	5
	SECTION E: RETAIL PERFORMANCE					
E1.	The use of criteria in supplier selection help to improve the performance of the retailer.	1	2	3	4	5
E2.	Bad quality products from suppliers have an effect on the retailer's performance.	1	2	3	4	5
E3.	Low prices of suppliers have an effect on the profit growth of the retailer.	1	2	3	4	5
E4.	Suppliers' ability to respond to changes in product volume and variety has an effect on the retailer's revenue.	1	2	3	4	5
E5.	Supplier product complying with the retail environmental requirement assists in improving the retailer's market share.	1	2	3	4	5
E6.	The suppliers are resilient to avoid disruption in order to meet retailer's needs.	1	2	3	4	5
	SECTION F: STRATEGIES TO IMPROVE RETAILER PERFORMANCE					
F1.	Supplier relationship management can be used as a strategy to improve the retailer's performance.	1	2	3	4	5
F2.	Strategic alliances positively affect the buyer-supplier relationship.	1	2	3	4	5
F3.	Information sharing between the buyer-suppliers is being practiced.	1	2	3	4	5
F4.	There is collaboration between the retailer and suppliers.	1	2	3	4	5
F5.	Long-term partnership with suppliers allows both parties to gain a competitive advantage in the market.	1	2	3	4	5

Thank you for your time.

APPENDIX C: DATA ANALYSIS OF TABLES AND FIGURES

Statistics: Frequency Distributions
Section B: Supplier selection criteria

	Not important at all		Slightly important		Moderate important		Very important		Extremely important	
Products are of the quality standards required by the retailer.	5	2%	2	1%	34	14%	62	25%	145	58%
The supplier's ability to adapt to meet retailers changing demands.	6	2%	4	2%	78	31%	85	34%	75	30%
The supplier's willingness to negotiate for low prices.	9	4%	12	5%	64	26%	57	23%	106	43%
The suppliers deliver on-time.	2	1%	4	2%	54	22%	52	21%	136	55%
Reliable suppliers who are able to meet retailer's specifications.	3	1%	6	2%	63	25%	83	33%	93	38%
The financial status of suppliers	8	3%	35	14%	107	43%	60	24%	38	15%
The fulfilment of supplier's environmental responsibilities.	11	4%	24	10%	77	31%	66	27%	70	28%

Frequency Distributions: Section C: Challenges (n = 248)

	Strongly disagree		Disagree		Neutral		Agree		Strongly agree	
The suppliers fails to meet customer expectations.	37	15%	56	23%	54	22%	50	20%	51	21%
The suppliers are associated with operational risks that prevent retailer to meet customer demands.	20	8%	64	26%	83	33%	53	21%	28	11%
Late deliveries by our suppliers negatively affects our performance as retailers.	8	3%	11	4%	67	27%	81	33%	81	33%
Our suppliers do not use joint cross-functional teams to strategically meet customer demand.	97	39%	45	18%	35	14%	45	18%	26	10%
Our suppliers have limited knowledge of our objectives as the retailer.	40	16%	50	20%	81	33%	44	18%	33	13%
There is lack of transparency between the suppliers and retailers.	41	17%	61	25%	72	29%	47	19%	27	11%
There is no collaboration between suppliers and retailers.	44	18%	58	23%	78	31%	42	17%	26	10%
Our suppliers do not communicate their financial status.	42	17%	52	21%	61	25%	58	23%	35	14%
Poor supplier performance negatively affects the retailer’s performance.	8	3%	8	3%	55	22%	93	38%	84	34%

Frequency Distributions: Section D: Benefits (n = 248)

	Strongly disagree		Disagree		Neutral		Agree		Strongly agree	
Supplier selection decision is a strategy to improve retailer performance.	4	2%	10	4%	66	27%	110	44%	58	23%
The retailer can be competitive if the supply chain strives to be efficient and effective.	3	1%	7	3%	66	27%	78	31%	94	38%
High product quality assists the retailer to sustain its competitive advantage.	1	0%	4	2%	69	28%	56	23%	118	48%
Rapid delivery assists the retailer to sustain its competitive advantage.	2	1%	0	0%	74	30%	57	23%	115	46%
The alignment of supply chain network goals with the goals of the retailer have a positive effect on the competitiveness of the retailer.	3	1%	8	3%	83	33%	96	39%	58	23%
Excellent service assists the retailer to sustain its competitive advantage.	4	2%	4	2%	75	30%	51	21%	114	46%
Technological innovations provides retailers with the capacity to keep up with customer demand.	3	1%	3	1%	69	28%	56	23%	117	47%
The use of supplier selection criteria contributes to the increase in retailer's revenue.	9	4%	8	3%	52	21%	93	38%	86	35%
Flexible suppliers can add value to the retailer	6	2%	6	2%	56	23%	80	32%	100	40%

Frequency Distributions: Section E: Retailer's performance (n = 248)

	Strongly disagree		Disagree		Neutral		Agree		Strongly agree	
The use of criteria in supplier selection help to improve the performance of the retailer.	6	2%	4	2%	67	27%	104	42%	67	27%
Bad quality products from suppliers have an effect on the retailer's performance.	5	2%	9	4%	57	23%	55	22%	122	49%
Low prices of suppliers have an effect on the profit growth of the retailer.	11	4%	6	2%	64	26%	57	23%	110	44%
Suppliers' ability to respond to changes in product volume and variety has an effect on the retailer's revenue.	6	2%	6	2%	53	21%	110	44%	73	29%
Supplier product complying with the retail environmental requirement assists in improving the retailer's market share.	7	3%	18	7%	90	36%	66	27%	67	27%
The suppliers are resilient to avoid disruption in order to meet retailer's needs.	4	2%	35	14%	112	45%	59	24%	38	15%

Frequency Distributions: Section F: Improvement Strategies

	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		Total	
Supplier relationship management can be used as a strategy to improve the retailer's performance.	5	2%	8	3%	66	27%	111	45%	58	23%	248	100%
Strategic alliances positively affect the buyer-supplier relationship.	4	2%	3	1%	69	28%	101	41%	71	29%	248	100%
Information sharing between the buyer-suppliers is being practiced.	7	3%	5	2%	83	33%	87	35%	66	27%	248	100%
There is collaboration between the retailer and suppliers.	4	2%	8	3%	76	31%	93	38%	67	27%	248	100%
Long-term partnership with suppliers allows both parties to gain a competitive advantage in the market.	13	5%	4	2%	57	23%	95	38%	78	32%	247	100%

Frequency Distributions: Factors (n = 248)

	Very Negative 1.00 to 1.79		Negative 1.80 to 2.59		Neutral 2.60 to 3.40		Positive 3.41 to 4.20		Very Positive 4.21 to 5.00	
Supplier selection criteria	6	2%	3	1%	44	18%	106	43%	89	36%
Challenges	12	5%	59	24%	102	41%	45	18%	30	12%
Major challenges	41	17%	55	22%	72	29%	53	21%	27	11%
Secondary challenges	6	2%	49	20%	81	33%	53	21%	59	24%
Benefits	3	1%	6	2%	55	22%	50	20%	134	54%
Retailer’s performance	6	2%	6	2%	50	20%	109	44%	77	31%
Improvement Strategies	5	2%	5	2%	69	28%	96	39%	73	29%

Descriptive Statistics Factors

Frequency Distributions: Factors (n = 248)

	Negative 1.00 to 2.59		**Neutral 2.60 to 3.40**		**Positive 3.41 to 5.00**	
Supplier selection criteria	9	4%	44	18%	195	79%
Challenges	71	29%	102	41%	75	30%
Major challenges	96	39%	72	29%	80	32%
Secondary challenges	55	22%	81	33%	112	45%
Benefits	9	4%	55	22%	184	74%
Retailer’s performance	12	5%	50	20%	186	75%
Improvement Strategies	10	4%	69	28%	169	68%

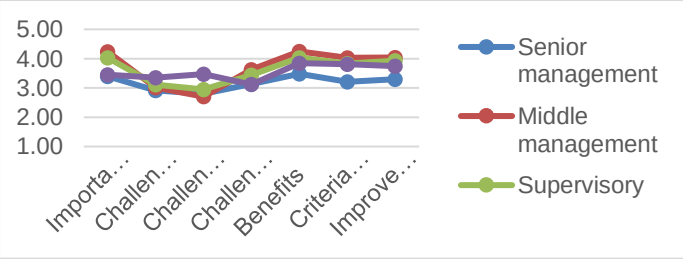
Descriptive Statistics for dependent variables Importance to Improvement Strategies by ANOVA Factors

			Criteria	Challenges	Challenges 2a	Challenges 2b	Benefits	Retailer's performance	Improvement Strategies
		n	Mean	Mean	Mean	Mean	Mean	Mean	Mean
Factor	Level	Perc.	S.D.	S.D.	S.D.	S.D.	S.D.	S.D.	S.D.
Total		248	3.93	3.10	2.94	3.42	4.02	3.84	3.87
		1	0.75	0.87	1.06	0.92	0.79	0.76	0.83
Position	Senior management	27	3.40	2.91	2.80	3.13	3.48	3.21	3.30
		0.11	1.42	1.28	1.29	1.36	1.28	1.26	1.36
	Middle management	98	4.24	3.01	2.70	3.63	4.25	4.03	4.04
		0.4	0.50	0.86	1.07	0.67	0.63	0.62	0.67
	Supervisory	75	4.03	3.11	2.95	3.43	4.03	3.83	3.93
		0.3	0.45	0.77	0.98	0.86	0.69	0.60	0.69
	Other	48	3.45	3.35	3.47	3.12	3.84	3.81	3.75
		0.19	0.64	0.73	0.82	1.04	0.71	0.70	0.80
Job Type	Operations manager	25	3.35	2.96	2.81	3.27	3.49	3.29	3.23
		0.1	1.45	1.33	1.38	1.43	1.30	1.33	1.29
	Procurement director	10	3.83	2.91	2.75	3.23	3.85	3.68	3.58
		0.04	0.70	0.85	1.00	0.83	0.86	0.83	1.06
	Buyer	63	4.19	2.82	2.49	3.47	4.24	3.97	3.90
		0.25	0.43	0.68	0.89	0.54	0.63	0.55	0.62

	Sales associate	56	4.20	3.36	3.14	3.82	4.36	4.07	4.23
		0.23	0.47	1.05	1.22	0.94	0.49	0.54	0.61
	Merchandise manager	37	4.13	2.96	2.68	3.54	4.15	4.02	4.01
		0.15	0.44	0.70	0.94	0.77	0.66	0.58	0.65
	Other	57	3.51	3.32	3.49	2.98	3.62	3.62	3.71
		0.23	0.67	0.59	0.64	0.88	0.70	0.73	0.83
Gender	Male	115	3.97	2.99	2.81	3.35	3.96	3.75	3.80
		0.46	0.84	0.94	1.09	0.95	0.90	0.85	0.95
	Female	133	3.90	3.19	3.04	3.47	4.07	3.92	3.93
		0.54	0.67	0.80	1.02	0.89	0.68	0.66	0.70
Age Group	15-30	35	3.42	2.74	2.56	3.10	3.52	3.23	3.26
		0.14	1.21	1.00	0.97	1.23	1.17	1.08	1.21
	31-40	95	3.88	3.04	2.96	3.20	3.79	3.64	3.67
		0.38	0.56	0.69	0.91	0.85	0.75	0.71	0.76
	41-50	89	4.12	3.13	2.89	3.63	4.32	4.10	4.15
		0.36	0.57	0.90	1.11	0.73	0.49	0.41	0.54
	51-60	29	4.14	3.60	3.47	3.87	4.47	4.45	4.37
		0.12	0.77	0.96	1.25	0.92	0.45	0.46	0.55
Educational Level	Grade 12 and lower	86	3.90	3.00	2.69	3.62	4.12	3.83	4.02
		0.35	0.89	0.95	1.08	0.93	0.86	0.89	0.95
	Diploma or National certificate	99	4.03	3.28	3.22	3.39	3.84	3.70	3.66
		0.4	0.60	0.89	1.02	1.02	0.79	0.73	0.76

	Bachelor's degree or higher	63	3.81	2.95	2.83	3.19	4.18	4.07	3.98
		0.25	0.74	0.68	1.00	0.67	0.64	0.52	0.68
Employment Size	Small	102	3.98	3.29	3.09	3.71	4.03	3.81	3.91
		0.41	0.91	1.12	1.26	1.06	0.92	0.95	0.99
	Medium	74	4.14	2.89	2.61	3.44	4.16	3.90	3.98
		0.3	0.47	0.70	0.96	0.72	0.65	0.56	0.65
	Large	72	3.65	3.03	3.06	2.98	3.86	3.81	3.69
		0.29	0.65	0.51	0.73	0.72	0.70	0.62	0.72
Years in Supplier Selection	5 years and less	53	4.06	3.36	3.11	3.86	4.17	3.80	4.09
		0.21	0.80	1.05	1.19	0.96	0.85	0.91	0.90
	6-10 years	103	3.98	3.02	2.80	3.46	3.99	3.80	3.80
		0.42	0.77	0.90	1.08	0.88	0.83	0.79	0.88
	11 years +	92	3.80	3.03	2.99	3.12	3.96	3.90	3.82
		0.37	0.68	0.70	0.94	0.83	0.70	0.61	0.70

Figure



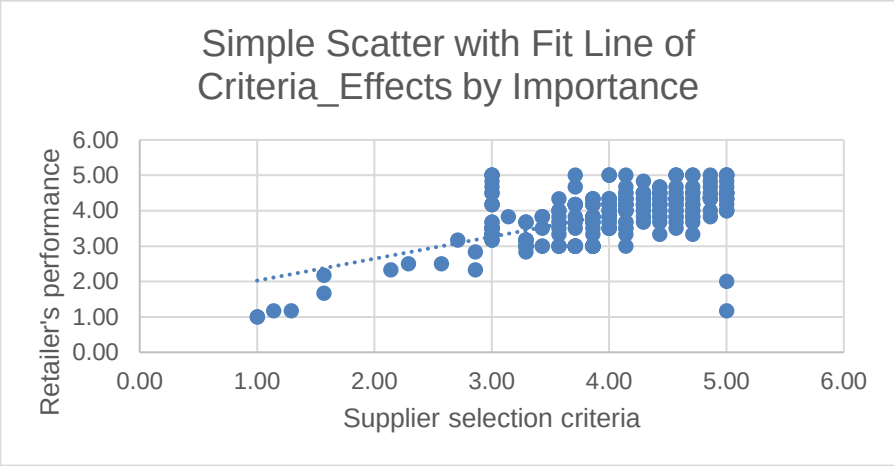
One-sample t-Tests: Factors (n = 248; d.f. = 247)

Variable	Mean	S.D.	H_1:m	t	p	Cohen's d
Supplier selection criteria	3.93	0.75	≠3.40	11.13	**<.0005**	**0.71 Medium**
Challenges	3.10	0.87	≠3.40	-5.47	**<.0005**	**0.35 Small**
Major challenges	2.94	1.06	≠2.60	5.00	**<.0005**	**0.32 Small**
Secondary challenges	3.42	0.92	≠3.40	0.29	.770	n/a
Benefits	4.02	0.79	≠3.40	12.37	**<.0005**	**0.79 Medium**
Retailer performance	3.84	0.76	≠3.40	9.14	**<.0005**	**0.58 Medium**
Improvement Strategies	3.87	0.83	≠3.40	8.90	**<.0005**	**0.56 Medium**

Correlation Coefficients Matrix

Factors	Criteria	Challenges	Benefits	Retailer's performance	Improvement Strategies
Criteria	1.000	0.351	0.678	0.614	0.661
Challenges	0.351	1.000	0.284	0.338	0.327
Benefits	0.678	0.284	1.000	0.835	0.813
Retailer's performance	0.614	0.338	0.835	1.000	0.769
Improvement Strategies	0.661	0.327	0.813	0.769	1.000
Note: criteria= importance of an established supplier selection criteria, Challenges= challenges retailers face with suppliers, Benefits= benefits of supplier selection criteria, Improvement Strategies= Strategies to improve the retailers performance.					

Regression Analysis Linear Relationship



APPENDIX D: LETTER FROM THE LANGUAGE EDITOR

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Warbler Road
Cotswold Ext
Port Elizabeth
6045

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TO WHOM IT MAY CONCERN

I, Michele van Niekerk, declare that I have done the language editing for the thesis of:

A. MAVELA (209010850)

entitled:

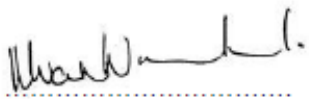
A FRAMEWORK FOR SUPPLIER SELECTION IN THE NELSON MANDELA BAY RETAIL INDUSTRY

Submitted in partial fulfilment of the requirements for the degree of Masters of Commerce (Logistics) in the Faculty of Business and Economic Sciences at the Nelson Mandela University.

I cannot guarantee that the changes that I have suggested have been implemented nor do I take responsibility for any other changes or additions that may have been made subsequently.

Any other queries related to the language editing of this thesis may be directed to me at 076 481 8341.

Signed at Port Elizabeth on 05 February 2020



Mrs M van Niekerk

APPENDIX E: ETHICAL CLEARANCE LETTER

NELSON MANDELA
UNIVERSITY

PO Box 77000, Nelson Mandela University, Port Elizabeth, 6031, South Africa mandela.ac.za

Chairperson: Faculty Research Ethics Committee (Human)
Tel: +27 (0)41 504 2504

Ref: [H19-BES-LOG-094] / Approval]

29 August 2019

Prof P Hove-Sibanda
Department: Logistics Department

Dear Prof Hove-Sibanda,

TITLE OF STUDY: A FRAMEWORK FOR SUPPLIER SELECTION IN THE NELSON MANDEAL BAY (NMB) RETAIL INDUSTRY (MCOM)

PRP: Prof P Hove-Sibanda
PI: A Mavela

Your above-entitled application served at the *Faculty Ethics Committee of the Faculty of Business and Economic Science,* (*19 July 2019*) for approval. The study is classified as a negligible/low risk study. The ethics clearance reference number is **H19-BES-LOG-094** and approval is subject to the following conditions:

1. The immediate completion and return of the attached acknowledgement to Lindie@mandela.ac.za, the date of receipt of such returned acknowledgement determining the final date of approval for the study where after data collection may commence.
2. Approval for data collection is for 1 calendar year from date of receipt of above mentioned acknowledgement.
3. The submission of an annual progress report by the PRP on the data collection activities of the study (form RECH-004 to be made available shortly on Research Ethics Committee (Human) portal) by 15 December this year for studies approved/extended in the period October of the previous year up to and including September of this year, or 15 December next year for studies approved/extended after September this year.
4. In the event of a requirement to extend the period of data collection (i.e. for a period in excess of 1 calendar year from date of approval), completion of an extension request is required (form RECH-005 to be made available shortly on Research Ethics Committee (Human) portal)
5. In the event of any changes made to the study (excluding extension of the study), completion of an amendments form is required (form RECH-006 to be made available shortly on Research Ethics Committee (Human) portal).
6. Immediate submission (and possible discontinuation of the study in the case of serious events) of the relevant report to RECH (form RECH-007 to be made available shortly on Research Ethics Committee (Human) portal) in the event of any unanticipated problems, serious incidents or adverse events observed during the course of the study.
7. Immediate submission of a Study Termination Report to RECH (form RECH-008 to be made available shortly on Research Ethics Committee (Human) portal) upon unexpected closure/termination of study.
8. Immediate submission of a Study Exception Report of RECH (form RECH-009 to be made available shortly on Research Ethics Committee (Human) portal) in the event of any study deviations, violations and/or exceptions.
9. Acknowledgement that the study could be subjected to passive and/or active monitoring without prior notice at the discretion of Research Ethics Committee (Human).

Please quote the ethics clearance reference number in all correspondence and enquiries related to the study. For speedy processing of email queries (to be directed to Lindie@mandela.ac.za), it is recommended that the ethics clearance reference number together with an indication of the query appear in the subject line of the email.

We wish you well with the study.

Yours sincerely

Prof M van Eyk

Cc: Department of Research Capacity Development
Faculty Research Co-ordinator: Lindie van Rensburg

APPENDIX F: TURNITIN RESULTS

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